



Benefiting from Payment of Green Premiums: Costly Signals that Incentivize Consumers to Pay Them—— Based on SPSS Analysis

Qing Tang^{1,2}, Qian Kang^{1,2}, Mingyu Tan^{1,2}, Fanqing Liu^{1,2}, Chunmei Chen^{1,2,*}

¹Business and Tourism School, Sichuan Agricultural University, Chengdu, 510100, China

²No. 288, Jianshe Road, Dujiangyan City, Chengdu, Sichuan Province, China.

*Corresponding author Email addresses: 41429@sicau.edu.cn

Abstract. This study is from the perspective of benefiting consumers that explore the factors that can affect consumers' willingness to pay green premium, and investigates the relationship between product features (i.e., eco-label and green brand image) and identity features (i.e., pro-environmental belief, need for status, and need for uniqueness) as costly signals affecting consumers' willingness to pay a green premium, and considers the mediating effect of perceived value. It also explores whether there are differences between pure altruism (i.e., pro-environmental belief) and competitive altruism (i.e., status and uniqueness) on consumers' willingness to pay green premiums. Based on a structural equation model and 365 questionnaires, spss and software were used for data analysis. Empirical results show green brand image, eco-label, need for status and need for uniqueness can indirectly positively improve consumers' willingness to pay green premium, and perceived value plays a mediating role in this mechanism. But there is no significant relationship between pro-environmental belief and willingness to pay green premium or between perceived value. This study is the first to show how costly signals affect consumers' responses to the green premium, it shows that competitive altruists (i.e., status and uniqueness) are more likely to respond to willingness to pay green premium than pure altruists (i.e., pro-environmental belief). And expanding costly signaling theory research in the field of green consumption.

Keywords: Green premium; Perceived value; Costly signaling theory; Need for status; Green products; Altruism type

1 Introduction

Humanity is aware of the problems of climate change and non-renewable energy consumption and the need for long-term action to achieve sustainable development [1]. Green consumption is regarded as a very effective means of doing so [2]. However, there is still a large gap between consumers' positive attitudes towards environmental protection and actual green consumption [3], and the green premium is one of the main reasons.

© The Author(s) 2025

A. Mallik et al. (eds.), *Proceedings of the 2025 6th International Conference on Management Science and Engineering Management (ICMSEM 2025)*, Atlantis Highlights in Economics, Business and Management 4, https://doi.org/10.2991/978-94-6463-845-5_34

The green product premium refers to the portion of the price that exceeds a product's usage value; this extra cost pays for the product's green attributes. The premium emphasizes the extra cost paid by consumers, which makes many factors that can enhance the willingness to buy green products inapplicable to the willingness to pay such a premium [4]. However, for objective reasons, such as technology or the price of raw materials, the premium attached to green products cannot currently be eliminated [5]. Thus this study promotes the development of green consumption by identifying the factors that can affect consumers' attitudes toward green product premiums. While consumers have a direct perception of the higher premium of green products, they do not gain direct social benefits from the green value the products provide; this naturally decreases consumers' acceptance of the green product premium [4]. We believe that the perception of direct benefits is key to consumer acceptance. The theory of cost signaling, which posits that the reason individuals are willing to engage in costly behavior is to convey positive information to others; Individuals are eager to project a good social image, and they want to show their favorable social self-worth to others [6]. According to the CST, consumers are willing to pay a high cost to convey their ideal features, and green consumption is a behavior that requires a high cost, the environmental protection and green attributes of green products serve as costly signals to promote consumers' WTPP.

This paper focuses on consumer benefits, which are divided into two dimensions: how consumers benefit and who consumers want to benefit. The motivation of altruism can be divided into pure altruism and competitive altruism, both of which can lead to altruistic behavior [7] but which are different. There are two motivations for altruistic behavior: pure altruism and competitive altruism, both of which improve consumers' green purchasing behavior ([8],[9]). The altruistic behavior of pure altruists is conducted to help others or protect the environment; their goal is to obtain greater benefits collectively, and they pursue identity features, such as pro-environmental belief [10]. In contrast, the altruistic behavior of competitive altruists is to win in competition with others [11]; they pursue identity features, such as social status and uniqueness. Thus consumers, regardless of their motivation, have a role to play in promoting their green consumption and WTPP.

