



# Determinants of Consumer Purchase Intention and Behavior toward Green Product: *The Moderating Role of Price Sensitivity*

Zohra Ghali-Zinoubi

Assistant Professor, Department of Business Administration,  
College of Administrative and Financial Sciences,  
Saudi Electronic University (SEU). Kingdom Saudi Arabia.  
Assistant Professor, Department of Marketing,  
Higher Institute of Management. Tunis. Tunisia.

## ABSTRACT

The purpose of the current study is to investigate a set of determinants favoring the green purchase intention and behavior. The literature review enabled us to mostly distinguish the following determinants: perceived consumer effectiveness, health consciousness, and social influence. The moderating role of price sensitivity is also examined. The Structural Equation Modelling (SEM) was used to test the research hypotheses. The findings of a quantitative study involving 320 consumers of green products indicated positive and significant impacts of these three motives on consumer purchase intention. However, they have weak direct impacts on consumer behavior. Full mediating roles of green purchase intention were confirmed between perceived consumer effectiveness, health consciousness, social influence and consumer behavior. The positive relationship between green purchase intention and behavior was found inversely influenced by consumer price sensitivity. The present study provides managerial insights for green marketers in order to boost green consumption in developing markets.

**Keywords:** Perceived consumer effectiveness; health consciousness; social influence; green purchase intention, green purchase behavior, price sensitivity.

## INTRODUCTION

Since the 1970s, theorists as well as practitioners have attempted to participate in the effort to protect the planet and preserve the fauna and flora (Kinnear et al., 1974; Agan, 2013). They have tried, indeed, to develop a global culture of environment respect, ecological constraints and sustainable development. Over the last few years, several research works have been conducted along this direction (Chen and Chang, 2012; Sala et al., 2017; Sangroya and Nayak, 2017; Brochado et al., 2017). In particular, discussions about consuming green products have become increasingly important for researchers and managers (Zhu et al., 2013; Jaiswal and Kant, 2018). As a result '*green consumption, as the practice of using environmentally friendly products that do not damage the environment and threaten the function of diversity of natural ecosystems*' (Minbashrazgah et al., 2017), has expanded and is increasingly present in the daily lives of many consumers. These latter are becoming more demanding as to what they buy and what they consume (Kai and Haokai, 2016). Indeed, they are increasingly taking into account multiple green attributes in their products' purchases like product packaging, conformity with standards, traceability, safety, healthfulness, environmental friendless, production method, etc., (Lin and Huang, 2012; Pagiaslis and Krontalis, 2014; Singh and Verma, 2017). In this context, the consumers have multiple means to express their feelings, convictions and values. In particular, through green purchase behavior, they seek to show that they are more respectful of the environment, man and nature (Kim and Choi, 2005; Kabadayia et al., 2015; Liobikienė et al., 2017; Kautish et al., 2019).

The literature review distinguished several motives for green consumption. The majority of them was tested in the context of developed economy, where the green market has left its nascent stage (Arli et al., 2018). However, the global green growth cannot be ensured without the involvement of developing countries in this direction (Al Mamun et al., 2018). More research studies are required for better understanding of consumer behavior in these countries and for providing pathway to boost green consumption in these countries. This paper is conceived in this direction. It aims to study some motives of green purchase intention and behavior (perceived consumer effectiveness, health consciousness, social influence) while testing the moderating role of price sensitivity. The hypotheses were tested in developing country (Tunisia). This paper is considered among the fewest research work developed in this market, which examine the impact of these three predictors on the green consumer intention and behavior under the moderating role of price sensitivity.

This research paper is structured as follow: the second section presents the literature review. The third section describes the methodology of research. The fourth section presents the findings. The fifth section discusses the results and, the last section presents the conclusion that includes the implications, limitations and future paths of research.

## LITERATURE REVIEW

### Determinants of green consumption

#### *Perceived consumer effectiveness (PCE)*

Perceived consumer effectiveness is not a recent concept, it dates back to the 1970s when it was dealt with for the first time by Kinnear *et al.* (1974) and considered as “*a measure of the extent to which a respondent believes that an individual consumer can be effective*”. According to Kabadayia *et al.* (2015), PCE expresses the level of consumer belief that his actions and behaviors can have influence on solving problems. According to Kim (2011) and Kanchanapibul, *et al.*, (2014), the consumers can participate in protecting his environment through what they buy, especially when they believe in their role as a part of this environment. In the same vein, the findings of Wesley *et al.*, (2012), Kang *et al.*, (2013) and Ghvanidze *et al.* (2016) indicated that the consumers who have a high level of PCE are those who have more intention to purchase the green products. Following this literature review, we hypothesize that:

**Hypothesis 1a.** Consumer perceived effectiveness is positively associated with green purchase intention.

**Hypothesis 1b.** Consumer perceived effectiveness is positively associated with green purchase behavior.

#### *Health consciousness*

Health consciousness expresses the consumer willingness to undertake actions in favor of his health and well-being (Westhoek *et al.*, 2014). Gould (1988) distinguished four main dimensions for health consciousness that are: engaging in searching for health information; caring about health; valuing healthy conditions and greater concerns for health. According to this author, a health conscious individual should select only the products that are beneficial or at least non-harmful for health and environment. Therefore, authors in consumer behavior (Michaelidou and Hassan, 2008; Kabadayia *et al.*, 2015; Chen and Deng, 2016) argue that if a person is more health conscious, he/she is more likely to purchase green products. This health consciousness is considered by Yadav and Pathak (2016) the most essential factor predicting consumers' willingness to consume greenly. Therefore, the relationship between health consciousness, green purchase intention and green purchase behavior are hypothesized as follows:

**Hypothesis 2a.** Health consciousness is positively associated with green purchase intention.

**Hypothesis 2b.** Health consciousness is positively associated with green purchase behavior.

### ***Social influence***

The social identity theory (Tajfel and Turner, 1979) considered the social affiliation as a part of an individual's self-concept derived from his chosen social group membership. It suggests that people define themselves based on personal and social aspects (Wang, 2017). Thus, the individual tries to adopt the norms and values of his significant group as their own. The search for self, for social and self-valorization, the desire to make a good impression on one's reference group are some reasons for the need to have a social affiliation (Tajfel and Turner, 1979; Reed, 2002; Pinto et al., 2016).

For marketers, social influence is important because it guides consumer's behavior at any given moment as long as consumption is an external act. In this case, the product is seen like an external social self and the consumer relies on social meaning, or symbolic value, of the products he purchases to express his social affiliation (Perkins-Svensson, 2013). Then, through his purchases, the consumer wants to express who wants to be and shows that he is at height of his reference groups. Perkins-Svensson (2013) stated that social influence motivates the consumer patronage intention for eco-friendly products. As consequence, consumer is willing to buy eco-friendly products when this behavior is adopted by the group that he belongs to (Langner et al., 2013; Perkins-Svensson, 2013). This willingness can be converted to a purchase behaviour when the consumer has the ability to buy the products (Minbashrazgh et al., 2017).

Therefore, the relationships between the social influence and the green purchase intention and behavior are hypothesized as follows:

**H3a.** The social influence is positively related to green purchase intention.

**H3b.** The social influence is positively related to green purchase behavior.

### **Consumers' green purchase intention and behavior**

The relationship between consumer purchase intention and behavior is already confirmed by the Theory of Planning Behavior (Ajzen, 1991) and the Theory of Reasoned Action (Ajzen and Fishbein, 1980). These theories have shown their relevance in different context. Particularly, for green consumption, authors also confirmed the strong relationship between purchase intention and behavior (Ajzen and Fishbein, 2005; Minbashrazgah et al., 2017; Lai and Cheng, 2016; Liobikiene et al. 2017). In the same vein, Kanchanapibul et al. (2014) stated that the green purchase intention, as consumer's tendency to buying a product because of environmental and human health reasons, often directly drives the buying behavior. Therefore, the relationship between green purchase intention and green purchase behavior is hypothesized as follows:

**Hypothesis 4.** Green purchase intention is positively associated with consumers' purchase behavior.

### **The mediation role of green purchase intention**

The TRA is developed by Ajzen and Fishbein (1980) to explain the consumers' behavioral intention predictors. For this theory, the intention is considered as the single most important predictor of human behavior. Its fundamental principle is the strong relationship between intention and the actual behavior. In this context, 'intention' refers to willingness or readiness to engage in behavior under consideration (Ajzen, 1985). Various studies have tested and validated the Ajzen and Fishbein's model in different contexts. More specifically, it has been utilized to predict the intentions in green marketing areas such as green purchase behaviors.

Generally, the TPB improves the purchase model's predictability for green products (Liobiokiene et al., 2016; Kautish et al., 2019). Al Mamun et al., (2018) applied the TPB to explain how and what kind of beliefs helps the low-income households in Malaysia to make green purchase. Therefore, the fifth sub-hypotheses are as follow:

**Hypothesis 5 (a).** Green purchase intention significantly mediates the relationship between perceived consumer effectiveness and green purchase behavior.

**Hypothesis 5(b).** Green purchase intention significantly mediates the relationship between health consciousness and green purchase behavior.

**Hypothesis 5(c).** Green purchase intention significantly mediates the relationship between social influence and green purchase behavior.

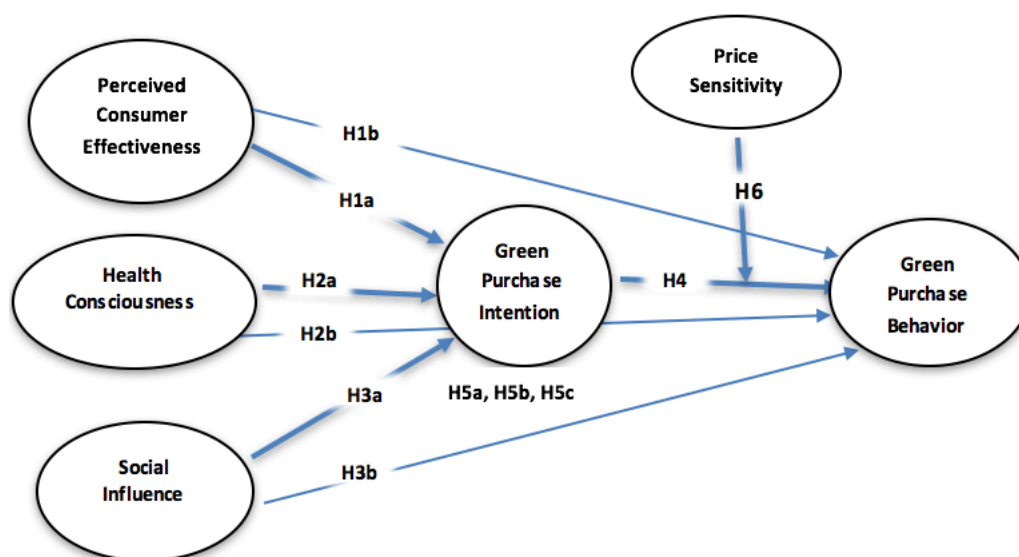
### The moderating role of price sensitivity

