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Using consumer behavioral analysis to influence sustainable decision making

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Abstract

Despite widespread acknowledgment of environmental issues, individuals often fail to take meaningful actions toward sustainability. This disconnect between awareness and behavior suggests that decision-making is influenced by psychological and social factors beyond mere information availability. Studies indicate that consumers struggle to align their actions with their beliefs due to cognitive biases, loss aversion, and social influences. Research highlights that individuals are more likely to engage in sustainable practices when defaults are set in favor of eco-friendly options, peer behaviors encourage participation, and incentives are effectively structured. Behavioral interventions, such as simplifying choices, leveraging social norms, and using persuasive technology, can significantly impact consumer decisions. Understanding these motivational drivers is crucial for fostering sustainable behaviors, as people tend to follow societal expectations, prioritize immediate benefits, and respond to well-designed incentives. By addressing these psychological barriers, organizations can develop strategies that translate environmental concerns into tangible actions, promoting long-term sustainability.

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Introduction

Many individuals agree that it is important to care for the environment, yet despite having sufficient knowledge, they often fail to take significant actions toward energy efficiency and conservation. The essence of sustainability is to utilize resources in a manner that ensures availability for future generations. From a purely logical standpoint, it seems illogical for individuals to invest additional time and money for advantages that may not directly affect them. Studies indicate that people do not always behave as perfectly rational beings who make choices that optimize their personal gain (Sanstad & Howarth, 1994) ^[18]. According to a Nielsen survey, 66% of the global consumers said that they prefer to buy products that are environmentally preferable but they rarely do (Nielsen, August 2016) ^[14]. One possible reason for this could be that individuals may not genuinely care about the environment and are merely expressing concern, or they might struggle to align their actions with their beliefs. This situation can be likened to how people often fail to follow through on diet or exercise regimens that they know are beneficial. Conveying the complexities of environmental issues is challenging. For example, understanding the environmental consequences of a 1-degree increase in temperature and its impact on people's lives is not straightforward. Additionally, it can be difficult for individuals to recognize how their personal actions contribute to a larger solution due to the scale of the issue. A potential way to address this feeling of insignificance is to appeal to people's emotions instead of relying solely on logical arguments (Ariely & Grüneisen). It can be argued that a lack of information may hinder individuals from making environmentally conscious decisions; however, this perspective is not universally accepted. In 2009, New York City implemented a requirement for fast food restaurants to display calorie count information alongside their menu items, believing that this would encourage consumers to reduce their calorie intake and opt for healthier choices. Nonetheless, the introduction of this labeling had minimal to no impact on the calorie consumption of New Yorkers (Farley, Caffarelli, Bassett, Silver, & Frieden, 2009) ^[6]. Influencing behavior goes beyond simply sharing information and expecting it to be effective. Instead, we

need to consider the barriers and motivations that extend beyond just the information provided.

To effectively influence sustainable decision-making, it is essential to understand the psychological and social factors that drive consumer behavior. For instance, while many individuals express a desire for sustainable products, their purchasing habits often reflect a disconnect between intention and action, suggesting that deeper motivations may be at play. Research indicates that consumers are significantly influenced by corporate social responsibility initiatives, which can enhance brand loyalty and encourage environmentally friendly choices (Paola Mancini, 2017). Additionally, the role of peer influence cannot be underestimated; people are likely to adopt sustainable practices when they observe similar behaviors in their social circles. This highlights the importance of fostering community-driven campaigns that not only educate but also create a sense of collective responsibility among consumers, ultimately bridging the gap between awareness and actionable change. By tapping into these emotional and social dynamics, organizations can better align their strategies with the inherent values and behaviors of consumers, promoting a more substantial shift toward sustainability.

How to influence sustainable decision making by influencing user behavior?

Encouraging sustainable decision-making by shaping user behavior entails utilizing technology, comprehending user motivations, and implementing specific interventions. The use of recommender systems, persuasive technologies, and tailored incentives can greatly influence user actions in favor of sustainability. These strategies aim to foster environmentally friendly choices by resonating with users' values and preferences, ultimately supporting sustainable consumption habits.

