

Article

Prolificacy of Green Consumption Orientation and Environmental Knowledge to Slash Plastic Bag Consumption: The Moderating Role of Consumer Attitudes and the Demarketing Efforts

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Abstract: The use of plastic bags has long been a global concern due to its hazardous contributions to the environment. Firms, governments, and special interest groups (like Greenpeace) have always earnestly ventured, through their individual or collaborative initiatives, strategies and/or (demarketing) campaigns, to discourage the use of plastic bags to ensure a healthy and sustainable planet. However, such initiatives are least likely to produce desired results if the most important stakeholder i.e., consumers do not perceive greater value from such a reduction in usage of plastic bags. Considering the same an important precondition for building positive intentions and consequent behaviors to reduce plastic bag usage and a complementor of demarketing efforts of the stakeholders, the primary purpose of this study has been to investigate the role of consumers' green orientation, environmental knowledge, and perceived instrumentality of demarketing efforts in enhancing the perceived value of plastic usage curtailment. Based on PLS-based structural equation modelling performed on a data set comprising 977 consumers, it has been found that the three antecedents namely green consumption orientation, recycling attitudes and demarketing efforts have direct positive effects on the outcome construct. Besides, the study also found that the effect of green consumption orientation on perceived value of plastic usage reduction is significantly and positively moderated by consumers' recycling attitudes and their perceived effectiveness of demarketing efforts. The findings offer some useful insights and implications to the theory, practice and the policy making for boosting pro-environmental behaviors.

Keywords: green consumption orientation; environmental knowledge; recycling attitude; demarketing; plastic bags consumption; perceived value



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1. Introduction

Environmental degradation capacitated by increased water and air pollution has become one of the key global concerns in contemporary times [1,2]. Besides others, the irresponsible consumption behaviors like the increased usage of plastic bags alike from the firms and the consumer publics has added to the bleakness of the situation [3]. According to [4], nearly 1 trillion single-use plastic bags per annum are consumed globally, with USA accounting for 380 billions of them. India, China, Brazil, Indonesia, and Russia are some other key contributors to the global accumulation of plastic waste [5]. However, even though high-income countries produce most of the plastic waste, yet they have better facilities to process the plastic waste and to limit its detrimental effects on the environment. Middle to low-income countries, as they lack the intent and infrastructure to manage the plastic waste, end up contributing the most to the plastic induced pollution, especially water pollution that brings severe consequences to the marine life [1]. The mismanaged

plastic waste adversely affects the global ecosystem through soil pollution due to landfilling, air pollution through open dumping and/or combustion, and marine pollution through ocean dumping [6]. There is a dire need for a widespread global curtailment of the usage of plastic bags, which is quite difficult unless consumers are made profoundly aware and appreciative of the perceived value of the reduction in plastic bags' usage.

Consumers worldwide are increasingly committing to disposable plastic bags due to their ubiquitous usage and lack of a culture of reuse, making these plastic bags one of the most hazardous materials for the (natural) environment [7]. Plastic bags take a long time to degrade and could exert a significant negative impact on the planet's health, releasing hazardous compounds into soil when decomposed under sunlight and contributing to air pollution through burning [8]. Due to these adverse effects, the use of plastic bags has drawn significant attention of policy makers, corporate leaders, and community activists longing to induce consumers to use fewer plastic bags in a bid to protect the environment [9]. The relatively inelastic and insensitive patterns of consumption behaviors and habits are significant impediments, especially in underdeveloped societies, making it difficult to curtail (or demarket) such aversive behaviors of consumers. Relevant stakeholders including social marketers, therefore, need to devise potent strategies to demarket such consumption behaviors to effectively address such an indispensable environmental concern [10].

Demarketing anti-environmental and/or anti-social behaviors is cardinal to achieving environmental sustainability. According to [11], demarketing focuses on temporarily or permanently discouraging consumers in general or a particular customer group from initiating or recurring undesirable (consumption) behaviors. Typically, it is an important constituent and/or complementor of the social marketing efforts aiming to foster better socio-cultural conditions to boost social and ecological performance at micro, meso, and macro levels [12,13]. With sustainability causing perspectives like triple-bottom-line (TBL) getting pervasive in the business world, environmental performance has become a key constituent of corporate sustainable performance, and consequently business organizations are also frequently engaged in social marketing campaigns to discourage consumer behaviors deemed detrimental to the social and ecological wellbeing of the society. In strict social marketing sense, demarketing seeks to actualize the goal of lowering discouraging the use of goods that endanger public health. Typical demarketing tactics and/or instruments, according to [14] include education, prevention, protection, and prosecution. Researchers like [15] urge an earnest need for authorities, businesses, and non-governmental organizations to work together to educate people about the value of environmental and public health protection to prevent detrimental social (including consumer) behaviors to make societies green, healthy, and pluralistic.

Studies in demarketing domains have mostly focused on product shortages, public services, health care, and sustainable tourism domains [15–19]. Though plentiful prescriptive studies have been conducted centering upon demarketing of certain activities, actions, or behaviors in diverse contexts, only a few have focused on demarketing the use of plastic bags [15,16,20]. While some studies have focused on the environmental impact of plastic bag use and the development of demarketing tactics [9,10], research gaps remain abundant regarding the effectiveness of these strategies in influencing consumer behaviors. Additionally, there is a lack of empirical evidence on the role of individual factors in affecting consumer participation in demarketing initiatives to ascertain ecofriendly behaviors [20]. The primary objective of this study is to address this scarcity of the research by examining the impact of individual factors such as environmental knowledge, recycling attitudes, green consumption orientational and consumer participation in demarketing initiatives to enhance their awareness and appreciation of the anticipated benefits of plastic bags usage reduction to curtail the usage of such plastic bags.

Past research shows that consumers who are intrinsically motivated are more likely to be environmentally conscious and maintain that consciousness over time [20] which eventually translates into their sustained commitment to the pro-environmental behaviors,

but to make them appreciative of the value of a reduction (or better abandonment) in the use of environmentally hostile products (like plastic bags) is an essential precondition. Framing *the perceived value of plastic bags usage reduction* (hereafter PVPUR) as the focal (outcome) construct, this study endeavors to answer two key research questions. (1) How does consumers' green consumption orientation, environmental knowledge, and perceived value of demarketing efforts enhance PVPUR? (2) Does efficacy of the aforementioned three antecedents in affecting PVPUR varies along the disparate permutations of consumers' recycling attitudes and their perceived effectiveness of demarketing efforts? As such, this study seeks to measure the impact of certain antecedents and contextual contingencies in curtailing the wide-spread usage of plastic bags. More specifically, it endeavors to investigate the effects of green consumption orientation, environmental knowledge as complementarities to the demarketing efforts in enhancing PVPUR under disparate contextual conditions.

