

THE ADOPTION OF SUSTAINABLE CONSUMPTION THROUGH THE LENS OF BEHAVIORAL THEORIES

Fernanda Barbosa Ribeiro Vieira. Fundação Getúlio Vargas – FGV

fernandabrveira@gmail.com

Isabela Camara Biciati Moreira. Fundação Getúlio Vargas – FGV

isabela.c.b.m@hotmail.com

Jose Mauro Gonçalves Nunes. Universidade do Estado do Rio de Janeiro/Fundação Getúlio Vargas – FGV

josemauronunes@uol.com.br

ABSTRACT

This paper investigates the role of consumer behavior theories in promoting sustainable consumption. It highlights the impact of unsustainable consumption patterns on the environment and the critical role consumers play in driving change. The research conducts a systematic literature review, analyzing prominent theories such as the Theory of Planned Behavior, Self-Determination Theory, and the Model of Goal-Directed Behavior, to understand the drivers and barriers to sustainable consumption. Key obstacles, including the attitude-behavior gap, knowledge deficits, and accessibility issues, are explored. The paper also proposes solutions, emphasizing education, demarketing strategies, and interdisciplinary collaboration to overcome these challenges and foster sustainable behaviors.

Keywords: sustainability; consumer behavior; barriers to sustainable consumption.

Data de recebimento: 18/03/2025

Data do aceite de publicação: 17/04/2025

Data da publicação: 30/04/2025

LA ADOPCIÓN DEL CONSUMO SOSTENIBLE A TRAVÉS DE LAS TEORÍAS DEL COMPORTAMIENTO

RESUMEN

Este estudio explora la intersección entre las teorías del comportamiento del consumidor y las prácticas de consumo sostenible para abordar los acuciantes retos medioambientales que plantean las pautas de consumo insostenibles. A través de una revisión sistemática de la literatura, el documento sintetiza las ideas de los principales marcos de comportamiento, como la Teoría del Comportamiento Planificado, la Teoría de la Autodeterminación y el Modelo de Comportamiento Dirigido a Objetivos. Se identifican barreras críticas, como la brecha entre actitud y comportamiento, el acceso limitado a opciones sostenibles y el conocimiento insuficiente, que dificultan la adopción del consumo sostenible. El estudio concluye proponiendo estrategias de actuación, como programas educativos, esfuerzos interdisciplinarios y desmercantilización, para mitigar estas barreras y promover comportamientos de consumo responsables con el medio ambiente.

Palabras clave: [sostenibilidad; comportamiento del consumidor; barreras al consumo sostenible].

1 INTRODUCTION

In recent years, much has been discussed on the need to transition to sustainable economic activities and marketing practices (Kotler, 2011; Wintschnig, 2021). Mass consumption has led to severe environmental damages and waste production, heavily impacting the environment. Behavior of consumers is closely linked with this damage, but it is also a great driver to a change, since consumers hold the ultimate power and influence, and can pressure the market to a change (Kotler, 2011).

The influence of consumers is of such importance that it is recognized as one the United Nations Sustainable Development Goals, as SDG 12: Ensure sustainable consumption and production patterns. It is argued that economic and social development has been linked to environmental degradation, and this mode of production and consumption is unsustainable and worsened with expected population growth (United Nations, n.d.). Many stakeholders participate in this change, including businesses and governments, but the impact that consumers create make them a key player in driving a transition to sustainable consumption (OECD, 2017).

As consumers can create great pressure on businesses to adapt to their needs and wants (OECD, 2017; Kotler, 2011 & Wintschnig, 2021), it is of utmost importance to understand the basis of consumer behavior, drivers of change and possible barriers faced to achieve more sustainable consumption. Based on this, businesses can better understand how to incorporate meaningful changes to adapt and offer sustainable options to their buyers. Besides, from a policy perspective, it is essential to gain a solid overview of consumer behavior drivers and barriers to

create an accurate policy framework that facilitates the sustainable transition, focusing on important factors that drive consumers for more sustainable choices and remove barriers.

Based on this urgent need for a theoretical basis to drive change into sustainable consumption, this paper provides a structured overview of consumer behavior theories and their transition into sustainable behavior theories. In the first section of the theoretical review, we will discuss the most classic consumer behavior theories, and in the second section how they intertwine with current theories of sustainable consumption, and in the final section, we will discuss the main barriers for sustainable consumption based on the theories above mentioned. In the conclusion section we will propose solutions to businesses and governments to address these barriers.