The key to this effect is, how do the costly signals benefit the consumer and can the product improve consumers' WTPP, depending on the perceived value the product [12]? Since consumers cannot directly profit from the social benefits brought by their environmental value [4], their WTPP will be affected. Therefore, this study explores whether consumers can obtain other values from purchasing green products.

2 Theoretical Background

2.1 Consumers' WTPP

This study reveals the factors that can enhance consumers' WTPP. Although most green products will reduce consumers' costs in subsequent use (such as electric vehicles), owing to the technological requirements or raw materials, most green products have higher prices than traditional ones [13]. Compared with the purchase intention,

WTPP more clearly identifies the cost to consumers. As for the factors that have been widely confirmed to enhance green purchase intention, they are not necessarily applicable to the WTPP of green products. Recent studies confirmed that altruism can promote green consumption to consumers. However, it is inhibited by cost perception and price sensitivity [4]. Since consumers cannot directly benefit from the green value brought by the additional cost, this reduces their willingness to buy products [4]. Thus, consider the importance of perceived value, in addition to green value. Other studies have highlighted the importance of product features to WTPP [14]. The effect of price sensitivity can be mitigated by specific identity features [15]. According to the SOR model, various aspects of the environment affect people's mental responses through stimulus, thus driving their behavior [16]. The purpose of this study is to investigate whether signals can improve consumers' WTPP by improving their perceived value.

2.2 Costly Signals

According to the CST, consumers are willing to pay a high cost to convey their ideal features, and green consumption is a behavior that requires a high cost. However, consumers who hope to demonstrate their pro-environment tendencies and their ability to bear its high costs will pay a premium to gain advantages in social interaction. The possibility that consumers will profit is crucial to their acceptance of a premium [17]. Therefore, in this study, costly signals specifically refer to features those consumers want to exhibit, features that can benefit them in social communication.

Several studies have shown that social perspective factors (such as environmentalist identity and social status), may have a greater impact on green consumption than economic advantages [18]. First, based on the theory of social identity, an individual's behaviors are influenced by their social identity. Consumers hope that they can achieve their ideal identity through the behavior of paying a high price. Therefore, a consumer's acceptance of a green premium is affected by a strong ego identity [19]. Second, consumers' resistance to premiums largely depends on their price sensitivity. However, for consumers with a specific identity feature, their price sensitivity has no significant impact on the premium [15]. Therefore, identity features can be considered costly signals that influence consumers' WTPP.

The product features referenced in this study are those that convey the green attributes of the product, and function as costly signals that influence consumers. According to signal theory, information asymmetry, in the context of environmental consumption, has an important impact on consumer behavior [20]. Distinctive product features reduce the information asymmetry of products, which is one of the important prerequisites for consumers to buy [21]. When premium products convey distinctive environmental features, consumers' signal benefits can offset part of the green premium [22, 23], and consumers can benefit from using such products.

3 Hypothesis Development

3.1 Green Brand Image

A green brand image is described as "a series of brand perceptions related to environmental commitment and environmental concern in the minds of consumers" [24]. The brand image is the product feature, which is based on consumers' perceptions of the enterprise after the accumulation of green actions [25]. A green brand image is conceptually divided into two parts: a functional part and an emotional part. Therefore, a green brand image can not only improve consumers' product satisfaction [26] but also improve their green attitudes [27]. Therefore, we put forward the following hypotheses:

H1a: A green brand image has a positive influence on functional value.

H1b: A green brand image has a positive influence on emotional value.

3.2 Eco-Labels

Eco-labels indicate a product that has a low impact on the environment throughout its life cycle. Eco-labels have been generally confirmed to have a positive impact on green purchasing behavior ([28]; [29]). Moreover, as a product feature, an Eco-label can improve consumers' environmental emotions and concern for environmental protection. Therefore, this study expects that Eco-labels provide consumers with emotional value, therefore we proposed the following:

H2: Eco-labels have a positive influence on emotional value.