By addressing critical research gaps, the study contributes to our understanding of the instrumentality of various individual, social, and environmental factors in reducing plastic bag usage through demarketing efforts to boost environmental sustainability. Besides enriching body of knowledge in sustainability domains, this study makes important contributions to the advancement of theory, practice, and policy making at the firm, industry, and government levels. Since this problem is far more acute in under-developed and developing countries compared to the developed ones [21], Pakistan has been chosen as the relevant context to study these dynamics of plastic bag consumption. In Pakistan, plastic bag consumption is high and exhibits serious negative environmental impacts. Plastic bags are widely used for carrying groceries and other goods, but they are not biodegradable and often end up littering streets, causing pollution, and harming wildlife. Despite attempts by the government to regulate and demarket plastic bags usage through taxes and bans, enforcement has been weak, and the problem persists. As such, the findings of this study would not only offer insights for policy making to raise sustainability in Pakistan and similar developing countries but the use of South Asian data to empirically substantiate the hypothesized cause and effect relationships could enhance generalizability of the etic theories developed in the West to the other cultural contexts.

The subsequent sections of the paper are structured like so. Section 2 presents a detailed account of the literature encompassing environmental issues attributable to plastic bag consumption, along with ensuing research gaps and the hypotheses of study. Section 3 outlines methodology of this research. Results are presented in Section 4. Section 5 orchestrates a detailed discussion emanating from these results. The final section presents some implications to the theory as well as the practice and the policy making, limitations and direction for future research over and above concluding the entire discussion.

2. Literature Review & Hypotheses of Study

Environmental degradation augmented with air and water pollution contributed both by the firms, industries and/or the consumer through irresponsible consumption behaviors has become one of the key global concerns [22–24]. The concept of sustainable consumption has received consistent attention alike from the theory and the practice, with such a consumption usually referring to responsible usage of resources at firm levels and finished products and services at the consumer levels [25–27] and has postulated reduction in utilization of resources, wastage, and consumption (various facets of sustainable consumption) as an important precursor of sustainable development [23,24]. Researchers like [28] have documented the instrumentality of consumer efforts in achieving sustainability outcomes through sustainable consumption behaviors like recycling, repackaging, reuse etc. In this study, we have conceptualized a model that seeks to investigate the efficacy of a few crucial antecedents and contextual conditions in affecting sustainable consumption behaviors like truncated usage of plastic bags. The underpinning theories has been the sustainable consumption theory.

2.1. Sustainable Consumption Theory (SCT)

Sustainable consumption theory (hereafter SCT) or its individual constituents (or offspring) such as responsible consumption, anti-consumption and/or mindful consumption [27] centers on explaining the antecedents of sustainable consumption behaviors and their consequent effects on sustainable development [26]. The theory has emerged through concerted efforts of a plethora of academicians and practitioners from various disciplines (e.g., marketing, psychology, sociology, and economics) that endeavored to explore potent means to induce consumer to adopt, use and propagate sustainable products and services to enhance social and environmental gains at individual, firms, and societal level to enable sustainable development [29]. In a bid to enhance our understanding on how to discourage consumption practices low on (environmental) sustainability like plastic bag consumption, we have conceptualized a model making an appeal to the central tenants of SCT.

2.2. The Conceptual Model

Figure 1 depicts the conceptual model of this study. Making an appeal to the sustainable consumption theory, we hypothesize that consumers' green consumption orientation, environmental knowledge together with their perceived instrumentality of demarketing efforts enhance their perceived value of plastic use reduction. It has been further hypothesized that the three antecedents affect the outcome strongly when consumers have positive recycling attitudes and are more appreciative and receptive of the demarketing efforts to curtail the use of plastic bags. As such we have three exogenous constructs, one endogenous construct and two moderators in our model. One of the constructs i.e., demarketing efforts is playing the role of an antecedents and a moderator simultaneously.

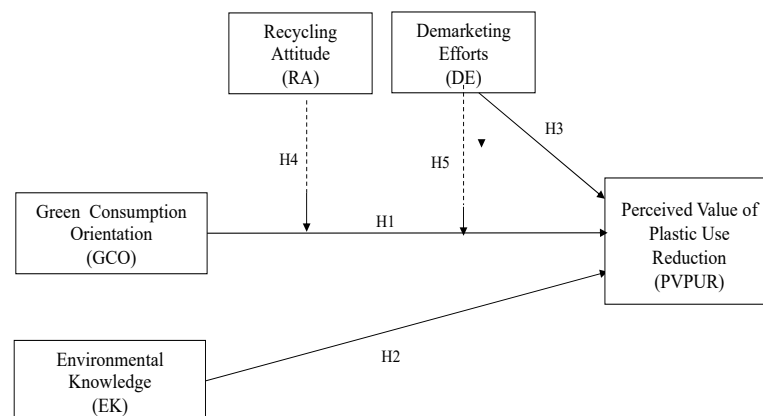


Figure 1. The Conceptual Model.

The following sections discuss the nature scope and the hypothesized relationships among the subject constructs of this model.

2.3. Hypotheses of Study

2.3.1. Green Consumption Orientation (GCO) & Perceived Value of Plastic Bags Usage Reduction (PVPUR)

Several studies have shown that reducing the use of plastic bags can have a positive impact on the environment. For example, [30] conducted a study in India and found that emphasizing the negative environmental effects of plastic bags can influence consumer behavior towards the usage of such products. However, researchers like [31,32] have postulated consumer sensitivity to environment as an important precursor to pro-environmental attitudes, intentions, and behaviors such as preference for sustainable packaging. Park and Ha (2014) [33] have designated such a preference as to be green consumption. Consonantly, we have also designated it as green consumption orientation (hereafter GCO) and have endeavored to investigate its linkage with PVPUR. Hasan et al., (2015) [34], and Kumar (2012) [31] found a strong linkage between consumer mindset and the intention to

buy eco-friendly products. Other studies, e.g., [32,35,36] have found that people who are environmentally conscious are more likely to adopt pro-environmental behaviors, such as using public transportation, buying organic food, or minimizing car usage. Additionally, results of the studies conducted on environmental behaviors during vacations suggest that a person's attitude towards minimizing single-use plastic has the strongest positive relationship with his/her behavioral intention to reduce plastic usage [37–40]. In consonance with the aforementioned research findings, we hypothesize.

H1: *Consumers' GCO is positively related to PVPUR.*

2.3.2. Environmental Knowledge (EK) & PVPUR

Environmental knowledge (hereafter EK) refers to common understanding of facts, concepts, and connections related to the natural environment and its ecosystems [41]. This knowledge encompasses individuals' awareness of the environment and the interconnections that lead to environmental consequences [42]. It can range from basic understanding of eco-friendly products to more specialized knowledge of recycling [43]. However, the complexity of the issue may result in limited comprehension of the link between consumer behavior and environmental degradation [44]. Amplified knowledge is perceived to be leading to positive changes in pro-environmental attitudes and behavior, and vice versa [45–47]. Several studies have elaborated upon the instrumentality of environmental knowledge in enkindling sustainability behaviors in a wide variety of contexts. For example, [45] found that consumers' environmental attitudes are positively influenced by their environmental knowledge. Flamm (2009) [47] found a strong relationship between EK, attitudes, and pro environmental behaviors of the car owners. Barber et al., (2009) [46] documented the instrumentality of consumers' EK in affecting their attitudes towards environment friendly wines. Additionally, they found that wine-specific knowledge has a strong impact on consumer attitudes and purchase decisions than general environmental knowledge. Flamm (2009) [47] also found that consumers were more likely to choose fuel-efficient vehicles if they had superior environmental knowledge. When consumers understand the environmental impact of their action, they are even more strongly predisposed to make eco-friendly purchases, even if it requires paying more [48]. A green consumer, according to [49], is the one who willingly undertakes pro environmental consumption behaviors. However, just because they are environmentally conscious does not guarantee that consumers will always act sustainably in all aspects of their lives especially while making purchases [50]. Extending this amalgamation of scholarly discourse to our context, we hypothesize.