We will base our study on the literature review methodology. This study uses selected consumer behavior literature's analysis, aiming to understand how consumer behavior can impact on the implementation of sustainable practices. The selection of the literature is further explained.

2 THEORETICAL FRAMEWORK

2.1 CONSUMER BEHAVIOR THEORIES

Theory Of Planned Behavior

Originally introduced as the Theory of Reasoned Action by Ajzen in 1985, the Theory of Planned Behavior helped explain drivers of human actions. Although it is recognized in this theory the role of many variables, including personality, social attitude and environmental factors, there were specific key factors tested that could highly predict behavior supported by empirical evidence (Ajzen, 1991). The main influencing factor are the intentions a person has of performing that behavior: the motivation or how much effort they are willing to put into it. However, there is an additional layer with 3 factors that influence the behavior indirectly, since they are determinants of intention, that is, the main predictor.

Firstly, there is the determinant defined as perceived behavioral control, which was the main difference from the Theory of Reasoned Action and the following Theory of Planned Behavior (Ajzen, 1991). To understand it, it is crucial to acknowledge the actual behavioral control, which is an individual's ability to perform a behavior, by means of personal capabilities, knowledge, money, etc., which cannot highly predict the behavior. On the other hand, the idea of perceived behavioral control is the individual's own level of confidence in their ability to perform the behavior. According to this theory, people can have equal intentions to perform a behavior, but those with higher confidence are more likely to persist in their attempts and put in more effort and are more successful in achieving the behavior.

Secondly, the attitudes towards the behavior play a role in determining behavior intention. This factor is defined as whether the person has a favorable or unfavorable evaluation of the behavior. Lastly, there is the factor of the social pressures made on an individual to perform the behavior, called the subjective norm. It is expected that combining a high perceived behavioral control, favorable attitude towards the behavior and subjective norm related to the behavior, it should have an increase in likelihood of an individual performing it.

The provided framework for predicting behavior is vastly used to understand the drivers and barriers to adopt certain behaviors, including to address the gap between the favorable attitudes

towards sustainable behaviors and the actual behavior, so called “attitude-behavior gap” (White et al., 2019). This gap will be further addressed in the Barriers section of this study.

Self Determination Theory

Another key framework to understand human behavior is the Self Determination Theory (SDT), basing itself on the various aspects explaining motivation, especially autonomous and controlled motivation, and therefore enabling the prediction of behavior (Deci & Ryan, 1985). The theory distinct between two types of motivation, autonomous and controlled, since the quality and maintenance of behaviors can be better predicted than using “motivation” as a unit (Wright, 2015). To explain these motivation types, the influence comes from three basic psychological needs: need for competence, autonomy and relatedness.

Autonomous motivation is the full sense of willingness to act, either because the behavior is enjoyable, or interesting or aligned with an individual’s values (Wright, 2015). On the other hand, controlled motivation is experienced through coercion, pressure or obligation for an action, unlike the chosen act as autonomous motivation. The early SDT theory also differentiated intrinsic motivation - the prototype of autonomous motivation - and extrinsic motivation - a separation between the target behavior and the consequence that the individual wants, eg.: money, prize, social approval (Deci, 1971). A key finding between the relation between those two types of motivation is that, when individuals with intrinsic motivation were given extrinsic motivation for an action, this had a negative impact on the behavior (Deci et al., 1999).

Those motivations, which help predict behaviors, are influenced by the defined three basic needs. Firstly, there is the need for autonomy, which relates to feeling in control over one self’s actions and decisions (Deci & Ryan, 1985). Secondly, the need for competence is the feeling of being capable and effective in accomplishing tasks and goals and overcoming challenges (Deci & Ryan, 1985). Thirdly, the need for relatedness is an individuals’ need of feeling of belonging and social connections (Deci & Ryan, 1985).

