



Sustainable Consumer Behavior: A Review

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Abstract: The current study reviews articles on sustainable consumer behavior from different regions or countries. Of the 20 peer-reviewed articles indexed on the web of science, most of them use a quantitative approach. Half of the articles reviewed considered environmental, economic, and social aspects as sustainability criteria, while the rest included only part of these three aspects. Food and clothing are most of the products considered in the articles reviewed, while consumer groupings are mostly based on age, gender, education, income, and job. Geographically, most studies come from countries in Europe, while the rest are from the United States and the Asian region. The study found that 16 out of 20 articles reviewed considered that consumers in the region under consideration were transitioning to sustainable behavior.

Keywords: consumer behavior, sustainability, green consumer

INTRODUCTION

It is important to study consumer behavior to understand consumer decisions on their choices to purchase goods or services for their welfare (Sugiyanto & Romadhina, 2020). Unsustainable consumer behavior has negative consequences for the environment (Stern, 2000). Climate change, biodiversity loss, and water scarcity, are some of the environmental impacts that we are increasingly experiencing (Rockström et al., 2009), partly caused by our unsustainable behavior. People nowadays are consuming more than the sustaining ability of the earth (Sheoran & Kumar, 2020). The World Wildlife Fund (WWF) reported that we would need roughly three earths to survive in 2050 if people today don't change their lifestyle as individual consumers (WWF, 2012). This is why many countries have started promoting sustainable lifestyles in recent years (Boca, 2021; Soyer & Dittrich, 2021).

Some studies suggested that there is a shift in consumer behavior driven by sustainability issues (Alagarsamy et al., 2021; Boca, 2021; Mainardes et al., 2020; Rasool & Cerchione, 2020; Soyer & Dittrich, 2021). This brings today's marketers to new ways of doing business, such as certifying their products through a labeling scheme (Wiloso et al., 2019), which can help consumers to behave more sustainably. For example, consumers can decide whether to buy or not based on the environmental performance of the product they are targeting, according to their certification. However, an adequate verification system must

be in place to avoid green washing (Chen & Chang, 2013), where sustainability claims could be misleading.

Several cases have proven that the sustainability issue has become a business concern at the global level. The rejection of Indonesian palm oil in the European market (Rifin et al., 2020) is one example of how sustainability issues and their consequences relate to buyer decisions. The European Union (EU) government policy requires several criteria for palm oil imported from various countries. This makes palm oil exporting countries, whose main market is Europe, inevitably follow the scheme, otherwise they will have to find new markets. This situation illustrates how important the government's role is in fostering sustainable consumer behavior.

Identifying new goods and markets, utilizing emerging technology, sparking innovation, improving organizational efficiency, and inspiring and retaining workers are all advantages of a sustainable business strategy (White et al., 2019). Tesco, Patagonia and On are some examples of the business entities that provide sustainable products in the marketplace (Kotler & Keller, 2016). The availability of these products in the market can help people to behave more sustainably. According to Kotler et al. (2010), firms that are able to consider new models of business that encourage sustainable consumption can potentially earn greater long-term profits. The emergence of the "sharing economy", for example, highlights the significant environmental and economic benefits that can be realized through shifting consumers sustainably.

Although public awareness on sustainability issues is increasing at the global level, behaving sustainably is not easy to implement due to several barriers, including high price, greenwashing, no use by family/friends, and unavailability. Among these, the former is considered to be the key in implementing sustainable consumer behavior, in the sense that the product becomes less competitive among other products due to higher prices (Sheoran & Kumar, 2020). Thus, the role of the government becomes important to mediate this situation, for example, through financial support or subsidies.

Economic instruments are crucial to support sustainable consumer behavior (Liu & Ramakrishna, 2021), including the incentive and disincentive schemes. The former is important as it aims to incorporate environmental costs into the company's budget, while the latter is often manifested as an environmental tax (Braun, 2007). Firms often find it difficult to initiate a more sustainable business model because of the upfront costs, for example, due to product redesign. Thus, the incentive scheme would be very beneficial for the company. Omitting incentives for these companies can lead to discouragement, which in turn reduces the company's interest in moving towards being sustainable (Wiloso et al., 2019).

According to White et al. (2019), efforts to shift consumer behavior toward sustainability can be achieved both voluntarily and systematically, emphasizing the latter is more promising for large-scale change. Furthermore, it states that a disruption in the stable context in which automatic behaviors emerge can generate optimal conditions for habit change. For example, we normally carried out our activities without wearing masks, and did the opposite during the COVID-19 pandemic. This habit change can be analogous to, for example, when less green industries are taxed more by the government for their carbon emissions (Carl & Fedor, 2016), they may seek to improve considering the consequences.

