sustainability

MDPI

Article

Impact of Social Media on Young Generation's Green Consumption Behavior through Subjective Norms and Perceived Green Value

Si Xie [1] and Ghulam Rasool Madni [2,*]

[1] School of Economics, Faculty of Economics, Liaoning University, Shenyang 110036, China
[2] Department of Economics, Division of Management and Administrative Science, University of Education, Lahore 54770, Pakistan
* Correspondence: ghulam.rasool@ue.edu.pk

Abstract: In response to the dramatic increase in social media usage among the young generation, the patterns of manufacturing and consumption have changed. Social media has altered the green consumption market and completely changed consumer psychology and attitude. The influence of social media on the younger generation's behavior regarding green consumption through subjective norms and perceived green value is hardly discussed in the earlier literature with special reference to China. This study has the objective to explore the impact of social media on the green purchase intentions of young people in the presence of subjective norms and perceived green value. A survey of 303 young people in China is conducted and multiple statistical techniques are applied to determine the reliability and validity of the data such as the Fisher F test, White's test, the Durbin–Watson test, the Shapiro–Wilks test, and confirmatory factor analysis. The mediating impact of the variables are explored through the bootstrap method and multiple regression is applied for finding the relationship among dependent and independent variables. The findings of this study reveal that information shared on social media has a positive relationship with green consumption among the younger generation in China. In addition, perceptions about green environment and "subjective norms" have a strong mediating impact on increasing the intentions of consumers for purchasing of green products. Moreover, the occupation of consumers also has a mediating role in moderating the subjective norms regarding green consumption. The findings of the study have theoretical contributions as well as practical implications. It is found that social media has a stimulus role for green consumption among the younger generation to devise their subjective norms and perceptions. The practical implications of the present findings are helpful for policy makers to understand how social media is effective in combatting environmental deterioration in the context of China's recent economic expansion. The future research may be extended through a splitting sample considering the location of respondents and in terms of responses' quartiles.

Keywords: social media; green consumption; young generation

Citation: Xie, S.; Madni, G.R. Impact of Social Media on Young Generation's Green Consumption Behavior through Subjective Norms and Perceived Green Value. *Sustainability* **2023**, *15*, 3739. https://doi.org/10.3390/su15043739

Academic Editors: Massoud Moslehpour, Dian Ekowati and Ranfeng (Stella) Qiu

Received: 7 January 2023
Revised: 11 February 2023
Accepted: 13 February 2023
Published: 17 February 2023

1. Introduction

The internet is widely used and has gained widespread commercial acceptance [1–3]. Social media is a most potent instrument to devise the consumers' behavior and is becoming more and more integrated into consumers' everyday lives, transforming how consumers and marketers communicate with one another [4]. Green consumerism has come under more attention in recent years due to the increasing impact of sustainable development. Currently, electronic communication is carried out through the platform of social media for exchanging information, concepts, and user-generated material through networking and blogging [5,6]. Many studies deal with the effectiveness of social media on young people for their purchase behavior [7–9]. The perception of green customers has

been researched, and a model for green consumption has been presented [10]. While social media influences young people's purchasing decisions, numerous studies have shown that this generation is interested in something other than green consumption. Social media is more critical for young people's daily life than any previous generation [11]; hence a study is needed to determine how social media influences their green consumption habits.

Many firms use social media platforms such as communications sites, news streaming sites, and short video streaming sites to encourage environmentally friendly consumption. Interaction and sharing the capabilities with others are encouraged through the platform of social media. Social presence is defined as "one's consciousness of the peer and actual ego while disseminating information via social media" [12]. The social nature fosters humans' contact with social media, and users feel a sense of coexistence and warmth when engaging in conversation [13,14]. Unlike traditional advertising, advertising on social media frequently creates a welcoming environment. Social media advertising can thus better demonstrate the communal nature of newsfeed advertising than traditional forms of advertising [15,16]. The elaboration likelihood model, developed by Petty and Cacioppo [17], proposed two methods for modifying attitudes. By highlighting customer involvement, the two approaches can explain the differences in how consumers make decisions. Customers with central pathways are more attentive to information and undertake a thorough investigation, contemplation, and assessment, as compared with consumers with peripheral routes, which modifies their decisions making attitudes. Therefore, people with varying levels of participation see green consumption differently, which explains why customers have diverse reactions and purchasing decisions. Highly engaged consumers are more cognizant of green information and products, which helps them to recognize and value green products. Contrarily, low-engaged customers frequently have contemptuous views because they have lower knowledge about green information or products [18].

Environmental issues and eco-friendliness have drawn much interest from academics, practitioners, and marketers. "Green items are seen as being made from non-toxic, natural, recyclable materials and using eco-friendly packaging" [19,20]. Firms employ various techniques and tools to attract customers for purchasing green products achieving the long run objectives of firms and a maximization of profits. Moreover, environmental movements significantly impact consumers' purchasing habits, environmental concerns, and behavioral patterns [21,22]. Social media is used more for advertisement as compared with traditional media sources such as television and print media due to its versatility [23,24]. Social media is efficiently influential for purchasing behavior for many renowned products [22,24,25].

Additionally, social media significantly impacts how consumers perceive and plan to buy green products [26]. Media growth has significantly changed how advertising messages are conveyed [27]. The usage of social media is expanding due to its easy access and attractive manners. It is estimated that "3.6 billion people are using social media and it is predicted that platforms of social media will increase this number to 4.41 billion by 2025" [28]. It allows businesses to engage their customers directly while advertising their green products [29]. The earlier literature has focused on determining the factors affecting the behaviors regarding green purchase intentions in developing and developed economies such as the UK; China; USA; Italy; and the EU [30–35].

Exploring the consumption pattern of the young generation is crucial but earlier studies focused little on the role of social media to influence the consumption behavior of the young generation of China regarding the purchase of green products as a subject of their research.