The needs of fulfilling those basic psychological needs are essential for psychological health and well-being. They are also influencing the intrinsic and extrinsic motivations (Wright, 2015), since they can enhance and help maintain motivation. For instance, the need for autonomy and competence plays a key role in intrinsic motivation (Deci & Ryan, 1985). On the other hand, extrinsic motivation rewards might undermine the need for competence of an individual. Those relations must be taken into account so as to understand motivation and fulfillment of basic psychological needs in consumer behavior (Deci & Ryan, 1985). If a consumer has a greater sense of belonging by purchasing a product, their need for relatedness might be affected positively and influence their extrinsic motivation for maintaining this purchase behavior.

Model of Goal-Directed Behavior

Stemming from the Theory of Planned Behavior, the Model of Goal-Directed Behavior (MGB) proposes a theoretical deepening of TPB by adding new constructs that influence behavior. The original theory proposed that intentions motivating a behavior are influenced by attitude towards the behavior, subjective norms and perceived behavior control (Ajzen, 1991). In addition to this, MGB suggests that there is a new direct influence on intentions: the desires; and influencing desires is another new factor defined as anticipated emotions (Perugini & Bagozzi, 2001).

The new model proposes that desires are the direct predictor of intentions, together with frequency of past behavior. Desires are then influenced by: attitudes towards the act, subjective norms, perceived behavioral control - which also influences behavior directly - , positive anticipated emotions and negative anticipated emotions. Lastly, the recency of past behavior is also an influencer of behavior directly. This new framework for understanding and predicting behavior is groundbreaking in the sense that, backed by empirical studies (Perugini & Bagozzi, 2001), it allows more accurate prediction of behavior.

In the consumer behavior field, this concept has also been applied as the main theory for predicting sustainable behavior, by studying household energy-saving behavior (Webb et al., 2013). By using positive anticipated emotions, perceived behavioral control, subjective norms, past behavior, intentions and a combination to represent autonomous motivation, the study created a framework for self-determination that could predict sustainable behavior. Therefore, the motivators of self-determination derived from MGB, together with the autonomous motivation concept of SDT could facilitate the prediction of consumers' transition to sustainable behaviors in an energy-saving context (Webb et al., 2013).

2.2 SUSTAINABLE CONSUMPTION

There are various definitions of sustainable consumption, and there is no consensus on a single definition for it (Šajin, 2020). Several authors mention the United Nations' Rio Earth Summit (1992) as the *starting point of the sustainable consumption debates*. Others mention the 1987 World Commission on Environment and Development, as the startpoint for *general sustainable development discussion*, defining sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987). Furthermore, the Oslo Symposium on Sustainable Consumption (1994) is widely mentioned as an important point for the *sustainable consumption definition*.

Each scholar has different specifics for its own definitions, for example, Giulio et al (2014), uses the definition of the Oslo Symposium on Sustainable Consumption (1994):

“Use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations” (Norwegian Ministry of the Environment, 1995).

The authors state that this definition is the most accurate and important, however they argue that it's not sufficient on its own. They emphasize that sustainable consumption should be understood through an interdisciplinary lens, due to the complexity of consumer behaviors and motivations.

Wintschnig (2021) defines it as the selection, acquisition, use, and disposal of goods and services in a way that meets the needs of the present without compromising the needs of future generations, considering both ecological and social aspects. Glavic (2021) considers sustainable consumption as a pattern of consumption that meets the basic needs of humanity while reducing environmental stress, also ensuring the well-being of future generations. The

author also mentions the importance of education in sustainable consumption, and how it has a key role in the adoption of this practice.

On the other hand, Kotler (2011) encompasses a broader context of marketing and environmental responsibility. He highlights the dynamic relationship between consumers and the market—where each influences the other. He states that *wants* are culturally influenced and shaped by marketing and other societal forces, suggesting that consumer desires can be redirected towards more sustainable options, making environmentally friendly and socially responsible choices.

In this paper we will synthesize all of its definitions and consider sustainable consumption as practices and patterns of consumption where individuals acquire products and services, meeting its own needs while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants, and also considering the needs of future generations.

3 METHODOLOGY

To present a summary of previous consumer behavior literature, a systematic literature review will be carried out. The methodological approach taken for the literature review is followed by a process involving: database definition, keyword-focused search and abstract screening, selection of relevant papers, thorough analysis and drawing of barriers and solutions.

