

Research Article

Antecedents of Green Consumption Behavior: A Mediated Moderation through Environmental Attitude and Price Sensitivity

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Abstract

Green consumption studies have greatly advanced in recent years. This study investigates the factors affecting green consumption behavior in Lebanon. These factors include environmental knowledge, environmental responsibility, and environmental attitude. Moreover, this study analyzes the mediate effect of environmental attitude as well as the moderate effect of price sensitivity on the relationship between the examined variables. To achieve the current research objectives, the current research uses a quantitative research method by analyzing data from 310 respondents. The findings of this study reveal a positive effect of environmental knowledge, environmental responsibility, and environmental attitude on green consumption behavior. The findings also reveal that environmental attitude partially mediates the relationship among the examined variables. Likewise, the results show that price sensitivity negatively moderates the relationship between environmental knowledge, environmental responsibility, and green consumption behavior. This study enhances marketing literature and guides marketers about the crucial factors influencing green consumption behavior.

Keywords: Environmental knowledge, environmental responsibility, environmental attitude, green consumption behavior.

Introduction

The development of green marketing has resolved the conflict between human needs and nature [1]. Green customers are often utilizing green products including reading labels carefully, using biodegradable trash bags, soaps, and natural detergents, buying products packaged in environmentally friendly materials, and overlook dining at establishments that utilize Styrofoam containers [2]. Deforestation, threatened farming, soil corrosion, river and marine pollution, air contamination, and soil deprivation are few of Lebanon's major environmental difficulties [3]. According to Hussein & Shams [4], high percentages of Lebanese consumers still believe that green products are less effective than traditional ones. Furthermore, the absence of environmental laws and the price sensitivity against the green product have declined the purchase of green product in Lebanon [4]. Thus, consumers in Lebanon appear to be unconcerned with the preservation of their environment and have a propensity to hold green business [4]. This research aims to examine the factors influencing green consumption behavior in Lebanon including environmental knowledge, environmental responsibility and environmental attitude. Besides, this research studies the mediating impact environmental attitude plays in explaining the relationship. In addition, this study addresses the moderate impact of price sensitivity on the relationship between environmental knowledge, environmental responsibility, environmental attitude and green consumption behavior. Existing research on green consumption behavior have been conducted in Western countries [5, 6, 7, 8]. Nonetheless, there has been little research on the factors that impact green consumption behavior in developing nations such as Lebanon. The current study fills the gaps in the literature on green marketing by developing a unique conceptual framework for explaining the concept of green consumption behavior. This is one of the few empirical studies that examine the influence of environmental knowledge, environmental responsibility, and environmental attitude on green consumption behavior in Lebanon, contributing to a deeper understanding of this concept. Furthermore, this study contributes to a better comprehension of green consumption behavior by studying the mediating

influence of environmental attitude on the relationship between environmental knowledge, environmental responsibility, and green consumption behavior. In addition, by exploring the moderating function of price sensitivity among the analyzed variables, this study adds to a deeper understanding of the factors driving green consumption behavior. Furthermore, to build the research model, the current study employs the theory of ascription of responsibility, the expectation theory, and the theory of planned behavior. As a result, the outcomes of this study provide empirical support for revalidating these mentioned theories. Similarly, the findings of this study help governments, marketers, and business leaders understand the factors that influence green consumption behaviour in Lebanon. Additionally, the study's findings will provide Lebanese marketing and business managers with a better understanding of the country's pricing sensitivity to green products.

Literature review

Green consumption behavior

Consumer green consumption behavior has been one of the most popular academic research topics in recent decades. Green consumption behavior is a sort of consumer behavior that lowers the negative environmental impact of consumption across the whole process of purchasing, using, and disposing of environmentally friendly products [9]. Green consumption behavior refers to an individual's efforts to limit undesirable behavior that might be harmful to the natural and physical environment. This might be done by using less resources and energy, exploiting non-toxic materials, or producing less trash [9]. Green consumption behavior is defined as the consumption of environmentally beneficial, recyclable, and environmentally sensitive commodities [10]. Green consumption behavior is defined also as a new dimension of consumer choice between brands that differ in terms of the degree of social responsibility of the businesses [11].