H2: *Environmental knowledge has a positive relationship with PVPUR.*

2.3.3. (Perceived Effectiveness of) Demarketing Efforts (DE) & PVPUR

Demarketing involves the application of marketing strategies that aim to decrease undesired consumption, through instruments like raising prices, shrinking channels and/or educating the consumers [51]. It has primarily been used in public campaigns aimed at discouraging smoking, excessive drinking, and personal vehicle usage. However, information-based demarketing campaigns have often proved to be ineffective in altering consumer behaviors according to [52]. Thus, it has been observed that direct prohibitions on certain behaviors are more effective than a combination of demarketing instruments [53]. Although consumers may not benefit directly from their sacrifices, research suggests that government-led, widespread social demarketing campaigns may discourage unwanted consumption [54]. Policymakers and the media commonly believe that reducing overconsumption of single-use plastics is a solution to the current waste problem, which is supported by several studies, e.g., [55,56]. Soule and Reich (2015) [57] found that brands' green reputation affects the outcomes of demarketing efforts, and its impact surpasses the influence of the company's environmental commitment and consumers' brand loyalty. In line with these arguments, we hypothesize.

H3: *Consumers' perceived effectiveness of demarketing effort is positively associated with PVPUR.*

2.3.4. The Moderating Role of Recycling Attitude (RA)

According to the commitment theory, individuals positively predisposed and committed to recycling tend to view themselves as champions of recycling and their subsequent action are generally aligned with such self-concepts [58], which is also consistent with self-determination theory [59]. Several studies have investigated the application of commitment theory in regard to environmental sustainability and found personal commitment (or self-motivation) to be a potent driver of recycling intentions and behaviors [60], which especially becomes more relevant in the absence of external incentives [61]. Attitudes towards green products are positively influenced by societal norms and personal influences [62]. Attitudes have been discussed as important driver of consumers' intention to reuse in studies such as [33,63]. The significance of consumers' attitudes towards recycling is further emphasized by [48,64]. Based on this evidence to support instrumentality of attitude towards recycling as an important precursor of pro-environmental behaviors, we integrate it in our model as a critical moderating contingency that galvanizes the effect of GCO on PVPUR. Consequently, we hypothesize.

H4: *Recycling attitude moderates the relationship between GCO and PVPUR.*

2.3.5. The Moderating Role of Demarketing Efforts

The primary goal of conventional advertising as an essential constituent of marketing mix is to persuade consumers to buy products [65]. Demarketing, however, aims to reduce demand rather than increasing it [11]. According to attribution theory, consumers may view genuine motivations for corporate social responsibility (CSR) as less credible when companies engage in demarketing, as negative actions are perceived as more indicative of true intentions [66]. Consumers have a more favorable attitude towards green product ads than green demarketing ads, as they associate the former with more genuine environmental care [67]. Consumers with analytical or intuitive cognitive styles have a more positive reaction to green demarketing ads in terms of attitudes and behavioral intentions [68]. A Canadian study found that reducing plastic use is influenced by factors such as advertising, location, consumer motivation, price, and product alternatives [20]. Similarly, a recent study by [69] found that advertising, location, and product have a positive impact on consumers' intentions to reduce electricity use. Demarketing can also lead to a decrease in electricity demand, as found by [70], who attributed the effect to increased consumer awareness, motivation, and improved company image, which is also consistent with [69]. In consonance with these research findings, while considering demarketing efforts' perceived effectiveness as another critical moderator, we hypothesize.

H5: *Consumers' perception about the effectiveness of demarketing efforts to curtail plastic use consumption moderates the association between GCO and PVPUR.*

3. Materials and Methodology

Measurement Scales: A structured questionnaire containing established scales, adapted from some of previous studies focusing similar phenomena, to measure the subject construct in our study has been crafted to collect the primary data. The responses for all measurement items were recorded on a 5-point Likert scale. The scale items for the outcome construct i.e., *perceived value of plastic use reduction (PVPUR)* were adapted from [71] to enumerate benefits that a consumer perceives from reduction in the plastic usage. The scale consists of seven items. Consumer *green consumption orientation (GCO)* has been calibrated through six items while adapting measurement scale employed by [20] in their study. *Environmental knowledge (EK)* is operationalized through five items by adapting scale used by [71]. *Recycling attitude (RA)* has been measured through six items while adopting the scale used by [20]. The scale to measure the perceived effectiveness of *demarketing efforts (DE)* has also been adapted from the same source i.e., [20], and it has been measured through six items. The scales were pretested through a pilot study before launching them for the field work. All the measurement scales have been reported in Table A1 in Appendix A.

Sampling & Data Collection: The sampled population for this study has been all type of consumers in the Bahawalpur region of the Punjab province in Pakistan. Since a sampling frame was not available, non-probability sampling technique has to be employed to collect data from 1000 respondents (the sample size). A large sample size has been selected since it offers less margin of error and bias, and it offers higher confidence, accuracy, and insightful information [72]. Area (Mall intercept) sampling has been adopted to select and approach the respondents outside supermarkets in three cities namely Bahawalpur, Bahawalnagar, and Rahimyar Khan, situated in Pakistan. Ease of collecting data, as we have sub campuses in all these cities and the human resource (field workers) to carry out the personal investigations were readily available. Students from the local business education institutions were engaged as field workers. Respondents were approached outside supermarkets (as they are more likely to confront the use of plastic bags there), were briefed about study's objectives and were subsequently requested to furnish responses to the questions, translated in Urdu (the national language) for the sake of better comprehension. They were appreciated for their kind cooperation. In total, 1000 completed questionnaires were obtained from the fieldwork. After performing requisite data checks, 23 were filtered out due to missing or unreliable values. 977 responses were retained for further analysis.

Analytical Strategy: A PLS-based structural equation modelling (SEM) using Smart-PLS3 [73] has been performed in order to analyze the measurement and structural model. To empirically substantiate the hypothesized associations among the subject constructs in our model has been the primary objective, following the recommendation from [74,75] about assessing quality of the measurement scales. To assess the structural model, analyses of main, mediation and moderation effects have been performed following recommendations from [76].

4. Results

4.1. Sample Profile

As could be seen in Table 1, majority of the respondents (62%) were males, mostly undergraduates (31%), falling in 30–40 years age group and having monthly incomes in the range of 60–90 K.

Table 1. The Sample Profile.

Criterion	Categories	n	%
Gender	Male	606	62
	Female	371	38
Education	Undergraduates	303	31
	Post Graduates	283	29
	High schools	186	19
Age	Below	205	21
	Less than 30	205	21
	30–40 years	371	38
	40–50 years	244	25
Income (PKR)	More than 50 years	157	16
	Less than 30 K	176	18
	30–60 K	244	25
	60–90 K	303	31
	More than 90 K	215	22
	No response	39	4

(Source: Authors' Own Work).