This article is focused to investigate the usefulness of social media in devising the young generation's behavior for green consumption by examining the role of social media in Chinese customers' intentions for purchasing green products and determining the relation between "social media information sharing" (SOS) and "green purchase intention" (GRP) in the presence of the mediating role of "subjective norms" (SBN) and "perceived

green value" (PRG). In addition, the role of occupation as a moderating factor for subjective norms and GRP is also highlighted. This study's conclusions will aid policy makers in developing techniques to entice the young generation towards purchasing green products. This study is bridging the gap between social media and behavior toward purchasing green products among the young generation in the presence of subjective norms. To our knowledge, this is the first study highlighting the relationship between social media and the green purchase behavior of young Chinese consumers affected through shared information on social media as well as the formation of norms to mold the purchasing choices of young people. This study is an addition to the literature by answering the questions as follows:

- What type of relationship exists between social media and the intention to purchase green products?
- Is there any mediating role of perceived green value and subjective norms?
- How does occupation moderate the relation between subjective norms and intentions to purchase green products?

This study used occupation as a moderating factor and highlights the impact of subjective norms and intentions to purchase green products for different categories of people such as different levels of income, students, and non-students. The questionnaire is used for the collection of data to reveal the mutual relationship of our concerned variables. Initially, a consent form was sent to participants to obtain their willingness. The detailed questionnaire was sent to those participants who were willing to provide the information of the questionnaire. Moreover, participants were free to quit the survey at any stage.

2. Theoretical Foundations and Hypothesis

The term "Internet natives" or "Generation Z" refers to the generation that was born between 1995 and 2009, a time when the Internet gained significant popularity in China. They are familiar with using electronic gadgets, sharing information on social media, getting rapid access, and surfing websites online. They want to be unique and independent, but they also want to establish a connection with the world through social media. This population subgroup in China consisted of 260 million individuals in 2020, or 18.4% of the country's entire population [28]. They have a significant potential for consumption due to their size and youth. Some studies related to this topic are summarized in the following Table 1 which demonstrates that green purchase intentions are greatly affected by the usage of social media, perceptions about green products, and subjective norms.

Table 1. Studies Explaining the Role of Social Media for Green Consumption.

Reference	Dependent Variable	Independent Variables	Sample	Estimation Technique	Findings
Ismail [4]	Brand loyalty	Social media marketing	346 university students	SEM	Social media marketing affects the brand loyalty positively
Bedard and Tolmie [6]	Green purchase intentions	Social media usage, Online interpersonal influence	USA	SEM	Social media usage and online interpersonal influence have positive impact on green purchase intention
Lee and Labroo [7]	Customer engagement	Social media usage	782 companies	AMT and NLP algorithms	Social media information affects the customers intentions
Prusa and Sadílek [10]	Green consumer behavior	Environmentalism, Tolerance	520 students	SEM	Environmentalism positively affects green consumer behavior

Hassanein, Head, Ju [14]	Consumer perceptions	Social presence	Canada, China	MANOVA	Social presence builds the consumer perceptions
Luo et al. [15]	Green purchase intention	Advertisement on social media	Online survey from 1012 respondents	SEM	Advertisement on social media encourages green purchases
Nekmahmud et al. [20]	Green purchase intentions	Environmental knowledge, Subjective norms	Survey from 720 European and non-European respondents	PLS-SEM, MGA	Subjective norms and environmental knowledge have positive relation with green purchase intention
Sun et al. [22]	Green purchase intention	Green advertisement	Survey from 671 respondents	Structural model	Positive relationship between green purchase intention and green advertisement
Masuda, Han, Lee [25]	Green purchase intention	Social attractiveness, Perceived expertise	313 respondents from South Korea	SEM	Independent variables have positive impact on green purchase intention
Pop, Saplacan, Alt [29]	Green purchase intention	Social media usage	180 respondents of Romania and Hungary	PLS	Social media usage has positive relation with green purchase intention
Sun and Wang [30]	Purchase of green products	Subjective norms, Social media	654 consumers of China	SEM	Subjective norms and social media encourages purchase of green products
De Silva, Wang, Kuah [31]	Green purchase intentions	Consumer awareness	956 consumers of UK and China	Multiple regression	Consumer awareness has positive relation with green purchase intention

The "Stimulus-Organism-Response (SOR)" model depicts attitudes in response to a specific stimulus, which the organism processes internally, governing how stimuli and responses interact [18]. The SOR model has been used repeatedly by scholars to forecast the intentions of consumer purchasing, and SOR is considered one of the traditional theories to analyze the behavior of consumers [35]. The behavior of consumers devised by information on social media is forecasted through this theory. It is clear that social media stimuli have an impact on the behavior of consumers regarding online purchasing, and the desire to purchase [25].

H1: *There is a positive relationship between SOS and GRP.*

Pop et al. [29] are of the view that social media has a significant importance to transform the subjective norms, perceptions of consumers, purchasing decisions, and attitudes. The usage of social media affects the decisions of consumers at the time of purchasing [36]. Social media is a source to educate the consumers regarding the environment and sustainability [7,37]. Many studies found a significant positive relation between the usage of social media and green purchases [25,30,37]. Social media is a most powerful and effective instrument changing the choices of people [37]. The earlier literature is also of the view that the usage of social media has an impact on pro-environmental attitudes [38], green purchase intentions [6,8], and subjective norms [29]. Therefore, the following hypotheses are devised:

H2: *There is a positive relationship between SOS and PRG.*

The SOR model has been further developed in recent years, and it now includes website reputation and quality as information stimuli that influence users' purchase intentions

through perceived value [29]. According to the SOR theory, information on social media can meet the social desires of the young generation as an external stimulus. However, there is limited literature explaining the mutual relation between SOS and GRP under the framework of SOR theory.

