

# Sustainable and responsible consumption: concepts and analysis from the consumer behavior

## El consumo sustentable y responsable: conceptos y análisis desde el comportamiento del consumidor

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### Abstract

This article analyzes the development of the concepts of responsible and sustainable consumption through the systematic review of articles published on both terms, from the consumer's perspective, in Scopus, Science Direct, Scielo, JSTOR ebooks, Redalyc and Google Scholar, from 2000 to 2020. The scientometric analysis was the methodological procedure that allowed the selection of 43 articles out of a total of 1,641 published in said databases, under the criteria of interest, and to carry out the mapping of concepts through the VOSviewer software design program, to proceed to the conceptual analysis of the terms sustainable consumption and responsible consumption. In results, the descriptive phase focused on quantifying the scientific production on the concepts of interest by geographical area of the study, date of publication and general theme addressed. In the conceptual analysis, the similarities and differences identified in the definitions of both terms are presented, the predominance of research on sustainable consumption was demonstrated, but an emerging interest in these works to study the responsibility

exercised by the consumer through their acts of consumption. Everything seems to indicate, by way of conclusion, that in studies of consumer behavior in the economic field there is a conceptual paradigm shift in favor of sustainable consumption.

**Keywords:** sustainable consumption, responsible consumption, consumer behavior.

**JEL code:** D11, M30, Q56.

### Resumen

En este artículo se analiza el desarrollo de los conceptos consumo responsable y consumo sustentable a través de la revisión sistemática de artículos publicados sobre ambos términos, desde la perspectiva del consumidor, en Scopus, Science Direct, Scielo, JSTOR ebooks, Redalyc y Google Scholar, del 2000 al 2020. El análisis cuantitativo fue el procedimiento metodológico que permitió seleccionar 43 artículos de un total de 1,641 publicados en dichas bases de datos, bajo los criterios de interés, y realizar el mapeo de conceptos por medio del programa de diseño software VOSviewer, para proceder al análisis conceptual



de los términos consumo sustentable y consumo responsable. En resultados, la fase descriptiva se centró en cuantificar la producción científica sobre los conceptos de interés por zona geográfica del estudio, fecha de publicación y temática general abordada; en el análisis conceptual, se presentan las similitudes y diferencias identificadas en las definiciones de ambos términos, se observó el predominio de investigaciones sobre consumo sustentable pero un interés emergente en estos trabajos por estudiar la responsabilidad ejercida por el consumidor a través de sus actos de consumo. Todo parece indicar, a manera de conclusión, que en los estudios de comportamiento del consumidor en el campo económico se presenta un cambio de paradigma conceptual en favor del consumo sustentable.

**Palabras clave:** consumo sustentable, consumo responsable, comportamiento del consumidor.

**Código JEL:** D11, M30, Q56.

## 1. Introduction

The recurrent use of the term *sustainable consumption* is often linked to the emergence of another key concept, *sustainable development*, which is defined as a process that “meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” This definition was outlined in the Brundtland Report, *Our Common Future* (UN, 1987: 67), a document resulting from the multilateral forum convened by the *World Commission on Environment and Development* (WCED).

According to Ocampo, Perdomo-Ortiz, and Castaño (2014), when the term sustainability was first formalized, it did not explicitly refer to sustainable consumption or responsible consumption, even though both terms were used in consumer studies. In the 1960s and 1970s, the concept of responsible consumption was used to refer to practices that were “environmentally friendly,” especially in market segmentation studies focused on product placement. It was in the latter decade that growing environmental concerns permeated international forums and agendas, prompting a reevaluation of the industrial production model, as well as the associated

production and consumption processes. At the 1992 Rio de Janeiro Summit, the harmful nature of the Western economic development model was once again highlighted, as it was rooted in production and consumption processes that disrupted the natural balances sustaining those production and consumption patterns (UNCED, 1992). The summit urged national governments to promote greater environmental awareness and responsibility among both the public and businesses, to transition toward more sustainable production and consumption patterns (UNCED, 1992). However, the definition of Sustainable Production and Consumption (SPC) was established two years later, at the *Sustainable Consumption Symposium*, adopted by the United Nations thereafter (UN, 1995), in reference to sustainable development:

The use of services and related products that respond to basic needs and contribute to a higher quality of life, while minimizing the use of natural resources and toxic materials, as well as waste emissions and pollutants during the product or service life cycle, in order to avoid compromising the ability of future generations to meet their own needs (PNUMA, 2010: 12).

While some authors point out important differences between the terms sustainable and sustainability (Gómez and Garduño, 2020; Gómez, 2014; Naredo, 2004), for the purposes of this document, sustainable consumption and responsible consumption are used interchangeably, given that most of the reviewed documents were in English, and according to the Cambridge University translator, there are no differentiated terms for sustainability and sustainability in English. In both cases, the term used is “sustainability.” When translating sustainability in the university dictionary, it is presented as a synonym for sustainability and defined as “the quality of something that can last over time without depleting its resources or harming the environment” (Cambridge, 2021a). Similarly, when translating sustainability, it also indicates that its English term is sustainability, its synonym is sustainability, and it is defined as “the quality of something that has the potential to be maintained indefinitely without causing harm to the environment” (Cambridge, 2021b).