Studies on consumer behavior regarding sustainability issues have been carried out in various ways, using either qualitative or quantitative approaches. Besides the objectives and approaches, the sustainability criteria considered from these studies also vary. Therefore, the present study attempts to summarize the selected literature on sustainable consumer behavior, particularly with respect to the following items:

1. Method. Does it use a qualitative or quantitative approach?
2. Sustainability criteria. What sustainability criteria are used (e.g., social, economic, environmental)?
3. Area coverage. What area does the study cover?
4. Product category. Does it consider a specific or any product?
5. Consumer grouping. Does it group specific consumers? (e.g., by age or gender)?
6. Consumer behavior. Do they behave sustainably?

METHODS

The review was carried out by conducting searches for studies published in peer-reviewed indexed journals in electronic databases Web of Science, in the last 15 years (from January 2006 to November 2021). The keywords included: sustainab* or green* and consum* or behavi*. From the articles obtained (n=54), the relevant articles were further selected (n=20). Figure 1 represents the workflow for selecting the articles considered in this study.

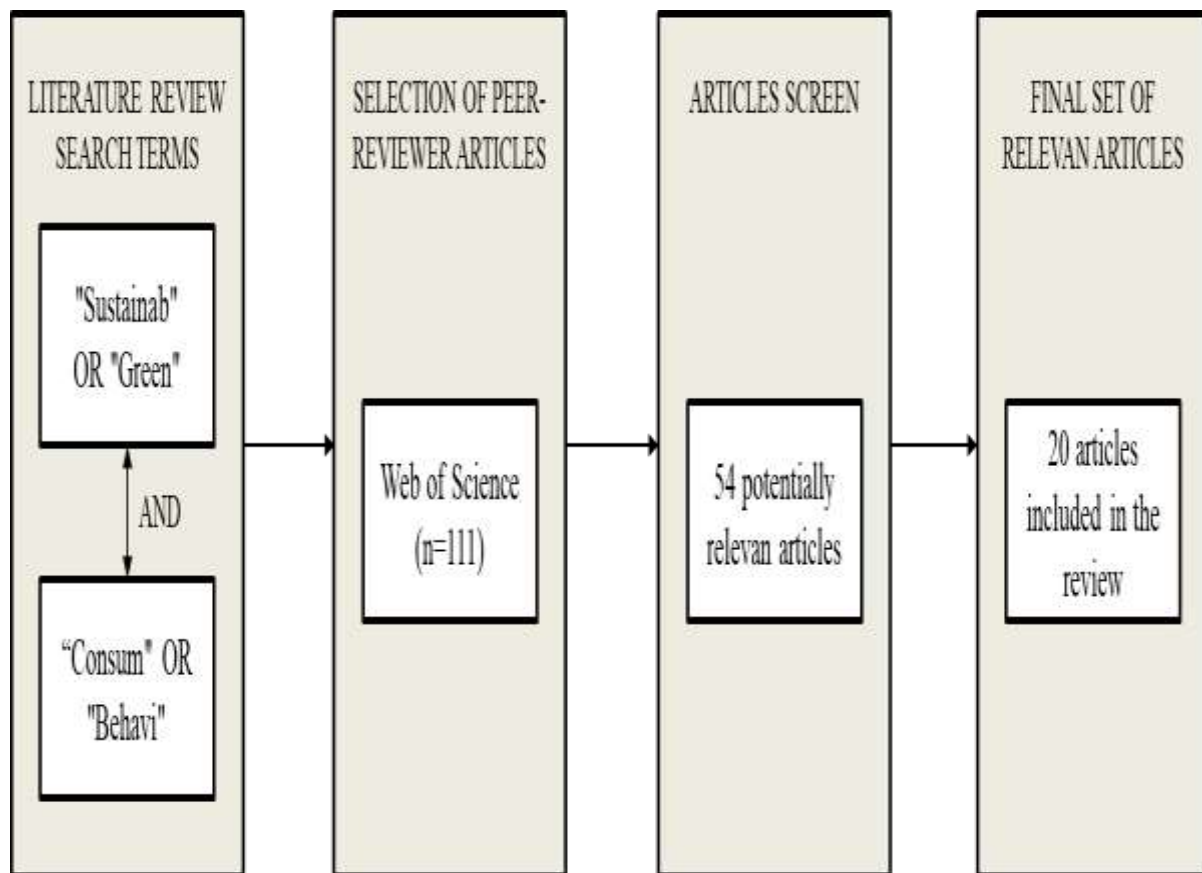


Figure 1. Flow diagram of the literature review

As previously mentioned, this paper reviews articles that discuss consumer behavior objectively to find out whether consumer behavior in a country or region has been sustainable. The summary is then analyzed qualitatively to conclude to what extent sustainable consumer behavior has been practiced around the world.