The price of a product is a good criterion of its being purchased (Marian et al., 2014; Rödiger & Hamm, 2015). Several studies in green field have showed that green product is usually premium priced in several countries (Taiwan in Teng & Lu, 2016; Tunisia in Salah *et al.*, 2015; Scotland in Michaelidou & Hassan, 2008; *etc.*). For this reason, price is considered to be a barrier hindering the acquisition of green products (Marian *et al.*, 2014; Rödiger et al., 2016). Walser & Nanopoulos (2007) stated that the more sensitive to green products' prices consumers are, the more unable they are to buy the products since these are more expensive than conventional counterparts. Low *et al.* (2013) stated that before purchasing green products, the consumer likes to compare prices, to assess the value for money and to check price transparency. For this reason, small increases in price will lead to fewer purchases of green products despite the positive attitude of the consumer towards this category of products. In light of this, this study developed the fourth hypothesis as follow:

**Hypothesis 6.** The positive relationship between green purchase intention and green purchase behavior is stronger when price sensitivity is low.

The aforementioned hypotheses are graphically represented via the conceptual model (**Fig 1**).

**Fig.1: Conceptual model of the research**



## RESEARCH METHODOLOGY

### Data collection and respondents' profile

This study involved a quantitative research that was designed to examine the impact of perceived consumer effectiveness, health consciousness and social identity on the consumer purchase intention and behavior while testing the moderating role of price sensitivity. In order to check the different hypotheses of the conceptual model, a self-administrated questionnaires were employed using convenience sampling method. The survey was conducted from in many supermarkets and grocery shops in city of Tunis (*Magasin Général, Carrefour Markets, Géant, etc.*) which commercialize green products (green bags, economic lamps...). Although 362 customers were intercepted at random method, only 320 questionnaires were considered. The others were incomplete. The following **table 1** shows the demographic characteristics of the sample:

**Table 1. Demographic profile of respondents**

Age(years)	%	Gender	%	Education	%	Monthly Income	%
-18	8	Male	44	Elementary/middle	10	-500	17
19-30	24	Female	56	High school	23	501-1000	31
31-45	36			Vocational school	26	1001-1500	42
46-60	25			University	29	+ 1501	10
+ 61	7			postgraduate	12		
<b>n= 320</b>							

\* TD= Tunisian Dinar; 1TD= .35 US \$ on January 2020. Minimum wage in Tunisia = 136.9 \$ in 2019.

### Questionnaire design

The survey instrument were borrowed from previous research works and adapted for this study. The variable perceived consumer effectiveness was measured by the scale items of Kabadayi et al. (2015). Health consciousness was measured by adapting the scale items of Gould (1988). Social influence was measured based on the scale items of Shaw et al. (2011). The scale items of Lu et al., (2015) was used to measure the green purchase intention. The scale of Lai and Cheng (2016) was measured the green purchase behavior. Finally, the scale items of Stock (2005) was used to measure the variable price sensitivity. The measurement items are provided in table 2. Each of the measurement indicators for all variables was rated according to the 5-point Likert scale, extending from **1** (*strongly disagree*) to **5** (*strongly agree*). Before distributing the questionnaire in supermarkets, we pretested it with our students to clarify vague concepts and make it simple, clear and understandable.

## FINDINGS

### Measurement model evaluation: reliability and validity of constructs

In this study, the Composite Reliability (CR) and Cronbach's alpha were used to assess internal consistency among items for each construct. The item factor loadings and Average Variance Extracted (AVE) were used to assess convergent and discriminant validity. According to Agan et al. (2013), each factor loadings should be greater than 0.7 to can confirm its internal consistency. For this study, as shown by the table 2, the factor loadings are varying from 0.703 to 0.878. Cronbach's alpha coefficients range from 0.711 and 0.876. Moreover, the findings show that all CR are above 0.7. Finally, all AVE values are greater than 0.55 (Hair et al, 2013). These findings allow to confirm the reliability and the convergent validity of every construct of the conceptual model. The results of the tests for internal consistency have been presented in table 2.

