

# Sustainable Consumer Behavior: Literature Overview

Elena Kostadinova\*

## Summary:

Sustainable consumption is a problem of growing importance and complexity. There is hardly another issue that combines the triviality of everyday human behavior and the abstract dimensions of moral responsibility and the man-nature relationship. Two main perspectives dominate research on sustainable consumer behavior – demand side (marketing) and supply side (business strategy). This paper reviews relevant literature on sustainable consumer behavior and discusses the problem from a marketing perspective. This study aims to introduce the concept of sustainable consumer behavior and its theoretical and methodological foundations, to outline key factors influencing sustainable consumption and the major challenges facing it.

**Key words:** sustainable consumer behavior, green consumer behavior, green purchasing, literature review

**JEL classification:** M31

## Introduction

Over the last few decades, consumption of goods and services has increased to unprecedented levels worldwide, leading to depletion of natural resources, loss of biodiversity and rapid environmental deterioration. Expectations of abundance

and unlimited growth have not proved justified and people are already consuming 30% more resources each year than the planet can regenerate and this pace is accelerating. There is a global consensus that urgent changes in human behavior and cultural practices are needed in order to reduce the effects of overconsumption. Individuals are becoming more aware that the age of undisturbed consumerism is coming to an end and that their individual behaviors have a direct impact on the surrounding environment and on the lives of future generations. The growing concern about environmental issues is also reflected by an increase in demand for environment-friendly products and the pressure on companies to conduct their business in a socially and ecologically responsible manner. Investment in sustainability is no longer driven by legal requirements or resource efficiency considerations but it is motivated by consumer demand (Accenture, 2012). Understanding the nature of pro-environmental behavior, its main drivers and difficulties, is of critical importance to resolving the sustainability challenge. This paper represents a literature review of previous work on sustainable consumer behavior and it aims to introduce relevant aspects of the problem from a marketing perspective.

## 1. Methodology

The current study was conducted by reviewing secondary data from "double-blind" peer-reviewed academic journals, book chapters, commercial reports and

\* Assistant Professor, PhD, Department of Marketing and Strategic Planning, UNWE; email: ekostadinova@unwe.bg

institutional websites. Relevant materials were identified through word searches on sustainable consumer behavior, green consumer behavior, sustainable consumption, pro-environmental behavior, green purchasing, factors, scales and theoretical foundation, using databases such as Scopus, ScienceDirect, etc. Ninety-six works were selected and assessed in order to gain understanding of the theoretical and methodological foundations of sustainable consumer behavior and to identify emerging key topics related to the problem. The selection criteria applied included relevance, how recent the works are and impact of the published works as well as credentials of the authors. The current study is limited to research on existing patterns of sustainable consumer behavior from a marketing perspective. It does not address important aspects of the problem such as sustainable consumption from a supply-side perspective, consumption-production integration and policies and approaches for achieving behavioral change. The current study reviews works related to "green" and "sustainable" consumer behavior as they have been both found to represent forms of environmentally-friendly consumer behavior. The two terms are used interchangeably in the current paper due to the lack of a clear conceptual distinction between "green" and "sustainable" in the texts reviewed. However, it is necessary to make a distinction between the two concepts where "green" refers to individual products and practices aiming to reduce the negative effects of human behavior on the environment and "sustainable" relates to a fundamental shift in the paradigm of consumerism towards a more balanced relationship with the environment and equitable allocation of resources.