RESULT AND DISCUSSION

The characteristics of the articles reviewed are summarized in Table 1.

Table 1 Characteristics of the articles reviewed

No	Reference	Method (1)	Sustainability Criteria (2)	Area Coverage (3)	Product Category (4)	Consumer Grouping (5)	Towards sustainable behavior (6)
1	Boca, 2021	Quantitative	Economic, social, environmental	Romania	Food	Age, Gender, Profession, Education	Supported
2	Alagarsamy et al., 2021	Quantitative	Environmental	India	Food	Age, Gender, Education	Supported
3	Soyer & Dittrich, 2021	Quantitative	Economic, social, environmental	Netherlands	Clothes	Age, Gender, Living Situation, Education, Employment	Not Supported
4	Świecka et al., 2021	Quantitative	Economic	Poland	Cashless Payment	Age, Gender, Residence by population, Education, Financial	Supported
5	Dangelico et al., 2021	Quantitative	Economic, social, environmental	Italy	Multi-product	Age, Gender, Education, Income	Supported
6	Kita et al., 2021	Quantitative	Economic, environmental	Slovakia	Food	Age, Gender, Living Situation	Supported
7	Byrd & Su, 2020	Quantitative	Economic, social, environmental	United States	Fashion	Age, Gender, Race, Education, Marital Status, Income, Occupation	Supported
8	Hosta & Zabkar, 2021	Quantitative	Social, environmental	Developed Central European Country	Unspecified	Age, Gender, Education, Income, Employment, With or Without Children	Supported
9	Ogiemwonyi & Harun, 2021	Quantitative	Environmental	Malaysia	Unspecified	Gender, Education, Income	Not Supported
10	Rausch & Kopplin, 2021	Quantitative	Environmental	German	Clothes	Age, Gender, Education, Income, Employment	Supported
11	Průša & Sadílek, 2019	Quantitative	Environmental	Czech	Unspecified	Gender, Nationality	Supported

No	Reference	Method (1)	Sustainability Criteria (2)	Area Coverage (3)	Product Category (4)	Consumer Grouping (5)	Towards sustainable behavior (6)
12	Gunden et al., 2020	Quantitative	Environmental	Turkey	Food	Gender, Marital Status, Education, Body Mass Index, Exercise Regularity, and Smoking	Supported
13	Khan et al., 2020	Quantitative	Environmental	Malaysia and Thailand	Plastic bag	NA	Supported
14	Orzan et al., 2018	Quantitative	Economic, social, environmental	Romania	Packaging	Age, Gender, Education, Income, and Residence	Supported
15	Orîndaru et al., 2021	Quantitative	Economic, social, environmental	Romania	Food	Income, Job, Financial situation, Product Price	Supported
16	Castaneda et al., 2015	Quantitative	Economic, Social, Environmental	Philippines	Unspecified	Age, Gender, Education	Supported
17	Wu et al., 2016	Quantitative	Economic, Social, Environmental	China	Unspecified	Age, Marital Status, Gender, Number of Children, Education, and Social Class	Supported
18	Finisterra do Paço & Raposo, 2010	Quantitative	Economic, Social, Environmental	Portugal	Unspecified	Age, Gender, Education, Occupation, Income	Not Supported
19	Lee et al., 2019	Quantitative	Environmental	Korea	Unspecified	Age, Gender, Education, Income, Employment	Supported
20	Jen & Wang, 2015	Qualitative	Economic, social, environmental	Taiwan	Food	Age, Gender, Occupation	Not Supported

Based on Table 1, most of the articles reviewed were from countries in Europe. Most of the products considered are food and clothing, while the grouping of consumers is mostly based on age, gender, education, income, and occupation. All of these studies used a quantitative approach in their research, except for that conducted by Jen & Wang (2015). Half of the articles reviewed considered environmental, economic, and social aspects as sustainability criteria, while the rest included only part of these three aspects. 16 of the 20 articles included in this paper suggest that there is a propensity for consumers in certain countries to behave more sustainably.