The definition of SPC proposed at the Oslo

Symposium is referenced by various authors in the field of economics (Csigéné, Görög, Harazin, and Baranyi, 2015; Escupirán Villanueva, 2014; Pekkanen, 2020; Qu, Li, Jia, and Guo, 2015; Salgado and Beltrán, 2011); others have generated their own definitions, adding their experiences in research, for example, in environmental sciences, sociology, and environmental policy (Barr, Gilg, and Shaw, 2011; Evans, 2011; Gierszewska and Seretny, 2019; Spaargaren, 2003; Spaargaren and Mol, 2008); also in the educational field (Benavides and Sánchez, 2020; González, Meira, and Gutiérrez, 2020; Sauvé and Villemagne, 2015; Tinjacá, 2020). The interdisciplinary nature of the phenomenon and the various analytical perspectives of each disciplinary field seem to have facilitated the emergence of definitions suited to each academic and research practice (Pilgrimienė, Žukauskaitė, Korzilius, Banyte, and Dovalienė, 2020). Among the reviewed works, there is a predominance of an indistinct use of the terms sustainable consumption and responsible consumption, but there are nuanced differences that are important to clarify in this document, particularly because of their implications in social intervention programs that aim to shape an informed, connected, and environmentally-conscious citizenship in favor of SPC.

In addition to the introduction, the document includes a conceptual section, a methodological one, a results section, and conclusions. The purpose of the theoretical conceptual section is to show the relevance of conceptually defining the terms responsible consumption and sustainable consumption. The methodological section describes the scientometric analysis of scientific production, including selection criteria for the sample and characteristics of the selected units. In the results section, the main definitions of responsible and sustainable consumption are presented, along with their similarities and differences, as well as the evolution of the elements of the sustainable consumption concept in chronological terms. Finally, a conclusions section highlights the most important points of the review of consumer behavior studies in relation to the conceptual handling of the terms responsible consumption and sustainable consumption.

## 2. The first approaches to consumers in the framework of consumption theories and marketing

It is important to clarify that the term “responsible consumption” predates “sustainable consumption” in Consumption Theory. Fisk (1973: 24), an important pioneer of this line of research, defines responsible consumption as “the rational and efficient use of resources in relation to the global human population,” emphasizing the global scope of human consumption by linking it to the consumption of non-renewable resources, a practice that eventually affects the resource reserves of a given country. Analysts of responsible consumption have identified four phases or stages in the research line of socially responsible consumption, starting in the 1960s (Ocampo et al., 2014): a) the initial stage; b) the incorporation of environmental and sustainability issues; c) the development of consumer behavior measurement scales; d) consumption as a collective phenomenon and corporate social responsibility.

The first stage occurred precisely in the 1960s, when the concept of socially responsible consumption began to be used within the framework of Consumer Psychology. Studies focused on market segmentation processes for product placement. The second stage, from the 1970s to the 1990s, saw growing environmental concern and sustainability appearing on international forums and agendas. During this period, studies focused on analyzing attitudes, also within the field of Consumer Psychology. The third stage, from the 1990s to the 2000s, was characterized by the development of responsible consumption measurement scales from the perspective of consumer behavior. The fourth stage, from 2000 to 2012, focused on understanding and characterizing the effects of Corporate Social Responsibility and addressing responsible consumption as a collective phenomenon, making the definition and studies of consumption even more complex.

Although Ocampo et al. (2014) provide an extensive and detailed review, it focuses more on “socially responsible consumption” rather than “responsible consumption,” meaning it is a particular perspective linked to society/community, with the main goal



of identifying scales for its measurement. There remains a need to explore research on responsible consumption and sustainable consumption since the emergence of these concepts in 1994 and onward, particularly in consumer behavior studies from the perspective of economics.

Another research area is consumer studies from the marketing perspective. These studies focus on analyzing individual consumption behavior and its determinants (Peter and Olson, 2006). Consumer behavior is defined as “the actions exhibited when seeking, buying, using, evaluating, and disposing of products and services that they expect will satisfy their needs” (Schiffman, 2011: 5). In other words, it refers to how consumers (families or households) make decisions to spend their available resources (time, money, effort) on items related to consumption (what to buy, why, when, where, and how often), evaluate the products after purchase, and how they dispose of the products or their packaging. This type of study highlights three interconnected categories or variables through a system of reciprocal connections: affections and cognition; behaviors; and environment. In this way, any of these variables can be either the cause or effect of a change in the others. Affections and cognition include all psychological and cognitive processes such as emotions, feelings, and attitudes. Consumer environment refers to social and physical stimuli that influence consumer actions, while consumer behavior itself encompasses observable (evident) and non-observable behaviors.

It is precisely in marketing where consumer responsible behavior tends to be associated with green, ethical, and sustainability-oriented consumption, depending on the motivations and intentions of the consumer (Martin, Peattie, and Galí, 2013; Ocampo et al., 2014; Pascual, Peñalosa, and López, 2016; Sánchez, 2014). However, according to Martin, Peattie, and Galí (2013), consumer behavior is not always motivated by social or ethical concerns. The authors emphasize that such aspects are often absent in sustainable consumption behavior, which integrates economic, social, and environmental aspects, making the study of sustainable consumer behavior more complicated, as it tends to vary by consumption category, consumer context, consumption stages, and type of product.