The search for papers to be reviewed was based on defined databases: EBSCO, GoogleScholar, ScienceDirect and Emerald. In each database, we search specific keywords related to consumer behavior and sustainability, to get an overview on past research in different fields that could be relevant literature to integrate the review. In order to extract relevant papers, examples keywords in the table below were search in each database:

#	Keywords
1	Consumer Behaviour
2	Sustainable And Consumer Behavior
3	Consumer Behavior Barriers
4	Sustainable Consumer
5	Consumer Behavior Theory

A distinction between geographies was not performed, therefore national, regional and general studies were taken into consideration. A preference for non-geographic studies was taken, so as to keep a broad overview of the literature, without narrowing to one specific region.

After the screen, the relevant papers were selected through reading the abstract and excluding papers which were not in line with the consumer behavior theories topic or sustainable consumer behavior. Moreover, further literature was selected among the references of selected papers, which discussed theoretical foundations and other relevant studies of consumer behavior and sustainability. As a result of the selection, 27 papers composed the database for this study.

To analyze the selected papers, the authors extracted the key theoretical foundations cited in sustainable consumer behavior research and summarized the chosen relevant theoretical foundations.

4 DISCUSSION

Despite the rise in consumer spending on more environmentally and socially sustainable products (Bar Am et al., 2023), the change in purchase behavior over recent years (Tighe, 2024) and the several papers, authors and conferences discussing sustainable consumption and behavior, it is still not enough to achieve the 2030 goals (Hadleigh, 2020). This gap indicates a discrepancy between consumers' intentions and their actual purchasing behaviors.

The *attitude-behavior gap* refers to the inconsistency between a person's attitude and their actual behavior, and it has been identified by several authors in the context of sustainable consumption (Wintschnig, 2021). Analyzing this gap is crucial for understanding the challenges associated with adopting sustainable behaviors.

There are several factors that discourage individuals from engaging in sustainable consumption despite their intentions. A primary barrier is the lack of awareness and understanding of sustainable practices and their benefits – without adequate knowledge, consumers may not recognize the importance of their consumption decisions (Wintschnig, 2021), and continue to prioritize convenience and cost over sustainability (Glavič, 2021). Furthermore a lot of consumers mention insufficient information about sustainable products as a barrier to making eco-friendly choices (Zalando, 2021). For instance, while many believe they should prioritize ethical brands, fewer actively seek out this information while shopping (Ronda, 2024).

Additionally, access to sustainable products can be limited (Ronda, 2024). According to Glavič (2021) it is a problem primarily in developing regions, where economic inequality can limit the ability of certain populations to engage in sustainable consumption. Although consumers express a willingness to pay more for sustainable products (Bar Am et al., 2023), Wintschnig (2021) argues that price is a controversial issue on sustainable consumption. Price is not an obstacle *per se*, it arises as one when consumers are financially constrained, which lead them to prioritize immediate cost savings and convenience over sustainability (Glavič, 2021; Wintschnig, 2021). Kotler (2011) observes that while some consumers are willing to pay a premium for environmentally friendly options, many still prioritize cost over sustainability.

Beyond monetary costs, other resources such as time and effort required throughout the consumption cycle also play a role. The increased effort needed to engage in sustainable behaviors and the associated inconvenience naturally act as barriers to adoption (Wintschnig, 2021). Additionally, many consumers express skepticism regarding the authenticity of sustainability claims made by brands. Low trust in these claims can lead to reluctance in purchasing sustainable products, as individuals may doubt their actual environmental benefits (Ronda, 2024).

Ultimately, individual consumption is linked to broader patterns, lifestyles, habits (Glavič, 2021), and cultural or societal norms (Kotler, 2011), which can create resistance to adopting sustainable practices. Changing consumer behavior is a multifaceted challenge that cannot be addressed simply through economic incentives or information campaigns. It requires a deep understanding of the different types of consumption acts and the specific contexts in which they occur (Giulio et al., 2014).

5 CONCLUSION AND FINAL CONSIDERATIONS

The gap between sustainable attitudes and behaviors can be partly attributed to the methodologies used in research studies. Ronda (2024) and Wintschnig (2021) mentions that often there is a *social desirability bias* in data collection and research in sustainable consumption, which can lead to a higher attitude-behavior gap outcome. This bias occurs when respondents feel pressured to give socially acceptable answers, leading them to overstate their responsible attitudes, especially in self-reported surveys. Observational studies of actual behavior could mitigate this issue, as they often reveal weaker attitude-behavior correlations. However, very few studies indeed consider observing actual behavior, given this, there is a need for the development of more implicit attitudes studies in the field of sustainable behavior.