H3: *There is a positive relationship between GRP and PRG.*

The young generation evaluates the attributes of goods differently compared with older generations, placing more emphasis on the social characteristics and sensory experience of products [34,35]. The theoretical foundations of this study are laid on the SOR theory. The information is shared via social media by the young generation with their followers and friends, making recommendations for good things. The information about products is forwarded and the unpleasant experiences regarding products and purchases are also shared [7]. Social media is used by the young generation prior to the purchasing of products to gain more information about the characteristics of products. The SOR theory may be used to develop a mechanism describing the relationship between information sharing on social media and the desire to make green purchases of the young generation [9] in China.

H4: *There is a positive relationship between SOS and SBN.*

The knowledge about products is the accumulated information saved in the memory of consumers about some products [39]. The information shared on social media is a source of familiarity about green products and consumers make subjective evaluations of these products [30,40]. The earlier studies reveal that information and past experience about products have a positive impact to devise the behavior and intentions of the consumers [7,40,41].

H5: *There is a positive relationship between SBN and GRP.*

Subjective norms depict the change in behavior under the influence of social interactions [42]. The social pressure applied on an individual to adopt some certain behavior is also considered as a subjective norm [43,44]. McClelland [44] suggested the theory of needs highlighting that people adopt the behavior consistent with group association. Firms adopt pro-environmental activities if a majority of people are in favor of environmentally friendly approaches [45]. The earlier literature supports the positive relationship between subjective norms and purchase intentions. It means social pressure changes the behavior of individuals [46].

H6: *There is a mediating role of PRG between SOS and GRP.*

In recent years, the idea of sharing information via social media has begun to gain popularity in academics, while its precise definition is still being researched. Previous studies confirmed that social media can satiate psychological or individual demands [18,41]. Through the knowledge and enjoyment provided by social media information sharing, people interact socially and exchange personal experiences and information with others.

Figure 1 describes the theoretical relationship among social media, perceived green value, subjective norms, and green purchase intention. Over 2 billion people are registered users on two major social media platforms; YouTube and Facebook, while SinaWeibo have over 500 million active users in China [28]. The vast audience that regularly posts and watches content on social media has a significant impact on daily lives and has the potential to alter how customers make sustainable purchasing decisions [38]. Green items

are more environmentally friendly to produce, use, and dispose of at the end of their useful lives, therefore buying them helps preserve the environment [33]. In response to sustainability rules, several stakeholder companies have started to share information via social media to encourage eco-friendly consumer behavior [14]. Furthermore, numerous research has confirmed "the beneficial effect of social media information sharing on consumers' desire to make green purchases" [14,17,20].

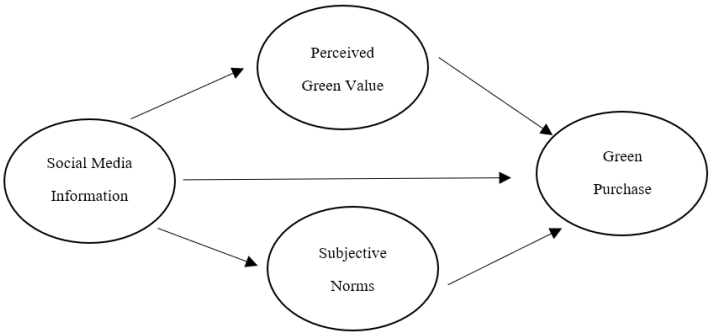

Figure 1. Theoretical Framework.

H7: *There is a mediating role of SBN between SOS and GRP.*

3. Methodology

A questionnaire was used for the collection of data. The widely used scales in earlier literature were considered, and two experts in the field were consulted to omit any ambiguous entries to assure reliability and questionnaire validity. In addition, a pre survey of 50 samples was conducted to avoid any translation errors. After ensuring the error-free translation of the questionnaire, a complete sample was collected. The online resources, such as social media platforms, were used to collect the data by using formal questionnaires. The focus of the study was the young generation who is actively engaged with social media and shares information via a social media platform. The random sampling procedure was adopted for collection of data. The questionnaire was distributed to 450 individuals randomly, but 303 responses were considered for further empirical analysis. Those questionnaires were not considered in which participants did not match the requirements of the study. Questionnaires were also excluded from the analysis that had some ambiguities. Therefore, the effective questionnaire return rate was about 67.34%. The questionnaire was completed online.

Jiang et al. [47] provided the basis for the notion of "social media information sharing" (SOS). The earlier literature depicts that "perceived green value" (PRG), "subjective norms" (SBN), and "intention of green purchase" (GRP) can gauge SOS. The concept of PRG is referred from Chen and Chang [48] while Cialdini et al. [49] lays down the foundations of SBN. Pop et al. [29] was considered for categorizing green purchase intention. The questionnaire was categorized into four variables; SOS, GRP, PRG, and SBN. All these variables were scaled based on 7 points Likert scale. Fisher F test was applied to find partial impact of the independent variables on the dependent variable (green purchase intention). The statistical tests were also applied to check the validity of regression assumptions; White's Test for homoscedasticity; Durbin–Watson (DW) test to determine the non-correlation of error term while the Shapiro–Wilks test to find the normality of error term. The scales and sub constructs are shown in Table 2.

Table 2. Scales and Constructs.

SOS
I use social media to interact with others regarding green products.
The information shared on social media influences the purchase of the green product.
I gain feedback on green products through environmental information on social media.
I trust information shared on social media regarding green products.
GRP
I used to learn about green products.
I recommend green products to other people.
I prefer to purchase the green product.
The information shared on social media encourages me for purchasing of green products.
PRG
Green products are better for the environment compared with general products.
Green products have value against paid money.
I expect that green products increase environmental performance.
SBN
I perceive that social development is associated with green products.
I perceive that family wishes are associated with green products.
I perceive that national policy is associated with green products.