The studies described here allow us to argue the relevance of the present research to distinguish the

similarities, differences, and/or points of convergence between the concepts of responsible consumption and sustainable consumption by observing the following: a) responsible consumption has been studied since the 1960s; b) sustainable consumption was conceptualized starting in 1994, and since then, this perspective has been incorporated into studies; c) there is a confusing and imprecise handling of consumer responsibility, as seen in Acedo (2019), Acuña-Noraga and Severino-González (2018), and Muñoz (2017), or the imprecise use of terms. For example, Ocampo et al. (2014) analyze instruments used to study socially responsible consumption and even refer to sustainability but overlook the concept of “sustainable consumption.”

### 3. Methodology

#### Scientometric analysis

Scientometrics refers to “the measurement and quantitative analysis of scientific production to investigate the development, structure, dynamics, trends, and relationships of scientific practice, among other research opportunities” (Cardona-Román and Sánchez-Torres, 2017: 10). The methodological procedure described in this section follows the five phases of scientometric analysis proposed by Michán and Muñoz-Velasco (2013): 1) retrieval, 2) migration, 3) analysis, 4) visualization, and 5) interpretation.

The entire process is guided by the following research questions: What are the main similarities and differences between the concepts of responsible consumption and sustainable consumption? And has there been an evolution in the perspective of analyzing these concepts? In the retrieval phase, the sources and resources were delineated for the search and selection of reference documents based on the prior research questions. The systematic review process was limited to studies on responsible consumption and sustainable consumption from 2000 to 2020. A systematic review is defined as “a form of research that gathers and provides a summary on a specific topic (aimed at answering a research question), conducted according to a pre-established design” (Aguilera Eguía, 2014: 359). The search design included five steps (Table 1)



**Table 1.** Basic design for searching interest products published

Search criteria		Details
1 <sup>o</sup> .	Specify topic and products of interest	Documents on sustainable consumption or responsible consumption in books, theses, articles, and papers.
2 <sup>o</sup> .	Databases consulted	Scopus, Science Direct, Scielo, JSTOR ebooks, Redalyc, and Google Scholar.
3 <sup>o</sup> .	Search descriptors	Consumo responsable   consumo sustentable   consumo sostenible   <i>sustainable consumption</i>   <i>responsible consumption</i> AND consumidor   <i>Consumer</i> AND comportamiento   <i>behaviour</i> AND aliment\$   comida   <i>groceries</i> .
4 <sup>o</sup> .	Document selection criteria	a) studies on consumer behavior; b) students in economic disciplines; c) focused on food; d) consumer perspective.
5 <sup>o</sup> .	Temporal period and geographical coverage	From 2000 to 2020 and all countries.

Source: Own elaboration.

During the migration phase, the information from the results obtained in each database was extracted. It is important to clarify that Scopus, Science Direct, and Scielo allow exporting results to Excel and RIS files, while the rest do not, so the data from these platforms were manually captured into Excel.

In the analysis phase, the main trends from the quantitative results of the review by database and search criteria (language, country of origin, descriptors, etc.) were highlighted. The visualization phase was developed using special software support to clearly show the groupings of interest for the study. In this case, VOSviewer 2021 was used. The interpretation phase corresponds to the conceptual and/or theoretical analysis of the content of the selected documents. Both the visualization and interpretation phases focused on the meanings and dimensions of the concepts of sustainable consumption and responsible consumption, and were complemented by a second, more detailed review of a sample of selected base documents

according to three criteria: a) studies focused on consumer behavior (even from a multidisciplinary perspective that integrates the economic approach); b) the subject of study is the consumer; and c) studies addressing sustainable behavior in food either entirely or partially.

To select the documents for the in-depth review, abstracts from the documents retrieved from the databases were read, which allowed identifying studies truly focused on consumer behavior and including multidisciplinary studies, provided they had an economic focus. A total of 100 documents were downloaded and read in greater detail to select those that would participate in this article. Of these, 96 focused on the consumer as the subject of study, and 45 studied sustainable behavior in food entirely or partially. The latter assigned a category to this type of product. Finally, 43 articles were selected that met all three selection criteria.

## 4. Analysis of results

### 4.1 Sustainable consumption from the perspective of consumer behavior: Scientometric study data

During the analysis process, a total of 1,641 results were obtained. For the purposes of this study, these constitute the study universe (Table 2). All the abstracts from documents retrieved through Scopus, Redalyc, Science Direct, Scielo, and JSTOR ebooks were read. In the case of Google Scholar, since it does not allow filtering by discipline or language, the information was organized by relevance, and the first 300 abstracts were reviewed to identify variables, future research opportunities in the field, and to harmonize the search with the other databases.

**Table 2.** Results obtained by database

Database	Number of results obtained
Google scholar	883
Redalyc	341
Scopus	269
ScienceDirect	137
Scielo	9
JSTOR ebooks	2
<b>Total</b>	<b>1,641</b>

Source: Own elaboration.