**Table 2. Measurement model assessment**

Items		Factor
<b>Perceived consumer effectiveness (PCE): CR= 0.864; Cronbach <math>\alpha</math>=0.876; AVE=0.693</b>		
PCE	Each person's behavior can have a positive effect on society by their	0.812
PCE	I feel I can help solve the natural resource problem by green products	0.802
PCE	I can protect my health by buying green products	0.874
PCE	There is much more that we can do about the environment	0.805
PCE	I feel capable of helping solve the environment problems	0.825
PCE	When I buy products, I try to consider how my use of them will affect	0.817
<b>Health consciousness (HC): CR= 0.850; Cronbach <math>\alpha</math>=0.833; AVE=0.733</b>		
HC1	I reflect about my health a lot	0.811
HC2	I'm very self-conscious about my health	0.821
HC3	I'm very alert to changes in my health	0.796
HC4	I'm usually aware of my health	0.768
HC5	I take responsibility for the state of my health	0.813
HC6	I'm aware of the state of my health as I go through the day	0.812
<b>Social influence (SI): CR= 0.798; Cronbach <math>\alpha</math>=0.711; AVE=0.766</b>		
SI1	I enjoy displaying my purchased green products to others.	0.734
SI2	People around me would be upset if they found out I did not purchase	0.781
SI3	I purchase green products to express who I want to be	0.785
<b>Green purchase intention (GPI): CR= 0.833; Cronbach <math>\alpha</math>=0.766; AVE=0.645</b>		
GPI1	When I have a choice between two equal products, I purchase the one	0.736
GPI2	I have switched products for ecological reasons	0.749
GPI3	I make a special effort to buy paper and plastic products that are made from recycled materials	0.703
<b>Green purchase behavior (GPB): CR= 0.866; Cronbach <math>\alpha</math>=0.834; AVE=0.836</b>		
GPB	I often buy products that are considered as environment-friendly	0.845
GPB	I often buy environmentally safe products	0.844
GPB	I often buy green products	0.830
GPB	I often buy products that are environmentally friendly	0.878
<b>Price Sensitivity (PS): CR= 0.833; Cronbach <math>\alpha</math>=0.766; AVE=0.634</b>		
PS1	I am highly price sensitive	0.766
PS2	Small increases in price will lead to fewer purchases	0.801
PS3	For that customer, I think price is the primary reason in choosing such	0.822
PS4	It seems that customer enjoy comparing prices	0.798
PS5	That customer prefers to buy low-cost or discounted items	0.782

The discriminant validity is also confirmed as long as all the AVEs' square roots are superior to the correlations between constructs (Fornell and Larker, 1981).

**Table 3. Discriminant validity (intercorrelations of constructs)**

Latent variables	PCE	HC	SI	GPI	GPB	PS
AVE	0.693	0.733	0.766	0.645	0.836	0.634
$\sqrt{\text{AVE}}$	0.832	0.856	0.875	0.803	0.914	0.796
PSE	-	-				
HC	0.785	0.773	-			
SI	0.761	0.762	0.732			
GPI	0.774	0.761	0.662	-		
GPB	0.754	0.733	0.733	0.633	-	
PS	0.763	0.703	0.766	0.721	0.632	-

### Evaluation of the structural model

#### Assessment of adjustment of the global model

Fitness tests were implemented by evaluating the degree of consistency between the internal structure and the actual data (Chen and Deng, 2016). By using the maximum likelihood estimation technique, the principal fitness indicators are as follow:  $X^2/df= 1.983$ ;  $GFI=0.93$ ;  $AGFI=0.931$ ;  $CFI=0.932$ ;  $IFI= 0.96$ ;  $TLI= 0.95$ ;  $RMSEA= 0.031$ . In the light of these results, the causality model presents a good fit.

#### Path coefficient: Direct linkages

The direct relationships between constructs was examined through the path coefficients and related  $t$  statistics via bootstrapping procedure.

The path coefficients, presented in table 4, indicate that perceived consumer effectiveness had significant positive effect ( $\beta= 0.210$ ,  $t\text{-value}= 2.345$ ;  $p<0.01$ ) on green purchase intention, so **H1a** is confirmed. Nevertheless, for the effect of this variable on green purchase behavior, there is weak and not significant ( $\beta= 0.034$ ,  $t\text{-value}= 1.145$ ). So, **H1b** is rejected. For the construct health consciousness, it had a significant positive effect on green purchase intention ( $\beta= 0.389$ ,  $t\text{-value}= 4.674$ ;  $p<0.01$ ) and but it has weak and non-significant impact on green purchase behavior ( $\beta= 0.079$ ,  $t\text{-value}= 1.001$ ). Therefore, **H2a** is accepted and **H2b** is rejected. For the construct social influence, it had a positive and significant effect on green purchase intention ( $\beta= 0.456$ ,  $t\text{-value}= 6.333$ ,  $p<0.01$ ), but it has weak and insignificant impact on green purchase behavior ( $\beta= 0.098$ ,  $t\text{-value}= 1.333$ ). Therefore, **H3a** is confirmed and **H3b** is rejected. The impact of green purchase intention on green purchase behavior is also positive and significant ( $\beta= 0.766$ ,  $t\text{-value}= 12.033$ ;  $p<0.01$ ), so **H4** is confirmed. These results are summarized in the following table 4.

**Table 4. Summary of the structural model path coefficients**

	Hypotheses	Hypotheses paths	Path coefficients- $\beta$	t-value	Results
Direct effects	<b>H1a</b>	PCE $\rightarrow$ GPI	0.210	2.345**	Accepted
	<b>H1b</b>	PCE $\rightarrow$ GPB	0.034	1.145	Rejected
	<b>H2a</b>	HC $\rightarrow$ GPI	0.389	4.674*	Accepted
	<b>H2b</b>	HC $\rightarrow$ GPB	0.079	1.001	Rejected
	<b>H3a</b>	SI $\rightarrow$ GPI	0.456	6.333**	Accepted
	<b>H3b</b>	SI $\rightarrow$ GPB	0.098	1.333	Rejected
	<b>H4</b>	GPI $\rightarrow$ GPB	0.766	12.033**	Accepted

Note: \* =  $p<0.05$ ; \*\* =  $p<0.01$ ; PCE=Perceived Consumer Effectiveness; HC=Health Consciousness; SI= Social Influence; GPI= Green Purchase Intention; GPB= Green Purchase Behavior

## Testing mediating effects

### Testing direct and indirect effects

Direct and indirect effects of each constructs on each other can assessed via structural equation modeling. These analyses will allow to deduce the nature of mediation of green purchase intention (GPI) and consequently confirm or reject the hypotheses **H5a**, **H5b** and **H5c**.

