



A review of three decades of academic research on brand equity: A bibliometric approach using co-word analysis and bibliographic coupling

Álvaro J. Rojas-Lamorena^{*}, Salvador Del Barrio-García, Juan Miguel Alcántara-Pilar

University of Granada, Spain

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ABSTRACT

This paper analyzes the scientific research on brand equity published over the last three decades, based on data from the Web of Science (WoS) and Scopus databases. The research objective is to identify both the predominant and the emerging themes related to this topic. This study takes a bibliometric approach, analyzing the co-occurrence of keywords and bibliographic coupling to evaluate the scientific evolution of this scholarly topic, based on a total of 2,730 publications. The results are visually represented in strategic diagrams and longitudinal maps, which indicate that, during the last decade, the motor themes that have emerged around brand equity research include: tourist destinations; satisfaction; products; and brand awareness. This insight provides researchers and professionals with a better understanding of the state of the art that will enable them to gear their research toward emerging issues in this field, such as sports or attitudes.

1. Introduction

In recent decades, one of the constructs that have attracted particular attention among scholars dealing with brand management is that of brand equity (hereafter, BE) (Buil, de Chernatony, and Martínez, 2013; Iglesias, Markovic, and Rialp, 2019a; Keller and Lehmann, 2006). This is a fundamental topic in marketing and a valuable asset for firms (Aaker, 1991; Christodoulides, Cadogan, and Veloutsou, 2015; Del Barrio-García and Prados-Peña, 2019). However, scholarly consensus in terms of its definition, the dimensions it encompasses, and its measurement is yet to be reached (Londoño, Elms, and Davies, 2016). Regarding the latter aspect, the lack of agreement over how to best measure BE simply adds to the challenges already facing marketing professionals, particularly in terms of where to justifiably invest time and resources in brand-building endeavors (Christodoulides et al., 2015).

The BE concept refers to the added value that a given brand lends to a firm's products (Yoo, Donthu, and Lee, 2000). In other words, it is "the differential effect of brand knowledge on consumer response to the marketing of the brand" (Keller, 1993, p. 2). Branding facilitates consumer choice because it serves as a product-differentiation element that helps decision-making, based on the experiences and credibility associated with the brand in question (Sasmitha and Mohd Suki, 2015). Those brands with high BE will present better profit margins, will be more effective in their communication efforts, and will play a significant role

in consumer preferences and purchase intention (Buil, Martínez, and de Chernatony, 2013; Keller, 1993).

Consequently, various studies have found that BE positively affects, among other aspects: future profits and cashflow; the customer's willingness to pay higher prices; share value; and the outcome of brand marketing activities (Keller, 1993; Simon and Sullivan, 1993; Srivastava and Shocker, 1991; Oyedemi, 2007; Yoo and Donthu, 2001a). It is also known to help minimize the risks associated with innovation: firms with a high level of BE will experience fewer negative effects associated with a failed attempt at innovation than firms with a lower level of BE (Liao and Cheng, 2014). Furthermore, BE plays a vital role in the assessment of brand performance and the attainment of competitive advantages, for example enabling the firm to open a given brand to new opportunities, create barriers to entry against new competitors, generate successful brand extensions, or increase its capacity to withstand competitor promotions (Çifci et al., 2016; Farquhar, 1989; Sasmitha and Mohd Suki, 2015).

In the scholarship, BE is studied using different approaches, for example from the perspective of manufacturers, retailers, or consumers (Christodoulides and de Chernatony, 2010), and it can be analyzed in terms of whether its benefits are felt by the firm or by consumers (Christodoulides and de Chernatony, 2004). Consequently, the scholarship presents two major streams (Christodoulides et al., 2015):

^{*} Corresponding author at: Calle Cortadura del Valle s/n, 51001 Ceuta, Spain.

E-mail addresses: alvarorojas@ugr.es (Á.J. Rojas-Lamorena), dbarrio@ugr.es (S. Del Barrio-García), jmap@ugr.es (J.M. Alcántara-Pilar).