The value of the scale lies between 1 and 7, where 1 and 7 exhibits "strongly disagree" and "strongly agree", respectively. The SOS and GRP consist of four items each, while PRG and SBN have three items each. Bootstrap method and multiple regression techniques were applied to determine the mediating effects. The control variables of this study are income, age, gender, and education.

4. Results

The "SPSS" software is used for computations of the data. The general characteristics of the obtained data were 161 males and 142 females. In this sample, 131 were engaged in academics and 172 were out of school or they have graduated. In the sample, 66 individuals were in the age of 19–22 years, while 204 persons were in the age of 23–26 years, and 33 were in the age of 27–30 years. A consent form was sent prior to the questionnaire to receive the willingness of individuals for the survey. Upon receiving the consent of the people, the questionnaire was distributed. Some other variables associated with consumer behavior are also considered, such as gender, income in RMB (Renminbi; official name of Chinese currency and 1 RMB is equal to US $0.15), age, education, and occupation. The descriptive statistics of the survey are described in Table 3.

Table 3. Descriptive Statistics.

	Frequency	**Percentages**
Student	131	43.23
Non-Student	172	56.77
Under High School	2	0.66
High School	28	9.24
Bachelors	209	68.98
Above Bachelors	64	21.12
Female	142	46.86
Male	161	53.14
19–22 years	66	21.78

23–26 years	204	67.33
27–30 years	33	10.89
Income in RMB		
≤1000	4	1.32
1001–5000	99	32.67
5001–9000	166	54.79
More than 9001	34	11.22

It is essential to check the validity and reliability of the model. The high composite reliability demonstrates the internal consistency among the variables [50]. The structural validity of measures is determined through discriminant validity and convergent validity. "A guiding principle in assessing discriminant validity is that the square root of the root square of the average variance extracted (AVE) values for each latent variable must be greater than the correlation coefficient between that latent variable and all other latent variables" [50], so all constructs depict discriminant validity. While "convergent validity shows the ability of the latent variable to explain the mean variable. It is judged by the AVE value" [51]. The factors showing a value of more than 0.5 demonstrate convergent validity. The findings are in Table 3. The reliability of the model is determined through values of Cronbach's α. The scale is reliable if the value of Cronbach's α for the variable is greater than 0.7 (standard value) [50] so the problem of reliability does not exist in the constructs. Table 4 highlights that the value of Cronbach's alpha for each construct is greater than 0.700. Table 4 shows the values of factor loadings, Cronbach's α, combined reliability, and average variance extracted for scales.

Table 4. Measurement Scales.

Variable	Item	Loadings	Cronbach's α	CR	AVE
SOS	SOS1	0.682	0.913	0.881	0.711
	SOS2	0.792			
	SOS3	0.735			
	SOS4	0.716			
GRP	GRP1	0.714	0.901	0.877	0.710
	GRP2	0.697			
	GRP3	0.781			
	GRP4	0.708			
PRG	PRG1	0.682	0.846	0.749	0.645
	PRG2	0.759			
	PRG3	0.711			
SBN	SBN1	0.792	0.954	0.842	0.867
	SBN2	0.764			
	SBN3	0.733			

The scale validity is tested through Barlett's spherical test, and a value of 2998.643 was found at 89 degrees of freedom (p value < 0.002), indicating the significance level, so factor analysis is possible. The values of all loadings are >0.6, demonstrating good validity of the constructs used in the study. The convergent validity of the used scales is tested through combined reliability (CR) [51]. The empirical outcomes reveal that the CR of all items is >0.7 (standard value), demonstrating good "convergent validity" of scale.

Good discriminant validity is confirmed if "the square root of the AVE values for each latent variable is greater than their correlation coefficient values with the other factors" [50]. Moreover, SOS, GRP, PRG, and SBN have a strong correlation with each other, as pasted in Table 5, so we may proceed toward regression analysis.

Table 5. Mean, Standard Deviation, Correlation.

	Edu	Age	Gender	SOS	GRP	PRG	SBN	Ocu
Age	0.282 **							
Gender	−0.254 **	0.159						
Income	−0.146	0.342 **	0.228 ***					
SOS	−0.215 **	0.018	0.215 ***	0.913				
GRP	0.158	0.174	0.326 **	0.681 *	0.932			
PRG	0.128 ***	0.155	0.226 ***	0.673 *	0.613 *	0.854		
SBN	0.168	−0.231 ***	0.327 *	0.651 *	0.615 *	0.585 *	0.947	
Ocu	−0.18	0.353	−0.186	−0.253 **	−0.212 ***	−0.185	−0.594 *	
Mean	3.133	2.368	0.538	6.864	7.114	7.236	6.571	0.564
Std. Dev.	0.614	0.716	0.611	2.003	1.004	0.872	2.153	0.631

Note: ***, **, and * show significance level at 1%, 5%, and 10%, respectively. Edu, Ocu, and Std. Dev. are education, occupation, and standard deviation, respectively.

The four variables, SOS, GRP, PRG, and SNB, are analyzed for factor analysis. The empirical outcomes highlight the fitness of the model for all factors. The results of confirmatory factor analysis (CFA) are shown in the following Table 6.

Table 6. CFA.

Model	$\dot{X}^2$	df	$\dot{X}^2$/df	RMSEA	CFI	GFI
SOS, GRP, PRG, SBN	203.584	63	3.23	0.069	0.896	0.838
SOS + GRP, PRG, SBN	274.684	67	4.01	0.088	0.921	0.911
SOS + PRG, GRP, SBN	347.915	71	4.90	0.090	0.955	0.902
SOS + SBN, GRP, PRG	388.649	74	5.25	0.153	0.965	0.898

There is a possibility of a problem of common method variation (CMV) when data are collected from the same questionnaire. CMV is an issue found when data are self-reported because there is possibility of artificial inflation of the relation among the variables. To avoid the CMV problem, different sources may be used for different constructs. Harman one factor method is employed for all items of latent variables. The empirical outcomes highlighted the four factors. It is found that the cumulative explained variance is 79.58% while the explanatory power of variance for all factors is 15.67%, 22.58%, 26.37%, and 31.81%. The maximum value of 31.81% is lesser than 50%, so the problem of common variation only affects the model a little.

