



Research Article

A Study on Intentions of Generation Z Consumers to Buy Recyclable Products

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ABSTRACT

Although consumers generally have a positive attitude towards recycled products, purchases of such products remain relatively low compared to the total volume of goods sold globally. This study seeks to add to the limited research literature on consumer attitudes and intentions with respect to purchasing recyclable products. In particular, we focus on Theory of Planned Behavior factors affecting recyclable product purchasing behavior of Generation Z consumers in the province of Iğdır in Türkiye. In addition, this study examines inclusion of an additional potential recyclable product purchase intentions antecedent, “receptivity to green advertising.” Data collected from the participants by questionnaire method were analyzed using Smart PLS4 and SPSS 26 programs. Our findings revealed that two theory of planned behavior antecedents (attitudes and perceived behavioral control) positively predicted Generation Z recyclable product purchase intentions, but the effect of subjective norms was not statistically significant. Moreover, “receptivity to green advertising” was positively associated with increased purchase intentions.

KEYWORDS

Sustainable marketing, recyclable product, purchasing behavior, generation Z, Türkiye, Iğdır

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1. Introduction

With the development of technology, globalization has accelerated, and individuals' consumption patterns have changed drastically. Changes in the consumption patterns of individuals play an important role in the global deterioration of the environment (Zhao et al., 2022). An important contributor to such degradation is increased production and purchase of non-recyclable products (Iwata, 1999; Hein, 2022). A growing number of individuals, businesses, governments, and NGOs are expressing concerns about excessive pollution and waste associated with larger volumes of consumer goods purchased, used, and then discarded to landfills or worse yet, to streams, streets, lakes, and

oceans (Kumar et al., 2021; Godfrey, 2019; Wanekaya et al., 2008).

One way to reduce the negative effects of increasing production and consumption is to increase demand for recyclable products (Morelli, 2011). As environmental pollution reaches levels that increasingly have negative impacts on the lives of consumers and societies (Schlegelmilch et al., 1996; Li et al., 2021), awareness and understanding of the potential for recyclable products to make a difference have grown (Aldubai & Develi, 2022). Growing concerns and knowledge regarding environmental issues have been found to positively affect purchases of recyclable



products (Morelli, 2011; Schlegelmilch et al., 1996; Temizkan, 2022). Thus, further examination of factors associated with demand for recyclable products could foster deeper understanding of sustainable consumption and help reduce environmental harm caused by current consumption patterns (Liobikienė & Bernatoniene, 2017).

Although Türkiye is considered a developed country based on the Human Development Index (World Population Review, 2023), purchase of recyclable products appears limited as does research that seeks deeper understanding of ways to increase demand for such products in the country (Çetinkaya & Özceylan, 2017; Karaman, 2021; Bozpolat, 2021; Sarıoğlu, 2022). To initiate research on this topic, the following study examines Generation Z (Gen Z) attitudes and intentions toward recyclable product purchases in Iğdır, which ranks first as the most polluted province in Europe (IQAir, 2021). Gen Z consumers have been found to have higher environmental awareness and more advanced green consumption understanding (Choudhary, 2020) compared to older generations - a determining factor for focusing on this generation in the current study.

According to the World Air Pollution Report, Türkiye ranked 46th in 2020 on the national-level air pollution list (IQAir, 2021). In addition, approximately 1.2 million tons of textile waste are generated every year (İTHİB, 2022). However, the Turkish government states that it is taking action as it seeks to transform in line with towards the European Green Deal 2050 (Republic of Turkey Ministry of Commerce, 2021).

In this context, a law was enacted to reduce the consumption and production of non-recyclable plastic bags and shopping products, which used to be offered free of charge in all markets and shopping centers in Türkiye (Kayaoglu, 2019). Within the scope of this law, these products will first be produced from recyclable materials and sold to customers for a fee of 0.25 TL. As a result of this application, biodegradable products have been produced and the use of plastic bags has been reduced (İbrahim & Yıldız, 2020). In addition, the Zero Waste Project, launched in 2017, seeks to

reduce environmental pollution and increase the production of recyclable products (Bulut & Şengül, 2023). Furthermore, Türkiye ranks 5th in Europe and 12th in the world in renewable energy (Karaarslan & Hançerli, 2023). Finally, the country began producing its own electric vehicle, TOGG, in 2022 (Yaprak, 2023).