One potential approach to achieve this objective involves the development of products that are designed with greater sensibility, thereby alleviating the cognitive burdens individuals encounter when making energy-related decisions. For instance, the manner in which light-emitting diodes (LEDs) are packaged, accompanied by relevant information, should theoretically facilitate consumer decision-making. However, this does not adequately address the mechanisms through which behavior can be effectively influenced. Despite people behaving very irrationally, their decision tendencies are very predictable which are:

- When faced with increased complexity in information, it's advisable to either adhere to default choices or postpone making decisions. Choosing default options can save time, and although other alternatives might offer better financial or material benefits, defaults are typically viewed as the most favorable choice (Kahneman, Knetsch, & Thaler, *Anomalies: the endowment effect, loss aversion, and status quo bias*, 1991) ^[11].
- Exerting only enough effort to produce satisfactory results rather than aiming for exemplary performance. When overwhelmed with information people generally choose the first option that satisfies their minimum performance requirement (Kahneman, *Maps of bounded rationality: psychology for behavioral economics*, 2003) ^[10].
- Exhibit a tendency towards loss aversion, whereby gains

of equivalent magnitude are perceived with lesser significance than losses, particularly as the volume of information escalates (Kahneman, Knetsch, & Thaler, *Anomalies: the endowment effect, loss aversion, and status quo bias*, 1991) ^[11].

- People tend to avoid risks when it comes to guaranteed gains or uncertain losses, but they are more inclined to take risks when confronted with certain losses or uncertain gains. This indicates that many individuals are willing to take a gamble to prevent a definite loss, while they are less likely to take a similar risk to achieve an equivalent gain. (Tversky & Kahneman, 1992) ^[11]
- People often become preoccupied with the recuperation of irrecoverable expenditures—including time, effort, and financial resources—while simultaneously minimizing the significance of prospective costs and advantages. (Arkes & Ayton, 1999) ^[2]
- Prioritize immediate benefits over future gains, such as preferring to have \$5 today instead of waiting for \$10 later, or choosing to invest in energy-efficient appliances that have a higher upfront cost but lead to annual savings. (Critchfield & Kollins, 2001) ^[5]
- Follow societal expectations by behaving in ways that are considered acceptable and aligning with what is perceived as normal behavior, often adopting a mindset of doing what others are doing. (Corneo & Snobs, 1997) ^[4]
- Be driven by rewards and incentives, where a greater reward or incentive leads to more noticeable changes in behavior. (Stern, 1999) ^[21]

The aforementioned insights can significantly contribute to the formulation of strategies and solutions that prioritize consumer engagement and facilitate alterations in consumer behavior. Based on previously discussed factors, there exist several straightforward methodologies through which substantial behavioral modifications may be achieved.

Lower cognitive burden on consumers by making sustainable decisions 'default'

Given that individuals have a tendency to revert to their default selections, it is imperative to focus on energy-related practices that can be easily adjusted. Such as setting the default mode of washing machines/dishwashers to 'eco mode' or to use 'cold water' (McCalley, 2006) ^[13]. Empirical evidence indicates that automatically enrolling consumers in energy-related programs, while providing them the choice to opt-out, leads to a lower number of consumers opting out compared to those who would have chosen to opt-in. For instance, more consumers selected 'green' electricity when it was presented as the default option rather than as a choice (Pichert & Katsikopoulos, 2008) ^[16]. Normally, strategists offer a trial-period or offer options neutrally so as to provide consumers with an active choice but research shows that strategists should locate trigger points in consumers' lives as that is when they are most open to change (Wood, Tam, & Witt, 2005) ^[26]. It was noted earlier that people rely on simple metrics when faced with complex decisions. Rather than providing consumers with large amounts of information and overloading them with decisions, behavioral strategists should focus on providing concise and clear statements that provide the most important information. Research has shown that people do not react well to having a lot of information

and choices, and that the decisions they make are better when they have limited number of choices (Iyengar & Lepper, 2000) [9].