Hypothesis Testing and Model Analysis

The mediating effects are tested through the framework suggested by study [52,53] and the empirical findings are pasted in Table 7.

Table 7. Mediating Impacts.

Variable	GRP						PRG		SBN	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
Constant	6.85 **	4.51 ***	3.62 **	2.31 **	3.32 **		6.49 **	4.28 **	5.62 **	2.94 ***
Education	0.21	0.02	−0.14	0.11	0.18		0.22	0.14	0.31	0.25
Gender	0.49 ***	0.36 **	0.28	0.36**			0.21	0.19 **	0.66 **	0.55 ***
Age	0.13	0.18	0.24	0.15	0.14		−0.18	0.15	−0.48	−0.45
Income	0.15	0.17	−0.13	0.18	0.16		0.12	0.17	0.38 ***	0.25 ***
SOS		0.562 ***	0.447 ***	0.453 ***				0.551 ***		0.637 ***

PRG			0.375 ***		0.674 ***					
SBN			0.343 ***			0.552 ***				
R Square	0.16	0.43	0.59	0.39	0.46	0.41	0.25	0.46	0.22	0.46
ΔR^2		0.39	0.05	0.31	0.38	0.33	0.19	0.33	0.19	0.41

Note: ***and **show significance level at 1% and 5% respectively.

In the first step, endogenous variables are regressed as exogenous variables, and the direct impact of SOS, SBN, and PRG is tested on GRP. The second model highlights that SOS has a significant impact on GRP (coefficient = 0.562) so hypothesis one is supported; the eighth model shows a significant positive relation between SOS and GRP (coefficient = 0.551) supporting hypothesis two; the fifth and sixth model reveals that PRG has a significant influence on GRP (coefficient = 0.674) proving hypothesis three, and SBN also has a significant influence on GRP (coefficient = 0.552) supporting hypothesis five. The positive and significant value between SOS and SBN in the 10th model (coefficient = 0.637) confirms hypothesis four.

Then, mediating variables are considered independent variables and regressed. The empirical results of model eight and model ten depict that SOS (coefficient = 0.551) has a significant impact on PRG, and SOS (coefficient = 0.637) also has a positive and significant impact on SBN so hypothesis three and five are again proved. Then, mediating variables are regressed as exogenous in the next step.

The endogenous variable is regressed on mediating and exogenous variables in the third step. The third model demonstrates that SBN (coefficient = 0.343) significantly impacts GRP. While SOS (coefficient = 0.447) still positively and significantly impacts GRP. Moreover, the third model reveals that PRG (coefficient = 0.375) has a significant impact on GRP, and SOS (coefficient = 0.447) still significantly impacts GRP. The mediating impact of PRG and SBN between SOS on GRP is partially mediated so hypothesis six and seven are proved.

Some researchers argue about some limitations of the Baron test, so a "non-parametric percentile Bootstrap method" [54] is employed, and findings are reported in Table 8.

Table 8. Mediating Impacts through Bootstrap Estimates.

Path	**Impact**	**SE**	**Boot Strapping**			
			Biased Correction		**Percentile**	
			Lower	**Upper**	**Lower**	**Upper**
GRP	0.583	0.153	Total Impact			
			0.4511	0.435	0.451	0.582
PRG	0.331	0.152	Indirect Impact			
SBN			0.221	0.410	0.234	0.411
SOS	0.342	0.094	Direct Impact			
			0.210	0.524	0.224	0.526

The empirical results highlight a direct impact of SOS on GRP which confirms hypothesis one. The findings also show that the confidence interval against the mediating path of GRP and SOS-SBN-GRP is not zero which confirms hypothesis six, revealing their direct impact. Moreover, the mediating impact of PRG and SBN between SOS on GRP exists, so there is partial mediation confirming hypothesis seven.

5. Discussion

This study used PRG and SBN as two mediating factors of GRP to experimentally evaluate the impact of SOS on the intentions to buy green items. By adding occupation as a moderating factor, this study expands its analysis regarding young people's use of green

products. The developed model appears to match well considering the study's findings, which leads to the following conclusions.

SOS substantially impacts the intentions of consumers to make green purchases. This outcome is consistent with the idea that "posting and watching positive information about the environment on social media can enhance the intention of young consumers to purchase green products" [33]. This outcome can be attributed to China's current stress on environmental conservation and people's encouragement to purchase eco-friendly goods. Likewise, firms utilize social media to advertise green concepts and goods.

Many studies concentrated on consumer motivations, looking at how consumers view and perceive environmental responsibility affecting green consumption. According to the findings of [52], customers are encouraged on social media to purchase green goods. This study confirms that SOS has a favorable effect on the young generation's desire to make green purchases and, to some extent, inherits and enhances earlier research by using SOS as an externally determined stimulus. It effectively supports implementing China's green consumption rules and related businesses' promotion of green product sales via social media sharing.