### **2. Concept and meaning**

The first and best known definition of sustainable development has been

formulated by the Brundtland Commission of the United Nations in its report 'Our Common Future' (United Nations, 1987). The Brundtland report defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987). Several years later, a separate definition of sustainable consumption has been proposed at the 1994 Oslo Symposium on Sustainable Consumption, according to which sustainable consumption is "the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations" (Norwegian Ministry of the Environment, 1994). The abovementioned definitions have been widely cited in previous works on sustainable and green consumer behavior but its actual typology has been rarely clarified. Taking into consideration the typology of sustainable consumer behavior is important as it refers to the content of the concept and it specifies what types of behaviors are discussed. The United Nations Environmental Programme has suggested a categorization of sustainable consumer behaviors according to the human's main life 'functions' (UNEP, 2002): nutrition (e.g. food waste reduction, sustainable diets, etc.), mobility (e.g. use of environmentally friendly transport, fuels and vehicles, car-sharing, etc.), housing (e.g. sustainable building, energy and water conservation, etc.), clothing (e.g. preference for ethical clothing, organic fabrics, etc.), education (e.g. teaching sustainable living, promoting sustainability, etc.), health (e.g. healthy and environment-friendly lifestyles) and leisure (e.g. sustainable tourism, leisure practices with low resource intensity,

etc.). Durif, Boivin and Julien (2010) proposed the following definition of a green product: "a product whose design and/or attributes (and/or production and/or strategy) uses recycling (renewable/toxic free/biodegradable) resources and which improves environmental impact or reduces environmental toxic damage throughout its entire life cycle", the definition was drawn after an analysis and codification of 35 academic definitions of a green product.

### 3. Theoretical grounds of research on sustainable consumer behavior

The two most influential theories that underpin much of the research on sustainable consumer behavior are the *Theory of Reasoned Action of Ajzen and Fishbein* (1980) and the *Theory of Planned Behavior* (1988). According to The Theory of Reasoned Action, attitude is formed by one's beliefs that performing a behavior would lead to a certain outcome and the evaluation of this outcome – whether it will be favorable or not. According to Ajzen and Fishbein, attitude towards a given behavior is one of the two major influences on people's intention to perform it. The other important influence in this model is a person's subjective norm or the 'perception that most people who are important to him think he should or should not perform the behavior in question' (Ajzen and Fishbein, 1980). On these grounds, in 1988 Ajzen extended the Theory of Reasoned Action and developed his Theory of Planned Behavior by adding a new variable - perceived behavioral control which is defined as 'the person's belief as to how easy or difficult performance of the behavior is likely to be' (Ajzen and Madden, 1986). The reasoning behind this modification is that not all actions are under one's volitional control and intention depends on the strength of the belief in our ability to carry out that behavior (Jackson, 2005). The Theory of Planned Behavior

is one of the most widely employed models in the study of pro-environmental behavior (e.g. Paul, Modi and Patel, 2016; Wang, Zhang, Yin, Zhang, 2011) and it is considered a reliable predictor of intentions to purchase green products (Kalafatis et al., 1999). Another influential theory in the study of green consumer behavior is the *Ecological Value Theory* which is based on the works of the American scientist Shalom Schwartz on altruism and pro-social behavior (Schwartz, 1977). According to the theory, environmental behavior is a function of certain pro-social and moral values of individuals and those whose value system is self-centered and oriented towards their own interests (egoistic orientation), are less likely to adopt environmental behavior, compared to individuals whose values are focused on things that are external to the individual (pro-social orientation). Later on, a third value orientation was added to the theory, which was called "biospheric" and which refers to the appreciation of nature and the environment. On this basis, Dunlap and Van Liere (1978) developed their concept of the *New Environmental Paradigm* which represents a new worldview that takes into consideration the limits of growth and the need to preserve nature. According to the authors, the New Environmental Paradigm has emerged as a challenge to the *Dominant Social Paradigm* which represents the man-centered belief that nature exists solely for human use (Dunlap and Van Liere 1978, p. 11). Coming from the understanding that behavior is a function of the organism and its environment and building on the formulation of Guagnano, Stern and Dietz (1995), Stern (2000) developed a model of environmentally-significant behavior where behavior (B) is a product of personal-sphere attitudinal variables (A) and contextual factors (C). In the Attitude-Behavior-Context model (ABC), contextual factors affect the strength of the attitude-behavior association

which is strongest when they are neutral and is close to zero when contextual forces are strongly positive or negative (Stern, 2000, p. 415). The ABC model considers the effect of contextual factors such as institutional context, financial constraints and social influences but it still does not account for the influence of habits on pro-environmental behavior. An attempt to overcome this limitation has been made by Triandis (1977) in his *Theory of Interpersonal Behavior* according to which intentions are an immediate antecedent to behavior as well as habits and facilitating conditions (Jackson 2005). Triandis' model is also the first to consider the effect of emotional factors which form intention together with social factors and attitude<sup>1</sup>.