4.2. Common Method Bias

The use of self-report surveys may result in common method variance. Therefore, Harman's single-factor analysis [77] was performed to address possible common method variance. Harman's single-factor analysis can be used to confirm that the correlations among the variables may have been inflated as a result of the use of a single survey to collect data [78]. This approach shows that common method variance develops when a single component emerges or when the first factor explains the majority of the variation. The findings show that the first factor explained 36 percent of the variation, which is below

the specified limit of 50 percent [79]. Hence, common method variance did not seem to be a problem in our sample data.

4.3. Assessment of the Measurement Model

The quality of measurement model was ascertained through assessing its reliability and validity through calculating factor loadings, Cronbach's alpha, composite reliability as described by [80], and average variance extracted (AVE), and HTMT values.

4.3.1. Item & Construct Reliability

Indicator reliability were assessed through analyzing standardized factor loadings using cut off ≥ 0.6 and ideally 0.7 as suggested by [74,81]. They were found reliable as they surpassed the thresholds, and their individual t and p values were also significant [82]. Internal consistency reliability at the construct level was examined through Cronbach's alpha (α) and composite reliability (C.R) using 0.70 as the cut off value as suggested by [74]. Since the values for α and C.R. indices fell in ranges of 0.81–0.94, and 0.87–0.96 respectively, adequate reliability at the construct level could be ascertained. The results contained in Table 2 indicate sufficient quality of the measurement scales on these criteria as the values profoundly surpass the thresholds in all the cases.

Table 2. Assessment of Reliability & Convergent Validity.

Constructs	Items	Factor Loadings	α	CR	AVE
Perceived Value of Plastic Use Reduction (PVPUR)	PVPUR1	0.731	0.828	0.871	0.692
	PVPUR2	0.626			
	PVPUR3	0.704			
	PVPUR4	0.675			
	PVPUR5	0.693			
	PVPUR6	0.726			
	PVPUR7	0.748			
Demarketing Effort (DE)	DE1	0.926	0.944	0.96	0.857
	DE2	0.942			
	DE3	0.937			
	DE4	0.899			
Environmental Knowledge (EK)	EK1	0.721	0.815	0.871	0.575
	EK2	0.810			
	EK3	0.739			
	EK4	0.750			
	EK5	0.767			
Green Consumption Orientation (GCO)	GCO1	0.891	0.869	0.906	0.628
	GCO2	0.883			
	GCO3	0.895			
	GCO4	0.890			
	GCO5	0.679			
	GCO6	0.614			
Recycling Attitude (RA)	RA1	0.786	0.839	0.88	0.551
	RA2	0.768			
	RA3	0.761			
	RA4	0.650			
	RA5	0.753			
	RA6	0.726			

(Source: Authors' Own Work).

4.3.2. Assessment of Convergent and Discriminant Validity

Convergent validity has been assessed through examining AVE values using 0.5 threshold suggested by [81], and adequate levels were ascertained as AVE value fell in the 0.55–0.87 range (See Table 2). Discriminant validity of the scales has been assessed through the Fornell and Larcker's (1981) [81] criterion and an examination of Heterotrait-Monotrait (HTMT) values, calculated with the PLS algorithm. This test was used to assess the distinction between the scale items used for each construct in the study and the results

were in line with Fornell and Larcker's (1981) [81] recommendations (See Table 3). The recommended threshold for HTMT is less than 0.90 [83], which was also achieved convincingly in this research, demonstrating that the scales exhibited sufficient discriminant validity with other constructs.

Table 3. Assessment of the discriminant validity.

	PVPUR	DE	EK	GCO	RA
PVPUR					
DE	0.746				
EK	0.935	0.761			
GCO	0.857	0.727	0.860		
RA	0.885	0.672	0.817	0.826	

(Source: Authors' Own Work).

4.4. Assessment of the Structural Model

Co-efficient of determination (R^2), as an indicator of the predictive importance, is the portion of the dependent variable's variance that a statistical model predicts. According to [84], a value of 0.26 is seen as positive or significant, a value of 0.13 as moderate, and a value of 0.02 as low or ineffective. In this study, we obtained R^2 value of 0.76 for the PVPUR that reflects high explanatory power or predictive importance of the model.

4.4.1. Assessment of the Direct Effects

The results showed that individuals' green consumption orientation (GCO) had a significant positive effect on the outcome construct i.e., PVPUR ($\beta = 0.21$, $t = 4.485$, and $p < 0.000$), confirming H1. Similarly, consumers' environmental knowledge (EK) was also found to have a significant positive impact on PVPUR ($\beta = 0.356$, $t = 7.278$, and $p < 0.000$), confirming H2. Finally, demarketing effort to reduce plastic bag consumption (DE) was found to have a significant impact on PVPUR ($\beta = 0.148$, $t = 3.607$, and $p < 0.000$), confirming H3. These relevant statistics are contained in Table 4.

Table 4. Path Coefficients.

No	Path	β	SD	t	p	Decision
H1	GC \rightarrow PVPUR	0.201	0.045	4.485	0.000	Significant
H2	EK \rightarrow PVPUR	0.356	0.049	7.278	0.000	Significant
H3	DE \rightarrow PVPUR	0.148	0.041	3.607	0.000	Significant
H4	Moderating Effect 1 \rightarrow PVPUR	0.166	0.043	3.842	0.000	Significant
H5	Moderating Effect 2 \rightarrow PVPUR	0.281	0.047	5.949	0.000	Significant

(Source: Authors' Own Work).

4.4.2. Assessment of the Moderating Effects

The study found that RA has substantial moderating influence on the impact of GC on PVPUR ($\beta = 0.166$, $t = 3.842$, and $p < 0.000$), confirming H4. This moderating relationship is positive, and it strengthens the relationship between GC and PVPUR as the value of RA gets stronger. The study also found that DE has substantial influence moderating the association between EK and PVPUR ($\beta = 0.281$, $t = 5.949$, and $p < 0.000$), confirming H5. This moderating relationship is positive, and it strengthens the relationship between EK and PVPUR, as the intensity of demarketing effort to curtail plastic bag consumption is perceived to be strengthened. Relevant statistics are contained in Table 4.

5. Discussion

Firstly, the empirical substantiation of H1 suggests that individuals' green commitment which reflects their orientation, passion and desire for a sustainable world has a significant bearing in enhancing consumer perceptions of the environmental gains if they vigorously contribute to the curtailment of the usage of plastic bags, that in turn would solidify their acknowledgement and championing of such initiatives, whether actuated from social or commercial sources. It is crucial to acknowledge that desired outcomes from

plastic bags' usage reduction can only be achieved when consumers actively participate in supporting (social and economic) institutions initiatives aiming to formulate environmentally sustainable policies and solutions. This finding aligns with findings from previous research from [15,39,85], who found a positive relationship between citizens' intentions to reduce single-use plastic consumption and their attitudes towards the issue.