The empirical outcomes demonstrate that mediating variables, PRG and SBN, affect the relation between SOS and the intention to make green purchases. This study's findings indicate that while mediating factors indirectly influence green product purchase intention, SOS has a direct effect on that intention. Therefore, consumers' propensity to purchase green items can improve when they have strong SBN and PRG on social media. On the one hand, the relationship between SOS and GRP is somewhat mediated by PRG. Previous studies highlighted that customers' PRG value affects positively their propensity to purchase green products [53]. Consumers' choice to buy green items is influenced by their perceptions of environmental ecology and the product's perceived functional value [37]. Lee [54] also argued that morality encourages young people in Hong Kong to make environmentally friendly purchases in the online social environment. Retailers of green products can promote environmental information, raise public awareness of the importance of going green, and encourage people to make green purchases using social media information-sharing communication channels [55]. As a result, disseminating messages regarding green consumption through social media might help consumers perceive environmental ecology more favorably and be more willing to pay for it, which encourages green purchases. Although earlier research was undertaken by applying different methodologies, their findings were consistent with this research that PRG has a mediating role to link the SOS and PRG. Contrarily, SBN mediates the connection between SOS and GRP partially. Consumers' SBN favorably impacts their propensity to make green purchases [56]. Collectivist values are a significant contributor to subjective norms in earlier investigations on the causes and effects of SBN. Public awareness of environmental preservation can also be shaped through social media. However, the possible influence of SBN as a potent mediator of the intention to make green purchases is disregarded. This study links SBN and GPI with SOS, demonstrating the mediation of SBN. In conclusion, the impact of SOS on the GRP through the dual mediation effect of PRG and SBN is investigated in this study. The government and associated organizations can continually take advantage of social media to spread information about environmental protection, enhance consumers' perceptions regarding the value of environmental protection and their subjective standards for environmentally friendly products, boost those consumers' intentions to buy environmentally friendly goods, and promote overall green consumption in society [18,57,58].

The interaction among customers' intentions to make green purchases, occupation, and SBN is significant according to the empirical results of moderating effects. This suggests that consumers' intentions to make green purchases vary depending on whether they are students or not. This study's findings support the notion that the mediating role of SBN on young people's intentions to make green purchases varies across different oc-

cupational categories. An earlier study [29] has examined how SOS affects customers' intentions to make green purchases, but studies still need to be performed to investigate fundamental consumer traits. Female customers were the only ones allowed to use green items in the survey, showing that they were more inclined to do so than male consumers [57,58]. This paper deviates from prior studies' methodologies because it divides the young generation into groups of non-students and students. The association between SBN and GRP was emphasized as being negatively moderated by occupation, with non-students being more affected by SBN than students.

On the other hand, the young students have no discernible moderating influence on the relation between SBN and GRP. Students exhibited higher green purchasing intentions compared with non-students under the moderating impact of low SBN. In contrast, the student group's intention to make green purchases showed no discernible change. One argument is that consumers choose products that are purposefully customized to the standards of their group [28]. Consumers who are not students are more susceptible to the moderating impact of SBN. This group, which has strong subjective norms, focuses more on social acceptance and seeks to improve these qualities through its green consumption habits.

6. Conclusions

Green consumption is a way of resource conservation, environmental improvement, and reduction in the wastage of resources. This paper has investigated how social media influences young people's intentions to make green purchases because young people, who comprise a sizeable portion of the population, are responsible for the environment and play a crucial part in consumption. It is highlighted that information shared on social media has a stimulus role for green consumption among the young generation while PRG and SBN are mediating variables, enriching the relation between SOS and GRP. The moderating impact of the occupation on SBN and GRP is also investigated, as well as the relationship between SBN and GRP from the viewpoint of consumers for a better understanding of the behavior of the young generation regarding green consumption. It is found that information shared on social media via blogs, opinions, news, and advertisement have a mediating impact to devise the intentions of young people for green purchases and green consumption. Social media may be used as a policy tool for the promotion of green consumption policies in China to save the environment.

The findings of the study reveal that perceived green value and subjective norms are mediating variables in the relationship between SOS and GRP. When consumers have strong perceived green value and subjective norms for sharing the environment related information on the platforms of social media then people have more willingness for green consumption.

The implications of this study may be categorized into theoretical and practical implications. The theoretical implications of this research depict that shared information via social media is an important stimulus to devise the perception of consumers for green purchases. The earlier literature focused on role of external factors such as policies, attitudes, and consumer behavior. This study contributes to the literature by extending the understanding of the role of social media in facilitating the purchasing of green products.

The exploration of the consumption behavior of the younger generation is much needed in the present times while earlier research considered it as a demographic characteristic. This research focused the young generation, its behavior devising through social media, and the impact of subjective norms on the purchasing of green products by fulfilling the research gap.

The practical implications of the present findings are helpful in the context of China's recent economic expansion, followed by issues with excessive CO_2 emission, the deterioration of the environment, and the depletion of natural resources. The government should vigorously implement state policies regarding green, low carbon, and development through the usage of social media. The information shared on social media will actively

promote green consumption behavior and lifestyle. A low carbon and green lifestyle should be promoted by motivating the perceptions and recognition of green consumption through the platforms of social media.

On the other hand, there is a need to improve the low carbon and green production systems. Firms should be encouraged to stimulate green production to meet the market demand and social media may be used as a platform to advertise green products. Firms may create awareness among people regarding the benefits of using green products. Fiscal and tax relief may be provided to firms adopting environmentally friendly production techniques. Sharing information on green products via social media is a potent way to spread awareness of these products and a helpful tool for advancing green causes and encouraging green consumerism. Using social media's information-sharing platforms can increase consumers' desire to buy environmentally friendly goods. Additionally, the results of the research indicate that customers' vocations have an impact on their desire to make green purchases.

On the consumer side, consumers play a significant role in society, and their intention for green consumption is a crucial indicator of how actively they are involved in resolving environmental problems. Social media is a viable platform to perform such activities. Consumers sharing their experiences using green products increases the willingness of other consumers to green consumption. This calls for consumers to take the initiative, and understand the significance of their purchasing habits for the preservation of environment protection and sustainable development.

This study has the following limitations and research deficiencies which may be improved by future research:

- The analysis may be carried out by a splitting sample considering the location of respondents and in terms of responses' quartiles.
- The impact of social media for green purchase intentions may be analysed for specific industry and regions.
- The social biasedness cannot be ignored while collecting and analysing the data.
- The future research may be considered by conducting the controlled experiments for the further analysis of purchase intentions of the consumers.
- This study did not analyse the relationship between the usage of social media and corporate performance in depth so a future research may provide some insights of this dimension.