Theories in the framework of green consumption behavior

The conceptual framework is built on three theories: the theory of ascription of responsibility [12], the theory of expectation [13], and the theory of planned behavior [14]. According to the norm activation model's notion of ascription of responsibility, a sense of responsibility is an individual's moral character and mental state for altruistic behavior within the restrictions of personal norms [11]. Hence, environmental responsibility is viewed as the most fundamental and important psychological feature [15]. Thus, this study adopts the theory of ascription of responsibility to explain the relationship between environmental responsibility and green consumption behavior. The expectancy theory postulates that people are more likely to act appropriately to get away from a fear stimulus if they anticipate danger and are sensitive to it [13]. The current study adopts the expectancy theory to explain the relationship between environmental knowledge regarding to environmental difficulties and green consumption behavior. The theory of planned behavior is an extension of the preceding theory of reasoned action, which posits that consumers' behavior is influenced by attitudes, subjective norm, and perceived behavioral control [14]. This study adopts the theory of planned behavior to explain the relationship between environmental attitude and green consumption behavior.

Environmental knowledge, environmental attitude and green consumption behavior

Environmental knowledge is the fundamental understanding of facts, concepts, and connections pertaining to the natural environment and its primary ecosystems [16]. Previous research has found that environmental knowledge is an important element in environmental attitudes and green consumption behavior [17,18,19,20,21,22]. Durif, [17] discovered that customers' behaviors to make green purchases are impacted by their knowledge about green products. Tadjewski & Tsukamoto [23] have also found that environmental knowledge has a positive effect on green purchasing behavior. Mostafa, [10] found that consumer knowledge of environmental issues is a key component in influencing attitudes toward being more ecologically friendly and green purchase decision in Egypt. Aman et al. [21] demonstrated that environmental knowledge has crucial impact on the green purchasing behavior in Malaysia. Therefore, based on the above arguments, the following hypotheses have been developed:

H1a: Environmental knowledge positively influences green consumption behavior in Lebanon.

H1b: Environmental knowledge positively influences environmental attitude in Lebanon.

Environmental responsibility, environmental attitude and green consumption behavior

Stone et al. [24] defined environmental responsibility as a condition in which a person declares an intention to take action to address environmental issues. Consumers who feel they have a responsibility to address environmental issues are more likely to engage in eco-friendly purchasing practices and frequently engage in more environmentally conscious behaviors, such as purchasing and utilizing eco-friendly items [25]. According to Balderjahn [26], individuals with a pro-environmental perspective are more inclined to buy and use products created from the environment in Germany. Lynne & Rola [27] claimed that environmental attitudes positively influence ecological activity and green consumption behavior. Mostafa [20] revealed that attitudes had a substantial effect on customers' decisions to purchase environmentally friendly items. Beckford et al. [28] & Cornelissen et al. [29] discovered that environmental attitude had a strongest impact on consumer purchasing behavior. According to Yadav & Pathak [30], environmental attitudes had a direct influence on customers' purchases of ecologically friendly products. Hence, the following hypotheses were proposed:

H2a: Environmental responsibility positively influences environmental attitude in Lebanon.

H2b: Environmental responsibility positively influences green consumption behavior in Lebanon.

H2c: Environmental attitude positively influences green consumption behavior in Lebanon.

Environmental attitude as a mediator

People with a greater attitude toward eco-friendly products and advertisements are more likely to see themselves as responsible and knowledgeable of environmental protection measures [25, 31]. Several research have discovered that environmental attitude influences people's purchasing behavior for green items [32, 30]. Earlier research found that environmental knowledge positively influences environmental attitude and green purchasing behavior [7]. Similarly, prior studies show that environmental attitude had a positive influence on green buying behavior [30]. Hence, environmental attitude mediates the relationship between environmental knowledge and green consumption behavior. Indriani et al. [33] found a positive mediate impact of environmental attitude on the relationship between environmental knowledge and green purchasing behavior. Ho & Chui [34] found that environmental responsibility positivity influences environmental attitude and green consumption behavior. Likewise, the study revealed a positive effect of environmental attitude on green consumption behavior. Hence, environmental attitude mediated the relationship between environmental responsibility and green consumption behavior. Therefore, and based on previous studies, this study hypothesizes the following:

H3a: Environmental attitude mediates the relationship between environmental knowledge and green consumption behavior in Lebanon.

H3b: Environmental attitude mediates the relationship between environmental responsibility and green consumption behavior in Lebanon.