Current studies generally focus on green products in general (Moser, 2016; Kumar et al., 2017), green food (Nuttavuthisit & Thøgersen, 2017), green cosmetic products (Hsu et al., 2017), green clothing (Tewari et al., 2022), and green tourism (Ibnou-Laaroussi et al., 2020), but research on recyclables has been neglected. Hence, this study contributes to the sustainable marketing literature by identifying factors affecting the recyclable product purchasing intentions of Gen Z consumers in Iğdır, Türkiye.

Sun et al. (2021) found that businesses have increased production of green products for consumers with positive environmental attitudes, in part to improve their image. As a result, the number of green businesses appears to be increasing in line with expectations of consumers, including those in developing countries (Nguyen et al., 2019). Thus, target market of consumers who prefer green products is growing. Better understanding the attitudes and other factors associated with demand for recyclable products among these consumers will contribute to both the theory and managerial application required to develop effective marketing strategies that meet their needs and demands.

Eighteen years ago, Autio and Heinonen (2004) reported that young people have the awareness of the importance of green consumption, but do not act accordingly and stated that green consumer behaviors should be examined. Even so, studies on the purchase of recyclable products are limited in general and those that are focused on Gen Z consumers in particular do not appear to have been published in the academic research literature. Thus, the current study can help fill the void in the literature by identifying antecedents of recyclable product purchase intentions of Gen Z consumers living in Iğdır province. In particular, this study evaluates the applicability of the Theory of Planned Behavior model in predicting recyclable

product purchasing intentions for this consumer segment. It further adds an additional antecedent of behavioral intentions, receptivity to green advertising.

In the current study, answers to the following 4 different questions were sought:

Q1: Does the theory of planned behavior model help identify factors associated with recyclable product purchase intentions of Gen Z consumers?

Q2: What is the relationship of receptivity to green advertising with the intentions to purchase recyclable products?

Following review of the literature, hypotheses are presented. Study methods are then described and results are presented thereafter. The final section of the study discusses theoretical and managerial implications as well as limitations and directions for future research.

2. Review of Literature

2.1. Recyclable Product and Purchasing Recyclable Products

Unsustainable consumption patterns lead to the depletion of scarce resources in nature and increasing climate problems (Khan et al., 2019). Increasing green product purchases is a significant objective of sustainable consumption (Kumar & Yadav, 2021). Recyclable products are generally obtained from plastics, textiles, metals, fast-moving consumer goods (oil, paper, garbage, etc.), and durable products (furniture, electronics, etc.). Many consumers view recycled products as environmentally friendly and some are willing to pay more for these products (Mobley et al., 1995; Mason et al., 2022). However, despite growing consumer intentions to purchase recyclable products, their actual purchasing behavior lags behind their intentions. Evidence suggests that greater health risk perceptions associated with recycled products may be limiting purchases of recycled products (Chen & Chang, 2013).

The perception of risk in relation to purchasing recycled products is particularly pronounced when it comes to food and beverage-related items (Magnier et al., 2019). Magnier et al. (2019) found that

consumers are willing to pay more for recycled plastic products. On the other hand, Orset et al. (2017) found that consumers avoid paying more for recycled products (plastic water bottles). According to Grebitus et al. (2020), the influence of information, specifically environmentally friendly promotions, plays a significant role in positively shaping consumers' willingness to pay a higher price for recycled products. Despite the theory of planned behavior being widely employed in numerous studies to investigate consumers' purchasing behaviors and intentions (Yadav & Pathak, 2016), it has been used in a limited number of studies investigating the recyclable product purchasing behavior of Gen Z consumers. Given the role of this theory as a central focus of the current study, we now review theory of planned behavior in greater detail.

2.2. The Theory of Planned Behavior

The Theory of Reasoned Action was developed by Fishbein and Ajzen (1975). Ajzen (1991) developed the theory of planned behavior by extending theory of reasoned action. Theory of planned behavior is widely recognized and accepted as an important and valid approach for examining individuals' behavioral intentions.

The main purpose of the theory of planned behavior model is to measure the change in individuals' behavior towards a product or service (Ajzen, 1991). Intentions are defined by the attitude, subjective norms, and perceived behavioral control included in the theory of planned behavior (Fishbein & Ajzen, 1975). While originally developed to predict individual behavior, the theory of planned behavior has established itself as a validated and commonly employed framework in the field of social sciences (Cohen & Hanno, 1993). The theory of planned behavior is frequently used in the current literature to study consumer behavior in different fields. Moreover, theory of planned behavior has been used in many studies to determine the green product purchasing behavior of consumers (Paul et al., 2016; Yadav & Pathak, 2017; Yeh et al., 2021; Armutcu et al., 2023)).