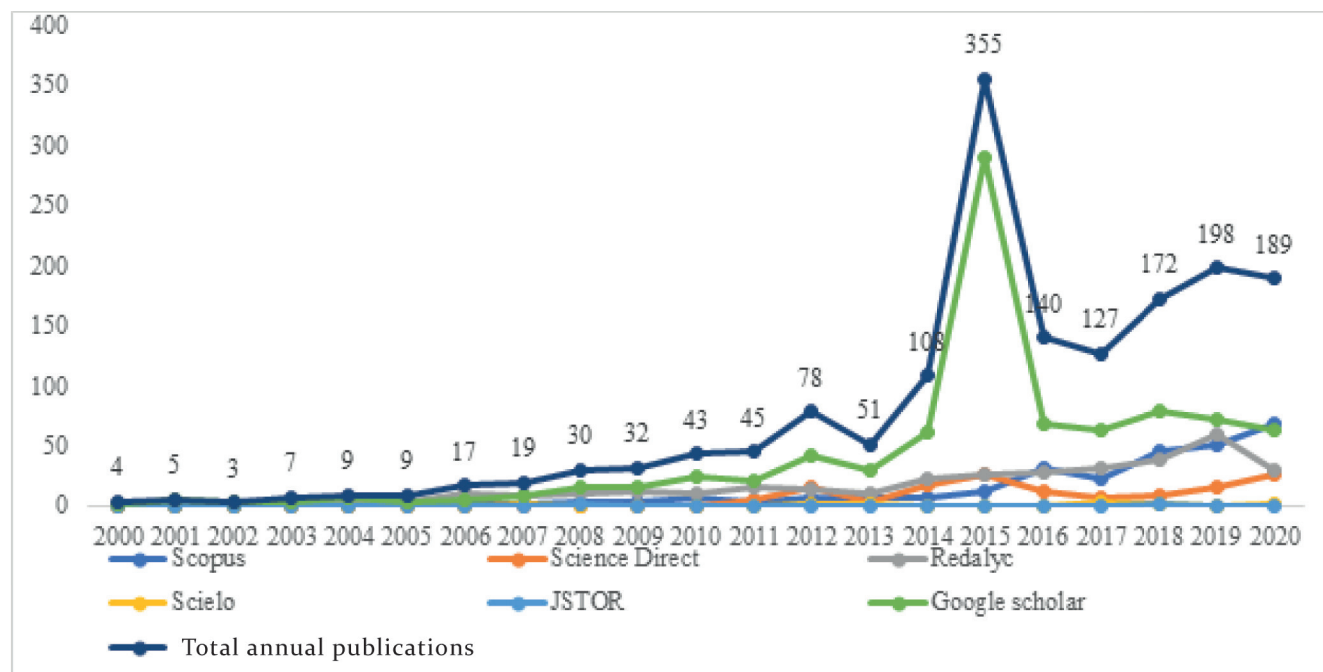
The overall results of the search show a growing interest over the years in studying sustainable consumption (Figure 1). The increase in published works on sustainable consumption from the perspective of economic sciences appears to begin in 2014, possibly as a result of international efforts aimed at motivating and promoting sustainable consumption and production (SCP) across all sectors. One such effort was the World Summit on Sustainable Development (WSSD) convened by the UN in 2002, which led to the Johannesburg Plan of Implementation, calling for a shift from conventional to more sustainable consumption and production patterns, and initiated the international Marrakech Process (UNDP, 2007). Furthermore, during the 2015 UN General Assembly, Sustainable Development Goal (SDG) 12: Responsible Consumption and Production was formally proposed (UNDP, 2020). This explains the peak in publications in that year.

By geographic region, 51.5% of the publications come from eleven countries in the Americas (notably Brazil, Colombia, Mexico, and the United States), 37.0% from 24 European countries (mainly the United Kingdom, Germany, Italy, the Netherlands, Sweden, and Spain), 9.2% from 17 Asian countries

(including China, South Korea, Taiwan, Malaysia, Indonesia, and Thailand), 1.6% from two countries in Oceania (Australia and New Zealand), and 0.7% from Africa (South Africa). A total of 74% of the works are written in English and 26.6% in Spanish.

As outlined in the methodology, to visualize the review results and guide the corresponding analysis, the software VOSviewer (2021) was used. This program uses data mining to generate bibliometric maps, or clusters of information, that help visualize the most frequently addressed concepts in the selected publications. In this study, only three databases (Scopus, ScienceDirect, and Scielo) allowed exporting searches in RIS format (a standardized tag format for citation software developed by Research Information Systems, Inc.), which is required by VOSviewer to group review results from the three databases into a single document. Once the data from the three databases was consolidated, a keyword co-occurrence analysis was conducted. The fractional counting method was used, with a minimum occurrence threshold of 10 times per keyword. This yielded 3,241 keywords, of which 83 met the minimum threshold. This process enabled the identification of six interrelated clusters: 1) consumption behavior, 2) consumer behavior,

**Figure 1.** Comparison of results obtained in the search



Source: Own elaboration.

3) sustainability, 4) sustainable consumption, 5) sustainable development, and 6) circular economy (Figure 2).