3.3 Pro-Environmental Beliefs

Human beings that have a responsible attitude toward the environment tend to have increased green purchasing attitudes and green consumption behaviors. This implicit belief is called a pro-environmental belief [30]. Combined with social identity theory, consumers take actions to establish their identity through identification with companies [31] and brands [32], and consumers will strengthen their environment-friendly identity by purchasing products with green attributes [33]. When consumers associate themselves with signals of product features, their purchase intentions will be improved, and detailed product information will improve consumers' self-identity [34]. Therefore, we expect that product features with green attributes will improve consumers' self-identification with their pro-environmental belief, thus we propose the following hypotheses:

H3a: A green brand image has a positive influence on a pro-environmental belief.

H3b: Eco-labels have a positive influence on a pro-environmental belief.

Since pro-environment consumers value collective costs and benefits more [35], it can be a form of pure altruism, as they improve their green purchase intentions through expected self-acceptance and social contribution [36]. Consumers with a pro-environmental belief are friendly to the environment, so this belief is expected to enhance consumers' emotional value. Therefore, the following hypothesis is proposed:

H3c: A pro-environmental belief has a positive influence on emotional value.

3.4 Need for Status

Humans have a natural tendency to gain and maintain status, and higher status leads to more social rewards [37]. Consumers want to purchase symbolic products to convey their social status to others [38], and individuals tend to be sensitive to perceived status changes. Status can be a form of competitive altruism. In CST, an expensive green premium has been shown to be a status signal [22]. Therefore, we predict the following:

H4: The need for status has a positive influence on social value.

3.5 Need for Uniqueness

Uniqueness can be a form of competitive altruism. Consumers often express their uniqueness through commodities, and they enhance their personal identity through the expression of uniqueness [39]. Thus, unique performance can be expected to provide social value. Simultaneously, the unique performance of a product improves consumers' attitude toward product quality [40], so we expect the need for uniqueness to provide functional value:

H5a: The need for uniqueness has a positive influence on functional value.

H5b: The need for uniqueness has a positive influence on social value.

3.6 Perceived Value

The theory of consumption values divides values into five categories: functional, social, emotional, cognitive, and conditional value[41]. Among these, functional value emphasizes that the product or brand itself can meet the actual functional attributes of consumers. Social value is gained when the product can connect consumers with other social groups and provide utility. Emotional value refers to the opportunity that products, or the behavior of buying products, can provide for consumers to express their emotions. This study divides perceived value into three dimensions: functional value, emotional value, and social value. Perceived value often predicts consumers' premium purchase intentions in symbolic consumption [42]. Therefore, we expect:

H6a-c: (a) Functional value, (b) emotional value, and (c) social value, have a positive impact on the WTPP.

Value is the link between reward and responsibility [43]. Stimulus produces perceived value, and value makes behavior possible; that is, stimuli generate perceived value, which drives behavior. Only when the signal can provide consumers with additional perceived value, will consumers be more likely to engage in behaviors. Therefore, this study predicts that perceived value plays a mediating role between costly signals and WTPP, and based thereon, proposes the following hypotheses:

H7a-b: Functional value plays a mediating role in the influence of green brand image (a) and need for uniqueness (b), on WTPP.

H8a-c: Emotional value plays a mediating role in the influence of (a) Eco-labels, (b) green brand image, and (c) pro-environmental beliefs, on WTPP.

H9a-b: Social value plays a mediating role in the influence of (a) the need for status, and (b) the need for uniqueness, on WTPP.

To provide a better understanding of all hypotheses, a conceptual model was developed (Fig. 1).