In this study, theory of planned behavior in predicting Gen Z consumers' intention to purchase recyclable products is tested for the first time in Türkiye. In addition, the current study includes a new construct along-

side the original theory of planned behavior framework - receptivity to green advertising – as a potential separate antecedent to aid in the prediction of Gen Z consumer intentions to purchase recyclable products in Türkiye (see Figure 1). While existing literature recognizes the positive impacts of the theory of planned behavior model and receptivity to green advertising on green behavior, this study stands out as the first to apply both the theory of planned behavior model and receptivity to green advertising in combination in order to predict Gen Z consumer intentions to purchase recyclable products.

2.3. Hypotheses Development

2.3.1. Attitude and recyclable product.

Attitude is the main element of theory of planned behavior developed by Ajzen (1991). Ajzen (1991) defines attitude as “the degree to which an individual has a favorable or unfavorable evaluation or appraisal of a given behavior” (p.188). Individual attitudes toward a product may negatively or positively affect the probability of purchasing that product or service Fabrigar and Wegener (2010). Li et al. (2021) highlight that as individuals’ environmental attitudes strengthen, there is a corresponding increase in their purchasing behaviors. Kumar et al. (2021), on the other hand, found that attitude plays an important role in consumer intentions to buy environmentally friendly products (clothes). The existing literature consistently demonstrates that attitudes have a positive impact on individuals’ purchasing behavior. In addition, our literature review reveals that positive attitudes towards recyclable products should also increase the purchase intention for recyclable products. Thus, we propose that:

H1. Attitude positively influences consumers’ purchase intention towards recyclable products.

2.3.2. Subjective norms and recyclable products

Subjective norms are another important theory of planned behavior component (Ajzen, 1991). Subjective norms play a crucial role in the theory of planned behavior model to predict individuals’ behavioral intentions. (Nguyen et al., 2019). Subjective norms also appear to be associated with consumer intentions to purchase green products (Kumar et al., 2021). Sub-

jective norms encompass the attitudes and behaviors of society, peers, family, and the social environment, and have the ability to influence and alter individuals’ purchasing behaviors. (Valaei & Nikhashemi, 2017).

Sobuj et al. (2021) found that subjective norms significantly affect young consumers’ intentions towards environmental green apparel. Tewari et al. (2022) found that subjective norms of young consumers in India have a positive and significant impact on their green purchasing behavior. In addition, Yadav and Pathak (2017) and Paul et al. (2016) found that subjective norms have a significant effect on consumers’ purchase intentions. The collective evidence suggests that social norms that are associated with positive aspects of recycling are likely to contribute to increased intention among other individuals to also purchase recyclable products. Based on the literature, we propose the following hypothesis:

H2. Subjective norms positively influence consumers’ purchase intention towards recyclable products.

2.3.3. Perceived behavioral control and recyclable products

Perceived behavioral control is the third component of Ajzen’s (1991) theory of planned behavior. Ajzen (1991) argues that the impact of perceived behavioral control on individuals’ desired behavior becomes stronger as the perceived level of control increases. Behavioral control, in this context, refers to individuals’ perception of the level of difficulty or ease in their ability to execute a particular action (Ajzen & Madden, 1986). Paul et al. (2016) found that perceived behavioral control has an effect on purchasing behavior for green products. Yadav and Pathak (2017) emphasize the significance of perceived behavioral control as a crucial determinant in influencing consumers’ green purchasing behavior. Kumar et al. (2021) stated that perceived behavioral control has a positive and significant effect on consumers’ purchasing behavior for environmentally friendly products (apparel). Tewari et al. (2022) found that perceived behavioral control has a positive and significant effect on the green purchasing behavior of young consumers in India. Based on the existing research, perceived behavioral

control is expected to have a positive impact on recyclable product purchasing behavior. Therefore, we propose the following hypothesis:

H3. Perceived behavioral control positively influences consumers' purchase intention towards recyclable products.