Reinforce the concept of loss and risk aversion

A way to combat loss aversion is to frame energy related decisions as the losses that can be avoided rather than the gains that can be achieved. Messages that are framed in the context of loss exert a more significant impact than those that are framed in terms of gain. Such as informing consumers that they are losing \$20/billing cycle by not switching their lights to LED rather than telling them they could save \$20/billing cycle by switching their lights to LED (Gonzales, Aronson, & Costanzo, 1988) [7]. Risk aversion presents a challenge, as consumers must be persuaded that adopting energy-saving practices involves minimal risk. This is particularly relevant given that energy-efficient technologies can often be new, costly, and not yet widely adopted. Additionally, uncertainties regarding electricity supply and market prices can make the investment in these technologies appear to be a risky choice for consumers. However, this perception can be mitigated through effective marketing and communication strategies. For instance, offering consumers free trials, samples, or buy-back guarantees can help them realize that their perceived risks may not be justified. (Lantos, 2011) [12].

Sunk costs and the issue of temporal and spatial discounting

The concept of sunk costs can be effectively illustrated through the example of an incandescent light bulb. The underlying principle is that once an individual has invested both money and effort into purchasing the bulb, there is a tendency to avoid replacing it until it fails. Consequently, this may lead to continued expenditure in the form of elevated electricity bills each month. However, this additional financial burden could be mitigated by opting to invest slightly more upfront in a higher-efficiency LED bulb. Research indicates that such scenarios involving sunk costs can be circumvented by providing an estimation of the future returns associated with the investment made (Tan & Yates, 1995). Temporal and spatial discounting can be illustrated using the example of light bulbs. The incandescent bulb has a lower initial cost but incurs higher operational expenses over time, while the LED bulb requires a greater initial investment but offers reduced running costs and a longer lifespan. Consumers typically place significant emphasis on immediate costs, often neglecting the long-term benefits. Research indicates that a method known as 'episodic future thinking,' which facilitates a clear and concrete visualization of future events, can lead to a reduction in the tendency to discount future rewards (Hershfield, *et al.*, 2011) [8].

Be more descriptive with messaging

One effective strategy for reducing future discount rates is to provide immediate rewards to consumers, such as praise or commendation, for engaging in positive behaviors at present. Marketing energy-saving practices as both common and socially acceptable can significantly influence consumer behavior. For instance, informing hotel guests that a high percentage of patrons in other rooms are reusing their towels can encourage similar behavior among them. Research indicates that framing the message in this manner, utilizing a descriptive norm, elicits a more substantial response

compared to general appeals to save energy or protect the environment (Teams). Additionally, an experiment conducted in Washington D.C. involved the prohibition of single-use plastic bags, coupled with the introduction of a nominal fee of 5 cents for plastic bags. This seemingly trivial cost led to a remarkable 66% decrease in plastic bag usage, attributed not to the monetary charge itself, but rather to the social pressure and feelings of guilt experienced when requesting bags in the presence of other shoppers (SIMON, 2010) [20].

Introduce concepts of gamification into decision making

Gamification serves as a notable instance of normative influence. A collaboration between Simple Energy and San Diego Gas and Electric aimed to motivate middle schools to secure cash grants by decreasing their energy demand. The results indicated that these schools successfully reduced both their peak demand and overall energy consumption. (SDG&E and Simple Energy Challenge San Diego Families to Save Energy, 2012). Generally, while monetary incentives can lead to inconsistent and temporary outcomes, they may also have counterproductive effects. In contrast, non-monetary rewards such as praise, recognition, and social approval are more effective in promoting energy conservation behaviors, as research indicates that these types of interventions tend to foster more sustainable behavior changes over time (Osbaldiston & Schott, 2012) [15].

Conclusion

In conclusion, the exploration of consumer behavioral analysis reveals critical insights into the complexities of influencing sustainable decision-making. Despite a widespread acknowledgment of the importance of environmental stewardship, a significant gap persists between consumers' expressed intentions and their actual behaviors. This disconnect can be attributed to various psychological and social factors, including the overwhelming complexity of information, loss aversion, and the impact of social norms. Strategies that leverage emotional engagement, simplify decision-making processes, and harness the power of community influence are essential for bridging this gap. By employing tailored interventions such as default settings, clear messaging, and social marketing techniques, organizations can effectively encourage individuals to embrace sustainable practices. I contend that the strategies outlined in this paper are likely to foster behavioral changes in individuals towards greater energy conservation. Historically, anti-smoking campaigns have concentrated on altering social norms, resulting in approximately 1.6 million individuals attempting to quit and over 100,000 successfully doing so within a single year of the campaign's implementation (Centre for Disease Control and Prevention, 2012) [3]. A comparable success was observed with the seatbelt campaign, which also employed social marketing techniques. In my view, this specific social strategy proves to be the most effective in promoting behavioral change. Ultimately, fostering a collective sense of responsibility and aligning consumer behaviors with sustainability goals will be pivotal in achieving meaningful progress toward a more sustainable future.

