

Mr. Vihash Vijay**Overview of Sustainable Consumption Research****Mr. Vihash Vijay**

Research Scholar,

VIT Business School, Vellore Institute of Technology, Vellore, India – 632014

vihas.vijay@vit.ac.inORCID ID: <https://orcid.org/0000-0003-1568-8971>**Abstract**

Consumption that is neither harmful to the environment, one's health, or the health of future generations is an example of what is known as sustainable consumption. This study conducted a simple keyword search across various databases, including Scopus, Web of Science, and Google Scholar, to identify the journal articles that have received the most citations. The purpose of the study was to conclude the methodology and variables typically applied in sustainable consumption research carried out by a variety of academics from all around the world. According to the findings of our investigation, the most common methods for conducting research in the field of social sciences include surveys, mixed methods, econometric studies (using secondary data), experimentation, focus groups, in-depth interviews, and case studies. This conclusion considered the qualitative, quantitative, and mixed approaches that previous researchers had utilised. In addition, the number of conceptual papers written on sustainable consumption and consumer behaviour has been growing, suggesting an opportunity for expanding research in the above-mentioned field.

Keywords: Sustainable consumer behavior, sustainable consumption, methodological review, publication trends

Introduction

Sustainable consumption, also known as sustainable consumer behaviour, is the process or pathway that leads to sustainable development. After 2000, the research shifted to green and sustainable consumption (Katrandjiev, 2016). When it comes to green consumption refers to the consumption of products or services that do not harm the environment. In contrast, sustainable consumption takes the concept of green consumption to the next level by defining it as the use of products or services that do not harm the environment while also being concerned about the availability of the products, services, or resources for future generations.

Since its inception in 1992, the term "sustainable consumption" (SC) has been defined in various ways, with the Oslo symposium's definition from 1994 being the most widely accepted. Sustainable consumption is "the use of goods and services that respond to basic needs while reducing the use of natural resources, toxic materials, waste, and pollutant emissions."

Previous studies were carried out in developed nations as opposed to developing ones, and this field saw more conceptual articles and survey-based studies produced than other fields. based on the data presented by Sesini et al. (2020), the sustainability concept revolves primarily around five major areas: food, energy, water, waste, and ecology. It has been discovered that research into nutrition, housing, and clothing was more prevalent than research into other segments. Figure 1 depicts a diagrammatic representation of previous sustainability-related research conducted in the past. Therefore this research will act as a guide and fill the gap in academic knowledge for future researchers as we list out the details in terms of past research methodologies which scholars widely used in SC/SCB popular articles.

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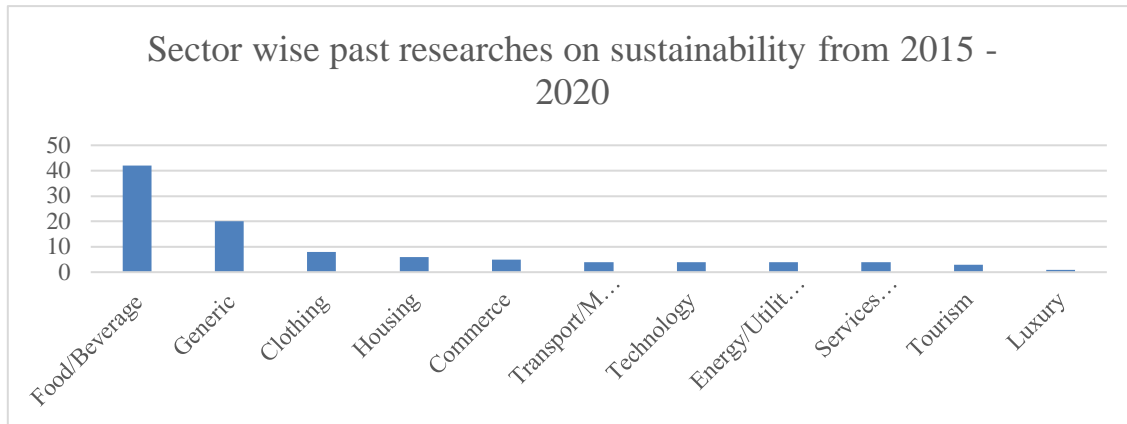


Figure 1. Sector-wise past research on sustainability (Source: Sesini et al., 2020)

Method

The methodology to conduct this review was adapted from Quoquab & Mohammad (2020). First, the databases for retrieving sustainable consumption and sustainable consumer behaviour-related studies were identified, such as Scopus, Web of Science and google scholar. A simple keyword search was performed with the string “Sustainable Consumption” AND” Sustainable Consumer Behaviour”, followed by implementing the regular inclusion and exclusion criteria such as limiting the years of study till 2020 and excluding conference papers, editorial notes, letters, etc. We also restricted our records to articles published in English journals in the focused research area. In the next stage, the forms of listed studies were downloaded and compared for duplicates and further eliminating them based on their relevance to our subject area by scanning the abstracts was performed. Consequently, the articles with the most significant reader popularity and citation were chosen as the top 20. The next portion of our study, in which we identified the variables employed by previous research and the underlying theory and methodology used, extensively analysed and documented these 20 papers.