2.3.4. Receptivity to green advertising and recyclable products

Consumer receptivity to green advertising differ from individual to individual. Bailey et al. (2016, p. 334) define receptivity to green advertising as “the extent to which consumers pay attention to and are favorably responsive to advertising that uses green messages in the marketing of products or a company itself”. Paco et al. (2019) emphasize that there is a positive relationship between receptivity to green advertising and consumers' product purchasing behavior of green products in general. Tewari et al. (2022) provide empirical evidence confirming that receptivity to green advertising exerts a robust and positive influence on the green apparel purchasing behavior of young consumers. However, the impact of receptivity to green advertising on recyclable product attitudes and purchase intentions in particular remains unexplored in the existing literature (Paco et al., 2019). Including this construct as an antecedent in the model may be enhance understanding of predictors of recyclable product attitudes and purchase intentions (Lampe & Gazda, 1995; Pittman et al., 2022). Based on more generalized relationships between receptivity to green advertising and green product attitudes and behaviors identified in the literature, our final hypothesis states:

H4. Receptivity to green advertising positively influences consumers' purchase intention towards recyclable products.

In line with our literature review and study hypotheses, the model depicted in Figure 1 is proposed.

3. Method

3.1. Setting and Data Collection

The objective of this study was to investigate the recyclable product purchasing behavior of Gen Z young consumers living in Iğdır, Türkiye. Detailed information about recyclable products was given to the par-

ticipants before the survey. In this way, the awareness of the participants about what recyclable products are was increased. The participants were selected by using the convenience sampling method. A pilot study on 40 people was also conducted to reduce the effects of common-method bias.

A structured questionnaire was sent online to Gen Z consumers in Iğdır, Türkiye (population: 203,594). The survey elicited information about their recyclable product purchasing behavior. Only those born between 1997 and 2012 (Gen Z) were included in the survey. A total of 300 questionnaires were sent online to potential participants and 200 were completed. Of these, 29 were incomplete and thus, were not included in the analysis. This resulted in a final sample size of 171 respondents.

With the method developed by Soper (2022) to calculate the sample size for a structural equation model, it was determined that 150 participants would be sufficient. The calculation method developed by Soper (2022) has been widely used in the relevant literature (Cohen, 1988; Westland, 2010). In order to obtain more accurate responses, the questionnaire (23 questions) was translated into Turkish from English. Smart PLS and IBM SPSS 26 were used to assess the measurement model and conduct structural equation modelling. The respondents were informed that the study would be used only for scientific purposes, and that the data would be kept secure. This study was carried out with the permission of the Ethics Committee.

3.2. Dependent and Independent Variables

Purchase intention, used as the dependent variable in the study, was measured by the four questions in Appendix . In addition to demographic questions, four independent variables were measured: attitude, subjective norms, perceived behavioral control and receptivity to green advertising. The four items in the consumer attitude construct were adapted from Ajzen (1991), Muça and Zeqiri (2020), and Wu and Chen (2014). The five subjective norm items were adapted from Ajzen (1991); Wang et al. (2020); Yazdanpanah and Forouzani (2015). The five items in the perceived behavioral control construct were adapted from Ajzen (1991); Paul et al. (2016), and the five items in the

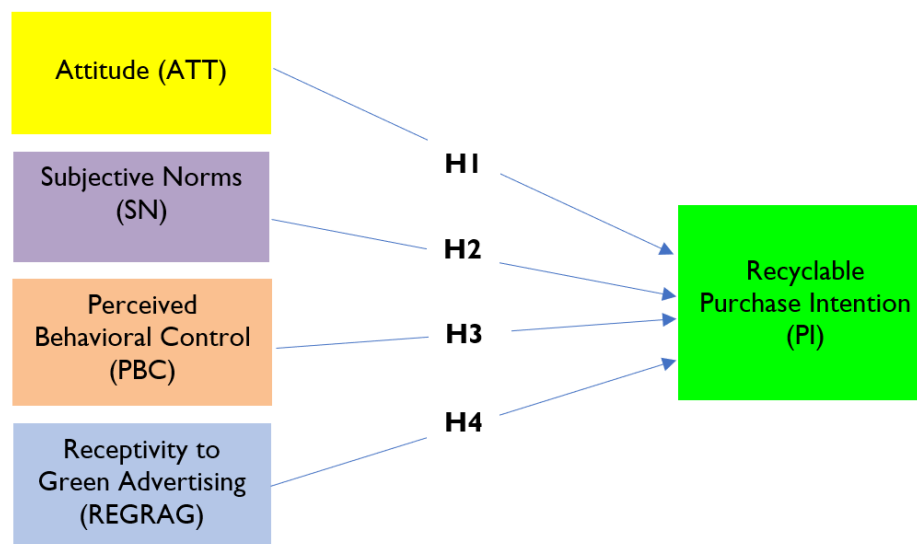


Figure 1. Conceptual Research Model

receptivity to green advertising construct were adapted from Bailey et al. (2016) and Tewari et al. (2022). Detailed information about the independent variables is included in Appendix. The items underlying the constructs are provided in Appendix.