Apart from the disparity in current studies, it is still clear that there are several barriers to sustainable consumption that need to be mitigated. The educational factor is a key to a change and plays an important role in bridging the "knowledge-action gap," which refers to the disparity between what people know about sustainable consumption and their actual consumption behaviors (Giulio et al., 2014).

Education can empower consumers by increasing their knowledge and shifting their attitudes towards sustainability (Glavič, 2021). Though, an interdisciplinary framework should be adopted; it is necessary to integrate efforts by researchers, educators, and stakeholders of industry in order to make effective educational programs possible. According to Glavič (2021), these educational programs should introduce more than just sustainability issues; they need to evoke creative, critical, and innovative thinking. In accordance, Wintschnig (2021) highlights that while education to increase knowledge is crucial, it must focus on action-related knowledge — how to perform sustainable behaviors and distinguish sustainable products — since this has a stronger impact on behavior.

Learning and educational initiatives should therefore prioritize not just raising awareness but equipping consumers with the practical skills and knowledge necessary to make sustainable choices. By developing these skills, education can make people shift into a more sustainable direction in terms of lifestyles and community involvement regarding sustainability, thereby better equipping them to make significant changes in consumption.

Another driver for a solution, taking a corporation point of view, mentioned by Kotler (2011) is the concept of *demarketing*, which consists of demand reduction, mentioned for the first time by Kotler and Levy (1971). Demarketing uses the same four Ps (product, price, place, and promotion) of marketing but in a reverse way.

"A vivid example is available from California communities that have faced a chronic water shortage. Local governments have had to adopt a demarketing strategy to reduce industries and consumers' water consumption. Today, there are more targets for demand reduction than there have been in the past. We need to combat over-fishing, energy waste, overeating, and obesity, among other issues. Governments, as well as some industries, will need to develop more effective tools and skills in demand reduction." (Kotler, 2011).

There's a need for an interdisciplinary approach, allowing the integration of insights from different fields (Giulio et al., 2014). Therefore, this includes refining research methodologies to minimize biases like social desirability and incorporating observational and implicit attitude studies for more accurate insights into consumer behavior. Education plays a central role, but it must be interdisciplinary, combining efforts from researchers, educators, and industry stakeholders to develop comprehensive programs that not only provide knowledge but also foster practical skills and critical thinking (Glavič, 2021). Additionally, corporations and governments must adopt strategies like demarketing to manage and reduce unsustainable consumption patterns (Kotler, 2011). By integrating these solutions and promoting collaboration across sectors, we can create a more effective framework for encouraging sustainable consumption and achieving long-term environmental goals.

SHIFT

Based on a mixture of the key behavior theories, including Theory of Planned Behavior, a novel framework to change consumer behavior towards sustainability has been developed, named SHIFT (White et al., 2019). It is based on 5 pillars according to the SHIFT acronym: Social influence, Habit formation, Individual self, Feelings and cognition, and Tangibility. The proposal of this framework is to better conceptualize sustainable consumer behavior and provide a comprehensive evaluation frame to facilitate behavior change.

In this sense, the 5 pillars aim to address one of the main issues identified with change of consumer behavior towards sustainability: the attitude-behavior gap, stemming from TPB (Johnstone & Tan, 2015). This gap between the attitude towards the environment concerns and still not adhering to sustainable products has been attributed specially to the social dilemma of consumers, between purchasing and generating collective social gain and the buyers' own interests of not buying (Gupta & Ogden, 2009).

Social influence is the first defined influencing factor in the framework to change consumer behavior. It has three components: social norms, social identities, and social desirability. Regarding the social norms, the descriptive norms are the information of other individuals' activities, and when combined with references similar to individuals' experience, it is even more effective to predict sustainable behavior (Goldstein et al., 2008). On the other hand, there are the injunctive norms, which refer to behaviors other individuals approve or disapprove of. When observing that the autonomy feeling is not jeopardized, the injunctive norm shall be a positive social norm to influence sustainable consumption (White et al., 2019). Furthermore, the social identities refer to the feeling of belonging to a group that engages in sustainable

choices and purchases has potential to predict sustainable consumption, as people want to align to the group's behavior.