Results and Discussion

Research methods widely used by scholars in SC/SCB articles

According to previous research on sustainable consumer behaviour, the bulk of prior studies can be categorised into the following groups depending on the study methodology used.

- Quantitative
- Qualitative
- Mixed-method research

Most of the prior research was empirical, followed by conceptual articles illustrating the possibilities for further development in sustainable consumer behaviour for effective empirical investigations, qualitative approaches, and a few mixed-method studies. Figure 2 shows a diagrammatic representation of the methodologies utilised by scholars in the most referenced articles on sustainable consumption and sustainable consumer behaviour.

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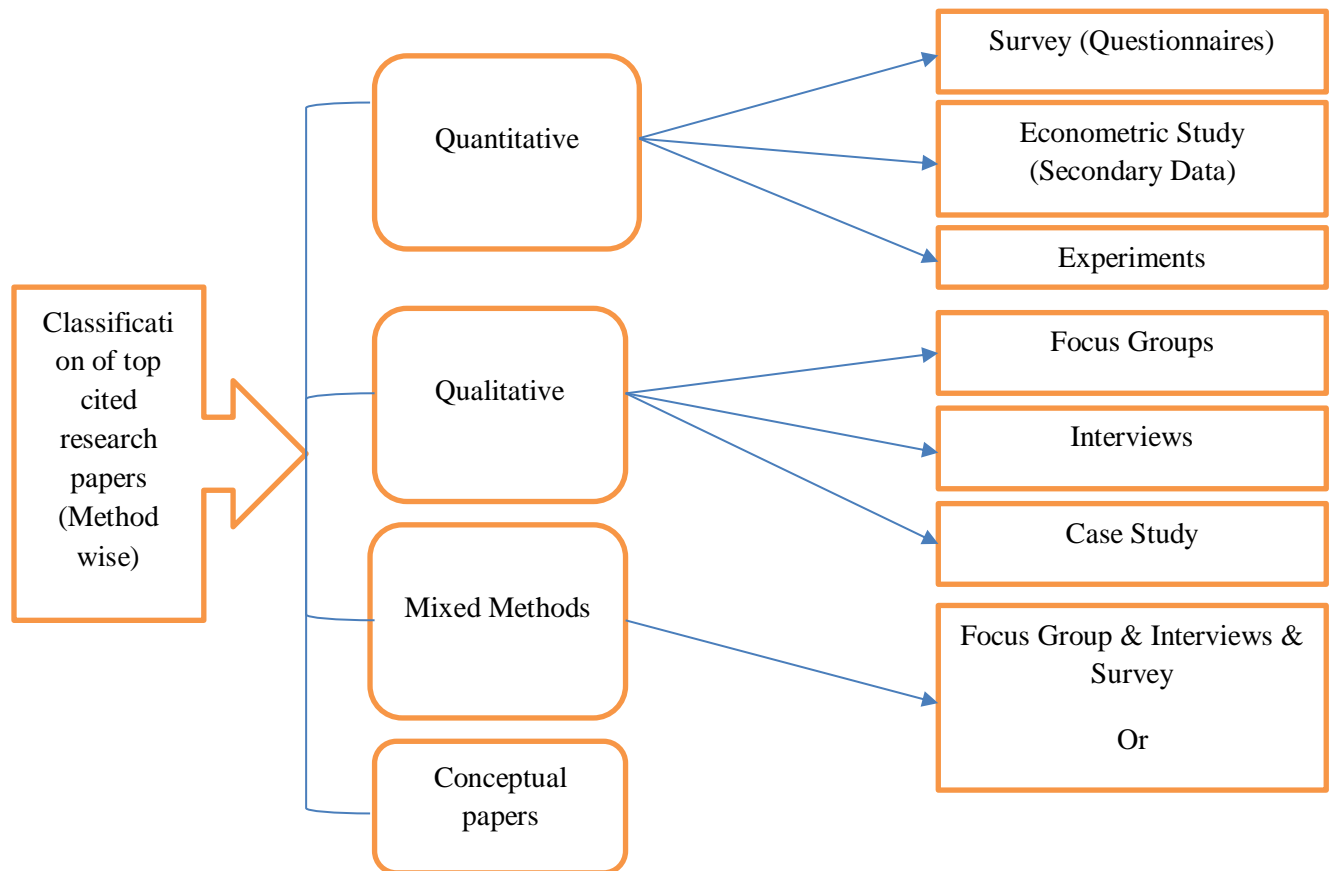