4. Results of Empirical Analysis

4.1. Reliability and Validity

Internal consistency reliability and validity were evaluated by checking Cronbach's alpha, composite reliability and average variance extracted (AVE). As shown in Table 1, Cronbach's alpha values range from 0.740 to 0.887, and all these values are above the threshold (0.60-0.70) accepted for research in social sciences (Hair et al., 2017). Composite reliability values vary between 0.837 and 0.917 and these values are above the accepted threshold value (Hair et al., 2017). AVE values range from 0.562 to 0.708 and all of these values are above the 0.50 threshold recommended by Fornell and Larcker (1981).

In order to assess the convergent validity, external loadings and mean variance are evaluated Muça and Zeqiri (2020). In order to ensure a good fit model, the external loading should be above 0.708 and items with loadings between 0.4 and 0.7 should be removed (Hair et al., 2017). As described in Table 4, the model has

satisfactory internal consistency and reliability since the factor loadings vary between 0.696 and 0.878 and the minimum AVE values exceed 0.5. The discriminant validity test was used to assess how close the constructs were to each other in the model or how different they were in the model (Bagozzi et al., 1991). According to Table 4, the AVE values exceed the 0.5 loading threshold (Fornell & Larcker, 1981). In addition, Hair et al. (2017) state that the correlation values in any construct should not exceed the AVE values in a single construct. The information in Table 2 indicates that all constructs exhibited have discriminant validity.

4.2. Descriptive Data

Participants' demographic characteristics are presented in Table 3 below. Forty-five percent of the participants were female and 55% were male. Eighteen were high school graduates, 16 held an associate's degree, 107 held a bachelor's degree and 30 held master's or doctoral degree. The majority of the participants (73.1%) had an average monthly income of 3001 TL and above. Finally, Table 3 shows that 80 of the respondents were managers and 43 are students.

5. Results

shows the factor loadings, means, standard deviations, t-statistics and VIF values for all the items. All VIF

Table 1. Construct Reliability and Validity

Variables	Cronbach's alpha	Composite reliability	AVE
Attitude	0.862	0.906	0.708
Perceived behavioral control	0.864	0.902	0.648
Purchase intention	0.849	0.899	0.690
Receptivity to green advertising	0.887	0.917	0.689
Subjective norms	0.740	0.837	0.562

Table 2. Discriminant Validity

Variables	ATT	PBC	PI	REDRAG	
Attitude	0.841				
Perceived behavioral control	0.664	0.805			
Purchase intention	0.769	0.804	0.830		
Receptivity to green advertising	0.724	0.732	0.771	0.830	
Subjective norms	0.499	0.569	0.542	0.600	0.750

Note: Values (bold) on the diagonal represent the square root of the AVE while the off-diagonals are correlations.

Table 3. Demographic Profile

Catagory	Itmes	Frequency	Percent
Gender	Male	94	55
	Female	77	45
	Total	171	100
Education	High school	18	10.5
	Associate's degree	16	9.4
	Bachelor's degree	107	62.6
	Master's degree	30	17.5
	Total	171	100
Income	1000TL and less	34	19.9
	1001-3000TL	12	7.0
	3001-7000TL	18	10.5
	7000-10.000TL	32	18.7
	10.000TL and more	75	43.9
	Total	171	100
Job	Housewife	8	4.7
	Employee	17	9.9
	Manager	80	46.8
	Self-employed	19	11.1
	Student	43	25.1
	Not working	4	2.3
	Total	171	100

values were below the threshold value of 3.3 (Kock, 2015). Hair et al. (2017) recommend that all the items should have external loadings of 0.708 or higher, and if an item is loaded otherwise, AVE values should be checked. Thus, SN4 (0.528) was excluded from the model. On the other hand, SN5 (0.697) was included because it was very close to the threshold value and its VIF value (1.284) was smaller than 3.3 (Ramayah et al., 2018). Bootstrapping was used to assess the structural model (Hair et al., 2017).

