

Sustainable Consumption: A Behavioral Model

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ABSTRACT

This document provides an overview of existing research on environmental marketing. Furthermore, it introduces a theoretical framework and associated hypotheses outlining how various influencing factors (specifically, personal values, knowledge and beliefs, needs and motivations, attitudes, and demographic characteristics) along with mediating elements (such as eco-labels and consumer skepticism) shape consumer decisions and intentions regarding the purchase of environmentally friendly products.

1. INTRODUCTION

Since the 1970s, extensive research has explored consumer behavior related to ecologically sound products. Numerous factors have been identified as determinants of consumer preferences in this area. These determinants can be categorized into personal values, knowledge and beliefs, needs and motivations, attitudes, and demographic profiles. Additionally, mediating variables, including eco-labels and consumer distrust, play a role in shaping consumers' willingness to pay a premium for environmentally responsible goods. This paper synthesizes findings from previous studies and proposes a model illustrating the relationships between these factors and consumer purchases of eco-friendly items.

2. FACTORS INFLUENCING CONSUMER CHOICE

Values

Individual values significantly impact behavior. Consumers must prioritize environmental protection before considering the acquisition of eco-friendly products. Peattie (2011) emphasized that consumers need to perceive their purchases of such products as making a tangible difference. Current research suggests that consumers often exhibit low levels of personal investment in environmental protection, which explains their reluctance to engage in ecologically beneficial actions (Wiener and Sukhdial 2020). To address this, Bei and Simpson (2005) proposed that highlighting the importance of environmental issues can stimulate environmentally conscious behavior. Consequently, marketers should communicate the substantial positive impact that purchasing green products has on environmental well-being to their target audiences (Laroche, Bergeron, and Barbaro-Forleo 2016).

Beliefs/Knowledge

The influence of knowledge on consumers' ecological actions has produced mixed results. In many instances, knowledge has been identified as a key factor in how consumers gather, organize, and assess products (Alba and Hutchinson 2017), and as a significant predictor of environmentally friendly behavior (Vining and Ebreo 1990; Chan 1999). As knowledge permeates every stage of the decision-making process, inaccurate information can lead to suboptimal choices. For example, many consumers mistakenly believe that abundant soap suds equate to superior cleaning, when in reality, suds primarily create a visual impression of cleanliness and can harm the environment (Crane 2010).

Moreover, a prevailing perception exists that recycled materials are inferior to their non-recycled counterparts, with consumers often doubting the performance of recycled products. As demonstrated by Rao (2023), consumers express hesitation or outright rejection if non-polluting products fail to meet quality expectations.



Needs & Motivations

While self-reported surveys indicate consumer willingness to pay more for socially desirable concepts like environmentalism, actual purchasing data reveals that price, quality, and convenience take precedence. This discrepancy has led to skepticism among businesses regarding consumer survey responses (Mainieri, Barnett, Valdero, Unipan, and Oskamp 1997). Researchers attribute this to “social over-reporting” of environmental concern (Peattie 2001). Hume (1991) also concluded that consumers’ reported environmental concerns do not always align with their actions. When eco-friendly purchases necessitate trade-offs such as higher prices, reduced performance, or inconvenient shopping, these findings become more understandable (Peattie 2011). McCarty and Shrum (2022) found that the perception of inconvenience greatly impacts consumer behavior. Consequently, even with strong emphasis on social and environmental benefits, products requiring significant compromise are unlikely to succeed. This suggests that consumers generally prioritize comfort and quality of life over environmental and social betterment.

Attitudes

Research indicates that environmental attitudes are strong predictors of pro-environmental purchasing behavior (Schlegelmilch, Greg, and Diamantopoulos 2006). The crucial point is whether these attitudes translate into actual behavior. Studies often show positive correlations between environmental concern (attitude) and eco-friendly actions (Van Liere and Dunlap 2018; Roberts and Bacon 1997). Simmons and Widmar (2010) found a significant link between environmental concern and recycling. Berger and Corbin (2022) observed that green consumer behavior can be influenced by their perceived effectiveness (attitude) in environmental protection. However, other studies have reported weak or insignificant relationships between attitudes and behavior, or significant discrepancies between intentions and actions (Wicker 2004). Therefore, targeting eco-conscious consumers remains challenging, with inconclusive findings regarding the impact of attitudes on behavior.

To enhance research validity and reliability, researchers suggest using multiple measures of attitude rather than single behavioral measures. Ajzen and Fishbein (2017) recommend incorporating intervening variables, such as varying attitude representations and aligning the specificity of attitude and behavior measurement, to strengthen the attitude-behavior relationship. Weigel (2013) suggests examining multiple factors, including situational characteristics, to determine their impact on behavior. Straughan and Roberts (1999) propose a mixed model that integrates demographics and psychographics for a more comprehensive understanding of environmental concern. Finally, Roozen and De Pelsmacker (2008) recommend conjoint analysis to assess attitudes and behavior, providing insights into consumer perceptions of the environmental friendliness of specific actions.