Secondly, the corroboration of H2 indicate the instrumentality of environmental knowledge in augmenting demarketing efforts to curtail usage of plastic bags to enhance the perceived value of participating in such initiatives. As such, consumers who are educated, mindful and socially conscious about environmental sustainability are more likely to appreciate the value of avoiding using plastic bags that may eventually prompt their participation in the initiatives to curtail it. This finding is consistent with [86], who found that possessing higher levels of plastic-related information increased customers' concerns about plastic, leading to a higher likelihood of avoiding plastic products.

Thirdly, the empirical validation of H3 attests to perceived instrumentality of demarketing efforts from economic and social actors in inducing an avoidance of plastic bags to realize the desired ecological outcomes. It is crucial for the firms in developing countries to know consumer sensitivity and receptivity of their demarketing efforts since higher values here could trigger a bottom-up emergence of top management commitment to the superior ecological gains as means to galvanize corporate sustainability performance. An even more vigorous social marketing campaigning for the reduction of environmental hazardous materials like plastic bags could be natural consequence of such high receptivity attributable to higher perceived value of such pro-environmental corporate initiatives. This finding supports the results of [67,87], who found that public green demarketing efforts can produce positive outcomes for both consumers and brands by imbuing anti-consumption behaviors with symbolic meanings that are interpreted by viewers.

Fourthly, empirical support for H4 shows that positive attitudes of the consumers towards recycling play a pivotal role in moderating the relationship between green commitment and PVPUR. It means that consumers with higher green commitment along with exhibiting pro-recycling attitudes perceive demarketing of plastic bag consumption as an important means for enhancing sustainability. In consumers with weaker attitudes and appreciation of recycling, even having higher green commitment might not be so instrumental in their participation in social and commercial initiatives to curtail plastic bag consumption, proving that people may be environmentally sensitive but may not perceive the usage of plastic bag consumption not so detrimental to sustainability. Developing countries like Pakistan may especially be vulnerable to such perceptual gaps and discrepancies existing in the minds of consumer, which may in turn reduce instrumentality of green initiatives.

Finally, the empirical support to H5 proves that perceived effectiveness of demarketing efforts moderates the green commitment-PVPUR connections. It implies that the perceived higher instrumentality of demarketing efforts, through social marketing campaign, could also be effective in slashing consumption of plastic bags by enhancing the perceived value of participation in such (social and/or commercial) green initiatives. This finding aligns well with [20], who found that demarketing tactics can effectively promote the benefits of expected plastic reduction.

6. Conclusions

6.1. Theoretical Implications

The study enhances the body of knowledge on sustainability by conceptualizing and empirical substituting how consumers' environmental knowledge augments their green commitment and perceived instrumentality of demarketing efforts to reduce plastic consumption in developing stronger conviction to participate in green initiatives aiming to slash the consumption of such hazardous products. Such conceptualizations integrating consumer perceptions, values, and attitudes in novel ways in a bid to develop a fine-grained understanding about the cognitive processes encompassing intention building is rare. Besides, by studying complementarity between the three antecedents of PVPUR,

the study also enriches the complementarity research [88,89]. Another contribution of this study emanates from its studying the moderating effects of recycling attitude and perceived instrumentality of demarketing efforts in causing consumers' green commitment to strongly affect PVRR so as to induce potent and vibrant participation in any such campaigns. The ultimate contribution emanates from the Southeast Asian data used in the study, which could cement generalizability of the theories developed in the West to other geographical and cultural contexts. In sustainability studies, it becomes especially quite relevant as the consumer, firms, or societies in various parts of the world still are quite divergent in their orientations, passions, and commitment to sustainability.

6.2. Implications for Policy Makers and Practitioners

The study offers important theoretical and practical implications to firms, social and environmental activists, and the governments especially of developing countries like Pakistan for promoting environmental sustainability through curating, in consumers and firms, green commitments and recycling attitudes, enhancing environmental knowledge, garnering strong interest and trust in demarketing efforts, to evoke stronger participation in green initiatives like social campaign to slash the consumption of plastic bags for sustained plant. The findings of the study also suggest a stronger need for collaboration between the public sector, private sector, and non-profit organizations, and the significance of demarketing strategies in discouraging environmentally hostile practices such as usage of plastic bags. Besides coming together to craft and launch stronger campaigns to promote ecology, these stakeholders (especially the key policy makers) need to equally focus on enhancing consumer readiness and participation in demarketing efforts through enhancing their knowledge on environmental issues and challenges and evoke pro-environmental (particularly recycling) attitudes so as to build strong intentions not only against the use of ecologically detrimental products such as plastic bags but also to propagate it to others.

6.3. Limitations and Future Research Directions

Aside from its contributions, this study has certain limitations that may impact its comprehensibility and generalizability. Firstly, the generalizability of the results is limited by the fact that the respondents were only selected from one region. Future studies may assemble samples through broad-based inclusions. Secondly, the study only used self-reported measures to assess the interplay among subject constructs which may be subject to bias. This could be mitigated by using multiple sources of data and triangulation methods in future studies. Thirdly, this study is also limited to examining the relationship between green commitment, environmental knowledge, recycling attitude, and demarketing on the anticipated sustainability benefits of plastic reduction. Further research should include features relating to the consumers, products, and the context to enrich explanatory power of this model. Future studies may also contemplate stretching this model to include the consequences that may stem from a higher perceived value of reduced plastic bag consumption. Future studies may also extend this model to other geographical, social, or cultural areas. A comparative study between developing and developed countries may also be quite helpful in drawing useful analogies or incongruities.

6.4. Concluding Remarks

With the paradigm shift on managing businesses under triple-bottom-line perspective have prompted firms to launch social marketing campaign to discourage anti ecological consumption behavior, the use of plastic bags is one of them. However, for any such initiatives to produce desired results, potent participation from consumers is an essential requirement. This primary aim of this study has been to assess the efficacy of consumers' green commitment, environmental knowledge, recycling attitude and their perceptions about the instrumentality of demarketing campaign in enhancing their perceived value of slashing usage of plastic bag consumption in a bid to create a healthy planet. The findings of the study authenticated the direct positive effects of consumers' green commitment, environmental knowledge and

(perceived instrumentality) of demarketing efforts in strengthening their perceptions about the vitality of reducing usage of plastic bags. The three antecedents produce stronger effect in effectuating desirable outcomes if consumer have positive recycling attitudes and are very well receptive of the demarketing efforts through social marketing campaign. The empirical substantiation of the complementarity of consumers' green commitment and environmental knowledge urges firms, governments, and other stakeholder to create an enabling environment for the demarketing social marketing campaign to produce desired results. On the consumer front, three critical enablers could be inducing green commitment and recycling attitudes and enhancing their (environmental) knowledge.

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Appendix A

Table A1. The Measurement Scales.