The mediation results are summarized in Table 5 and table 6: The table 5 presents the direct, indirect and the total effects between Perceived Consumer Effectiveness (PCE), Health Consciousness (HC), Social Influence (SI) and Green Purchase Behavior (GPB). The table 6 illustrates the magnitude of mediation.

**Table 5. Direct and Indirect effects**

	PCE	HC	SI	GPI
<b>Total effect</b>				
<b>GPI</b>	0.210**	0.389**	0.456**	-
<b>GPB</b>	0.188	0.250*	0.496	0.766**
<b>Direct effect</b>				
<b>GPI</b>	0.210**	0.389**	0.456**	-
<b>GPB</b>	0.034	0.019	0.098	0.766**
<b>Indirect effect</b>				
<b>GPB</b>	0.154**	0.231**	0.398**	-

Note: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$

### Magnitude of mediation

One the significance of the indirect effect is established, the strength of mediator can be tested via the use of total effect and Variance Accounted For (VAF). Remember that total effect = direct effect + indirect effect. According to Hair et al. (2013), partial mediation is demonstrated when VAF exceeds the 0.2 threshold level and that full mediation is demonstrated when it exceeds 0.8.

For H5a, the total effect = 0.188. Meanwhile,  $VAF = \text{indirect effect} / \text{total effect}$ . In H5a,  $VAF = 0.154 / 0.188 = 81.91\%$ . In other words, for the hypothesis H5a, 81.91% of PCE effect on GPB can be explained via the GPI mediator. Since the VAF is greater than 80% threshold level, GPI is argued to have **full mediating effect** on the PCE /GPB linkage. So, **H5a is accepted**.

For H5b, the total effect is 0.410. Meanwhile  $VAF = 0.231 / 0.250 = 92.4\%$ . This value is superior to 80%. In this case, we can say that GPI has a **full mediating effect** on the HC/GPB linkage. So, **H5b is accepted**.

For H5c, the total effect is 0.496. Meanwhile  $VAF = 0.398 / 0.496 = 80.24\%$ . This value is superior to 80% threshold level. GPI is argued to have **full mediating effect** on the SI/GPB linkage. So, **H5c is accepted**.



**Table 6. Test of hypotheses.**

	Hypotheses	Hypotheses paths	VAF	Mediation	Results
<b>Mediating effects</b>	<b>H5a</b>	PCE → GPI → GPB	81.91%	Full	Accepted
	<b>H5b</b>	HC → GPI → GPB	92.40%	Full	Accepted
	<b>H5c</b>	SI → GPI → GPB	80.24%	Full	Accepted

Note: \*p<0.05 \*\* p<0.01

### Testing moderating effects

The moderating influence of price sensitivity were tested by multi-group structural equation modeling (Byrne, 2004). This leads us to test the measurement invariance as well as structural invariance. To understand the moderating influence of price sensitivity (PS), we divided our sample into two sub-samples of high (n= 242) and low PS (n=238) by employing a median split procedure (Brochado et al., 2017; Kautish et al., 2019). For the unconstrained structural, multi-group fit was tested to establish causality:  $\chi^2 = 572.563$ ;  $df = 267$ ;  $p = 0.000$ ;  $RMSEA = 0.0238$ ;  $CFI = 0.91$ ;  $TLI = 0.933$ ;  $IFI = 0.92$ . This means that all the values are within the recommended tolerable levels. Chi-square test of difference ( $\Delta\chi^2$ ) was examined to compare the fully constrained and unconstrained model across high and low price sensitivity. The influence of price sensitivity on GPB varies significantly ( $\Delta\chi^2 = 3.123$ ;  $\Delta df = 1$ ;  $p < 0.001$ ) but inversely across lower price sensitivity consumer group ( $\beta = 0.532$ ,  $t\text{-value} = 17.333$ ;  $p < 0.001$ ) and higher sensitivity consumer sensitivity consumer group ( $\beta = 0.136$ ,  $t\text{-value} = 2.529$ ;  $p < 0.001$ ). This indicates that more than the consumer is sensitive to the high price of green products, more he is unable to purchase it. This is allow us to confirm our last hypothesis (H6). The details about PS moderation are given in the following *table 7*.

**Table 8. Moderating role of price sensitivity (PS)**

Hypotheses	Low PS		High PS		$\Delta\chi^2$	Moderation
	Estimate	t-value	Estimate	t-value		
H6: GPI/ GPB	.532	17.333***	.136	2.529	3.123***	Yes
Variance explained	84.48					

## DISCUSSIONS

This paper aims to study a set of predictors of green purchase intention and behavior. We mainly focused on perceived consumer effectiveness, health consciousness and social influence.