Cluster 1, **consumption behavior**, is composed of 25 items, highlighting the study of food from three perspectives: the psychological perspective of consumer attitudes, followed by food purchasing behavior (purchase description, preferences, and opinions toward food), and finally, human and social behavior, including topics related to social behaviors and lifestyles. Cluster 2, **consumer behavior**, includes 16 items. It addresses consumer decision-making and behavior, incorporating ethics and environmentally protective actions such as waste reduction and recycling, as well as the role of women in such consumption. Cluster 3, **sustainability**, consists of 15 items and refers to sustainability within the business sector. In the administrative field, corporate social responsibility stands out; in marketing, there are empirical studies on consumer perceptions of different marketing strategies and their willingness to pay; and in education, consumer education to promote sustainable consumption. Cluster 4, **sustainable consumption**, includes 11 items. It focuses on the environmental impacts

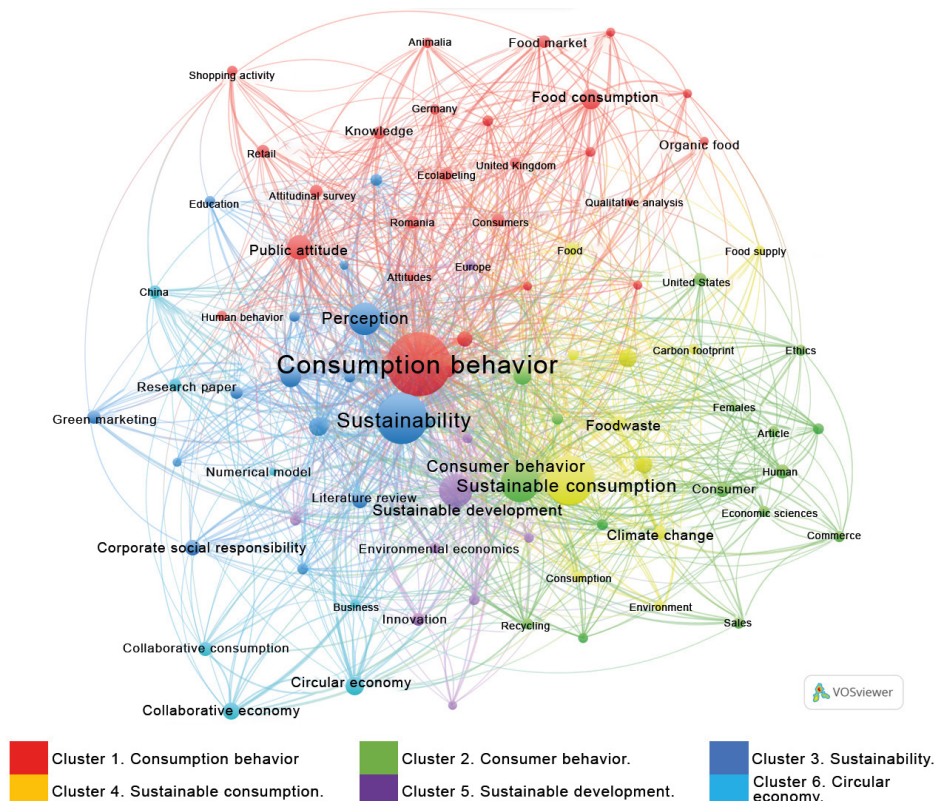
of food consumption and production to mitigate climate change, emphasizing the reduction of the carbon footprint and food waste. Cluster 5, **sustainable development**, contains 9 items and details the conceptual framework of the term, with approaches from both environmental economics and environmental policy standing out. Cluster 6, **circular economy**, is composed of 7 items and covers various topics, such as collaborative consumption and the sharing economy.

It is important to note that the clusters are limited to English-language databases, as these were the only ones that allowed information to be exported in the required format for the software. Although “responsible consumption” was included as a descriptor, it was not significant in the clustering and only “social responsibility” appears in the third cluster. Since the difference between these two concepts is primarily manifested in Spanish-language literature, a deeper review of the concept in both languages was conducted to identify differences in meaning and dimensions.

#### 4. 2 In-depth review of the selected literature

The documents that met the selection criteria for

**Figure 2.** Concept map: “Responsible consumption and sustainable consumption”



Source: Own elaboration.





the in-depth review were published between 2009 and 2020, with 67.4% published from 2018 onward, and can thus be considered recent or cutting-edge. Based on the populations studied, the publications refer to research conducted in 27 different countries: 50.0% correspond to European countries, 21.7% to Asian countries, 17.4% to the American continent, 2.2% to Oceania, and 8.7% are general studies that do not analyze subjects from a specific region.

### *Concept of sustainable consumption from the perspective of consumer behavior*

The first part provides a systematic overview of the different ways in which various authors have used the concepts of responsible consumption, sustainable consumption, and sustainable use. In general, there is a lack of clarity in distinguishing between the terms. In the second part, after reviewing the publications on sustainable consumption in chronological order, the conceptual development within the paradigm of consumer behavior is analyzed, with an emphasis on the origins of the concept and the elements that

have evolved or specialized over time.