#### 4. Measuring sustainable consumer behavior and attitudes

The first multidimensional scale to measure environmental attitudes and knowledge is *The Environmental Attitudes and Knowledge Scale* developed by Maloney and Ward (1973). It consists of 130 variables measuring verbal and actual commitment to environmental issues, affection and specific knowledge of the facts related to ecological problems. Another widely used scale to measure environmental attitudes that has been implemented in hundreds of scientific studies is *The New Environmental Paradigm Scale* developed by Dunlap et al. (1978). The scale evaluates where the population is in transition from the Dominant Social Paradigm to a more environmentally-conscious worldview embodied in the New Ecological Paradigm (Dunlap and Van Lier, 1978). According to Kaiser and Biel (2000),

situational influences create difficulties that make some behaviors easier to implement than others, such as recycling - if recycling containers are readily available, recycling becomes more easily enforceable. On these grounds, Kaiser (1999) developed the *General Ecological Behavior Scale* to measure general environmental behavior, which he later adapted with the help of Biel and used for research on cultural differences (Kaiser and Biel 2000, as cited by Pires et. al., 2014). The original scale evaluates environmental performance, taking into account behavioral difficulties related to 30 different types of ecological behavior. Every behavior has a difficulty connected with assessing the situational constraints on behavior. The easier it is to perform a behavior, the fewer restrictions must be met and the more likely are people to fulfill that behavior. Among other well-known scales measuring environmental attitudes are the *Environmental Concern Scale* of Weigel and Weigel (1978), which assesses respondents' concern about environmental pollution and Milfont and Duckit's *Environmental Attitudes Inventory list* (Milfont and Duckit, 2010) which is an attempt to organize measures used in previous research studies and to assess environmental attitudes in a cross-cultural context. The Environmental Attitudes Inventory list evaluates a wide range of perceptions and beliefs regarding the natural environment, including factors affecting its quality<sup>2</sup>.

#### 5. Factors influencing sustainable behavior

Numerous research studies have been conducted in an attempt to identify the

<sup>1</sup> For more information on the theory of sustainable consumption, see Jackson, T., 2005. *Motivating Sustainable Consumption*. SDRN

<sup>2</sup> For more information on measuring instruments, see: Pires, P., Junior, R., De Castro, R., Lemos, DCL., Figueira, A. 2014. *Eco-centrism and behavior: a bibliographic review on environmental values*. *Psicologia em Estudo* 19 (4), 611-620.

predictors of pro-environmental consumer behavior. Most of the factors influencing pro-environmental behavior can be categorized into two distinct categories – individual-related and context-related/situational factors. Individual factors include attitudes, values, demographic characteristics and other variables that affect consumers' decision making and behavior. Contextual/situational factors relate to external forces that may influence sustainable consumption in a positive or negative direction.

### 6. Individual-related factors

Logically, *environmental concern* is one of the most researched factors influencing sustainable consumer behavior. Environmental concern is seen as "an individual's assessment or attitude towards the facts, their own behavior or the behavior of other people, that have an impact on the environment" (Ajzen, 1989). Some studies suggest that the degree of concern can be a significant factor in predicting the display of environmentally-conscious behaviors such as recycling (Simmons and Widman, 1990) and the purchase of green products (Chan, 1996; Ottman 1993). *Knowledge* is also considered an important predictor of green consumer behavior as it is assumed that consumers who are more aware and knowledgeable about environmental problems will be more motivated to practice green consumer behavior (Peattie, 2010). *Perceived consumer effectiveness* is also a widely researched variable as it is believed to affect consumer attitudes, subjective norms and perceived behavioral control, which further determines consumer purchase intention (Kang et al., 2013). It is defined as "a measure of the extent to which a respondent believes that an individual consumer can be effective in pollution abatement." (Kinneer, Taylor and Ahmed, 1974). In terms of green consumption, it refers to the degree to which consumers