First, perceived consumer effectiveness constitutes an important determinant of intention to buy green product (H1a) but it is not a direct antecedent of green behaviour (H1b). In this relationship, the green intention plays the role of full mediator (H5a). These results are consistent with the findings of Ghvanidze et al. (2016).

Second, the results of our study highlight health consciousness as also an important motive for intention (H2a) and behavior (H2b) towards green products. This finding is consistent with many previous researches like Westhoek et al. (2014). Indeed, in our case, the intention plays a full mediating role between health consciousness and behavior to purchase green products (H5b). Third, our findings permit us to conclude that the consumer social identity constitutes a determinant of the intention to purchase green products (H3a). However, social identity is not direct stimulus of consumer green behavior (H3b). Therefore, the green intention plays a fully mediating role (H5c) between social identity and green behavior. These findings are consistent with the results of Reed (2002) who suggested that the individuals

Indeed, our empirical results show that the Tunisian consumer seeks to stand out from his own group and to belong to a group of higher status through specific types of purchases pertaining to green behavior. These results are consistent with those found by Liang (2016). Fourth, the findings of our research state that the relationship between green purchase intention and consumer' green purchase behavior is positive and significant (H4). These findings confirm the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980) and Theory of Planned Behavior (TPB) (Ajzen, 1991) in green context. The moderating effect of price sensitivity between green purchase intention and green purchase behavior was statistically confirmed (H6). These results are consistent with those of Minbashrazgah et al. (2017) who stated that the consumers who are less sensitive towards premium price of green products are more likely to purchase them.

### **CONCLUSION: IMPLICATIONS, LIMITATIONS AND FUTURE PATHS OF RESEARCH**

The main purpose of this research is to study some motives of green purchase intention and behavior while testing the moderating role of price sensitivity. The hypotheses were tested in a developing country (Tunisia), where the green market is still in a nascent stage.

From a theoretical perspective, this research work seems to have substantial contribution towards the growing body of relevant literature pertaining to purchase intention and behavior. This is through empirically validating a comprehensive conceptual model underling some motives of green purchase intention and behavior within the context of developing country. In fact, this study is among the earliest study to test the motives of green consumption under the moderating role of price sensitivity. In addition, it is among the seldom studies that examined the influence of social influence on green consumption. Finally, this study is considered an extension of Theory of Planned Behavior by examining the moderating role of price sensitivity in the relationship between purchase intention and behavior in a particular context, such as green consumption.

Empirically, this study draws the attention of policy makers as well as marketers in developing countries toward some predictors that can boost the green consumption while considering the influence of consumer price sensitivity.

First, since the variable of perceived consumer effectiveness is found a significant motive of the green purchase intention, responsible in this country (Tunisia) should work on improving the beliefs that 'individuals' can through their small acts towards sustainability do matter to the environment. Therefore, all individuals have the responsibility to protect the environment for future generations (Arli et al., 2016). During the last few years, Tunisian government implements good initiatives in this direction. This is through prohibiting the free plastic bags when they shop at all supermarkets and retail outlets in the different cites of the country. Second, government and policy makers should adopt policies and programs in order to enhance consumer awareness about the impact of their behavior on their health (Junior et al., 2015). Consume environmental friendly products does have crucial impact on their wellbeing and their good health (Wethoek et al., 2014). Third, based on the findings of this study, the social identity has important influence on purchase intention towards the purchase of green products. This finding suggest that consumer would be likely to purchase green products when they believe that such behavior will be well appreciated by people that are important to them(Wang, 2017). This expresses the social aspect of consumption as well as the social approval to drive green behavior. Therefore, producers and retailers should highlight explicitly the green characteristics of the products like special 'logos' or any other green identifications. Fourth, the findings suggest that the price sensitivity plays interesting negative moderating

role of price sensitivity to make intention consistent with behavior. Therefore, it becomes interesting to reduce the prices of green products and make them more transparent (Low et al., 2013). This invites producers and retailers of green products, on one hand, to make their price so transparent of such way that justify its high level compared with conventional products, and for other hand, to adapt their prices to the purchasing power of consumers. These are possible through information and awareness campaigns to bring green concept closer to consumers and through good control over the costs of this category of products (Rödiger, et al., 2016). Furthermore, the relevant authorities should provide collaborative efforts to encourage green producers and retailers, for examples, through subventions in favor of small producers, reduction of taxes, etc.

The results of this research work could not be interpreted without taking into account its limits.

First, the survey involved only 320 people from city of Tunis, which is relatively small and unrepresentative sample of the mother population. Second, our study focused only on a few antecedents of green purchase intention, while literature review on the subject of green marketing proved the existence of a multiplicity and a variety of motives in relation to green consumption. Desire for quality, fear of disease, selfishness of individuals, ethical sensitivity, and price level of green products are only examples of such motives. Third, this study concentrates on purchase intention and behavior of green products, without specifying any particular group. This is in order to simplify the survey and widen our sample. The retest of the conceptual model in other countries with different levels of economic development and the integration of other stimulus of green consumption (above mentioned) might constitute some future paths of research.