Price sensitivity as a moderator

The degree to which consumers react differently to price variations and price changes of the product (or service) is known as price sensitivity [35]. Price sensitivity is seen as a direct or indirect antecedent of the desire to buy an environmentally friendly product by a significant body of research [36, 37]. According to Hsu et al. [38] research, price sensitivity was a key factor influencing green purchase behavior. Consumers with lower price sensitivity are more likely to pay for electric vehicles, despite having a positive attitude toward green consumption, consumers may not really partake in it because they think the expenses are too high [39]. Yue et al. [44] showed that price sensitivity had a moderating effect on the relationship between environmental responsibility and green consumption behavior. Thus, this study hypothesizes the following:

H4a: Price sensitivity negatively moderates the relationship between environmental knowledge and green consumption behavior.

H4b: Price sensitivity negatively moderates the relationship between environmental responsibility and green consumption behavior.

Conceptual framework

This study investigates the factors that influence green consumption behavior in Lebanon. These factors include environmental knowledge, environmental responsibility and environmental attitude. The conceptual foundation of the current study was based on prior research by Yue et al. [44] who studied the influence of consumers' environmental responsibility and environmental concern on green consumption behavior in China, as well as the moderating function of price sensitivity. This study modified Yue et al.'s [44] conceptual framework by examining the impact of environmental knowledge on green consumption behavior and the mediating role of environmental attitude plays in explaining the relationship between environmental knowledge, environmental responsibility, and green consumption behavior.

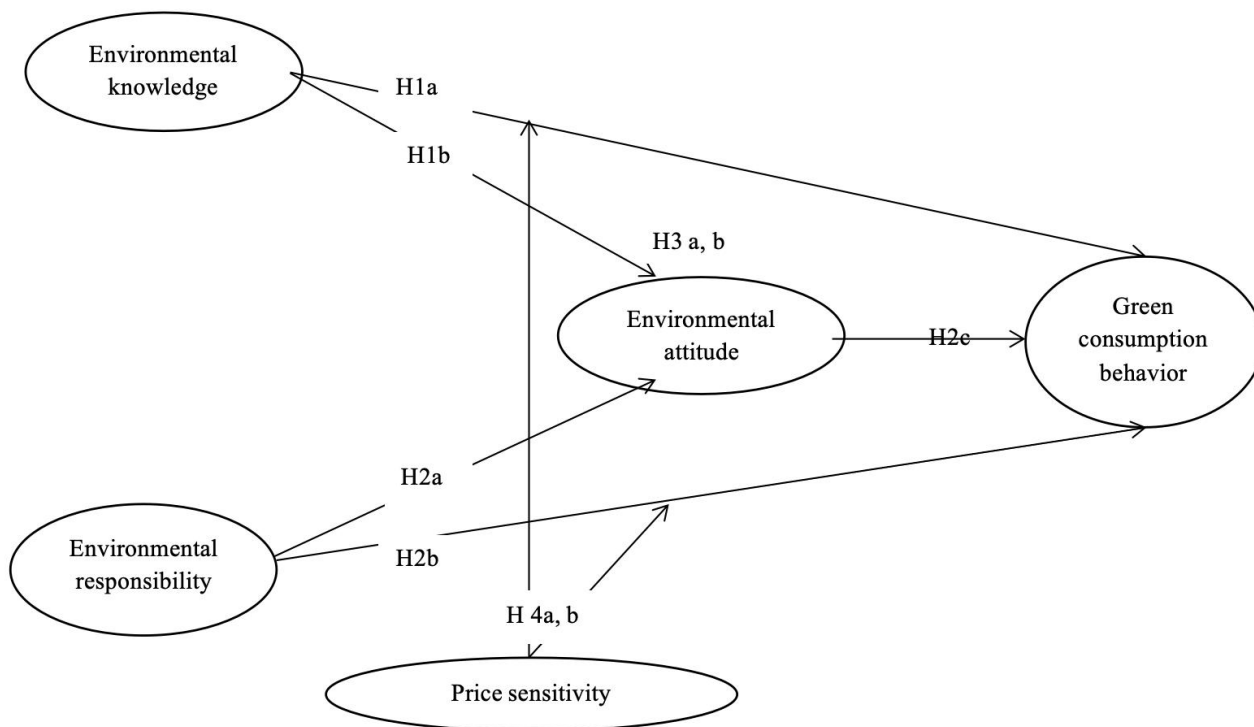


Figure 1: Conceptual framework

Methodology

Research design and sampling

In order to achieve the current research objectives and empirically analyse the issue of green consumption behavior, a quantitative research method was used through collecting numerical data through a face-to-face survey design and an online data collection method from a convenience sample of 390 Lebanese respondents who are familiar with green products and are asking for green products or/and prefer a specific brand because its green or eco-friendly products in large markets in Lebanon. Nevertheless, only 310 respondents had successfully completed the survey, accounting for 79% of the respondent rate.