Author Contributions: Conceptualization, S.X.; methodology, G.R.M.; software, G.R.M.; formal analysis, S. X.; investigation, G.R.M.; resources, S. X.; data curation, G.R.M.; writing—original draft preparation, G.R.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Program of Liaoning Social Science Planning Fund Project: Research on Digital Empowerment for Green and Low Carbon Development in Liaoning Province, grant number L21CJY010.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethical Review Committee of University of Education.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data is available on request.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

References

1. Shao, G. Understanding the Appeal of User-Generated Media: A Uses and Gratification Perspective. *Internet Res.* **2009**, *19*, 7–25.
2. Shang, R.A.; Chen, Y.C.; Liao, H.J. The value of participation in virtual consumer communities on brand loyalty. *Internet Res.* **2006**, *16*, 398–418.
3. Schlosser, A.E. Posting versus lurking: Communicating in a multiple audience context. *J. Consum. Res.* **2005**, *32*, 260–265.
4. Ismail, A.R. The influence of perceived social media marketing activities on brand loyalty: The mediation effect of brand and value consciousness. *Asia Pac. J. Mark. Logist.* **2017**, *29*, 129–144.
5. Krishnamurthy, S.; Dou, W. Advertising with user-generated content: A framework and research agenda. *J. Interact. Advert.* **2008**, *8*, 1–7.
6. Bedard, S.A.N.; Tolmie, C.R. Millennials' green consumption behaviour: Exploring the role of social media. *Corp. Soc. Responsib. Environ. Manag.* **2018**, *25*, 1388–1396.
7. Lee, A.Y.; Labroo, A.A. The effect of conceptual and perceptual fluency on brand evaluation. *J. Mark. Res.* **2004**, *41*, 151–165.
8. Lee, D.; Hosanagar, K.; Nair, H.S. Advertising content and consumer engagement on social media: Evidence from Facebook. *Manag. Sci.* **2018**, *64*, 5105–5131.
9. Ellison, N.B.; Steinfield, C.; Lampe, C. The benefits of Facebook friends: Social capital and college students' use of online social network sites. *J. Comput. Mediat. Commun.* **2007**, *12*, 1143–1168.
10. Prusa, P.; Sadílek, T. Green Consumer Behavior: The Case of Czech Consumers of Generation Y. *Soc. Mark. Q.* **2019**, *25*, 243–255.
11. Wang, C.; Cardon, P.W.; Liu, J.; Madni, G.R. Social and economic factors responsible for environmental performance: A global analysis. *PLoS ONE* **2020**, *15*, e0237597.
12. Slater, M.; Wilbur, S. A framework for immersive virtual environments (FIVE): Speculations on the role of presence in virtual environments. *Presence: Teleoperators Virtual Environ.* **1997**, *6*, 603–616.
13. Dennis, A.R.; Fuller, R.M.; Valacich, J.S. Media, Tasks, and Communication Processes: A Theory of Media Synchronicity. *MIS Q.* **2008**, *32*, 575–600.
14. Hassanein, K.; Head, M.M.; Ju, C. The Impact of Social Presence on the Experiences of Online Shoppers—A Cross-Cultural Study. *Int. J. Electron. Bus.* **2009**, *7*, 625–641.
15. Luo, B.; Sun, Y.; Shen, J.; Xia, L. How does green advertising skepticism on social media affect consumer intention to purchase green products? *J. Consum. Behav.* **2020**, *19*, 371–381.
16. He, C.; Zhang, J.; Liu, H. Sharing economy: Literature review and future directions. *Bus. Manag. J.* **2018**, *40*, 191–208.
17. Petty, R.E.; Cacioppo, J.T.; David, S. Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *J. Consum. Res*. **1983**, *10*, 135–146.
18. Rahman, I. The interplay of product involvement and sustainable consumption: An empirical analysis of Behavioral intentions related to green hotels, organic wines and green cars. *Sustain. Dev*. **2017**, *26*, 399–414.
19. Ottman, J. *Green Marketing Challenges and Opportunities*; NTC: Lincolnwood, IL, USA, 1993.
20. Nekmahmud, M.; Ramkissoon, H.; Fekete-Farkas, M. Green purchase and sustainable consumption: A comparative study between European and non-European tourists. *Tour. Manag. Perspect.* **2022**, *43*, 100980.
21. Alwitt, L.F.; Pitts, R.E. Predicting purchase intentions for an environmentally sensitive product. *J. Consum. Psychol.* **1996**, *5*, 49–64.
22. Sun, Y.; Luo, B.; Wang, S.; Fang, W. What you see is meaningful: Does green advertising change the intentions of consumers to purchase eco-labeled products? *Bus. Strateg. Environ.* **2020**, *30*, 694–704.
23. Madni, G.R.; Anwar, M.A.; Ahmad, N. Socio-economic Determinants of Environmental Performance in Developing Countries. *J. Knowl. Econ*. **2022**, *13*, 1157–1168.
24. Sharma, M.; Banerjee, S.; Paul, J. Role of social media on mobile banking adoption among consumers. *Technol. Forecast. Soc. Change* **2022**, *180*, 121720.
25. Masuda, H.; Han, S.H.; Lee, J. Impacts of influencer attributes on purchase intentions in social media influencer marketing: Mediating roles of characterizations. *Technol. Forecast. Soc. Change* **2022**, *174*, 121246.
26. Huang Minxue, Z. H. The frontier practice of news feed advertising and its theoretical interpretation. *Bus. Manag. J.* **2019**, *41*, 193–208.
27. Zhao, J.; Madni, G.R. The impact of economic and political reforms on environmental performance in developing countries. *PLoS ONE* **2021**, *16*, e0257631.
28. Tankovska, H. Twitter: Number of Monthly Active Users 2010–2019. 2021. Available online: https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/ (accessed on 16 October 2022).
29. Pop, R.A.; Saplacan, Z.; Alt, M.A. Social media goes green-the impact of social media on green cosmetics purchase motivation and intention. *Information* **2020**, *11*, 447.
30. Sun, Y.; Wang, S. Understanding consumers' intentions to purchase green products in the social media marketing context. *Asia Pac. J. Mark. Logist.* **2020**, *32*, 860–878.