## References

- Agan, Y., Acar, M.F., Borodin, A., 2013. Drivers of environmental processes and their impact on performance: a study of Turkish SMEs. *Journal of Cleaner Production*. 51, 23-33. <https://doi.org/10.1016/j.jclepro.2012.12.043>
- Ajzen, I., 1985. From intentions to actions: a theory of planned behavior. In: Kuhl, J., Beckman, J. (Eds.), *Action Control: from Cognition to Behavior*. Springer, Heidelberg.
- Ajzen, I., 1991. The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, Vol.50 No.2, pp. 179-211
- Ajzen, I., Fishbein, M., 1980. *Understanding Attitudes and Predicting Social Behavior*. Engelwood Cliffs, Prentice Hall, NJ.
- Ajzen, I., Fishbein, M., 2005. The influence of attitudes on behavior. In: Albarracín, D., Johnson, B.T., Zanna, M.P. (Eds.), *The Handbook of Attitudes*.
- Al Mamun, A., Fazal, S., Bin Ahmad, G., Yaacob, M, Mohamad., M.R. 2018. Willingness to pay for environmentally friendly products among low-income households along coastal peninsular Malaysia. *Sustainability*, 10, 5, 1316
- Arli, D., Tan, L.P., Tjiptono, F., Yang, L., (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies*. 42, 389-401.
- Brochado, A., Teiga, N., Oliveira-Brochado, F., 2017. The ecological conscious consumer behavior: are the activists different? *International Journal of Consumer Studies*. 41 (2), 138-146.
- Byrne, B.M., 2004. Testing for multigroup invariance using AMOS graphics: a road less traveled. *Struct. Equ. Model.: Multidiscip. J.* 11 (2), 272-300. [http://dx.doi.org/10.1207/s15328007sem1102\\_8](http://dx.doi.org/10.1207/s15328007sem1102_8)
- Chen, K., Deng, T., 2016. Research on the Green Purchase Intentions from the Perspective of Product Knowledge. *Sustainability*. 8(9), 943
- Chen, Y.S., Chang, Ch. H., 2012. Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*. 50(3), 502-520.

- Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*. 18, 39-50.
- Ghvanidze, S., Velikova, N., Dodd, T.H., Wilna, O.T., 2016. Consumers' environmental and ethical consciousness and the use of the related food products information: The role of perceived consumer effectiveness. *Appetite*. 107, 311-322.
- Gould, S.J., 1988. Consumer attitudes toward health and health care: a differential perspective. *Journal of Consumer Affairs*. 22, 96-118.
- Hair, J.F., Ringle, C.M., Sarstedt, M., 2013. Partial Least Squares Structural Equation Modelling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46(1-2), 1-12.
- Jaiswal, D., Kant, R., 2018. Green purchasing behaviour: A conceptual framework and empirical investigation of Indian consumers. *Journal of Retailing and Consumer Services*. 41, 60-69.
- Junior, S. S. B., Silva, D., Gabriel, M.L.D.S., Braga, W.R.O., 2015. The Effects of Environmental Concern on Purchase of Green Products in Retail. *Procedia - Social and Behavioural Sciences*. 170, 99-108.
- Kabadayia, E.T., Dursunb, I., Koçak Alana, A., Tuğrul Tuğera, A., 2015. Green purchase intention of young Turkish consumers: Effects of consumer's guilt, self-monitoring and perceived consumer effectiveness. *Procedia - Social and Behavioural Sciences*. 207, 165-174.
- Kai, C.; Haokai, L., 2016. Factors affecting consumers' green commuting. *Eurasia J. Math. Sci. Technol. Educ.* 12, 527-538.
- Kanchanapibul, M., Lacka, E., Wang, X., Chan, H.K., 2014. An empirical investigation of green purchase behavior among the young generation. *Journal of Cleaner Production*. 66, 528-536.
- Kang, J., Liu, C., Kim, S., 2013. Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness, and perceived personal relevance. *International Journal of Consumer Studies*. 37, 442-452.
- Kautish, P., Paul, J., Sharma, R., 2019. The moderating influence of environmental consciousness and recycling intentions on green purchase behaviour. *Journal of Cleaner Production*. 228, 1425-1436.
- Kim, Y., 2011. Understanding Green Purchase: The Influence of Collectivism, Personal Values and Environmental Attitudes, and the Moderating Effect of Perceived Consumer Effectiveness. *Seoul Journal of Business*. 17(1), 65-92.
- Kim, Y., Choi, S. M., 2005. Antecedents of Green Purchase Behaviour: an Examination of Collectivism, Environmental Concern, and Pce in NA. *Advances in Consumer Research*. 32, 592-599.
- Kinnear, T.C., Taylor, J.R., Ahmed, S.A., 1974. Ecologically concerned consumers: who are they? *Journal of Marketing*. 38(2), 20-24.
- Lai, C.K.M., & Cheng, E.W.L., 2016. Green purchase behavior of undergraduate students in Hong Kong. *The Social Science Journal*, 53, 67-76.
- Langner, S., Hennigs, N., Wiedmann, K. P., 2013. Social persuasion: targeting social identities through social influencers. *Journal of Consumer Marketing*. 30(1), 31-49.
- Lin, P.C., Huang, Y.H., 2012. The influence factors on choice behaviour regarding green products based on the theory of consumption values. *Journal of cleaner production*, 22, 11-18.
- Liobikienė, G., Grincevičienė, Š., Bernatoniene, J., 2017. Environmentally friendly behaviour and green purchase in Austria and Lithuania. *Journal of Cleaner Production*. 142, 3789-3797.  
<https://doi.org/10.1016/j.jclepro.2016.10.084>
- Low, W.S., Lee, J.D., & Cheng, S.M., 2013. The link between customer satisfaction and price sensitivity: An investigation of retailing industry in Taiwan. *Journal of Retailing and Consumer Services*, 20(1), 1-10.
- Lu L., Chang H., & Chang A., 2015. Consumer personality and green buying intention: The mediate role of consumer ethical beliefs. *Journal of Business Ethics*, 127, 1, 205-219
- Marian, L., Chrysochou, P., Krystallis, A., & Thøgersen, J., 2014. The role of price as a product attribute in the organic food context: An exploration based on actual purchase data. *Food Quality and Preference*, 37, 52-60.
- Michaelidou, N., & Hassan, L.M., 2008. The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies*. 32(2), 163-170.