As shown in Table 5, SRMR (Standardized Root Mean Square Residual) is lower than the threshold value of 0.08 (0.076; Hu and Bentler (1999); Alden et al. (2016); Dolan et al. (2019)). NFI (Normed Fix Index) value should take a value between 0 and 1 and values close to 1 are good fit values (Bentler & Bonnett, 1980; Schermelleh-Engel et al., 2003; Armutcu et al., 2023). NFI above .90 are considered good fit values (Schermelleh-Engel et al., 2003). The NFI value for the SEM in this study 0.743, which is below the .90 threshold. However, the d_{ULS} (1.448) and d_G (0.742) values are higher than their respective threshold values (>0.05 ; Dijkstra and Henseler (2015)). However, the d_{ULS} (1.448) and d_G (0.742) values are higher than their respective threshold values (>0.05 ; Ringle et al. (2022); Dijkstra and Henseler (2015); Schuberth et al. (2023); Armutcu et al. (2023)).

Table 6 and Figure 2 show structural equation modeling results. Supporting H1, attitude was positively associated with purchase intention (path coefficient = 0.326, $p > 0.000$). The subjective norm latent construct did not have a positive and significant effect on the purchase intention (path coefficient = 0.003, $p > 0.946$) and thus, H2 was not supported. However, perceived behavioral control (0.420, $p > 0.000$) was positively related to purchase intention. Accordingly, H3 was supported. Finally, as predicted in H4, receptivity to green advertising was positively associated with purchase intention (path coefficient = 0.226, $p < 0.001$).

6. General Discussion

This study investigated three theory of planned behavior predictors of Gen Z consumer intentions to

purchase recyclable products in the province of Iğdır, Türkiye. In addition, the study examined the effect of receptivity to green advertising on Gen Z consumers' intention to purchase recyclable products. Study findings revealed that attitude and perceived behavioral control have an effect on the intentions of Gen Z consumers to purchase recyclable products. However, unexpectedly, the subjective norm latent construct did not significantly associated with Gen Z purchase intentions for recyclable products.

The significant effect of attitude on purchase intentions is consistent findings reported in the literature (Kumar et al., 2021; Rausch & Kopplin, 2021; Nguyen et al., 2019; Armutcu et al., 2023). The non-significant outcome for subjective suggests that Gen Z consumers may not consider what other people think about such purchases when they evaluate their own intentions. According to Ajzen and Madden (1986), perceived behavioral control refers to an individual's perception of the likelihood that they can successfully perform a certain behavior. Ajzen (1991) asserts that individuals' intention to engage in a particular behavior becomes stronger and more pronounced as their perception of perceived behavioral control increases. In the current study, perceived behavioral control was found to have a positive effect on the intention of Gen Z consumers to purchase recyclable products. This finding concurs with others reported in the literature Kumar et al. (2021); Hamzah and Tanwir (2021); Yadav and Pathak (2017); Wu and Chen (2014); Armutcu et al. (2023). As a result, it is likely that the extent to which Gen Z consumers believe they can successfully purchase recyclable products has an important influence on their intentions to do so.

Receptivity to green advertising was found to have an effect on the intention of Gen Z consumers to purchase recyclable products in the province of Iğdır, Türkiye. Previous research has demonstrated a significant relationship between receptivity to green advertising and consumer purchasing behavior (Paco et al., 2019; Pita, 2020; Tewari et al., 2022). Receptivity to green advertising appears likely to play a role in Gen Z consumers' decision-making for recyclable products in the province of Iğdır, Türkiye. Such receptivity may