Perceived value of Plastic Use Reduction (PVPUR) Adapted from [71]	
1.	It is good to bring my own bag because it is environmentally friendly.
2.	I know the eco-friendly bags reduce the plastic waste.
3.	I think that continuing to use plastic bags by myself will help to improve environmental problems.
4.	Sometimes I forget to bring my bag and buy a plastic bag while shopping.
5.	Reduction of single-use plastics will help prevent plastics from filling landfills, oceans, and communities.
6.	Reduction of single-use plastics opens the market for more sustainable options.
7.	I avoid plastic bags to protect the environment.
Demarketing Efforts (DE) Adapted from [20]	
1.	Alternatives to plastic should be just as available as single-use plastics.
2.	Studies revealing that plastics can harm the environment and human health should be promoted.
3.	I prefer to read about plastic waste on the internet rather than in the daily newspaper.
4.	I believe that the reports of plastic waste are controlled by politicians.
Environmental Knowledge (EK). Adapted from [71]	
1.	Plastic bags are dangerous for our environment.
2.	I use eco-friendly products to avoid plastic use.
3.	I separate the garbage to reduce environmental degradation.
4.	I think the extreme weather change is results from overuse of plastic bags.
5.	Plastic bags production should be banned.
Green Consumption Orientation (GCO). Adapted from [20]	
1.	I am interested in environmental protection by reducing use of plastic bags.
2.	I am satisfied with the living environment with plastic bags.
3.	Use of plastic bags is not environmentally friendly; I hate to use plastic bags.
4.	Plastics can be recycled only when I separate my waste properly.
5.	I encourage other tourists to take action to phase out single use plastics.
6.	I book only hotels with a sustainability certification.
Recycling Attitude (RA) Adapted from [20]	
1.	I reuse shopping bags for garbage use and shopping.
2.	I feel reluctant to throw away what can be reused.
3.	I believe the plastic bags should be reused to minimize its production.
4.	I prefer traveling to destinations that have a full-fledged recycling system.
5.	I am glad that, in many countries, poor people collect cluttering plastic bottles and thus contribute to recycling.
6.	I would like to learn more about recycling opportunities.

References

- Kibria, M.G.; Masuk, N.I.; Safayet, R.; Nguyen, H.Q.; Mourshed, M. Plastic Waste: Challenges and Opportunities to Mitigate Pollution and Effective Management. *Int. J. Environ. Res.* **2023**, *17*, 20. [CrossRef]
- Manisalidis, I.; Stavropoulou, E.; Stavropoulos, A.; Bezirtzoglou, E. Environmental and Health Impacts of Air Pollution: A Review. *Front. Public Health* **2020**, *8*, 14. [CrossRef]
- Carpenter, E.; Wolverton, S. Plastic litter in streams: The behavioral archaeology of a pervasive environmental problem. *Appl. Geogr.* **2017**, *84*, 93–101. [CrossRef]
- Gintux. 2023. Available online: <https://blog.gitnux.com/plastic-bag-industry-statistics/#:~:text=negative%20environmental%20impacts-,Approximately%201%20trillion%20single%20Duse%20plastic%20bags%20are%20used%20annually,in%20the%20United%20States%20alone> (accessed on 7 June 2023).
- Khuc, Q.V.; Dang, T.; Tran, M.; Nguyen, D.T.; Nguyen, T.; Pham, P.; Tran, T. Household-Level Strategies to Tackle Plastic Waste Pollution in a Transitional Country. *Urban Sci.* **2023**, *7*, 20. [CrossRef]
- Paletta, A.; Leal Filho, W.; Balogun, A.-L.; Foschi, E.; Bonoli, A. Barriers and challenges to plastics valorisation in the context of a circular economy: Case studies from Italy. *J. Clean. Prod.* **2019**, *241*, 118149. [CrossRef]
- Zambrano-Monserrate, M.A.; Ruano, M.A. Do you need a bag? Analyzing the consumption behavior of plastic bags of households in Ecuador. *Resour. Conserv. Recycl.* **2020**, *152*, 104489. [CrossRef]
- Ujeh, C. The Negative Environmental Effects of Plastic Shopping Bags. International Bar Association. 2021. Available online: <https://www.ibanet.org/article/76F8D2A9-1A1D-4A2F-8A6F-0A70149FD4D5> (accessed on 11 October 2022).
- Ritch, E.; Brennan, C.; MacLeod, C. Plastic bag politics: Modifying consumer behaviour for sustainable development. *Int. J. Consum. Stud.* **2009**, *33*, 168–174. [CrossRef]
- Yousif, R. Measuring the effectiveness of demarketing in influencing consumer behavior of individuals. *Int. J. Bus. Manag. Res.* **2014**, *4*, 31.
- Kotler, P.; Levy, S.J. Demarketing, Yes, Demarketing. In *Harvard Business Review*; Heinemann: London, UK, 1971.
- Moore, R.S. The sociological impact of attitudes toward smoking: Secondary effects of the demarketing of smoking. *J. Soc. Psychol.* **2005**, *145*, 703–718. [CrossRef] [PubMed]
- Yaqub, M.Z. The Role of Green Initiatives, Digitalisation and Procedural Justice in Maturing Supply Chain Agility. *Open J. Bus. Manag.* **2023**, *11*, 794–819. [CrossRef]
- Sodhi, K. Has marketing come full circle? Demarketing for sustainability. *Bus. Strategy Ser.* **2011**, *12*, 177–185. [CrossRef]
- Akyıldız, B.; Koçoğlu, D. Charging plastic bags within the demarketing: Measuring the environmental attitude and environmental behaviour in Denizli: A structural equality model. *Present Environ. Sustain. Dev.* **2022**, *16*, 35–50. [CrossRef]
- Armstrong, E.K.; Kern, C.L. Demarketing manages visitor demand in the Blue Mountains National Park. *J. Ecotour.* **2011**, *10*, 21–37. [CrossRef]
- Beeton, S.; Pinge, I. Casting the holiday dice: Demarketing gambling to encourage local tourism. *Curr. Issues Tour.* **2003**, *6*, 309–322. [CrossRef]
- Cullwick, D. Positioning Demarketing Strategy: Marketers must integrate the changes in the business environment into effective new product, pricing, distribution, and promotion strategies. *J. Mark.* **1975**, *39*, 51–57. [CrossRef]
- Gallagher, K. *The Use of Habit-Change Strategies in Demarketing: Reducing Excessive Discretionary Consumption*; University of British Columbia: Vancouver, BC, Canada, 1994.
- Raab, K.; Wagner, R.; Ertz, M.; Salem, M. When marketing discourages consumption: Demarketing of single-use plastics for city tourism in Ottawa, Canada. *J. Ecotour.* **2022**, *10*, 1–31. [CrossRef]
- Manucci, P.M.; Franchini, M. Health effects of ambient air pollution in developing countries. *Int. J. Environ. Res. Public Health* **2017**, *14*, 1048. [CrossRef]
- Al Shammre, A.S.; Alshebami, A.S.; Ali Seraj, A.H.; Elshaer, I.A.; Al Marri, S.H. Unleashing environmental performance: The impact of green entrepreneurial motivation on small enterprises. *Front. Environmental Sci.* **2023**, *11*, 1176804. [CrossRef]
- Alshebami, A.S. Green Innovation, Self-Efficacy, Entrepreneurial Orientation and Economic Performance: Interactions among Saudi Small Enterprises. *Sustainability* **2023**, *15*, 1961. [CrossRef]
- Hillary, R. Environmental management systems and the smaller enterprise. *J. Clean. Prod.* **2004**, *12*, 561–569. [CrossRef]
- Kotler, P. Reinventing Marketing to Manage the Environmental Imperative. *J. Mark.* **2011**, *75*, 132–135. [CrossRef]
- Laukkanen, M.; Tura, N. Sustainable value propositions and customer perceived value: Clothing library case. *J. Clean. Prod.* **2022**, *378*, 134321. [CrossRef]
- Lim, W.M. Inside the sustainable consumption theoretical toolbox: Critical concepts for sustainability, consumption, and marketing. *J. Bus. Res.* **2017**, *78*, 69–80. [CrossRef]
- Banbury, C.; Stinerock, R.; Subrahmanyam, S. Sustainable consumption: Introspecting across multiple lived cultures. *J. Bus. Res.* **2012**, *65*, 497–503. [CrossRef]
- Connelly, B.; Ketchen, D.; Slater, S. Toward a ‘Theoretical Toolbox’ for Sustainability Research in Marketing. *J. Acad. Mark. Sci.* **2011**, *39*, 86–100. [CrossRef]
- Gupta, K. *Consumer Responses to Incentives to Reduce Plastic Bag Use: Evidence from a Field Experiment in Urban India*; SAMDEE: Samet, Thailand, 2011.