believe that their individual actions have an actual effect on the environment. Environmentally conscious consumers are expected to be more likely to buy products and services that they perceive to have a positive (or less negative) impact on the environment (Roberts 1996). Boztepe (2012) defined *environmental consciousness* as "a function of knowledge of environmental problems, knowledge of environmental solutions, and knowledge of environmental benefits from specific green products". A substantial body of research has been focused on evaluating the influence of *values* on pro-environmental behavior. According to Thøgersen and Olander (2002), sustainable consumption patterns are influenced by individual value priorities and Stern et al. (1995) demonstrated that people engaging in pro-environmental behavior are more likely to hold altruistic values and to score higher on Schwartz's pro-social value dimension. Numerous research studies have been conducted in an attempt to define and profile the green consumer segment, using primarily *socio-demographic variables* (e.g. Laroche et al., 2001; Robert and James, 1999). However, the results have been inconsistent which leads to the conviction that consumers' socio-demographic characteristics have limited application in predicting green consumer behavior. According to Diamantopolous (2003) the results obtained are disappointing for those companies and policy makers that seek for "easy options" in profiling and targeting the green consumer. Many environmentally-significant behaviors have routine character (Jackson 2005) and consumers have become more concerned about the impact of their everyday purchases on the environment (Krause, 1993). Changing consumers' *habits* is a major challenge before sustainable consumption. The erosion of consumer confidence caused by false green claims

(green washing) often provokes *skepticism* an impediment to environmentally sensitive behavior and significantly reduces the effect of environmental concern as a factor (Albayrak, 2013).

### 7. Contextual/situational factors

Substantial research effort has been dedicated to studying consumers' values and attitudes as predictors of sustainable consumer behavior. However, the tendency to overestimate the effect of individual-related factors such as attitudes and beliefs and to overlook situational factors such as availability of green products and financial constraints, when evaluating consumer behavior, is known by the term "fundamental attribution error" (Ross, 1977, as cited by Jackson, 2005). Individual values are known to be unstable over time and to vary across different contexts and situations (Biel, 2004). Situational factors play a key role in sustainable consumer behavior - availability and access to recycling facilities, the quality of public transport, access to energy-efficient technologies etc., can encourage or discourage that behavior. Miller (1990) found that consumers are willing to pay up to 5% extra for green products but several other studies have demonstrated that a higher *price* may prevail over ethical considerations (e.g. Gleim et al., Vermeir and Verbeke, 2006) and purchase probability for green products decreases as the price premium increases (D'Souza et al., 2006). The presence of pro-environmental choice on the market has also been found to influence green consumer behavior. Vermeir and Verbeke (2004) found that many consumers are willing to purchase green products but this does not translate into actions due to low *availability*. The lack of green and organic food in stores has also been identified as a serious barrier to green purchase (Byrne et.al., 1991; Davies, 1995). Green products

are environment-friendly but they are often more expensive and of lower quality than their conventional counterparts. Nowadays, consumers have to choose from a great variety of products at affordable prices and of excellent functionality, so it is unlikely that mainstream consumers will compromise on standard *product value and quality* to switch to a greener alternative. Green purchasing also includes the application of non-green criteria such *brand popularity* and *brand preference* (Young, 2010). Glegg et al. (2005) found that consumers are less willing to buy green products if they are unfamiliar with the brand. *Eco-labeling* aims to assure consumers that the products have been manufactured in an environmentally sound manner as the purchase of eco-labeled products is related to the belief that this would contribute to solving environmental problems (Thøgersen, 2000). The *retail environment* may also be a significant influence on green purchasing - Quelch and Harding (1996) have suggested that retailers act as a filter to products and if the products are filtered in favor of greener options, consumers are more likely to trust and purchase green products available in major retail chains. Consumption serves not only individualistic, but also social needs and salience and visibility of consumption determine to what extent social comparison and imitation influence consumption patterns (Janssen and Jager, 2002). Only behavior possessing salience and visibility is capable of signaling *social compatibility* (Janssen and Jager, 2002). Consumption of goods and services happens in a certain *institutional context* - current legislation, regulations and standards. National governments play a critical role in promoting sustainable consumption as their policies determine which behaviors will be encouraged in society and which - not. *Economic conditions* can also influence sustainable consumer behavior and demand