Measurement instrument

The current research's measurement scales was based on five-point Likert scale that ranges from "strongly disagree to strongly agree" was modified from other earlier investigations. First, the instrument was sent to a number of specialists to get their feedback regarding its validity. Then, the research's instrument scale was adjusted according to their suggestions. The four components that made up the environmental knowledge construct were taken from Lee [5]. The three environmental responsibility measuring items were based from [40]. Environmental attitude measures were based on four items from Lee [5]. In addition, eight items from Sinha &

Batra [41] were used as the basis for the price sensitivity measure. Lastly, four items was used to measure green consumption behaviors from Yue et al. [44].

Results and discussions

This study was conducted to investigate the relationship between environmental knowledge, environmental responsibility, environmental attitude and green consumption behavior in Lebanon. Further, this study addresses the mediating effect of environmental attitude on the relationship among the examined variables. In addition, this study explores the moderating effect of price sensitivity on the relationship between the predictor variables and green consumption behavior. The following section provides the statistical analysis of the current research.

Descriptive statistics

The data were analysed using the IBM SPSS AMOS 26 program. Using SPSS's frequency analysis, descriptive statistics of the demographic information about the respondents were demonstrated, these information include respondents' age, gender, marital status, income, and level of education.

Table 1. Demographic profile

Attribute	Value	Frequency	Percentage
Gender	Female	208	67
	Male	102	33
	Total	310	100
Age	Less than /18/ years	16	5
	Between /18/ and /25/	139	45
	Between /26/ and /35/	132	43
	Between /36/ and /46/	14	5
	Above /46/ years	9	3
	Total	310	100
Marital status	Single	185	60
	Married	85	27
	Divorced	36	12
	Widowed	4	1
	Total	310	100
Education	High School	32	10
	Bachelor degree	178	57
	Master degree	95	31
	PhD degree	5	2
	Total	310	100
Monthly income	Less than 500\$	113	36
	Between 500\$ and 1000\$	165	53
	Between 1001\$ and 5000\$	25	8
	Above 5000\$	7	2
	Total	310	100

Out of the 390 questionnaires distributed, 80 had to be deleted owing to deficiencies. As a result, 310 questionnaires were employed to collect data. Table 1 shows the descriptive statistics findings, whereas 67% of the respondents in this study were female and 33% of the respondents were male. Among the respondents, 60% of the respondents were single and 27% were married. Most of the respondents were between 18 and 25 years old, accounting for 45%, followed by those between 26 and 35 years old (43%), and those between 36 and 46 years old (5%). The consumers who participated in this study who have had a bachelor's degree accounted for 57% of the overall sample followed by those who had a master's degree (31%), and those who had a high school diploma (13%).

Measurement model evaluation

In this study, the findings of the measuring model were evaluated by examining the factors loading, Cronbach's alpha (CA), composite reliability (CR), and average variance extracted (AVE) for all variables.

Table 2. Result of measurement model.

Construct	Variable Code	Factors Loading	CR	AVE
Environmental Knowledge	EK1	0.691	0.878	0.646
	EK2	0.755		
	EK3	0.863		
	EK4	0.89		
Environmental Responsibility	ER1	0.913	0.887	0.726
	ER2	0.868		
	ER3	0.769		
Environmental Attitude	EA1	0.921	0.901	0.752
	EA2	0.884		
	EA3	0.793		
Price Sensitivity	PS2	0.87	0.935	0.743
	PS5	0.86		
	PS6	0.78		
	PS7	0.96		
	PS8	0.83		
Green Consumption Behavior	GCB1	0.94	0.964	0.870
	GCB2	0.89		
	GCB3	0.93		
	GCB4	0.97		

As shown in table 2, the factor loading of all items were more than 0.5, with the exception of the price sensitivity items (PS1, PS3, PS4), which were omitted from the study. The overall composite reliability values of all variables exceeded the 0.7 threshold value established by Hair et al. [42]. This study also looked at the average variance extracted values for each construct, and the results showed that AVE ranged from 0.646 to 0.870, which is higher than the cut-off threshold of 0.5. The findings confirm the study's constructs' consistency, dependability, and convergent validity.