Figure 2. Diagrammatic representation of popular article used research methods in SCB/SC

In order to perform a survey-based quantitative study in India, Kapoor and Dwivedi (2020) applied the diffusion of innovation theory. They used structural equation modelling and logistic regression to analyse 320 respondents and discovered that relative advantage and compatibility influence sustainable consumer consumption. Park and Lin (2020) discovered in the study; that environmental concerns, subjective norms, perceived value risks, and perceived consumer effectiveness. The intention purchase gap theory helped explain the discrepancy in sustainable consumer behaviour in their study of recycled and upcycled fashion products in South Korea. Using the stimulus-organism-response paradigm, Piligrimiene et al. (2020) conducted a survey-based study in the Netherlands on consumer engagement's external and internal components in sustainable consumption.

Apart from the previous papers, we have examined several other articles based on survey methods, in which they have examined sustainable consumer behaviour of consumers around the world from a variety of perspectives and are available in various known scholarly databases(Chekima et al., 2016; Kadic-Maglajlic et al., 2019; Minton, Jeffrey Xie, et al., 2018; Rezvani et al., 2018; Yarimoglu & Binboga, 2019).

Other than surveys, several experimental types of research fall under the quantitative approach, wherein the data is collected using questionnaires and a practical design with manipulation of critical constructs such as by showing advertisements. Such an example is the research work done by Vermeir & Verbeke (2006).

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The researchers discovered that boosting consumer involvement, perceived consumer value, and perceived consumer value could drive sustainable and ethical food consumption.

Suitable econometric studies that employ secondary data, like Chen et al. (2019), analysed monthly sales data of hybrid cars over time to analyse and show that widespread media coverage of climate change or the global warming catastrophe has a positive impact on hybrid vehicle sales.

Marzouk and Mahrous (2020) employed a mixed method technique to collect data from 519 respondents, using in-depth interviews, focus groups, and a survey method. The study was based on Social Cognitive Theory with moderators and mediators. According to the study, energy and water conservation can be explained by self-preference, public media effect, considered a moral obligation, and perceived behavioural control. Consumers' place of residence and homeownership influence the relationship between two categories of SCB (energy and water usage). Fischer et al. (2017) employed a mixed-method approach to construct scales for young consumers SCB in the food and clothes industries. The qualitative study was conducted through interviews, and the data from these studies were then used in quantitative research to develop scales. Balderjahn et al. (2013) published another study using a mixed methodology approach. The scale was created using a qualitative approach using secondary data – published works, expert round tables, and exploratory interviews, and data was collected from 368 respondents in Germany for final testing. Quoquab et al. (2019) employed a hybrid approach to scale development and found that SCB is a three-dimensional construct. According to our findings, most other mixed-method approaches employed in SCB for scale development were also used to examine multiple elements or dimensions (Seyfang, 2006).

In qualitative research on sustainable consumer behaviour, we found that most studies used in-depth interviews, focus groups, and case studies as methodology.

In their study, Abdulrazak and Quoquab (2018) analysed using the principle of self-determination to study consumer motives for sustainable consumption. They discovered that motives are driven by customers' inner psychological desire to engage with or care about other members of society. As part of their exploratory study, they used semi-structured interview methods to understand Malaysian consumers, and the samples were identified using theoretical sampling.

Hornibrook et al. (2015) used a focus group to explore plausible factors such as lack of impact, awareness of carbon labelling, and social and cultural influences constraining or facilitating customers' varied nature. The researchers utilised focus groups because they were helpful as a methodology for understanding disparities in the viewpoints of different segments, allowing ideas to arise, and appreciating drivers of opinions, motives, and behaviours. (Kong et al., 2002) used case studies to learn how NGOs may help and drive their partnered firms to move toward sustainability. They concluded that NGOs could help businesses grow and transform their present consumption habits into more sustainable ones. Mini case studies on innovative product development, labelling, and green purchasing, among other topics, were employed in this study.