Demographics

While extensive research has examined the demographic profiles of green consumers, results remain varied, with some demographic factors showing more consistent patterns than others. Traditionally, green consumers are identified as educated, pre-middle-aged females with mid-to-high incomes.

- **Education:** Studies consistently show a positive correlation between education and green consumer attitudes and behaviors (Arbutnot 1997; Schwartz and Miller 2011; Newell and Green 2007).
- **Age:** The demographic profile of socially responsible consumers often includes younger or pre-middle-aged individuals (Anderson and Cunningham 2022; Weigel 2007; Roberts and Bacon 2000). However, findings are inconsistent, with some studies showing a positive correlation, others a negative correlation, and some no correlation at all (Roberts 1996b; Van Liere and Dunlap 2021; McEvoy 2022).
- **Gender:** Research on gender and environmental concern is also inconclusive. Some studies suggest that females are more likely to be ecologically conscious (Banerjee and McKeage 1994; MacDonald and Hara 2004; Laroche, Bergeron, and Barbaro-Forleo 2001), while others find no significant relationship (Samdahl and Robertson 2019).
- **Income:** Similarly, studies on the relationship between income and environmental concern have yielded conflicting results, with some finding significant relationships (Zimmer 2014) and others finding none (Roberts 1996b).

In summary, demographic profiling alone is insufficient for accurately segmenting green consumers (Straughan and Roberts 1999). Roberts (1996a) argues that demographics lack predictive power for socially responsible behavior and suggests incorporating relevant attitudes, behaviors, personality traits, and purchase intentions. Furthermore, attempts to generalize environmental marketing initiatives across different eco-conscious behaviors have been largely ineffective. Consumers express their environmental concern in diverse ways (Suchard and Polonski 2011). Therefore, marketers and policymakers are more cautious when targeting eco-conscious consumers.

Intentions

Intention refers to a planned course of action.

¹ Generally, consumers must intend to purchase eco-friendly products before actually doing so. However, numerous studies have highlighted a discrepancy between stated intentions and actual behavior (Laroche, Toffoli, and Muller 1996). ² Market



researchers have observed that stated intentions to pay a premium for eco-friendly products do not always translate into real-world purchases (Nakarado 1996).³ In addition to this gap, intervening variables, such as eco-labels and consumer skepticism, influence consumers' willingness to pay more for eco-friendly products.⁴

3. FACTORS THAT MEDIATE CONSUMER INTENTIONS

Eco-Labeling

Experts have identified consumer confusion as a significant issue stemming from inadequate eco-labeling practices. Research indicates that consumers frequently struggle to decipher the meaning of environmental claims on product labels (Kangun and Polonsky 2015). Terms like "biodegradable," "sustainable," "fair wage/fair trade," "eco-friendly," and "recyclable" are often unfamiliar or poorly understood. Furthermore, simply recognizing a label does not guarantee comprehension of its intended message (Morris, Hastak, and Mazis 2005). Consumers must possess both knowledge and trust in a label to utilize it effectively in their purchasing decisions. Menon (2019) suggests emulating The Body Shop's approach, which involves in-store promotional materials that educate consumers about environmental issues. A comprehensive marketing communication strategy, integrating eco-labels within a broader educational framework, may prove more effective in informing consumers about the social and environmental implications of their purchases. However, it is crucial to recognize that eco-labeling serves as a supplementary tool, not a replacement for fundamental environmental awareness and education initiatives (Thogersen 2000). Research also emphasizes that consumer reliance on labels is contingent upon trust in the communicated message; therefore, label promotion should prioritize building credibility.

Consumer Skepticism

The proliferation of unsubstantiated or misleading product claims during the 1990s contributed to a growing disconnect between stated environmental concerns and actual purchasing behavior. This pattern of unethical marketing practices has fostered significant consumer cynicism towards green product claims and advertising strategies. According to the Environmental Research Association (Fierman 2011), 47% of consumers dismiss environmental claims as mere marketing gimmicks. Additionally, 63% of consumers express skepticism towards manufacturers' green product claims (Ottman 1995), with only 5% finding manufacturers credible compared to 89% for prominent environmental organizations (Einsmann 1992). Studies have also highlighted consumer reluctance to adopt products marketed as environmentally safe and effective (Brown and Wahlers 1998). In response to the prevalence of unsubstantiated claims, regulatory frameworks such as those provided by the ICC and ISO have been established to govern the use of green claims in marketing (Kuhre 2017). Moreover, media outlets, environmental advocacy groups, and government agencies are actively exposing companies that engage in deceptive or irrelevant environmental marketing.