Table 4. Factor Loadings

Items	Loading	Mean	STDEV	T-values	VIF
ATT1	0.858	0.856	0.045	18.886	2.266
ATT2	0.875	0.874	0.031	28.057	2.460
ATT3	0.807	0.805	0.045	17.942	1.829
ATT4	0.823	0.823	0.039	20.863	1.839
SN1	0.765	0.763	0.045	16.831	1.692
SN2	0.798	0.797	0.038	20.893	2.195
SN3	0.845	0.843	0.029	29.356	2.498
SN5	0.832	0.831	0.031	27.015	2.521
PBC1	0.784	0.786	0.035	22.702	2.097
PBC2	0.751	0.750	0.057	13.257	1.647
PBC3	0.749	0.747	0.049	15.426	1.377
PBC4	0.799	0.795	0.043	18.562	1.718
PBC5	0.697	0.696	0.062	11.195	1.284
REDRAG1	0.817	0.816	0.042	19.614	2.283
REDRAG2	0.793	0.791	0.045	17.493	2.328
REDRAG3	0.878	0.878	0.022	39.807	2.939
REDRAG4	0.791	0.791	0.046	17.025	1.919
REDRAG5	0.866	0.867	0.026	32.778	2.750
PI1	0.854	0.851	0.031	27.759	2.191
PI2	0.764	0.764	0.040	19.097	1.583
PI3	0.873	0.870	0.026	33.016	2.370
PI4	0.827	0.827	0.029	28.249	1.895

Table 5. Model Fit

Indexes	Saturated Model	Estimated Model
SRMR	0.076	0.076
d_ULS	1.448	1.448
d_G	0.742	0.742
Chi-square	695.682	695.682
NFI	0.743	0.743

Table 6. PLS SEM Structural Path Coefficients

Hypotheses	Path coefficients	STDEV	t-values	p-values	Results
H1. Attitude -> Purchase intention	0.326	0.073	4.455	0.000	Accept
H2. Subjective norms -> Purchase intention	0.003	0.051	0.068	0.946	Reject
H3. Perceived behavioral control -> Purchase intention	0.420	0.072	5.866	0.000	Accept
H4. Receptivity to Green Advertising -> Purchase intention	0.226	0.070	3.217	0.001	Accept

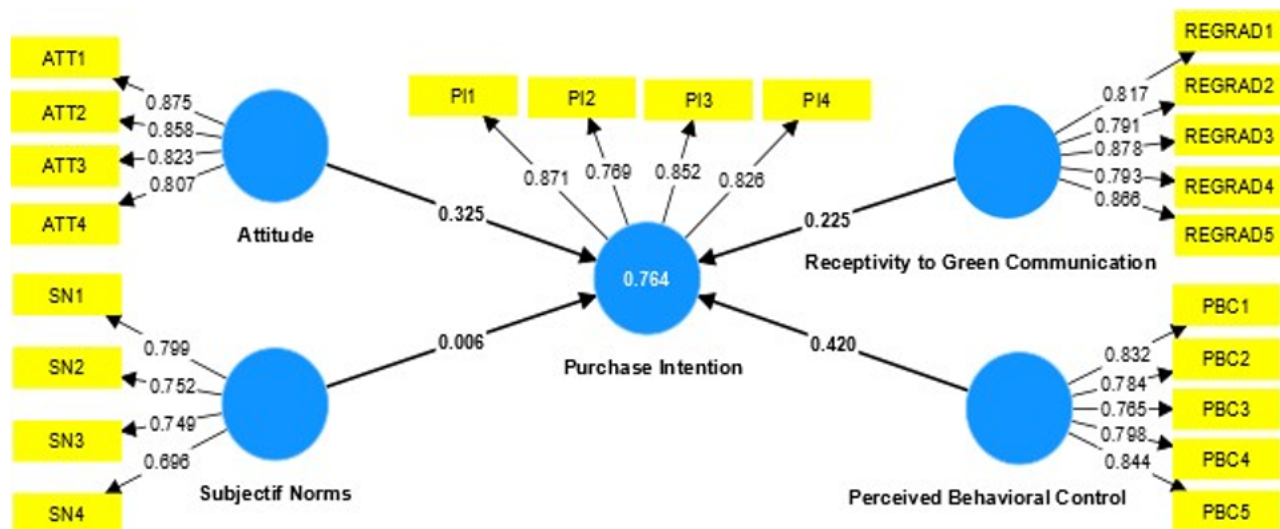


Figure 2. Structural Equation Model

enhance the ability of Gen Z consumers to make informed decisions regarding the purchase of recyclable products. Young individuals' inclination towards consuming more green products may be attributed to their perception of having more years ahead of them and a desire to spend those years in a clean and aesthetically pleasing environment. Furthermore, fostering communication among young individuals can enhance their sensitivity towards environmental concerns and promote their engagement in seeking sustainable solutions.