31. Kumar, B. *Theory of Planned Behaviour Approach to Understand the Purchasing Behaviour for Environmentally Sustainable Products*; IIMA Working Papers WP2012-12-08; Indian Institute of Management Ahmedabad, Research and Publication Department: Ahmedabad, India, 2012.
32. Nordlund, A.M.; Garvill, J. Effects of values, problem awareness, and personal norm on willingness to reduce personal car use. *J. Environ. Psychol.* **2003**, *23*, 339–347. [[CrossRef](#)]
33. Park, J.; Ha, S. Understanding consumer recycling behavior: Combining the theory of planned behavior and the norm activation model. *Fam. Consum. Sci. Res. J.* **2014**, *42*, 278–291. [[CrossRef](#)]
34. Hasan, S.N.M.S.; Harun, R.; Hock, L.K. Application of theory of planned behavior in measuring the behavior to reduce plastic consumption among students at Universiti Putra Malaysia, Malaysia. *Procedia Environ. Sci.* **2015**, *30*, 195–200. [[CrossRef](#)]
35. Bamberg, S.; Hunecke, M.; Blöbaum, A. Social context, personal norms and the use of public transportation: Two field studies. *J. Environ. Psychol.* **2007**, *27*, 190–203. [[CrossRef](#)]
36. Thøgersen, J.; Ölander, F. To what degree are environmentally beneficial choices reflective of a general conservation stance? *Environ. Behav.* **2006**, *38*, 550–569. [[CrossRef](#)]
37. Dolnicar, S. Identifying tourists with smaller environmental footprints. *J. Sustain. Tour.* **2010**, *18*, 717–734. [[CrossRef](#)]
38. Ong, T.F.; Musa, G. An examination of recreational divers' underwater behaviour by attitude-behaviour theories. *Curr. Issues Tour.* **2011**, *14*, 779–795. [[CrossRef](#)]
39. Van, L.; Hamid, N.A.; Ahmad, F.; Ahmad, A.N.A.; Ruslan, R.; Tamyez, P.F.M. Factors of single use plastic reduction behavioral intention. *Emerg. Sci. J.* **2021**, *5*, 269–278. [[CrossRef](#)]
40. Vimal, K.; Mathiyazhagan, K.; Agarwal, V.; Luthra, S.; Sivakumar, K. Analysis of barriers that impede the elimination of single-use plastic in developing economy context. *J. Clean. Prod.* **2020**, *272*, 122629. [[CrossRef](#)]
41. Fryxell, G.E.; Lo, C.W. The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *J. Bus. Ethics* **2003**, *46*, 45–69. [[CrossRef](#)]
42. Mostafa, M.M. A hierarchical analysis of the green consciousness of the Egyptian consumer. *Psychol. Mark.* **2007**, *24*, 445–473. [[CrossRef](#)]
43. Schahn, J.; Holzer, E. Studies of individual environmental concern: The role of knowledge, gender, and background variables. *Environ. Behav.* **1990**, *22*, 767–786. [[CrossRef](#)]
44. Bulkeley, H. Common knowledge? Public understanding of climate change in Newcastle, Australia. *Public Underst. Sci.* **2000**, *9*, 313. [[CrossRef](#)]
45. Arcury, T. Environmental attitude and environmental knowledge. *Hum. Organ.* **1990**, *49*, 300–304. [[CrossRef](#)]
46. Barber, N.; Taylor, C.; Strick, S. Wine consumers' environmental knowledge and attitudes: Influence on willingness to purchase. *Int. J. Wine Res.* **2009**, *1*, 59–72. [[CrossRef](#)]
47. Flamm, B. The impacts of environmental knowledge and attitudes on vehicle ownership and use. *Transp. Res. Part D Transp. Environ.* **2009**, *14*, 272–279. [[CrossRef](#)]
48. Han, H.; Hsu, L.-T.J.; Sheu, C. Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tour. Manag.* **2010**, *31*, 325–334. [[CrossRef](#)]
49. Peattie, K. Towards sustainability: The third age of green marketing. *Mark. Rev.* **2001**, *2*, 129–146. [[CrossRef](#)]
50. Maheshwari, S.P. Awareness of green marketing and its influence on buying behavior of consumers: Special reference to Madhya Pradesh, India. *AIMA J. Manag. Res.* **2014**, *8*.
51. Kotler, P.; Levy, S.J. Demarketing, yes, demarketing. In *Brands, Consumers, Symbols and Research*. Sydney J. Levy on Marketing; Rook, D.W., Ed.; Sage Publications Inc.: Thousand Oaks, CA, USA, 1999; pp. 75–83.
52. McKenzie-Mohr, D. Fostering sustainable behavior through community-based social marketing. *Am. Psychol.* **2000**, *55*, 531–537. [[CrossRef](#)] [[PubMed](#)]
53. Wall, A.P. Government demarketing: Different approaches and mixed messages. *Eur. J. Mark.* **2005**, *39*, 421–427. [[CrossRef](#)]
54. Sharp, A.; Høj, S.; Wheeler, M. Proscription and its impact on anti-consumption behaviour and attitudes: The case of plastic bags. *J. Consum. Behav.* **2010**, *9*, 470–484. [[CrossRef](#)]
55. Schnurr, R.E.; Alboiu, V.; Chaudhary, M.; Corbett, R.A.; Quanz, M.E.; Sankar, K.; Srain, H.S.; Thavarajah, V.; Xanthos, D.; Walker, T.R. Reducing marine pollution from single-use plastics (SUPs): A review. *Mar. Pollut. Bull.* **2018**, *137*, 157–171. [[CrossRef](#)]
56. Walker, T.R.; Xanthos, D. A call for Canada to move toward zero plastic waste by reducing and recycling single-use plastics. *Resour. Conserv. Recycl.* **2018**, *133*, 99–100. [[CrossRef](#)]
57. Soule, C.A.; Reich, B.J. Less is more: Is a green demarketing strategy sustainable? *J. Mark. Manag.* **2015**, *31*, 1403–1427. [[CrossRef](#)]
58. Katzev, R.D.; Pardini, A.U. The comparative effectiveness of reward and commitment approaches in motivating community recycling. *J. Environ. Syst.* **1987**, *17*, 93–114. [[CrossRef](#)]
59. Bem, D.J. Self-perception theory. In *Advances in Experimental Social Psychology*; Elsevier: Amsterdam, The Netherlands, 1972; Volume 6, pp. 1–62.
60. Kalamas, M.; Cleveland, M.; Laroche, M. Pro-environmental behaviors for thee but not for me: Green giants, green Gods, and external environmental locus of control. *J. Bus. Res.* **2014**, *67*, 12–22. [[CrossRef](#)]
61. Truelove, H.B.; Carrico, A.R.; Weber, E.U.; Raimi, K.T.; Vandenberg, M.P. Positive and negative spillover of pro-environmental behavior: An integrative review and theoretical framework. *Glob. Environ. Chang.* **2014**, *29*, 127–138. [[CrossRef](#)]