for green products. Although consumers are increasingly concerned about issues such as finding and keeping a job (Katrandjiev, 2015), deteriorating economic conditions do not influence consumer behavior in the expected direction - Yankelovich (2009) found that consumers with a higher level of economic anxiety demonstrate the highest level of environmental concern and are most active in terms of sustainable behavior (Yankelovich 2009). Consumers in times of crisis are more pragmatic than altruistic, prioritize and shop "smarter" (Katrandjiev and Naydenova; 2012 Yankelovich, 2009) and it appears that sustainability has a place on their priority list.

### 8. The gap between environmental attitudes and behavior

Despite growing concern about ecological issues and increasing environmental sensitivity, numerous empirical studies have demonstrated that pro-environmental attitudes often do not translate into actual behavior (Gupta and Ogden, 2009; Kollmuss and Agyeman, 2002; Pickett-Baker and Ozaki, 2008). According to Yankelovich (2008), the perceived severity of the problem and environmental concerns are not directly related to willingness to pay more for green products – green practices and willingness to pay a price premium for green products are different things, he argues (Yankelovich, 2008). From a methodological standpoint, one possible explanation is the dominant role of attitudinal variables in studies of green consumer behavior. The focus on attitudes in explaining behavior reflects an old paradigm in the study of consumer behavior which assumes that behavior follows attitudes. However, a growing body of research shows that the opposite is more likely to be true, starting with Festinger's classic Theory of Cognitive Dissonance (1957) and supported by further research on the influence of behavior on attitudes

(Cialdini 1984; Sharp, 2010; Stangor, 2011). There are various possible explanations for the discrepancy between attitudes and behavior – sustainable practices are associated with compromises and drawbacks, and these actions are often perceived by consumers as too insignificant to have a real effect on the environment. Green products are often more expensive, of poorer quality and are not available in all stores - price, perceived quality and lack of trust in the information provided by producers, contribute to this gap (Gleim et al., 2013; Gupta and Ogden, 2009). Habits, financial constraints and lifestyles of individual consumers, as well as loyalty to established brands, may have a deterrent effect on green consumer behavior (Peattie, 2010). Lack of opportunities to practice pro-environmental behavior (access to recycling containers, availability of green options to conventional products, etc.), and lack of reliable and comprehensive information about the standards to be met by a product in order to be accepted as 'green', also represent an obstacle to the adoption of actual sustainable behavior. Another significant reason that Peattie (2010) identifies are the dominant social norms - "behaviors that we consider morally right or what ought to be done" (Peattie, 2010). According to Peattie, the 'green' social norm is not strong enough yet and consumers experience very little or no discomfort from the mismatch between their attitudes and behavior (Peattie, 2010).