### *Use of the concepts of responsible consumption and sustainable consumption*

Although the review focused on studies about sustainable consumption, it is noteworthy that some authors define only responsible consumption without mentioning sustainable consumption, even when their analyses address sustainability in the consumption process. This is evident in articles published in Spanish, whereas those published in English consistently refer to the term “sustainable consumption” (Table 3).

In the study by Bianchi, Carmelé, Tubaro, and Bruno (2014), responsible consumption is presented as a three-component attitude (cognitive, affective, and behavioral), and this type of consumption is divided into ethical, ecological, and social or solidarity-based categories. Muñoz (2017), for his part, presents various definitions of responsible consumption to highlight the three most important

**Table 3.** Use of terms sustainable, sustainable consumption, and responsible consumption in the literature.

Use of terms sustainable, sustainable, and responsible	Authors
English-language documents using only the term “sustainable consumption”.	(Bryła, 2019; Corsini, Laurenti, Meinherz, Appio, y Mora, 2019; Dabija, Bejan, y Grant, 2018; Dong et al., 2020; Geiger, Fischer, y Schrader, 2017; Gierszewska y Seretny, 2019; Goryńska-Goldmann, 2019; Gustavsen y Hegnes, 2020; Kreuzer, Weber, Off, Hackenberg, y Birk, 2019; Lamberz, Litfin, Teckert, y Meeh-Bunse, 2019; Südaş y Özeltürkay, 2015)
English-language documents using only “sustainable consumption”. Referring to consumers’ interest in “sustainable and/or socially responsible production” and “environmentally responsible”.	(Hanss, Böhm, Doran, and Homburg, 2016; Pilgrimieni et al., 2020)
Only uses the term “sustainable consumption”.	(Salgado and Beltrán, 2011)
Only refers to responsible consumption.	(Bianchi et al., 2014)
Differentiates and conceptualizes responsible consumption.	(Martin et al., 2013)
Uses the term responsible consumption and analyzes sustainable habits but does not explicitly use the term sustainable consumption.	(Muñoz, 2017)
Uses all three terms: responsible consumption, sustainable consumption, and sustainable consumption. Does not clarify differences between sustainable and sustainable, but focuses on “socially responsible sustainable consumption” and “socially responsible behavior of the sustainable consumer”	(Acuña-Noraga and Severino-González, 2018)
Uses responsible consumption and sustainable consumption without distinction. Does not use sustainable consumption. Refers to responsible or ecological consumers, not sustainable consumers.	(Acedo, 2019)

Source: Own elaboration.



aspects in the behavior of responsible consumers (knowledge, choices, and consumption habits). Without mentioning the term sustainable consumption, he analyzes sustainable habits in consumer groups, which he refers to as consumers with sustainable habits. According to Acedo (2019: 207), responsible consumption means “making purchasing decisions taking into account the social and environmental consequences resulting from the extraction of raw materials and the production, distribution, use, and disposal of a specific product or its packaging.” Although this definition is similar to that of sustainable consumption because it refers to the dimensions of sustainability (environmental and social consequences), it does not emphasize the long-term durability of the production and consumption process, nor does it make explicit the impact of such consequences on future generations. The study makes a distinction regarding the ecological consumer, defined as “a person highly aware of the environment who seeks to reduce their ecological impact through their consumer behavior” (Acedo, 2019: 9).

It is worth noting that even before the cited works, the definition of responsible consumption by Fisk (1973) already referred to the consumer’s conscious role within the consumption chain and to the fact that such actions could be motivated by personal or collective reasons. In the same work, the author identified four characteristic motivations of the responsible consumer and linked them to specific types of consumption: ethical motivations with ethical consumption, environmental motivations with ecological consumption, social motivations with social consumption, and sustainable motivations with sustainable consumption. This brief systematic review of publications on the concept of responsible consumption suggests that this concept encompasses or includes sustainable consumption.

#### *Chronological review of concept of sustainable consumption*

The term sustainable consumption was outlined at the Oslo Symposium (1994), and the concept was referenced in many subsequent publications (Csigéné, Görög, Harazin & Baranyi, 2015; Escupirán, 2014; Pekkanen, 2020; Qu, Li, Jia & Guo, 2015; Salgado & Beltrán, 2011). However, it was from 2017 onwards that some authors began to analyze the definitions of the term and contribute their own insights and experiences to its conceptual development (Table 4).

After reviewing the works published on sustainable consumption in a chronological and sequential manner, it was possible to observe how certain aspects of the original definition remained the same, while others evolved. Among the unchanged elements from 1994 to the present are the emphasis on avoiding risks related to environmental conservation and the satisfaction of basic needs through the consumption of goods and services. On the other hand, evolving aspects include the behavior of consumers during the different stages of consumption, particularly in relation to the product life cycle. Below is an outline of these changes.

From 1994 to 2017, emphasis was placed on avoiding environmental risks and ensuring that the satisfaction of needs for future generations would not be jeopardized. In studies published between 2017 and 2019, this call to protect the ability to meet future generations’ needs is reiterated, along with the urgent need to highlight the co-responsibility of current generations in the consumption process. As is known, the Oslo Symposium’s definition encompasses both sustainable production and consumption, so the most evident changes in studies appear when exploring consumer behavior during the different phases of consumption.