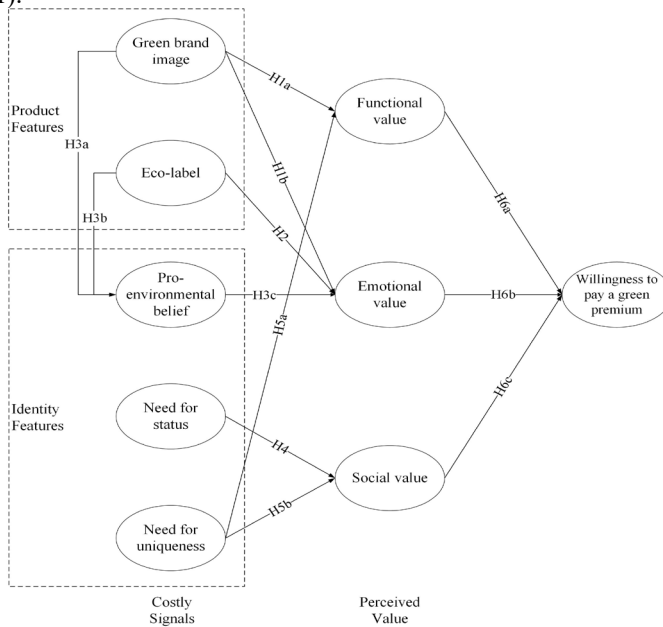


Fig. 1. Research framework.

4 Scale Design and Data Collection

This study refers to relevant articles such as green consumption and premium payment, and makes reasonable modifications based on the measurement items of their related variables and in combination with the background of this study. After being examined by scholars, this questionnaire was finally formed. The Questionnaire was published from July and August in 2024. Each valid questionnaire was paid 2 yuan.

We issued questionnaires online through “Questionnaire Star.” Offline collection was done in the form of paper questionnaires. We finally received 365 valid questionnaires.

5 Results

5.1 Reliability and Validity

The confirmatory factor analysis used AMOS to test all constructs, using maximum likelihood number for analysis. The results of compound reliability (CR), average variance extracted (AVE), and Cronbach Alpha (CA) scores, were used to test validity and reliability (Table 1).

$$Cronbach's\ \alpha(CA) = (\frac{k}{k-1})(1 - \frac{\sum_{i=1}^k \delta_i^2}{k\delta_x^2})$$
$$AVE = \frac{\sum_{i=1}^k \lambda_i^2}{k}; CR = \frac{(\sum_{i=1}^k \lambda_i)^2}{(\sum_{i=1}^k \lambda_i)^2 + \sum_{i=1}^k Var(E_i)}$$

Table 1. Reliability and validity.

Construct	CR (>0.6)	AVE (>0.5)	CA (>0.7)
GBI	0.9306	0.7286	0.93
EL	0.8736	0.6979	0.872
PB	0.9329	0.8225	0.932
NU	0.9386	0.7931	0.939
EV	0.9145	0.7812	0.914
SV	0.9536	0.8371	0.954
FV	0.9359	0.7852	0.936
WTPP	0.9489	0.861	0.949

5.2 Hypothesis Testing

The chi-square test is used to assess the fit of a model, i.e. the difference between the observed data and the data predicted by the model. The central idea is to determine the fit of the model by comparing the difference between actual observations (Observed Frequencies) and theoretical expectations (Expected Frequencies). The results of the SEM show that chi-square/df = 2.611; RMSEA =0.067; CFI=0.938; IFI = 0.939; and TLI =0.932. The results showed that all data were consistent with the levels recommended by [27] (Table 2). Three dimensions of perceived value: functional value (H6a: $\beta = 0.463$, $p < 0.001$), emotional value (H6b: $\beta = 0.236$, $p < 0.001$), and social value (H6c: $\beta = 0.298$, $p < 0.001$), had a statistically positive impact on consumers' WTPP. The effect of a green brand image had a significant positive effect on functional value (H1a: $\beta = 0.320$, $p < 0.001$) and emotional value (H1b: $\beta = 0.419$, $p < 0.001$), and Eco-labels had a significant positive effect on emotional value (H2: $\beta = 0.339$, $p < 0.001$). The influence of a pro-environmental belief on emotional value was not significant (H3c: $P = 0.195$). However, Eco-labels (H3b: $\beta = 0.660$, $P < 0.001$) and GBI (H3a: $\beta = 0.458$, $P < 0.001$) had significant positive effects on a pro-environmental belief. The need for status had a significant positive influence on social value (H4: $\beta = 0.350$, $p < 0.001$). The need for uniqueness had a significant positive influence on functional value (H5a: $\beta = 0.479$, $p < 0.001$) and social value (H5b: $\beta = 0.505$, $p < 0.001$). In general, the results of the WTPP model confirmed the validity of H1–H8, except for H6c.