The second pillar, Habits formation, regards the incorporation of sustainable consumption into consumers' sustained behavior and is divided into 7 factors. The first is called discontinuity to change bad habits, referring to the convenience of aligning context changes to consumption behavior changes, which facilitates the transition. Then, there are the penalties, such as taxes or fines for unsustainable behavior which can discourage them. In third place, there are implementation intentions, which argues that people adopt new habits easier when there is clearer explanation about the necessary steps, besides making it easy to adhere, giving prompts as reminders, incentives and giving feedback on their progress. All those techniques have been shown to be helpful for maintaining a new habit (White et al., 2019).

Thirdly, the Individual self plays a role in sustainable behavior in 5 factors: self-concept, self-consistency, self-interest, self-efficacy and individual differences. Regarding people's view about themselves, self-concept, it is most effectively associated with sustainable behavior when products they consume create a self-image that they are doing good to the environment. Moreover, self-consistency refers to individuals being more likely to repeat environmentally-friendly actions when performed once they have already been performed, and self-interest is the higher chance of adopting the behavior when there is personal benefit for the consumer. Furthermore, self-efficacy is one of the key factors, and it refers to people being more prone to adhere to a behavior when they feel that they can perform the action and it has an impact (Bandura, 1977).

The fourth pillar, Feelings and cognition, is based on negative emotions, positive emotions, information, learning & knowledge, eco-labelling and framing. Appealing to both negative emotions and positive emotions such as guilt, fear, joy, price, can influence transition and maintain new sustainable behavior. Informing people about their habits' impacts and consequences can have effective outcomes, especially if combined with other factors. Eco-labelling and framing are design aspects that appeal to the customer in the purchasing experience and can also pass information and feelings that encourage the purchase,

Finally, Tangibility refers to the need of enabling consumers to see practically the effects of their actions, and is presented in 4 topics: matching temporal focus, communicating local and proximal impacts, concrete communications and encouraging the desire for intangibles. As consumers are focused on the present benefits of their consumption, there needs to be a matching of their payback that is not too impalpable, such as focusing on future generations and leaving a legacy. Another challenge is connecting consumers with other regions that suffer impacts of their habits, even though it is far from their reality, such as leveraging individuals' attachment to a place. Clearly communicating the impacts of the behavior, a clear pathway to having sustainable behavior, making them realistic and close to people is of utmost importance to make the sustainable transition more concrete and relevant. Lastly, addressing the issue of overconsumption of materials is another field to be addressed within sustainable consumption, and incentivizing the change to consume intangible goods/services can help sustain this new consumer behavior concept and lifestyle.

Limitations and future research

This paper provides a comprehensive overview of sustainable consumption literature, however, there are some limitations to take into consideration. First, the major limitation relates to

geographic specificity. The study did not make any distinction between the national, regional, or local level but decided to take an overall abstracted approach. Therefore, this paper may have overlooked important regional differences and specific contextual barriers or opportunities to sustainable consumption. Such geographic differences should be considered by future research to provide more targeted, relevant information for a given region or country.

Another limitation pertains to the potential inaccuracies in the data used within the literature review. As mentioned by Ronda (2024) and Wintschnig (2021), one of the major problems with research into sustainable consumption, and in particular with self-reporting, is the *social desirability bias*. This suggests that the tendency of people to try to present themselves in a favorable light causes overstated environmentally responsible attitudes. Consequently, the results of some of the studies included in the review may not reflect the real behaviors of today, which leads to an overestimation of the extent to which sustainable behaviors are taken up. Further research will have to develop methodologies that observe real behavior or implicit attitude measurements to reduce bias and yield more valid data on consumer behavior.

Future research should also be directed toward interdisciplinary approaches and partnerships among educators, policy makers, and industry leaders to further build on the literature base established thus far. Indeed, this can enable regional educational programming and corporate strategies, such as demarketing, to better address unsustainable behaviors.