A notable shift occurs from references to the product life cycle—particularly prevalent until 2015—toward a paradigm shift that incorporates the stages of consumption as proposed by Geiger et al. (2017), a paradigm that persists through 2020 (Awais et al., 2020; Helm & Subramaniam, 2019; Piligrimiene et al., 2020; Purnomo et al., 2019). Acedo (2019) includes the action of “not buying,” although this approach was not taken up by other authors, it can be inferred in references to the satisfaction of “basic needs” from the original definition. Regarding the consumer’s role in the process, there is a transition from merely the “use of goods and services” to a more conscious and active role, especially in definitions from 2018 onwards, which emphasize the consumer’s responsibility in their decision-making and everyday actions (Acedo, 2019; Acuña-Noraga & Severino-González, 2018; Gierszewska & Seretny, 2019; Piligrimiene et al., 2020).

Thus, sustainable consumption is now understood as the actions carried out by consumers to meet their basic needs, while also considering that future generations will be able to meet theirs. This concept includes the three dimensions of sustainable development (economic, social, and environmental) across all phases of consumption (acquisition, use,

**Table 4.** Chronological overview of publications on Sustainable Consumption and its dimensions.

Definition of Sustainable Consumption	Needs Satisfaction	Future generations	Risk avoidance → Environmental protection	Product lifecycle → Phases of consumption	Use → acts
Definition of Sustainable Production and Consumption developed by the Norwegian Ministry of Environment, Oslo Symposium, 1994: “The use of related services and products that respond to basic needs and provide a better quality of life, while minimizing the use of natural resources and toxic materials, as well as emissions of waste and pollutants during the lifecycle of the service or product in order not to jeopardize the ability to meet the needs of future generations” (UNEP, 2010: 12). Definition cited by several authors (Csigéné et al., 2015; Escupirán, 2014; Pekkanen, 2020; Qu et al., 2015; Salgado & Beltrán, 2011).	Meeting basic needs through products and services	Without jeopardizing the needs of future generations	Minimizing use of resources and emissions to avoid risks	Product or service lifecycle	Use of products or services
Integrates sustainability in economic, social, and environmental aspects. Sustainable marketing acknowledges that consumer behavior is not always driven by ethical or social concerns (Martin et al., 2013).					Acts motivated or not by ethics
“The consumption behavior of private households aimed at contributing to the sustainable development of society.” (Südaş y Özeltürkay, 2015: 177).	Consumption by private households	Society	Sustainable development		Contribution
“The individual acts of satisfying needs in different areas of life through the acquisition, use, and disposal of goods and services, without compromising the ecological and socioeconomic conditions of all people (currently living or in the future) to meet their own needs.” (Geiger et al., 2017: 5). Recovered from several authors (Awais, Samin, Gulzar, Hwang y Zubair, 2020; Helm y Subramaniam, 2019; Purnomo, Daulay, Utomo y Riyanto, 2019).	Meeting needs in various life areas through goods and services	Of all people (now and future)	Without compromising ecological and socioeconomic conditions	Acquisition, use, and disposal	Individual acts
“The behavior that human beings adopt when facing purchasing decisions, in such a way that the satisfaction of needs—whether for goods or services of present generations—can be sustainable over time from an economic, social, and environmental perspective. This requires raising awareness about the importance of consuming natural and sociocultural resources, and furthermore, promoting changes in the patterns that shape the consumption paradigm; in this way, excessive or unnecessary consumption can be reduced” (Acuña-Noraga & Severino-González, 2018: 304).	Satisfaction of needs for goods and services	Present generations being sustainable over time	Awareness of the importance of consuming natural and sociocultural resources  Reducing excessive or unnecessary consumption	Purchasing	Decision-based behavior
“It involves consuming those products or services that we truly need and that contribute to the conservation of the environment.” (p. 8) “The culture of sustainability not only involves implementing responsible consumption by buying different products or ceasing to purchase certain brands; it also entails adopting a new lifestyle in which environmental protection is present in all daily activities” (Acedo, 2019: 7).	Truly necessary products and services		Contribution to environmental conservation  Environmental protection	Buying different products or avoiding certain brands	Responsible consumption  New lifestyles  Daily activities
“The act of satisfying one’s own needs and those of others without compromising current and future generations in their ecological and consumption systems” (Kreuzer et al., 2019).	Satisfying individual and others’ needs	Current and future generations	Without compromising ecological and consumption systems		Non-compromising action
“Consumers use goods prudently, showing moderation and responsibility toward future generations” (Gierszewska y Seretny, 2019: 198).		Responsibility toward future generations			Use with prudence, moderation, and responsibility
“An environmentally responsible consumption process that involves the purchase, use, and disposal of goods and services” (Pilgrimiene et al., 2020: 4).			Environmentally responsible consumption	Purchase, use, and disposal	Responsible process

Source: Own elaboration.



and disposal of goods and services), as well as the active and participatory role of the consumer at each stage of the process through their actions and behaviors.