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}; df = (R - 1) \times (C - 1)$$

5.3 The Mediating Effect

We used SPSS PROCESS evaluation model to conduct the mediation test. SPSS PROCESS is a macro for statistical analysis, developed by Andrew F. Hayes, which is mainly used for the analysis of mediating and moderating effects. It helps researchers to assess the relationship between variables, especially the role of mediating and moderating variables, by constructing and testing different models. To investigate mediating effects, bias-corrected percentile bootstrapping was performed at a 95% confidence interval [44]. As shown in Table 2, the bootstrap test results indicated that the total effect and indirect effect of a green brand image, Eco-labels, and the needs for status and uniqueness were significant, as none of the confidence intervals include 0; therefore, functional, emotional, and social value all have complete mediation effects. However, the total effect, direct effect, and indirect effect were not significant to pro-environmental beliefs. Thus H7a-b, H8a-b, and H9a-b are confirmed as valid, but H8c is not.

$$M = i_M + aX + e_M$$

$$Y = i_Y + C'X + bM + e_Y$$

Table 2. Total effects, indirect effects, and direct effects of the model.

	Point estimate	Product of coefficients		Booststrapping (Bias-corrected percentile 95% CI)		
		S.E.	T	Lower	Upper	Two-tailed significance
Total effect						
EL→WTPP	0.385	0.064	6.016	0.259	0.511	***
GBI→WTPP	0.521	0.060	8.681	0.403	0.639	***
NS→WTPP	0.353	0.049	7.256	0.257	0.448	***
NU→WTPP	0.555	0.043	12.836	0.470	0.640	***
PB→WTPP	0.146	0.053	3.658	0.051	0.255	0.002
Indirect effect						
EL→EV→WTPP	0.290	0.048	6.966	0.200	0.388	***
GBI→FV→WTPP	0.330	0.041	8.094	0.252	0.418	***
GBI→EV→WTPP	0.192	0.032	5.920	0.124	0.267	***
NS→SV→WTPP	0.359	0.039	9.207	0.287	0.445	***
NU→FV→WTPP	0.224	0.031	7.218	0.160	0.294	***
NU→SV→WTPP	0.194	0.034	5.766	0.124	0.275	***
PB→EV→WTPP	-0.025	0.022	5.114	-0.080	0.007	0.123
Direct effect						
EL→WTPP	0.096	0.063	1.519	-0.028	0.130	0.220
GBI→WTPP	-0.001	0.057	-0.014	-0.112	0.110	0.989
NS→WTPP	-0.006	0.049	-0.126	-0.102	0.090	0.900
NU→WTPP	0.137	0.048	2.876	0.043	0.231	0.004
PB→WTPP	0.061	0.053	0.773	-0.039	0.171	0.220

Note: Estimation of 5,000 bootstrap sample. Mediators: FV, EV, and SV, *** $p < 0.001$; EL: Eco-label; GBI: Green brand image; PB: Pro-environmental belief; NU: Need for uniqueness; NS: Need for status; EV: emotional value; SV: social value; FV: functional value; WTPP: Willingness to pay a green premium.