- Minbashrazgah, M.M., Maleki, F., Torabi, M., 2017. Green chicken purchase behavior: the moderating role of price transparency. *Management of Environmental Quality: An International Journal*. 28 (6). 902-916.
- Pagiaslis, A., Krontalis, A.K., 2014. Green consumption behaviour antecedents: environmental concern, knowledge, and beliefs. *Psychology and marketing*. 31(5). 335-348.
- Perkins-Svensson, N., 2013. The Role of Social Identity in the Ethical Consumer's Decision-Making Process: An Exploratory Study. The Undergraduate Awards library. Durham University. Available at:<http://www.undergraduatelibrary.org/2013/psychology/role-social-identity-ethical-consumer%E2%80%99s-decision-making-process-exploratory-study>. Accessed in 23.5.2019.
- Pinto, D.C., Nique, W.M., Herter, M.M., Borges, A., 2016. Green consumers and their identities: how identities change the motivation for green consumption. *International Journal of Consumer Studies*. 40(6). 742-753.
- Reed, A., 2002. Social identity as a useful perspective for self-concept based consumer research. *Psychology and Marketing*, 19(3), 235-266.
- Rödiger, M., & Hamm, U., 2015. How are organic food prices affecting consumer behavior? A review. *Food Quality and Preference*, 43, 10-20.
- Rödiger, M., Plaßmann, S., & Hamm, U., 2016. Organic consumers' price knowledge, willingness-to-pay and purchase decision, *British Food Journal*, 118 (11), 2732-2743.
- Sala, S., Anton, A., McLaren, S., Notarnicola, B., 2017. In quest of reducing the environmental impacts of food production and consumption. *Journal of Cleaner Production*. 140, 387-398.
- Salah, M., Boudiche, S., Ameer, M., Amara, S., & Bornaz, S. (2015). Etude du comportement du consommateur vis-à-vis du lait biologique et dérivés et développement de la filière lait biologique en Tunisie, *Journal of Newsciences*, 1. <http://www.jnsciences.org/component/content/article.html?id=209:strategie-de-developpement-de-la-filiere-lait-biologique-en-tunisie-a-travers-la-chaine-de-valeur>. Accessed 2 February 2019.
- Sangroya, D., Nayak, J.K., 2017. Factors influencing buying behaviour of green energy consumer. *Journal of Cleaner Production*. 151, 393-405.
- Shaw, S., Rosen, R., Rumbold, B., 2011. What is integrated care? London: Nuffield Trust. Available at: <http://www.nuffieldtrust.org.uk/publications/what-integrated-care>. Accessed in 14.July 2019.
- Singh, A., Verma, P., 2017. Factors influencing Indian consumers' actual buying behaviour towards organic food products. *Journal of Cleaner Production*. 167, 473-483.
- Stock, R.M. (2005), "Can customer satisfaction decrease price sensitivity in business to- business markets?" *Journal of Business-to-Business Marketing*, 12, 3, 59-87. <https://doi.org/10.1016/j.jclepro.2017.08.106>
- Tajfel, H., Turner, J. C., 1979. An integrative theory of intergroup conflict. In W.Austin & S. Worchel (Eds.), the Social Psychology of Intergroup Relations (33-48). Pacific Grove, CA: Brooks/Cole.
- Teng, C.C., & Lu, C., 2016. Organic food consumption in Taiwan: Motives, involvement, and purchase intention under the moderating role of uncertainty. *Appetite*. 105, 95-105.
- Walser-luchesi, A., & Nanopoulos, P., 2007. La mesure de l'évaluation des produits par les prix : une contribution par l'analyse conjointe, *12èmes Journées de Recherche en Marketing de Bourgogne*, Novembre. Bourgogne. France.
- Wang, T., 2017. Social identity dimensions and consumer behaviour in social media. *Asia Pacific Management Review*. 22. 45-51.
- Wesley, S. C., Lee, M.Y., Kim, E. Y., 2012. The role of perceived consumer effectiveness and motivational attitude on socially responsible purchasing behaviour in South Korea. *Journal of Global Marketing*. 25, 29-44.
- Westhoek, H., Lesschenb, J.P., Rood, Y., et al., 2014. Food choices, health and environment: effects of cutting Europe's meat and dairy intake. *Global Environmental Change*. 26, 196-205.
- Yadav and Pathak., 2016. Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behaviour. *Journal of Cleaner Production*. 135, 732-739.
- Zhu, Q., Li, Y., Qi, Y., 2013. Green food consumption intention, behaviours and influencing factors among Chinese consumers. *Food Quality and Preference*. 28, 279-286.