REFERÊNCIAS

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. ScienceDirect. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. <https://psycnet.apa.org/doi/10.1037/0033-295X.84.2.191>
- Bar Am, J., Malik, A., Noble, S., & Frey, S. (2023, February 6). *Do consumers care about sustainability & ESG claims?* | McKinsey. McKinsey & Company. Retrieved October 16, 2024, from <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/consumers-care-about-sustainability-and-back-it-up-with-their-wallets>
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1), 105-115. <https://doi.org/10.1037/h0030644>
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological bulletin*, 125(6), 627-700. <https://doi.org/10.1037/0033-2909.125.6.627>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer US. 978-1-4899-2273-1
- Giulio, A. D., Fischer, D., Schäfer, M., & Blättel-Mink, B. (2014, 4). Conceptualizing sustainable consumption: toward an integrative framework. *Sustainability: Science, Practice and Policy*, 10(1), 45-61. 10.1080/15487733.2014.11908124

- Glavič, P. (2021). Evolution and Current Challenges of Sustainable Consumption and Production. *Sustainability*. MDPI. doi.org/10.3390/su13169379
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35(10), 472-482. 10.1086/586910
- Gupta, S., & Ogden, D. T. (2009). To buy or not to buy? A social dilemma perspective on green buying. *Journal of Consumer Marketing*, 26(6), 378-393. 10.1108/07363760910988201
- Hadleigh, S. (2020, May 11). *The European environment — state and outlook 2020: knowledge for transition to a sustainable Europe*. European Environment Agency. Retrieved October 16, 2024, from <https://www.eea.europa.eu/soer/2020>
- Johnstone, M.-L., & Tan, L. P. (2015). Exploring the Gap Between Consumers' Green Rhetoric and Purchasing Behaviour. *Journal of Business Ethics*, 132(2), 311-328. 10.1007/s10551-014-2316-3
- Kotler, P. (2011, July). Reinventing Marketing to Manage the Environmental Imperative. *Journal of Marketing*, 75.
- Kotler, P., & Levy, S. J. (1971, November-December). Demarketing, yes, demarketing. *Harvard Business Review*, 79.
- OECD. (2017, 5). *Tackling Environmental Problems with the Help of Behavioural Insights*. OECD iLibrary. <https://doi.org/10.1787/9789264273887-en>
- Oslo Roundtable on Sustainable Production and Consumption*. (1994). [Oslo Roundtable] 1.2 Defining sustainable consumption. Retrieved October 13, 2024, from <https://enb.iisd.org/consume/oslo004.html>
- Perugini, M., & Bagozzi, R. R. (2001). The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology*, 40(1), 79-98. 10.1348/014466601164704
- Ronda, L. (2024, Jan 18). Overcoming barriers for sustainable fashion: bridging attitude-behaviour gap in retail. *International journal of retail & distribution management*, 52. <https://doi.org/10.1108/IJRDM-02-2023-0056>
- Šajn, N. (2020, October). *Sustainable consumption*. European Parliament. Retrieved October 13, 2024, from [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659295/EPRS_BRI\(2020\)659295_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659295/EPRS_BRI(2020)659295_EN.pdf)
- Tighe, D. (2024, January 29). *Evolution of sustainable shopping worldwide 2022*. Statista. Retrieved October 16, 2024, from <https://www.statista.com/statistics/1377869/global-shift-to-buying-sustainable-products/>
- United Nations. (n.d.). *Sustainable consumption and production*. the United Nations. Retrieved October 10, 2024, from <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

- Webb, D., Soutar, G. N., Mazzarol, T., & Saldaris, P. (2013). Self-determination theory and consumer behavioural change: Evidence from a household energy-saving behaviour study. *Journal of Environmental Psychology*, 35, 59-66. Elsevier. 10.1016/j.jenvp.2013.04.003
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22-49. 10.1177/0022242919825649
- Wintschnig, B. A. (2021). The Attitude-Behavior Gap-Drivers and Barriers of Sustainable Consumption. *Junior Management Science*, 6(2), 342-346. <https://doi.org/10.5282/jums/v6i2pp324-346>
- World Commission on Environment and Development. (1987). *Our Common Future: Report of the World Commission on Environment and Development*. Sustainable Development Goals. Retrieved October 13, 2024, from <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- Wright, J. D. (Ed.). (2015). *International Encyclopedia of the Social & Behavioral Sciences*. Elsevier Science.
- Zalando. (2021, April 20). *Zalando: Attitude-Behavior Gap Report | Zalando Corporate*. Zalando Corporate Website. Retrieved October 16, 2024, from <https://corporate.zalando.com/en/our-impact/sustainability/sustainability-reports/attitude-behavior-gap-report>