6 Discussion

First, this study confirmed that the path from costly signals benefiting consumers (a green brand image, Eco-labels, the need for uniqueness, and status) $\rightarrow$ perceived value enhancement $\rightarrow$ increased WTPP is feasible, which solves the first research question. Consequently, stimulated by green product features (green brand image and Eco-labels) and ideal identity features (the need for uniqueness and status), consumers can obtain costly signals to enhance perceived value and thus improve their WTPP. The enhancement of a green brand image and Eco-labels, for different perceived values, is in line with previous research results [45]; [46]; [47]). The price sensitivity of consumers with specific identity features, does not significantly inhibit WTPP [15]. The need for uniqueness has a significant positive impact on social value, and the positive correlation between it and functional value emphasizes that product uniqueness improves consumer satisfaction with product quality [40].

However, there is no significant relationship between pro-environmental beliefs and emotional value, and the mediating effect of emotional value between pro-environmental beliefs and WTPP is not significant. When consumers are required to pay additional costs for green products, there may be a conflict between consumers' individual and collective interests, and their pro-environmental beliefs may be affected by negative factors [48]. Therefore, there is no significant relationship between pro-environmental belief and emotional value and WTPP, and the mediating effect of emotional value is not significant either. This proves that the ideal identity feature, driven by pure altruism, cannot improve consumers' WTPP, which is consistent with the fact that pure altruists prefer recycling behavior rather than green purchases[49]. However, the perception of a green brand image and Eco-labels can improve the pro-environmental beliefs of consumers, and the perception of the features of environmental products can improve consumers' pro-environmental beliefs.

The last research question of this study has also been confirmed. That is, perceived value has a mediating role between costly signals and WTPP. It is empirically proved that providing consumers with values other than green values, can significantly improve their WTPP, which is also consistent with previous findings in the literature [50].

There still have some limitations of this study; The data sources for the questionnaire were limited to China, and convenience sampling was used. Although the population was screened, the generalizability of the conclusions may be limited in other regions. Other factors, such as the degree of greenwashing perceived by consumers, may be ignored in the selection of signals in this study. Moreover, the abuse of eco-labels may produce mistrust, which was also not considered.

7 Conclusion

This study enriches the research on consumer signaling theory (CST) in green marketing by dividing costly signals into identity features and product features, and proves that these features can improve consumers' willingness to pay a premium (WTPP). It also shows that perceived value has a significant impact on premiums and its mediating effect, and competitive altruism is more effective than pure altruism in influencing WTPP. The findings provide practical implications for practitioners, managers, and governments in marketing green products, such as emphasizing perceived value, paying attention to signal transmission and green brand image, and segmenting consumers accurately. The Chinese government is also advised to strengthen supervision of measures to reduce green premiums.

However, the study has limitations, including data sources limited to China and the use of convenience sampling, which may affect the generalizability of the conclusions. Other factors like greenwashing and the abuse of eco-labels were not considered. Future research may explore the conflict between green consumers' self-interest and environmental protection beliefs, and seek solutions.

References

1. Radmehr, R., et al., Spatial spillover effects of green technology innovation and renewable energy on ecological sustainability: New evidence and analysis. *Sustainable Development*, 2024. 32(3): p. 1743-1761.
2. Haws, K.L., K.P. Winterich, and R.W. Naylor, Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of consumer psychology*. 2014. 24(3): p. 336-354.
3. Qi, X. and A. Ploeger, Explaining consumers' intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite*. 2019. 133: p. 414-422.
4. Casado-Díaz, A.B., et al., Predictors of willingness to pay a price premium for hotels' water-saving initiatives. *Journal of Travel Tourism Marketing*, 2020. 37(7): p. 773-784.
5. Zhan, Y., Y. Ren, and J. Xu, Willingness to pay a premium for eco-label products in China: a mediation model based on quality value. *Scientific Reports*. 2025. 15(1): p. 1783.
6. Ting-Toomey, S. and A. Kurogi, Facework competence in intercultural conflict: An updated face-negotiation theory. *International journal of intercultural relations*. 1998. 22(2): p. 187-225.
7. Puska, P., et al., Sweet taste of prosocial status signaling: When eating organic foods makes you happy and hopeful. *Appetite*. 2018. 121: p. 348-359.
8. Lundblad, L. and I.A. Davies, The values and motivations behind sustainable fashion consumption. *Journal of Consumer Behaviour*. 2016. 15(2): p. 149-162.
9. Lebrument, N., C. Zumbo-Lebrument, and C. Rochette, Application of the VBN theory to understand residents' participation in the smart city: The case of French metropolises. *Urban Studies*, 2024: p. 22.
10. Trivers, R.L., The evolution of reciprocal altruism. *The Quarterly review of biology*. 1971. 46(1): p. 35-57.