Hypotheses testing

The direct and indirect relationships among the variables are provided in table 3. As shown in table 3, environmental knowledge has a positive influence on consumers' environmental attitude ($\beta = 0.242, p = 0.021$) and green consumption behavior ($\beta = 0.325, p = <0.001$) supporting H1a and H1b. Further, the results also reveal that environmental responsibility positively influences consumer environmental attitude ($\beta = 0.151, p = 0.011$) and green consumption behavior ($\beta = 0.245, p = <0.001$), thus, H2a, and H2b is supported. The findings also reveal that environmental attitude plays the most crucial role in influencing green consumption behavior ($\beta = 0.593, p = 0.048$) supporting H2c.

Table 3. Structural relationships and hypotheses testing

	Relationship			Estimate	S.E.	C.R.	P	Hypothesis
H1a	EK.	→	GCB	0.325	0.061	6.354	***	Supported
H1b	EK.	→	EA	0.242	0.075	4.152	0.021	Supported
H2a	ER.	→	EA	0.151	0.069	2.965	0.011	Supported
H2b	ER	→	GCB	0.245	0.086	4.752	***	Supported
H2c	EA	→	GCB	0.593	0.036	11.954	0.048	Supported
H4. A	EK→EA→GCB			0.189	0.049	3.124	0.023	Partially mediated
H4. B	ER→EA→GCB			0.256	0.051	2.962	0.031	Partially mediated

Note: P***=<0.001, EK: environmental knowledge, ER: environmental responsibility, EA: environmental attitude, GCB: Green consumption behaviour

Testing the Mediating Relationships

The current study predicted that the consumers’ environmental attitude might mediate the relationship between the environmental knowledge, responsibility, and green consumption behavior. The mediation result in table 3 shows that environmental attitude partially mediates the relationship between the environmental factors and green consumption behavior. More specifically, this study confirms that there is also an indirect relationship between the environmental knowledge ($\beta = 0.189, p = 0.023$), and environmental responsibility ($\beta = 0.256, p = 0.031$) and green consumption behavior through the mediation of environmental attitude. The findings further support hypotheses H3a and H3b that consumer environmental attitude levels mediate the relationship between environmental knowledge, environmental responsibility, and green consumption behavior.

Table 4. Moderation of price sensitivity.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.19	0.543		15.59	0.000
	EK	0.286	0.059	0.286	4.698	0.003
	PS*EK	-0.037	0.045	0.023	0.896	0.0012
2	(Constant)	6.65	0.865		11.365	0.000
	ER	0.145	0.084	0.178	2.647	0.002
	PS*ER	-0.064	0.007	0.163	1.99	0.000

a. Dependent Variable: GCB

EK: environmental knowledge, ER: environmental responsibility, EA: environmental attitude, GCB: Green consumption behaviour

Testing the Moderating Relationships

The final two hypotheses proposed that price sensitivity might moderate the relationship between environmental knowledge, environmental responsibility and green consumption behavior. As shown in table 4, the statistical analysis to test H4a and H4b revealed a negative moderate impact of price sensitivity on the relationship between environmental knowledge, environmental responsibility and green consumption behaviour.

As seen in table 4, the relationship between environmental knowledge and green consumption behavior when price sensitivity was kept constant was ($\beta = 0.286, p = 0.003$), the interaction of price sensitivity moderates the relationship between environmental knowledge and green consumption behavior negatively ($\beta = 0.145, p = 0.002$) supporting H4a. In addition, the relationship between environmental responsibility and green consumption behavior when price sensitivity was kept constant was ($\beta = 0.145, p = 0.002$), the interaction of price sensitivity

moderates the relationship between environmental responsibility and green consumption behavior negatively ($\beta = -0.064$, $p = 0.000$), thus, H4b is supported.