- The financial perspective, which focuses on quantifying the financial value of the brand for the firm (Christodoulides and de Chernatony, 2010; Nguyen, Dadzie, and Davari, 2013). Here, the total value of a brand—as a distinguishable asset—can be sold or included in a balance sheet, given its monetary value (Buil, Martínez, and de Chernatony, 2013; Emari, Jafari, and Mogaddam, 2012; Feldwick, 1996; Kim and Kim, 2005; Nguyen et al., 2013; Simon and Sullivan, 1993). This perspective was largely adopted in the earliest studies on BE, from the 1980s and 1990s (Farquhar, 1989; Kamakura and Russell, 1993; Swait, Erdem, Louviere, and Dubelaar, 1993).
- The consumer perspective, widely used since the late 1980s (Keller, 2010), began to receive strong attention in the 1990s (Tasci, 2020). Here, the concept is primarily known as customer-based brand equity (CBBE). This is a measure of the knowledge, attitudes, associations, and loyalties that consumers present in relation to a given brand (Buil, de Chernatony, and Martínez, 2013; Keller and Lehmann, 2006). Thus, the power of the brand lies in what customers learn, feel, see, and hear about it, thanks to their lived experiences (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001b, Londoño et al., 2016). It therefore represents the value that a brand adds to a product, based on customers' perceptions and the associations they make regarding that brand (Frank and Watchravesringkan, 2016; Yoo and Donthu, 2001a).

The definitions and measurement scales proposed by Aaker (1991, 1996) and Keller (1993, 2003) are applied in, and supported by, numerous studies that consider the multidimensional character of BE (Christodoulides et al., 2015). Aaker (1991, 1996) proposed five dimensions (brand loyalty, brand awareness, perceived quality, brand associations, and other propriety brand assets), while Keller (1993, 2003) focused on brand knowledge with two components, brand awareness and brand image. However, there is no definitive scholarly consensus on the dimensions, relationships, or measures of CBBE (Tasci, 2020).

Alongside these two predominant research currents, there is a combined perspective incorporating both, thereby compensating for the possible deficiencies associated with the use of a single perspective (Kim and Kim, 2005). This combined or overall approach can be found in the work of Dyson, Farr, and Hollis (1996), for example, in which surveys were designed to measure the financial value associated with images and consumer-based brand associations. Motameni and Shahrokhi (1998) proposed an overall measurement model that combined both perspectives, while Srivastava and Shocker (1991) proposed that BE comprises two dimensions: brand strength and brand value. The former refers to the behaviors of, and the associations made by, consumers, distributors, and brand managers, while the second refers to the effect of the brand in terms of increasing current and future business profits. Table 1 summarizes the main works that have appeared in the literature on BE, showing different perspectives on it, its conceptual delimitation, dimensions, measurement of the construct, and scope of study.

In the last decade, interest in the topic of BE has expanded to incorporate research areas such as tourism and hospitality (e.g., Frías-Jamilena et al., 2020; González-Mansilla, Berenguer-Contrí, and Serra-Cantallops, 2019; Konecnik and Gartner, 2007), restaurants (e.g., Lin and Chung, 2019; Rodríguez-López, Del Barrio-García, and Alcántara-Pilar, 2020), sport (e.g., Cornwell, Roy, and Steinar, 2001; Gladden and Funk, 2002; Wang and Tang, 2018; Wetzel, Hattula, Hammerschmidt, and Van Heerde, 2018), social networks (e.g., Dwivedi, Johnson, Wilkie, and De Araujo-Gil, 2019; Godey et al., 2016; Kim and Ko, 2012; Llopis-Amorós, Gil-Saura, Ruiz-Molina, and Fuentes-Blasco, 2019), mobile telephony (e.g., Yang et al., 2019), and corporate social responsibility (CSR) (e.g., Hsu, 2012; Lai, Chiu, Yang, and Pai, 2010; Muniz, Guzmán, Paswan, and Crawford, 2019), among others. The importance of this construct and the numerous contributions (both theoretical and methodological) related to its conceptual delimitation, its measurement, or

its management in multiple areas of knowledge call for a more in-depth analysis of its evolution, related topics, and research trends (current and future).