### 9. Moral licensing and consumer choice

One of the main criticisms towards green consumerism is that it exacerbates the problem of overconsumption by reducing consumers' guilt as they feel they are taking some pro-environmental actions (Peattie, 2010). Previous research has shown that this 'guilt reduction' can lead further to even

more negative consequences by creating a sense of security in consumers' morality, licensing them to engage in self-centered and unethical behaviors that are not related to the environment (Mazar and Zhong, 2010). In a series of three experiments Mazar and Zhong have demonstrated that mere exposure to green products increases subsequent prosocial behavior but acting on these values establishes moral credentials and can subsequently license deviating behavior (Mazar and Zhong, 2010). One of the experiments demonstrated that participants who have chosen green products over conventional ones, were more likely to make morally questionable decisions in a subsequent money-winning game where they tried to take more money than they had actually won. These findings relate to another serious criticism of green consumerism which is the notion that sheer green consumer behavior aims at "picking the low-hanging fruit" by tactical actions to reduce unsustainability (Yandarella, Levine and Lancaster, 2009) and does not challenge the Dominant Social Paradigm in industrialized countries (Peattie, 2010), where mass production and obsession with growth still seem to prevail.

### 10. Summary and conclusions

Several conclusions can be made after reviewing relevant works on sustainable and green consumer behavior. The role of higher-order values and attitudes seem to be widely investigated in previous research studies, however sustainable consumer behavior in the context of low-involvement everyday decisions and products, which contribute to significant environmental impacts and represent the heart of the problem of overconsumption, is still under-researched. Achieving lasting behavioral change is undoubtedly one of the biggest challenges sustainability and limiting environmental degradation are facing. Despite growing

concern about ecological issues, "green" consumers still represent a minority in society which is also reflected by the relatively slow consumer acceptance of green products (Gleim et. al, 2013). It is a well-known fact that growth is not achieved by targeting current customers (loyalty) but by attracting new buyers from all types (penetration) (Sharp, 2010). This logically leads to the conclusion that instead of focusing on segmenting, profiling and targeting this small group of consumers, more effort should be dedicated to its expansion and diversification. This is a difficult and complex task because it concerns our behavior not only as consumers but also as citizens and members of society. The concept of sustainability also implies a reduction in the intensity of consumption which seems to be a less-explored area in current research. The fact is that switching to greener alternatives of conventional behaviors and products will not solve the economics most significant problem of economics – population growth under scarcity of resources. As Lebel and Lorek note "gross overconsumption and acute underconsumption coexist in the real world and both are challenges to sustainable development." Sustainable consumption is not only about consuming differently but it is also about consuming less, about providing for those who currently live in poverty and for future generations. Consuming wisely is a moral imperative and it is vital that sustainable consumption is placed at the top of the public agenda.

### References

1. Ajzen, I. and Fishbein, M, 1980. *Understanding Attitudes and Predicting Social Behaviour*. Englewood Cliffs, NJ: Prentice-Hall Inc.
2. Ajzen, I., 1988. From intentions to actions: A theory of planned behaviour. In: J. Kuhl and Beckmann (Eds.). *Action-*