To sum it all up, the findings of this study stated that environmental knowledge positively influences environmental attitude. The positive relationship between environmental knowledge and environmental attitude supports previous study by Julina [43] that found a positive relationship between environmental knowledge and environmental attitude. This can be interpreted that customers in Lebanon are knowledgeable and aware of the environmental issues. Further, these customers feel secure about buying brands which are less damaging to the environment. Likewise, the findings of this study stated that environmental knowledge positively influences green consumption behavior. The positive relationship between environmental knowledge and green consumption behavior support previous study by Mostafa [20] that found a positive relationship between environmental knowledge and green consumption behavior. This can be interpreted that green companies have succeeded in providing detailed knowledge and understanding about green products and the difference between green products and conventional products. The findings also indicate that environmental responsibility influences environmental attitude. The positive relationship between environmental responsibility and environmental attitude supports previous study Ho & Chui [34] that found a positive relationship environmental responsibility and environmental attitude. The positive relationship between environmental responsibility and environmental attitude is due to the sense of responsibility against the environmental issues which leads customers to identify green products and have a favorable attitude towards green product. Likewise, the findings of this study stated that environmental responsibility positively influences green consumption behavior. The positive relationship between environmental responsibility and green consumption behavior supports previous study by Kaiser et al. [25] that found a positive relationship between environmental responsibility and green consumption behavior. This finding is due to the sense that environmental protection starts with the customer and for this belief, consumers use eco-friendly products for better environmental safety. Furthermore, the findings of this study indicated that there is a positive relationship between environmental attitude and green consumption behavior. This finding supports previous studies [20, 34]. The positive effect of environmental attitude on green consumption behavior can be interpreted as an effect of personal evaluation and individuals' belief that drive consumers to purchase green products. Similarly, the findings of this study stated that environmental attitude mediates the relationship between environmental knowledge, environmental responsibility and green consumption behavior. This finding is in line with previous studies [7, 34]. This finding is due to the fear of environmental problems, the consumer's role in the social responsibility and the awareness of the threats arising from bad environmental scenarios which results in changing consumer evaluation perception and assessment regarding the green consumption behavior. Finally, the findings of this study reveal that price sensitivity negatively moderates the relationship between environmental knowledge, environmental responsibility, and green consumption behavior. This finding is in line with previous studies [39]. This finding is due to the impact of economic situation that currently exists in Lebanon which undermine the ability of green consumer to afford the price of green products. Hence, green consumers are unable to afford the price of green products which thereby their behaviors have transformed as a result of the underlying economic circumstance.

Conclusions

The results of this research have a number of theoretical implications. First, the empirical research on green consumption behavior in Lebanon is still lacking. Thus, this study enhances the literature on green marketing to understand green consumption behavior during unusual economic situation currently existing in Lebanon by analyzing the role of environmental knowledge, environmental responsibility, and environmental attitude. Likewise, the current study is based on the theories of ascription of responsibility [12], expectancy theory [13], and planned behavior [14]. The findings of this study support the ascription of responsibility that stated a sense of responsibility is an individual's moral character and mental state for altruistic behavior within the restrictions of personal norms. Furthermore, the study's findings support the expectation theory, which stated that a person's forecast of danger and sensitivity to the harmful item as a result of the threat's information motivates them to take suitable activities to avoid the fear stimulus. Furthermore, the results of this research confirm the theory of planned behavior, which stated an individual's conduct is proximally governed by attitudes, subjective norms, and perceived behavioral control. Besides, this study contributes to better understanding the mediating impact of

environmental attitude on the relationship between environmental knowledge, environmental responsibility and green consumption behavior. Finally, this study expanded previous literature that investigated various factors of green consumption behavior [44]. This study contributes to the body of green marketing literature by analyzing the moderating role of price sensitivity on the relationship between environmental knowledge, environmental responsibility, and green consumption behavior.

The findings of this study are beneficial for policymakers, retailers, and marketers. The findings reveal that green consumption behavior is explained by environmental knowledge, environmental responsibility, and environmental attitude. First, this research will aid policymakers, retailers, and the government in comprehending the factors that influence green consumption behavior in Lebanon. As a result, to increase green consumption, governments should incorporate environmental education into the national education system, instilling the environmental value of properly managing the interaction between humans and nature. Meanwhile, authorities may increase consumers' environmental responsibilities and environmental knowledge through multiple communication channels (TV and social media) to display various environmental issues. In addition, policymakers should enhance consumer understanding of the benefits of eco-friendly products and adopt environmental roles that obligate citizens to exploit environmental products. The results also provide managers a fresh viewpoint for creating a green marketing plan that attempts to lessen consumers' price sensitivity. For this purpose, marketers should set a fair price on green products that could be afforded by consumers which fit with the current and unusual economic circumstances.