62. Risqiani, R.; Maemunah, S. Building the Attitude of Consumer Concern for Environmentally Friendly Products. *Bus. Entrep. Rev.* **2016**, *15*, 201–212. [[CrossRef](#)]
63. Botetzagias, I.; Dima, A.F.; Malesios, C. Extending the theory of planned behavior in the context of recycling: The role of moral norms and of demographic predictors. *Resour. Conserv. Recycl.* **2015**, *95*, 58–67. [[CrossRef](#)]
64. Werner, C.M.; Turner, J.; Shipman, K.; Twitchell, F.S.; Dickson, B.R.; Bruschke, G.V.; Wolfgang, B. Commitment, behavior, and attitude change: An analysis of voluntary recycling. *J. Environ. Psychol.* **1995**, *15*, 197–208. [[CrossRef](#)]
65. Moriarty, S.E.; Mitchell, N.; Wells, W.; Wood, C. *Advertising & IMC: Principles & Practice*; Pearson: Upper Saddle River, NJ, USA, 2012.
66. Lingle, J.H.; Ostrom, T.M. Retrieval selectivity in memory-based impression judgments. *J. Personal. Soc. Psychol.* **1979**, *37*, 180. [[CrossRef](#)]
67. Reich, B.J.; Soule, C.A.A. Green demarketing in advertisements: Comparing “buy green” and “buy less” appeals in product and institutional advertising contexts. *J. Advert.* **2016**, *45*, 441–458. [[CrossRef](#)]
68. Kim, S.; Ko, E.; Kim, S.J. Fashion brand green demarketing: Effects on customer attitudes and behavior intentions. *J. Glob. Fashion Mark.* **2018**, *9*, 364–378. [[CrossRef](#)]
69. Salem, M.Z.; Ertz, M.; Sarigöllü, E. Demarketing strategies to rationalize electricity consumption in the Gaza Strip-Palestine. *Renew. Sustain. Energy Rev.* **2021**, *143*, 110956. [[CrossRef](#)]
70. Al-Samydai, M.; Yousif, R.; Jordan, J. The role of demarketing in reducing electricity demand. *Int. J. Bus. Manag.* **2018**, *13*, 209–217. [[CrossRef](#)]
71. Seo, Y.; Kudo, F. Charging plastic bags: Perceptions from Japan. *PLoS Sustain. Transform.* **2022**, *1*, e0000011. [[CrossRef](#)]
72. Gumpili, S.P.; Das, A.V. Sample size and its evolution in research. *IHOPE J. Ophthalmol.* **2022**, *1*, 9–13. [[CrossRef](#)]
73. Ringle, C.M.; Wende, S.; Becker, J.M. *SmartPLS 3*. SmartPLS GmbH, Boenningstedt. 2015. Available online: <http://www.smartpls.com> (accessed on 19 December 2022).
74. Hair, J.F.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 3rd ed.; Sage Publications Inc.: Thousand Oaks, CA, USA, 2022.
75. Sarstedt, M.; Radomir, L.; Moisescu, O.I.; Ringle, C.M. Latent class analysis in PLS-SEM: A review and recommendations for future applications. *J. Bus. Res.* **2022**, *138*, 398–407. [[CrossRef](#)]
76. Hayes, J.C. *Translation, Subjectivity, and Culture in France and England, 1600–1800*; Stanford University Press: Redwood City, CA, USA, 2022.
77. Harman, H.H. *Modern Factor Analysis*; University of Chicago Press: Chicago, IL, USA, 1976.
78. Spector, P.E. Method variance in organizational research: Truth or urban legend? *Organ. Res. Methods* **2006**, *9*, 221–232. [[CrossRef](#)]
79. Podsakoff, P.M.; Mackenzie, S.B.; Podsakoff, N.P. Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annu. Rev. Psychol.* **2012**, *63*, 539–569. [[CrossRef](#)]
80. Sandu, C.; Takacs, E.; Suaria, G.; Borgogno, F.; Laforsch, C.; Löder, M.M.; Tweehuysen, G.; Florea, L. Society role in the reduction of plastic pollution. In *Plastics in the Aquatic Environment-Part II*; Springer: Berlin/Heidelberg, Germany, 2020; pp. 39–65.
81. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [[CrossRef](#)]
82. Sanchez-Franco, M.J.; Roldán, J.L. Expressive aesthetics to ease perceived community support: Exploring personal innovativeness and routinised behaviour as moderators in Tuenti. *Comput. Hum. Behav.* **2010**, *26*, 1445–1457. [[CrossRef](#)]
83. Gold, A.H.; Malhotra, A.; Segars, A.H. Knowledge management: An organizational capabilities perspective. *J. Manag. Inf. Syst.* **2001**, *18*, 185–214. [[CrossRef](#)]
84. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*; Academic Press: Cambridge, MA, USA, 2013.
85. Ari, E.; Yilmaz, V. Consumer attitudes on the use of plastic and cloth bags. *Environ. Dev. Sustain.* **2017**, *19*, 1219–1234. [[CrossRef](#)]
86. Cavaliere, A.; Pigliafreddo, S.; De Marchi, E.; Banterle, A. Do consumers really want to reduce plastic usage? Exploring the determinants of plastic avoidance in food-related consumption decisions. *Sustainability* **2020**, *12*, 9627. [[CrossRef](#)]
87. Sekhon, T.S.; Soule, C.A. Conspicuous anticonsumption: When green demarketing brands restore symbolic benefits to anticonsumers. *Psychol. Mark.* **2020**, *37*, 278–290. [[CrossRef](#)]
88. Poppo, L.; Zenger, T. Do Formal Contracts and Relational Governance Function as Substitutes or Complements? *Strateg. Manag. J.* **2002**, *23*, 707–725. [[CrossRef](#)]
89. Yaqub, M.; Vetschera, R. The Efficacy of Relational Governance and Value-Creating Relational Investments in Revenue Enhancement in Supplier–Buyer Relationships. In *New Developments in the Theory of Networks: Franchising, Alliances and Cooperatives*; Hendrikse, G., Tunnanen, M., Windsperger, J., Cliquet, G., Eds.; Springer: Berlin/Heidelberg, Germany, 2011; pp. 211–238.

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