7. Implications and Limitations and Directions for Future Research

7.1. Implications

This study makes important contributions to the existing literature on recyclable product purchasing behaviors of Gen Z young consumers. While multiple studies examining consumer attitudes and intentions toward green product purchasing have been published, empirical research that includes new constructs alongside the theory of planned behavior specifically to investigate intentions to purchase recyclable products is limited. In part, to help address this situation, the effect of receptivity to green advertising as an additional antecedent to aid in the prediction of Gen Z consumer intentions

to purchase recyclable products was also investigated in the current study.

Moreover, given that research in this field predominantly reflects Western culture, this study, which focuses on the Eastern culture, stands as the first of its kind to explore attitudes and intentions towards recyclable products within this cultural context. Furthermore, the findings from this study not only unveiled factors influencing consumers' purchasing behaviors for recyclable products, but also provided valuable insights and guidance to businesses and policymakers by offering them important implications and a roadmap for action. In this context, government agencies can cooperate with businesses and advertising agencies to promote green advertisements targeting Gen Z consumers. These adverts can emphasise the benefits of recyclable products and the positive impact of sustainable choices on the environment. In particular businesses, that use green messages to target Gen Z consumers, perhaps in conjunction with government-sponsored promotions, seem likely to increase sales of recyclable products. In addition, policymakers can implement incentives and regulations that encourage businesses to adopt sustainable practices and offer recyclable products. This could include tax incentives for environmentally friendly compa-

nies, promoting sustainable packaging or providing grants for research and development of recyclable materials. In addition, incentives such as discounts or reward schemes may be offered to consumers who choose recyclable products. This could motivate Gen Z consumers to make more sustainable choices. To involve Gen Z consumers and youth organisations in environmental policy decision-making, it is crucial to actively engage with them. Their perspectives and opinions can be valuable in shaping effective strategies.

7.2. Limitations and Directions for Future Research

This study was conducted in Iğdır province, which has the most polluted air quality in Europe and Türkiye. The results of this study, which examines the recyclable product purchasing behavior of young consumers in Iğdır province, can contribute to our understanding of the recyclable product purchasing tendencies of young consumers in other Turkish provinces with similar demographic structures. Future researchers can expand the design of the study and conduct new studies in additional provinces and countries. This study is limited to better understanding recyclable product purchasing among Gen Z consumers. Future research could also extend the model to other age groups.

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Appendix. Research Instrument Description

Construct	Code	Items	Source
Attitude	ATT1	I think purchasing recyclable products righteous	Ajzen (1991); Wu and Chen (2014); Muça and Zeqiri (2020)
	ATT2	I think buying recyclable products valuable	
	ATT3	I think purchasing recyclable products is delightful	
	ATT4	I think it's wise to purchase recyclable products	
Subjective	SN1	People important to me think that I should consume the recyclable products	Ajzen (1991); Wang et al. (2020); Yazdanpanah and Forouzani (2015)
	SN2	News media advertising will prompt me to buy recyclable products.	
	SN3	My friends think I should buy recyclable products	
	SN4	When I need to choose recyclable products, I behave as the other people do.	
	SN5	If people around me use recyclable products, this will prompt me to buy.	
Perceived Behavioral Control	PBC1	I believe I have the ability to purchase recyclable products	Ajzen (1991); Paul et al. (2016)
	PBC2	If it were entirely up to me, I am confident that I would be able to purchase recyclable products	
	PBC3	I see myself as capable of purchasing recyclable products in the future	
	PBC4	I have resources, time, and willingness to purchase recyclable products	
	PBC5	There are likely to be plenty of opportunities for me to purchase recyclable products	
Receptivity to Digital Communication	REGRAG1	I support the brands that support the recyclable products	Bailey et al. (2016); Tewari et al. (2022)
	REGRAGE2	The use of recyclable products in ads affects my attitude toward the ads	
	REGRAGE3	I am the kind of consumer who responds favourably when brands use recyclable products in their ads	
	REGRAGE4	I am the kind of consumer who is willing to purchase products marketed as being recyclable products	
	REGRAG5	I respond favourably to brands that use recyclable products related to messages in their advertising	
Purchase Intention	PI1	I think it is important to consume recyclable products	Ajzen (1991); Muça and Zeqiri (2020); Teng and Wang (2015); Ghazali et al. (2017)
	PI2	I buy recyclables products	
	PI3	I plan to buy recyclable products in the future	
	PI4	I am very likely to buy environmentally friendly and healthy recyclable products	

LUMINOUS INSIGHTS



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