References

1. Ariely D, Grüneisen A. How to turn consumers green. McKinsey on Society.

2. Arkes H, Ayton P. The sunk cost and Concorde effects: are humans less rational than lower animals? *Psychol Bull.* 1999;125:591-600.
3. Centre for Disease Control and Prevention. Campaign overview. 2012.
4. Corneo G, Snobs JO. Bandwagons, and the origin of social customs in consumer behavior. *J Econ Behav Organ.* 1997;32:333-347.
5. Critchfield T, Kollins S. Temporal discounting: basic research and the analysis of socially important behavior. *J Appl Behav Anal.* 2001;34:101-122.
6. Farley TA, Caffarelli A, Bassett MT, Silver L, Frieden TR. New York City's Fight Over Calorie Labeling. *Health Aff.* 2009;28(6):1098-1190.
7. Gonzales M, Aronson E, Costanzo M. Using social cognition and persuasion to promote energy conservation: a quasi-experiment. *J Appl Soc Psychol.* 1988;18:1049-1066.
8. Hershfield H, Goldstein D, Sharpe W, Fox J, Yeykelis L, Carstensen L. Increasing saving behavior through age-progressed renderings of the future self. *J Marketing Res.* 2011;48:23-37.
9. Iyengar S, Lepper M. When choice is demotivating: can one desire too much of a good thing? *J Pers Soc Psychol.* 2000;79:995-1006.
10. Kahneman D. Maps of bounded rationality: psychology for behavioral economics. *Am Econ Rev.* 2003;93:1449-1475.
11. Kahneman D, Knetsch J, Thaler R. Anomalies: the endowment effect, loss aversion, and status quo bias. *J Econ Perspect.* 1991;5:193-206.
12. Lantos G. *Consumer behavior in action: real-life applications for marketing managers.* New York, NY: M. E. Sharpe, Inc.; c2011.
13. McCalley L. From motivation and cognition theories to everyday applications and back again: the case of product-integrated information and feedback. *Energy Policy.* 2006;34:129-137.
14. Nielsen. *Cultivating the green, high-tech consumer.* August 2016.
15. Osbaldiston R, Schott J. Environmental sustainability and behavioral science: a meta-analysis of proenvironmental behavior experiments. *Environ Behav.* 2012;44:257-299.
16. Pichert D, Katsikopoulos K. Green defaults: information presentation and pro-environmental behaviour. *J Environ Psychol.* 2008;28:63-73.
17. Poortinga W, Pidgeon N. Exploring the dimensionality of trust in risk regulation. *Risk Analysis.* 2003;23:961-972.
18. Sanstad AH, Howarth RB. Consumer Rationality and Energy Efficiency. *Proceedings of the ACEEE 1994 Summer Study on Energy Efficiency in Buildings.*
19. SDG&E and Simple Energy Challenge San Diego Families to Save Energy. *Simple Energy.* 2012 Nov 19. Available from: <http://simpleenergy.com/sdge-and-simple-energy-challenge-san-diego-families-to-save-energy/>
20. Simon S. The Secret to Turning Consumers Green. *The Wall Street Journal.* 2010 Oct 18.
21. Stern P. Information, incentives, and proenvironmental consumer behavior. *J Consum Policy.* 1999;22:461-478.
22. Stroebe W, Frey B. Self-interest and collective action: the economics and psychology of public goods. *Br J Soc Psychol.* 1982;21:121-137.
23. Tan H-T, Yates J. Sunk cost effects: the influences of instruction and future return estimates. *Organ Behav Hum Decis Processes.* 1995;63:311-319.
24. Teams CE. *The Research Behind Guest Behavior: Example - Towel Reuse.*
25. Tversky A, Kahneman D. Advances in prospect theory: cumulative representation of uncertainty. *J Risk Uncertainty.* 1992;5:297-323.
26. Wood W, Tam L, Witt M. Changing circumstances, disrupting habits. *J Pers Soc Psychol.* 2005;88:918-933.