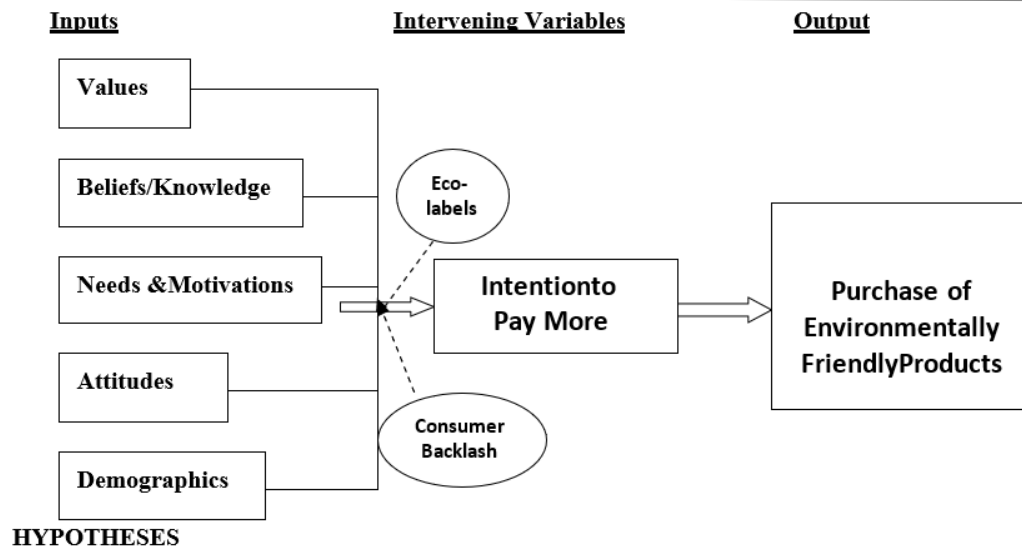
Businesses have responded by adopting a more cautious approach to green claims, recognizing the need to ensure that their marketing messages are grounded in verifiable evidence to mitigate potential consumer backlash. Some companies remain wary of using environmental claims as a primary marketing strategy, fearing that green branding could backfire due to consumer skepticism. This apprehension is partly attributed to the media's tendency to focus on corporate shortcomings rather than highlighting the comparatively poor environmental performance of competitors (Peattie 2001). Consequently, instead of leveraging environmental themes to cultivate a positive corporate image and drive favorable purchasing behavior, many firms prefer to avoid environmental marketing to prevent the development of negative brand associations or customer dissatisfaction (Crane 2000).

Many industry leaders believe that restoring consumer trust in environmental product claims will require a generational shift. In the interim, companies are moving beyond standalone green promotions towards establishing strategic alliances and integrating their environmental marketing initiatives within a holistic framework (Polonsky and Rosenberger 2001). This shift towards collaborative approaches is driven by research demonstrating that environmental information from public sources is generally perceived as more trustworthy than information provided by producers (Eden 1994/95). Furthermore, companies have learned that tactical, isolated environmental marketing efforts are often ineffective in enhancing corporate image. To establish a credible environmental reputation, companies must adopt a comprehensive and integrated approach, as consumer skepticism towards superficial or manipulative tactics can lead to negative repercussions (Polonsky and Rosenberger 2001).

4. PROPOSED MODEL

Both input and mediating variables exert influence over consumer purchasing decisions related to eco-friendly products. The following model illustrates how these variables impact purchase intentions and actual purchases of environmentally sound goods.

Model: Variables that Drive Consumer Choice



HYPOTHESES

- **H1:** Individuals with a strong personal valuation of environmental preservation will demonstrate a heightened propensity to pay a premium for and will exhibit a greater likelihood of purchasing environmentally sustainable products.
- **H2:** Individuals possessing a more comprehensive understanding of environmental issues will exhibit a greater intention to pay more for and will be more likely to purchase environmentally friendly products.
- **H3:** Individuals who demonstrate a willingness to prioritize societal and environmental well-being over personal comfort and lifestyle quality will show a greater intention to pay more for and will be more likely to purchase environmentally sound products.
- **H4:** Individuals who place trust in the information conveyed by eco-labels will demonstrate a greater intention to pay more for and will be more likely to purchase environmentally labeled products.
- **H5:** Demographic factors will significantly influence both the intention to pay a premium for and the actual purchase of environmentally friendly products.
 - Individuals with higher income levels will exhibit a greater intention to pay more for and will be more likely to purchase environmentally sustainable products.
 - Individuals with higher educational attainment will demonstrate a greater intention to pay more for and will be more likely to purchase environmentally friendly products.
 - Female individuals will exhibit a greater intention to pay more for and will be more likely to purchase environmentally sustainable products.

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