## 5. Final reflections

Let us recall that the systematic search for bibliographic information was carried out using two descriptors—responsible consumption and sustainable consumption—considering only articles published in Spanish or English between 2000 and 2020. In the first year of the search, the term sustainable consumption had only been proposed six years earlier at the Oslo Symposium. Therefore, in early studies on consumer behavior, the first term used to describe the conscious role of the consumer in the consumption chain—and the rational and efficient use of resources with respect to global society—was responsible consumption. Starting with the first operational definition of Sustainable Production and Consumption (SPC) developed at the Oslo Symposium in 1994, research began incorporating the term sustainable consumption, and the use of the term responsible consumption began to decline.

The results of this review, based on language, showed differences: while English-language publications refer only to sustainable consumption, Spanish-language articles use both terms (including responsible consumption), but without delving into their definitions—only one of the reviewed articles suggests that sustainable consumption may be motivated by the intention to be responsible. Furthermore, the early studies that referred to the responsible consumer did not consider all three dimensions of sustainability (economic, social, and environmental), whereas all studies on sustainable consumption do reference consumer responsibility. In fact, the most recent articles explicitly discuss it and analyze its operational expression in consumer behavior. This may be explained by the fact that it was not until the late 20th century that consumer behavior studies began to incorporate the concept of sustainable or sustainable consumption and intergenerational responsibility as part of it.

The review showed a greater prevalence of sustainable consumption studies compared to responsible consumption ones. The concept mapping confirms this: the word responsibility appears in only one of the six identified clusters. The reviewed works incorporate measurement

scales for individual consumer behavior and the factors that influence sustainable consumption (environmental, social, and economic). Some also explore sustainable consumption as a collective phenomenon, and corporate social responsibility as a complementary strategy to sustainable production and consumption. Conceptually, these works maintain elements of the original definition of responsible consumption (satisfying basic needs and avoiding environmental risks) and integrate responsibility into the act of consumption across different phases (acquisition, use, and disposal), along with intergenerational commitment from the consumer's perspective. From an initial focus on the "acts" of the consumer through product "use," studies from 2018 onward show a greater interest in analyzing the consumer's active and co-responsible role with their environment.

The systematic review of articles published so far this century on responsible and sustainable consumption, within the field of consumer behavior, makes it possible to affirm that, at the conceptual level, sustainable consumption studies refer to three key aspects:

- a) Intergenerational co-responsibility inherent in consumption;
- b) The phases of sustainable consumption (acquisition, use, and disposal of resources);
- c) The conditioning factors of this practice (ethical, environmental, social, and sustainable dimensions).

Although the term responsible consumption is used less frequently at the conceptual level, the most recent works assign a central role to the responsibility exercised by the consumer through their acts of consumption. These consumer behavior studies addressing sustainable consumption, and using consumer responsibility in consumption acts as a construct or analytical category, could constitute an important line of research and open up a range of possibilities for designing strategies and programs aimed at promoting the adoption of sustainable consumption.

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# Appendix 1. Details of the composition of the concept map clusters “Responsible consumption on which this article is based”

Cluster	Label	Links	Ocurrences	Cluster	Label	Links	Ocurrences
1	<b>Consumption behavior</b>	82	290	3	<b>Sustainability</b>	81	198
	Public attitude	72	51		Perception	76	84
	Food consumption	52	39		Marketing	63	39
	Psychology	46	24		Questionnaire	55	36
	Attitudinal survey	42	19		Literature review	48	23
	Consumers	42	13		Market conditions	35	10
	United Kingdom	41	16		Strategic approach	35	14
	Eco-labeling	40	15		Empirical analysis	34	15
	Knowledge	40	19		Willingness to pay	33	16
	Lifestyle	40	10		Education	31	13
	Human behavior	39	14		Corporate social responsibility	28	23
	Organic farming	39	11		Survey method	28	10
	Attitudes	38	14		Green marketing	27	15
	Romania	38	15		Spain	27	11
	Germany	36	13		Italy	26	10
	Food market	35	19	4	<b>Sustainable consumption</b>	80	170
	Preference behavior	35	13		Consumer behavior	51	33
	Qualitative analysis	35	11		Environmental impact	50	28
	Retailing	35	14		Food waste	42	25
	Social behavior	29	10		Food	39	16
	Animalia	28	11		Climate change	38	20
	Food quality	28	10		Regression analysis	38	12
	Organic foods	27	10		Carbon footprint	35	16
	Food product	23	10		Consumption	29	13
	Shopping activity	23	13		Environment	28	10
2	<b>Consumer behavior</b>	74	116		Food supply	25	10
	Decision making	59	29	5	<b>Sustainable development</b>	80	94
	Consumer	46	21		Innovation	39	20
	Human	43	18		Environmental economics	37	15
	Recycling	42	18		Environmental policy	36	12
	Article	39	14		Conceptual framework	32	13
	United States	39	13		Policy formulation	32	14
	Consumer attitude	37	14		Europe	29	12
	Food industry	37	13		Technology adoption	29	10
	Environmental protection	35	12	6	European Union	27	11
	Economic sciences	33	11		<b>Circular economy</b>	40	31
	Female	33	10		Business	37	17
	Ethics	32	14		China	32	18
	Waste management	28	11		Numerical model	32	10
	Sales	27	13		Research work	30	13
	Trade	23	11		Collaborative economy	21	22
					Collaborative consumption	19	11

Source: Own elaboration.

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