- Control: From cognition to behaviour. Heidelberg, Germany: Springer, 11-39.
3. Ajzen, I. and Madden, T.J., 1986. Prediction of goal-directed behavior: attitudes, intentions and perceived behavioural control. *Journal of Experimental Social Psychology*, 22, pp 453-474.
  4. Albayrak T, Aksoy, A., Caber, M., 2013. The effect of environmental concern and skepticism on green purchase behaviour. *Marketing Intelligence Planning*; 31(1): 27-39.
  5. Albayrak, T., Caber, M., Moutinho, L., Herstein, R., 2011. The influence of skepticism on green purchase behavior. *International Journal of Business & Social Science*, 2, pp. 189-197.
  6. Boztepe, A., 2012. Green marketing and its impact on consumer buying behavior. *European Journal of Economic and Political Studies*. 5 (1), 5e21
  7. Brown, J. D. and Russell G. W., 1998. The environmentally concerned consumer: An explanatory study. *Journal of Marketing Theory and Practice*, 6(2), pp. 39-48.
  8. Chan, T.S., 1996. Concerns for environmental issues and consumer purchase preferences: A two-country study. *Journal of International Consumer Marketing* 9(1), pp. 43-55.
  9. Cialdini, R. B., 1984. Influence: The new psychology of modern persuasion. New York: Morrow.
  10. Davies, A., Titterington, A.J. and Cochrane, C., 1995. Who buys organic food? A profile of the purchasers of organic food in Northern Ireland. *British Food Journal*, 97(10), pp. 17-23.
  11. Dunlap, R.E. and Van Liere, K.D., 1978. The New Environmental Paradigm. *Journal of Environmental Education*, 9, pp. 10-19.
  12. Durif, F., Boivin, C. and Julien, C., 2010. In Search of a Green Product Definition. *Innovative Marketing*, vol. 6, no. 1, pp. 23-31.
  13. Gleim, M. R., Smith, J. S., Andrews, D., & Cronin Jr, J. J., 2013. Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, 89(1), 44-61.
  14. Guagnano, G., Stern, P., and Dietz, T., 1995. Influences on Attitude Behavior Relationships – a natural experiment with curbside recycling. *Environment and Behavior* 27(5), 699-718
  15. 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), 376.
  16. Jackson, T., 2005. Motivating Sustainable Consumption. SDRN
  17. Janssen, M.A., Jager, W., 2002. Stimulating diffusion of green products: co-evolution between firms and consumers. *Journal of Evolutionary Economics* 12, 283-306
  18. Kaiser, F. G., & Biel, A., 2000. Assessing general ecological behavior: A cross-cultural comparison between Switzerland and Sweden.
  19. Kalafatis, S., East, R., Pollard, M. and Tsogas, M.H., 1999. Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of Consumer Marketing*, 16(5), pp. 441-460.
  20. Kang, C. Liu, S.H. Kim, 2013. Environmentally sustainable textile and apparel consumption: the role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*, 37 (4), pp. 442-452
  21. Katrandjiev, H., 2015. Ecological marketing, green marketing, sustainable marketing: synonyms or an evolution

## Articles

- of ideas? Approved for publishing in *Economic Alternatives*, UNWE.
22. Katrandjiev, H. and Naydenova, E., 2012. Segmentation of Bulgarian Consumer Market in Times of Economic Crisis: An Empirical Study. Conference proceedings, International conference on contemporary marketing issues (ICCM), Thessaloniki, Greece.
  23. Kinnear, T. C., Taylor, J. R., & Ahmed, S. A. (1974). Ecologically concerned consumers: Who are they? *Journal of Marketing*, 38(2), 20–24
  24. Kollmuss A, Agyeman, J., 2002. Mind the gap: Why do people act environmentally and what are the barriers to proenvironmental behavior? *Environmental Education Research* 8:239–60
  25. Krause, D., 1993. Environmental consciousness: an empirical study. *Journal of Environment and Behaviour*, Vol. 25 No. 1, pp. 126-42.
  26. Laroche, M., Bergeron, J. and Barbaro-Forleo, G. 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503–520
  27. Mainieri, T., Barnett, E.G., Unipan, J.B. and Oskamp, S., 1977. Green buying: The influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, 137(2), pp. 189-204
  28. Maloney, M., & Ward, M., 1973. Ecology: let's hear from the people. *American Psychologist*, 28, 583-6.
  29. Milfont, T. L., & Duckitt, J., 2010. The environmental attitudes inventory: a valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, 30, 80-94.
  30. Miller, C., 1990. Use of environmental packaging may take a while. *Marketing News*, 24-18
  31. Norwegian Ministry of the Environment, 1994. Oslo Roundtable on Sustainable Production and Consumption.
  32. Ottman, J.A., 2000. It's not just the environment, stupid. Retrieved August, 2004
  33. Oskamp, S., 2000. A Sustainable Future for Humanity? How Can Psychology Help?. *American Psychologist*, Volume 55, Issue 5, pp.496-508
  34. Paul, J., Modi, A., Patel, J., 2016. "Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, Volume 29, *Journal of Retailing and Consumer Services*
  35. Peattie, K., 2010. Green consumption: behavior and norms. *Annual Review of Environmental Resources* 35:195–228
  36. Peattie, K., 1995. Environmental Marketing Management. London Pitman Publishing, p. 28, 154, 161.
  37. Penaloza L, Price LL. Consumer resistance: a conceptual overview. *Advanced Consumer Research* 2003;20(1):123–8.
  38. Pickett-Baker J and Ozaki R. 2008. Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing* 25:281–93
  39. Pires, P., Junior, R., De Castro, R., Lemos, DCL., Filgueira, A. 2014. Ecocentrism and behavior: a bibliographic review on environmental values. *Psicologia em Estudo* 19 (4), 611-620
  40. Quelch JA, Harding D. 1996. Brands versus private labels: fighting to win. *Harvard Business Review* 74(1): 99–109.
  41. Roberts, J. A., 1996. Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, 36(3), 217–231
  42. Schwartz, S., 1977. Normative Influences