31. De Silva, M.; Wang, P.; Kuah, A.T.H. Why wouldn't green appeal drive purchase intention? Moderation effects of consumption values in the UK and China. *J. Bus. Res.* **2021**, *122*, 713–724.
32. Ali, F.; Ashfaq, M.; Begum, S.; Ali, A. How "Green" thinking and altruism translate into purchasing intentions for electronics products: The intrinsic-extrinsic motivation mechanism. *Sustain. Prod. Consum.* **2020**, *24*, 281–291.
33. Ktisti, E.; Hatzithomas, L.; Boutsouki, C. Green Advertising on Social Media: A Systematic Literature Review. *Sustainability* **2022**, *14*, 14424.
34. Barbarossa, C.; De Pelsmacker, P. Positive and negative antecedents of purchasing eco-friendly products: A comparison between green and non-green consumers. *J. Bus. Ethics* **2016**, *134*, 229–247.
35. Liobikiene, G.; Mandravickaite, J.; Bernatoniene, J. Theory of planned behavior approach to understand the green purchasing behavior in the EU: A cross-cultural study. *Ecol. Econ.* **2016**, *125*, 38–46.
36. Mangold, W.G.; Faulds, D.J. Social media: The new hybrid element of the promotion mix. *Bus. Horiz.* **2009**, *52*, 357–365.
37. Zhao, L.; Lee, S.H.; Copeland, L.R.; Social media and Chinese consumers' environmentally sustainable apparel purchase intentions. *Asia Pac. J. Mark. Logist*. **2019**, *31*, 855–874.
38. SÄƒplÄƒcan, Z.; M'arton, B. Determinants of adopting a zero waste consumer lifestyle. *Reg. Bus. Stud.* **2019**, *11*, 25–39.
39. Philippe, A; Ngobo, P. Assessment of consumer knowledge and its consequences: A multi-component approach. *ACR N. Am. Adv.* **1999**, *26*, 569–575.
40. Kang, J.; Liu, C.; Kim, S.H. Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *Int. J. Consum. Stud*. **2013**, *37*, 442–452.
41. Nunkoo, R.; Ramkissoon, H. Power, trust, social exchange and community support. *Ann. Tour. Res*. **2012**, *39*, 997–1023.
42. Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process*. **1991**, *50*, 179–211.
43. McClelland, D. *Human Motivation*; Cambridge University Press: Cambridge, UK, 1987.
44. Ajzen, I.; Fishbein, M. *Understanding Attitudes and Predicting Social Behavior*; Prentice-Hall Inc.: Englewood Cliffs, NJ, USA, 1980.
45. Singh, G.; Sharma, S.; Sharma, R.; Dwivedi, Y.K. Investigating environmental sustainability in small family-owned businesses: Integration of religiosity, ethical judgment, and theory of planned behavior. *Technol. Forecast. Soc. Chang*. **2021,** *173*, 121094.
46. Dean, M.; Raats, M.M.; Shepherd, R. Moral concerns and consumer choice of fresh and processed organic foods. *J. Appl. Soc. Psychol*. **2008**, *38*, 2088–2107.
47. Jiang, Z.; Chan, J.; Tan, B.C.; Chua, W.S. Effects of interactivity on website involvement and purchase intention. *J. Assoc. Inf. Syst.* **2010**, *11*, 1.
48. Chen, Y.S.; Chang, C.H. Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Manag. Decis.* **2012**, *50*, 502–520.
49. Cialdini, RB; Kallgren, C.A.; Reno, R.R. A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In *Advances in Experimental Social Psychology*; Academic Press: San Diego, CA, USA, 1991; pp. 201–234.
50. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *Mark. Res*. **1981**, *18*, 39–50.
51. Chin, W.W. The partial least squares approach to structural equation modeling. *Mod. Methods Bus. Res.* **1998**, *295*, 295–336.
52. Kang, J.Y.M.; Kim, J. Online customer relationship marketing tactics through social media and perceived customer retention orientation of the green retailer. *J. Fash. Mark. Manag. Int. J.* **2017**, *21*, 298–316.
53. Gärling, T.; Fujii, S.; Gärling, A.; Jakobsson, C. Moderating effects of social value orientation on determinants of pro environmental behavior intention. *J. Environ. Psych.* **2003**, *23*, 1–9.
54. Lee, K. The green purchase behavior of Hong Kong young consumers: The role of peer influence, local environmental involvement, and concrete environmental knowledge. *J. Int. Consum. Mark.* **2010**, *23*, 21–44.
55. De Lenne, O.; Vandenbosch, L. Media and sustainable apparel buying intention. *J. Fash. Mark. Manag*. **2017**, *21*, 483–498.
56. Vermeir, I.; Verbeke, W. Sustainable food consumption: Exploring the consumer "attitude–behavioral intention" gap. *J. Agric. Environ. Ethics* **2006**, *19*, 169–194.
57. Zelezny, L.C.; Chua, P.P.; Aldrich, C. Elaborating on gender differences in environmentalism. *J. Soc. Issues* **2000**, *56*, 443–458.
58. Madni, G.R. Consumer's Behavior and Effectiveness of Social Media. *Glob. J. Manag. Bus. Res. E Mark.* **2014**, *14*, 56–62.