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References

1. Kilbourne, W. E. (1998, July). Green Marketing: A Theoretical Perspective. *Journal of Marketing Management*, 14(6), 641–655. <https://doi.org/10.1362/026725798784867743>
2. Minton, A.P. & Rose, R.L. (1997). The effects of environmental concern on environmentally friendly consumer behavior: an exploratory study. *Journal of Business Research*, 40, 37-48.
3. Masri, R. (1997). Environmental Challenges in Lebanon. In Jabbara, J.G. and Jabbara, N.W. (Eds.), *Challenging Environmental Issues: Middle Eastern Perspective*, Pages 73-114, Linden, New York, Köln: Brill.
4. Hussein, S. and Chams, M. (2017). The effect of green marketing on Lebanese consumer behavior in retail market. *British Journal of Marketing Studies*. Vol.5, No.4, pp.49-60.
5. Lee, K. (2009). Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *The Journal of Consumer Marketing*, 26 (2), pp: 87-96.
6. Wang, Y., Wiegerinck, V., Krikke, H. and Zhang, H (2013). Understanding the purchase intention towards remanufactured product in closed-loop supply chains. An empirical study in China *International Journal of Physical Distribution & Logistics Management* Vol. 43 No. 10, pp. 866-888.
7. Pratiwi, N., Sulhaini, and Rinuastuti, B. (2018, June 30). The effect of environmental knowledge, green advertising and environmental attitude toward green purchase intention. *Russian Journal of Agricultural and Socio-Economic Sciences*, 78(6), 95–105. <https://doi.org/10.18551/rjoas.2018-06.10>
8. Ansu-Mensah, P. (2021, November 28). Green product awareness effect on green purchase intentions of university students': an emerging market's perspective. *Future Business Journal*, 7(1). <https://doi.org/10.1186/s43093-021-00094-5>

9. Kollmuss, A., & Agyeman, J. (2002, August). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239–260. <https://doi.org/10.1080/13504620220145401>
10. Mostafa, M. M. (2006, May 22). Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220–229. <https://doi.org/10.1111/j.1470-6431.2006.00523.x>
11. Kotler, P. (2011, July). Reinventing Marketing to Manage the Environmental Imperative. *Journal of Marketing*, 75(4), 132–135. <https://doi.org/10.1509/jmkg.75.4.132>
12. Schwartz, S. H., (1977). Normative Influences on Altruism", in Leonard, B. (Ed.) *Advances in Experimental Social Psychology*, Academic Press, pp. 221-279.
13. Reiss, S., (1991). Expectancy model of fear, anxiety, and panic. *Clin. Psychol. Rev.* 11 (2), 141–153.
14. Hill, R. J., Fishbein, M., & Ajzen, I. (1977, March). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. *Contemporary Sociology*, 6(2), 244. <https://doi.org/10.2307/2065853>
15. Hines, J., Hungerford, H. and Tomera, A. (1987). Analysis and Syntheses of research on environmental behaviour: A meta-analysis. *Journal of Environmental Education*, 18(2), pp. 1-8.
16. Fryxall, G. and Lo, C., (2003). The influence on environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of Business Ethics*, Iss. 46, pp. 45-59.
17. Durif, F. (2011). *La consommation responsable a son observatoire, Le Devoir*.
18. Rokicka, E. (2002). Attitudes towards natural environment. *International Journal of Sociology*, 32(2), pp. 78-90.
19. Panni, M.K., (2006). *The Effect of Consumerism towards customer attitudinal behavior in food industry in Malaysia*. M.Phil. Multimedia University.
20. Mostafa, M. (2009). Shades of green: A psychographic segmentation of the green consumer in Kuwait using self-organizing maps. *Expert Systems with Applications*, 36(8), pp. 11030-11038.
21. Aman, A.H.L, Harun A, and Hussein, Z. (2012). The Influence of Environmental Knowledge and Concern on Green Purchase Intention the Role of Attitude as a Mediating Variable. *British Journal of Arts and Social Sciences*, 7 (2):145 – 167.
22. Joshi, Y. and Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *Technology Analysis and Strategic Management*. 3. 10.1016/j.ism.2015.04.001.
23. Tadjewski, M. & Tsukamoto, S.W. (2006). Anthropology and consumer research: qualitative insights into green consumer behavior, *Qualitative Market Research: An International Journal*, Vol. 9 Issue: 1, pp.8-25, <https://doi.org/10.1108/13522750610640521>.
24. Stone, G., Barnes, J. H., & Montgomery, C. (1995, October). Ecoscale: A scale for the measurement of environmentally responsible consumers. *Psychology & Marketing*, 12(7), 595–612. <https://doi.org/10.1002/mar.4220120704>
25. Kaiser, F. G., Ranney, M., Hartig, T. and Bowler, P. A., (1999), "Ecological behavior, environmental attitude, and feelings of responsibility for the environment", *European Psychologist*, vol. 4, no. 2, pp. 59-74.
26. Balderjahn, I. (1988). Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, 17(8), pp. 51-56.
27. Lynne, G. and Rola, L. (1988). Improving attitude-behavior prediction models with economic variables: Farmer action towards soil conservation. *Journal of Social Psychology*, 128(1), pp. 19-28.
28. Beckford, C.L., Jacobs, C., Williams, N. and Nahdee, R. (2010). Aboriginal Environmental Wisdom, Stewardship and Sustainability: Lessons from the Walpole Island first nations, Ontario, Canada. *The Journal of Environmental Education*, 41(4), pp. 239-248.
29. Cornelissen, G., Pandelaere, M., Warlop, L. and Dewitte, S. (2008). Positive cueing: Promoting sustainable consumer behaviour by cueing common environmental behaviours as environmental. *International Journal of Research in Marketing*, Iss. 25, pp. 46-54.
30. Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732-739.