Figure 2 summarizes the profiles of 4 (sustainability criteria, region, product category, consumer grouping) of the 6 items examined in this study according to the literature reviewed.

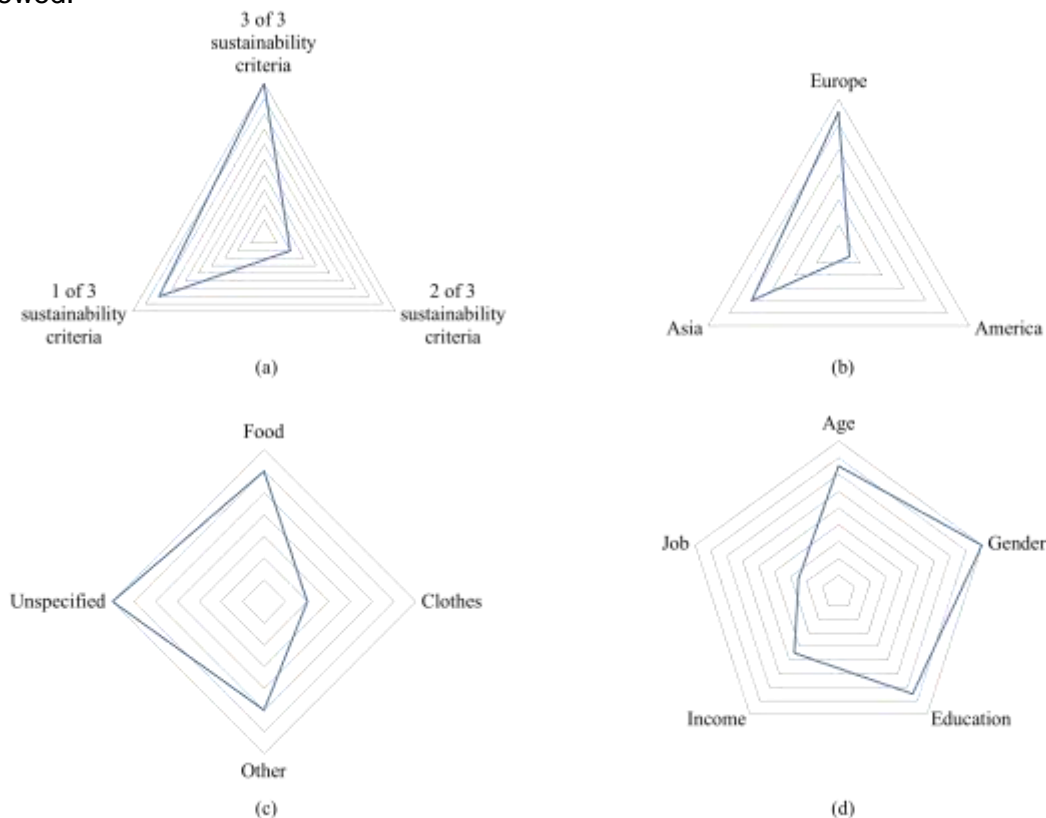


Figure 2. Summary of selected items examined in the articles reviewed (a) sustainability criteria (b) geographic area (c) product category (d) consumer grouping

The quantitative method used mainly uses a Likert scale, using open-ended and closed-ended questions. Meanwhile, Jen & Wang (2015) uses grounded theory, one of the methods of qualitative data collection and analysis, which emphasizes to discover and build concepts under social phenomenon with systematic data collection and analysis, in their research. The number of hypotheses developed in those quantitative research ranged from 0 (Byrd & Su, 2020) to 11 (Dangelico et al., 2021). Byrd & Su (2020) did not use hypotheses in their research, but only used research questions instead.

CONCLUSIONS

The current study reviews articles on sustainable consumer behavior from different regions or countries. Of the 20 peer-reviewed articles indexed on the web of science, most of them use a quantitative approach. Half of the articles reviewed considered environmental, economic, and social aspects as sustainability criteria, while the rest included only part of these three aspects. Food and clothing are most of the products considered in the articles

reviewed, while consumer groupings are mostly based on age, gender, education, income, and occupation. Geographically, most studies come from countries in Europe, while the rest are from the United States and the Asian region. The study found that 16 out of 20 articles reviewed considered that consumers in the region under consideration were transitioning to sustainable behavior. However, this conclusion is limited to product specifics, not in general. Therefore, further studies are recommended to conduct a review by considering a wider range of products to generate general conclusions.

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