## Articles

- on Altruism. *Advances in Experimental Social Psychology* 10, 222-279.
43. Simmons, D., and Widmar, R., 1990. Motivations and Barriers to Recycling: Toward a Strategy for Public Education. *Journal of Environmental Education*, 22 (1): 13-18.
  44. Stangor, C., 2011. Principles of Social Psychology, v. 1.0. Flat World Knowledge
  45. Stern, P., 2000. Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issues* 56(3), 407-424
  46. Stern, P., Dietz, T. Abel, Guagnano, G. and Kalof, L., 1999. A Value-Belief Norm Theory of Support for Social Movements: the case of environmental concern. *Human Ecology Review* 6, 81-97
  47. Stern, P., Dietz, T., Guagnano, G., 1995. The new ecological paradigm in social-psychological context. *Environment and Behavior* 27, 723–743
  48. Tan, B. C, and Lau, T. C., 2009. Examining sustainable consumption patterns of young consumers: Is there a cause for concern? *The Journal of International Social Research*, 2 (9), 465-472.
  49. Thøgersen, J., 2000. Psychological determinants of paying attention to eco-labels in purchase decisions: Model development and multinational validation. *Journal of Consumer Policy*, 23(3), pp. 285–313
  50. Thøgersen, J., Olander, F. (2002), Human values and the emergence of a sustainable consumption pattern: a panel study, *Journal of Economic Psychology* 23, 605–630
  51. Triandis, Harry 1977. *Interpersonal Behaviour*. Monterey, CA: Brooks/Cole
  52. UNEP. 2002. UNEP Contribution to Framework on Promoting Sustainable Consumption and Production Patterns. Draft working paper. Paris: United Nations Environment Program, Division for Technology, Industry and Economics.
  53. Vermeir, I. and Verbeke, W., 2004. Sustainable food consumption: exploring the consumer attitude-behavior gap. Working paper, October (04/268), p.24
  54. Vlosky, R.P., Ozanne, L.K., and Fontenot, R.J., 1999. A conceptual model of US consumer willingness-to-pay for environmentally certified wood products. *The Journal of Consumer Marketing*, 16 (2), 122-136.
  55. Wang, Zh., Zhang, B., Yin, J. and Zhang, X, 2011. Willingness and behavior towards e-waste recycling for residents in Beijing city, China. *Journal of Cleaner Production*, 19(9):977-984
  56. Webster, E., 1975. Determining the Characteristics of the Socially Conscious Consumer. *Journal of Consumer Research*, 2 (Dec), 188–96.
  57. Weigel, R., & Weigel, J., 1978. Environmental concern - the development of a measure. *Environment and Behavior*, 10, 3-15.
  58. Wessells, C.R., Johnston, R.J., and Donath, H., 1999. Assessing consumer preferences for ecolabeled seafood: The influence of species, certifier and household attributes. *American Journal of Agriculture Economics*, 81 (5), 1084-1089.
  59. Yankelovich, D. 2009. *Selling Green in a Down Economy*. The Futures Company, Yankelovich Monitor Live.
  60. Young, W., Hwang, K., McDonald, S., & Oates, C. J., 2010. Sustainable consumption: green consumer behaviour when purchasing products. *Sustainable Development*, 18(1), 20-31.