31. Yusof, J. M., Singh, G. K. B. and Razak, R. A., (2013). Purchase Intention of Environment-Friendly Automobile, *Procedia - Social and Behavioral Sciences*, vol. 85, no. 0, pp. 400-410.
32. Prakash, G., & Pathak, P. (2017). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 141, 385-393.
33. Indriani, I. a. D., Rahayu, M., & Hadiwidjojo, D. (2019). The influence of environmental knowledge on green purchase intention the role of attitude as mediating variable. *International Journal of Multicultural and Multireligious Understanding*, 6(2)
34. Ho, M. N. C., & Chui, M. L. C. (2015). Encouraging green purchase behaviours of Hong Kong consumers. *Asian Journal of Business Research*, 5(2).
35. Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993, May). Price Perceptions and Consumer Shopping Behavior: A Field Study. *Journal of Marketing Research*, 30(2), 234. <https://doi.org/10.2307/3172830>
36. Stall-Meadows, C., & Davey, A. (2013, January). Green marketing of apparel: consumers' price sensitivity to environmental marketing claims. *Journal of Global Fashion Marketing*, 4(1), 33-43. <https://doi.org/10.1080/20932685.2012.753293>
37. Hahnel, U. J., Ortmann, C., Korcaj, L., & Spada, H. (2014, December). What is green worth to you? Activating environmental values lowers price sensitivity towards electric vehicles. *Journal of Environmental Psychology*, 40, 306-319. <https://doi.org/10.1016/j.jenvp.2014.08.002>
38. Hsu, C. L., Chang, C. Y., & Yansritakul, C. (2017, January). Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services*, 34, 145-152. <https://doi.org/10.1016/j.jretconser.2016.10.006>
39. Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013, March). Against the Green: A Multi-method Examination of the Barriers to Green Consumption. *Journal of Retailing*, 89(1), 44-61. <https://doi.org/10.1016/j.jretai.2012.10.001>
40. Stern, M. J., Powell, R. B., & Ardoin, N. M. (2010, December 22). Evaluating a Constructivist and Culturally Responsive Approach to Environmental Education for Diverse Audiences. *The Journal of Environmental Education*, 42(2), 109-122. <https://doi.org/10.1080/00958961003796849>
41. Sinha, I., & Batra, R. (1999, September). The effect of consumer price consciousness on private label purchase. *International Journal of Research in Marketing*, 16(3), 237-251. [https://doi.org/10.1016/s0167-8116\(99\)00013-0](https://doi.org/10.1016/s0167-8116(99)00013-0)
42. Hair, J., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced Issues in Partial Least Squares Structural Equation Modeling* (1st ed.). SAGE Publications, Inc.
43. Julina. (2013). Determinan Perilaku Pembelian Ekologis dan Konsekuensinya Terhadap Lingkungan: Perspektif Konsumen di Kota Pekanbaru Berdasarkan Kolektivisme, Perhatian Terhadap Lingkungan, Efektivitas Konsumen, dan Kesiediaan Membayar. *Kutubkhanah Jurnal Penelitian Sosial Keagamaan*, 16 (2), 115-126.
44. Yue, B., Sheng, G., She, S., & Xu, J. (2020, March 8). Impact of Consumer Environmental Responsibility on Green Consumption Behavior in China: The Role of Environmental Concern and Price Sensitivity. *Sustainability*, 12(5), 2074. <https://doi.org/10.3390/su12052074>