Conceptual papers are the next class of papers (about 40%) apart from the others, and they significantly contribute to further improving empirical investigations for undiscovered areas. Experts are releasing multiple conceptual papers based on a local region or a global view on critical themes to understand better sustainable consumption behaviour (Barth et al., 2014; Kemper et al., 2019).

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Methodology	Author & Year	Theory based on	Country	Independent Variable	Mediation Variable	Moderator Variable
Survey	(Kapoor & Dwivedi, 2020)	Diffusion of innovation theory	India	Relative advantage, Compatibility, Complexity, Observability	-	-
Survey	(Park & Lin, 2020)	Intention - purchase gap	South Korea	Subjective norm Utilitarian value, Environmental concern, Interpersonal differences, Availability risk, Economic risk, Perceived consumer effectiveness, Self-expressiveness	-	-
Survey	(Pilgrimie ne et al., 2020)	Stimulus-Organism-Response (S-O-R) Theory	Netherland	Environmental attitude, Perceived responsibility, Perceived behavioral efficacy, Condition for SC, Social environment, Promotion SC	Consumer engagement	-
Survey	(Chekima et al., 2016)	Theory of Planned Behavior (TPB)	Malaysia	Environmental knowledge, man-nature orientation, environmental advertising	-	Demographics in term of education level, gender and income
Survey	(Kadic-Magljalic et al., 2019)	Value-belief-norm theory, emotional regulation theory	Two South-eastern European countries: Croatia and	Self-Identity, Consumer values	Engagement	Emotional intelligence

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			Slovenia,			
Survey	(Minton, Spielmann, et al., 2018)	Theory of reasoned action	United States, France and Japan	Subjective norm related to level of pragmatism in a country	Sustainable attitude	-
Survey	(Rezvani et al., 2018)	Theory of planned behavior	Sweden	Hedonic motivations, Gain motivations, Normative motivations	Hedonic motivations	-
Survey	(Yarimoglu & Binboga, 2019)	Theory of Planned Behavior (TPB)	Turkey	Perceived consumer effectiveness, Environmental concern, Altruism, Narcissism	-	-
Experiment	(Vermeir & Verbeke, 2006)	The consumer behavior model	Belgium	involvement, perceived availability, certainty, perceived consumer effectiveness, values, and social norms	-	-
Secondary data (Econometric data)	(Chen et al., 2019),	-	US	Media Coverage of Climate Change	-	-
Mixed Method	(Marzouk & Mahrous, 2020)	Social cognitive theory	Egypt	Perceived moral obligation, Perceived behavioral control. Attitudes toward conservation, Self-preference, Public media influence, Subjective norms.	Conservation behavior	Homeownership and Consumers' area of living

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Mixed Method, Scale development	(Fischer et al., 2017)	Cube model of SCB	Germany	-	-	-
Mixed Method, Scale development	(Balderjahn et al., 2013)	Expectancy-value model	Germany	-	-	-
Mixed Method, Scale development	(Quoquab et al., 2019)	Attitude – behavior gap	Malaysia	-	-	-
Mixed Method, Scale development	(Seyfang, 2006)	Economic theory	UK	-	-	-
In-depth interview	(Abdulrazak & Quoquab, 2018)	Self-determination theory	Malaysia	-	-	-
Focus Group	(Hornibrook et al., 2015)	-	UK	-	-	-
Case Studies (Qualitative)	(Kong et al., 2002)	-	EU	-	-	-
Conceptual Paper	(Barth et al., 2014)	-	Germany	-	-	-
Conceptual Paper	(Kemper et al., 2019)	Theory of worldviews	Global perspective	-	-	-

Table 1. Research methods and variables used by popular sc/scb articles

Conclusion

The well-researcher needs to look more in-depth at sustainable consumer behaviour, also known as sustainable consumption. This study help academicians, businesses, and consumers identify the most critical factors influencing a sustainable lifestyle and different strategies to bridge the gap between thoughts and behaviour to achieve a common goal. According to the results of a search conducted in the Scopus database using the keywords "sustainable consumer

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behaviour" or "sustainable consumption," as of April 2022, we were able to locate more than 5000 articles listed for the subject matter mentioned above in a variety of domain areas. This finding demonstrates the significance and relevance of the subject area in general. The results of this research identified the methodologies utilised most frequently by academics. Future researchers will have the option to incorporate these approaches into their study activity and adopt fresh ways for the goal of generating new insights on the issue as a result of the many conceptual articles that have been done on the subject.

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