11. Roberts, G., Competitive altruism: from reciprocity to the handicap principle. *Proceedings of the Royal Society of London. Series B: Biological Sciences*. 1998. 265(1394): p. 427-431.
12. Wen, J. and S.S. Huang, The effects of fashion lifestyle, perceived value of luxury consumption, and tourist–destination identification on visit intention: A study of Chinese cigar aficionados. *Journal of Destination Marketing Management*. 2021. 22: p. 100664.
13. Ahmad, H., T.M. Rahul, and N.K. Asija, Accelerators and hurdles, and their mediating effects on electric vehicle adoption. *Transport Policy*, 2025. 162: p. 20-30.
14. Molinillo, S., M. Vidal-Branco, and A. Japutra, Understanding the drivers of organic foods purchasing of millennials: Evidence from Brazil and Spain. *Journal of Retailing Consumer Services*. 2020. 52: p. 101926.
15. Shehawy, Y.M. and S.M.F.A. Khan, Consumer readiness for green consumption: The role of green awareness as a moderator of the relationship between green attitudes and purchase intentions. *Journal of Retailing Consumer Services*. 2024. 78: p. 103739.
16. Jacoby, J., Stimulus-organism-response reconsidered: an evolutionary step in modeling (consumer) behavior. *Journal of consumer psychology*, 2002. 12(1): p. 51-57.
17. Grafen, A., Biological signals as handicaps. *Journal of theoretical biology*, 1990. 144(4): p. 517-546.
18. Goldstein, N.J., R.B. Cialdini, and V. Griskevicius, A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*. 2008. 35(3): p. 472-482.
19. Zhang, J. and A. Cao, The Psychological Mechanisms of Education for Sustainable Development: Environmental Attitudes, Self-Efficacy, and Social Norms as Mediators of Pro-Environmental Behavior Among University Students. *Sustainability*. 2025. 17(3): p. 933.
20. Atkinson, L. and S. Rosenthal, Signaling the Green Sell: The Influence of Eco-Label Source, Argument Specificity, and Product Involvement on Consumer Trust. *Journal of Advertising*, 2014. 43(1): p. 33-45.
21. Ni, J., et al., Product innovation in a supply chain with information asymmetry: Is more private information always worse? *European Journal of Operational Research*. 2024. 314(1): p. 229-240.
22. Chen, C., et al., Promoting green choices: How price premium displays influence consumer preference for green products. *Resources, Conservation Recycling*. 2024. 207: p. 107682.
23. Berger, J., Signaling can increase consumers' willingness to pay for green products. *Theoretical model and experimental evidence. Journal of Consumer Behaviour*, 2019. 18(3): p. 233-246.
24. Chen, Y.-S., The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business ethics*. 2010. 93: p. 307-319.
25. Tu, J.-C., et al., Perceived greenwashing and its impact on the green image of brands. *Sustainability*. 2024. 16(20): p. 9009.
26. Suki, N.M., Consumer environmental concern and green product purchase in Malaysia: structural effects of consumption values. *Journal of Cleaner Production*. 2016. 132: p. 204-214.
27. Lavuri, R., et al., Green factors stimulating the purchase intention of innovative luxury organic beauty products: Implications for sustainable development. *Journal of Environmental Management*. 2022. 301: p. 113899.
28. Sörqvist, P., et al., The green halo: Mechanisms and limits of the eco-label effect. *Food quality preference*. 2015. 43: p. 1-9.

29. Sirieix, L., et al., Consumers' perceptions of individual and combined sustainable food labels: a UK pilot investigation. *International Journal of Consumer Studies*. 2013. 37(2): p. 143-151.
30. Dunlap, R.E., et al., New Trends in Measuring Environmental Attitudes: Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale. *Journal of Social Issues*. 2000. 56(3).
31. Du, S., C.B. Bhattacharya, and S. Sen, Reaping relational rewards from corporate social responsibility: The role of competitive positioning. *International Journal of Research in Marketing*. 2007. 24(3): p. 224-241.
32. Lam, S.K., et al., Resistance to brand switching when a radically new brand is introduced: A social identity theory perspective. *Journal of marketing*. 2010. 74(6): p. 128-146.
33. Olsen, M.C., R.J. Slotegraaf, and S.R. Chandukala, Green claims and message frames: How green new products change brand attitude. *Journal of Marketing*. 2014. 78(5): p. 119-137.
34. Osburg, V.-S., et al., How detailed product information strengthens eco-friendly consumption. *Management Decision*. 2020. 58(6): p. 1084-1099.
35. Medina, C.A.G., et al., The processing of price during purchase decision making: Are there neural differences among prosocial and non-prosocial consumers? *Journal of Cleaner Production*. 2020. 271: p. 122648.
36. Mansoor, M. and J. Paul, Consumers' choice behavior: An interactive effect of expected eudaimonic well-being and green altruism. *Business Strategy the Environment*. 2021.
37. Wang, W., A. Krishna, and B. McFerran, Turning off the lights: Consumers' environmental efforts depend on visible efforts of firms. *Journal of Marketing Research*. 2017. 54(3): p. 478-494.
38. Chang, K.C., Y.S. Cheng, and Y.C. Wang, How luxury restaurants build brand love through idiosyncratic service experiences: a double-moderated mediation model. *Service Business*, 2024. 18(3-4): p. 555-582.
39. Tian, K.T., W.O. Bearden, and G.L. Hunter, Consumers' need for uniqueness: Scale development and validation. *Journal of consumer research*. 2001. 28(1): p. 50-66.
40. Idemen, E., A.B. Elmadag, and M. Okan, A qualitative approach to designer as a product cue: proposed conceptual model of consumers perceptions and attitudes. *Review of Managerial Science*. 2021. 15(5): p. 1281-1309.
41. Sheth, J.N., B.I. Newman, and B.L. Gross, Why we buy what we buy: A theory of consumption values. *Journal of business research*. 1991. 22(2): p. 159-170.
42. Biswas, A. and M. Roy, Leveraging factors for sustained green consumption behavior based on consumption value perceptions: testing the structural model. *Journal of Cleaner Production*, 2015. 95: p. 332-340.
43. Zeithaml, V.A., Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of marketing*. 1988. 52(3): p. 2-22.
44. Taylor, A.B., D.P. MacKinnon, and J.-Y. Tein, Tests of the three-path mediated effect. *Organizational research methods*, 2008. 11(2): p. 241-269.
45. Lin, J. and Z. Zhou, The positioning of green brands in enhancing their image: the mediating roles of green brand innovativeness and green perceived value. *International Journal of Emerging Markets*. 2022. 17(6): p. 1404-1424.
46. Martinez, P., Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*. 2015. 27(5): p. 896-917.
47. Vinois, N. and P. Vishwakarma, Ecolabelling: a meta-analytic structural equation modelling approach. *Marketing Intelligence & Planning*, 2024. 42(8): p. 1601-1632.

48. Caniëls, M.C.J., et al., Impressing my friends: The role of social value in green purchasing attitude for youthful consumers. *Journal of Cleaner Production*, 2021. 303: p. 10.
49. Pan, T. and W. Zhou, Navigating pro-environmental behavior among tourists: The role of value-belief-norm theory, personality traits, and commitment. *Journal of Hospitality and Tourism Management*, 2024. 61: p. 226-239.
50. Khan, S.N. and M. Mohsin, The power of emotional value: Exploring the effects of values on green product consumer choice behavior. *Journal of cleaner production*. 2017. 150: p. 65-74.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