To achieve a better understanding of the scientific contributions related to this topic and to comprehend the full scope of the literature that has been generated around it, the present study takes a bibliometric approach to survey the scientific output to date. Bibliometric analysis has been applied in many disciplines in recent years to raise awareness of their value, describe their evolution, and identify the predominant themes over time, while providing academics and professionals with a better understanding of the state of the art of the discipline in question. Examples of this type of study can be found in diverse fields such as consumer research (Jia, Zhou, and Allaway, 2018; Zuschke, 2020), financial marketing (Muñoz-Leiva, Sánchez-Fernández, Liébana-Cabanillas, and Martínez-Fiestas, 2013), business-to-business marketing (Kumar, Sharma, and Salo, 2019; Möller and Halinen, 2018), management information systems (Culnan, 1986), integrated marketing communications (Muñoz-Leiva et al., 2015), comparative advertising (Del Barrio-García, Muñoz-Leiva, and Golden, 2020), brand personality (Radler, 2018), strategic management (Vogel and Güttel, 2013), business capabilities (Kouropalatis, Giudici, and Acar, 2019), socially-responsible consumer behavior (Nova-Reyes, Muñoz-Leiva, and Luque-Martínez, 2020), restaurant tourism (Rodríguez-López, Alcántara-Pilar, Del Barrio-García, and Muñoz-Leiva, 2020), medical tourism (De la Hoz-Correa, Muñoz-Leiva, and Bakucz, 2018), qualitative research in marketing (Murgado-Armenteros et al., 2015), service research (Donthu, Gremler, Kumar, and Pattnaik, 2020a), and strategic marketing (Donthu, Kumar, Paul, Pattnaik, and Strong, 2020b).

In the specific field of branding scholarship, there are some bibliometric studies on collateral aspects such as brand positioning (Sciacci, García, and Galli, 2012), place branding (Ma, Schraven, de Bruijne, De Jong, and Lu, 2019), brand personality (Lara-Rodríguez, Rojas-Contreras, and Oliva, 2019), or brand experience (Zha, Melewar, Foroudi, and Jin, 2020). However, to the best of our knowledge, given the absence of bibliometric studies that address the subject of BE and the outstanding importance of this concept, the present study is the first systematic quantitative analysis of BE research that applies a bibliometric approach using co-word analysis, science mapping and bibliographic coupling. The study is therefore intended to directly address this lacuna in the literature, in the quest for a better understanding of the state of the art and its thematic evolution from its origins to the present. To this end, we propose a series of research questions that we will answer throughout this paper and that also serve as an index:

- RQ1: What is the trajectory of evolution of the scientific articles on BE published to date?
- RQ2: Which journals publish the most articles on BE?
- RQ3: Who are the most prolific authors on this topic?
- RQ4: Which articles have achieved the highest impact in terms of number of citations?
- RQ5: What are the motor themes and emerging themes related to the topic in each of the time periods studied?
- RQ6: What have been the predominant research themes related to BE in the last five years?

Section 2 details the methodology employed in the study and the data collection and debugging processes followed. Subsequently, the results are presented, highlighting the most influential journals, authors, and articles in the field of BE research. The results of the bibliometric analysis by co-word and bibliographic coupling are also shown.

This paper responds to the need to examine aspects related to BE research as an essential asset for marketing. The study makes two main contributions to the literature dealing with BE. First, it captures all of the scientific output on BE generated in the last 30 years (1990–2019) and referenced in the WoS and Scopus databases covering those scientific publications with the greatest global impact. This renders it the most comprehensive and exhaustive study to date on BE research, which

Table 1
Summary of brand equity conceptualization and measurement.

Article	BE approach	Conceptualization	Dimensions	Measurement	Research field
Aaker (1991)	CBBE	A set of assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to the customers.	Brand awareness, perceived quality, brand associations, and brand loyalty	Conceptual paper	Brands in general
Keller (1993)	CBBE	The differential effect of brand knowledge on consumer response to the marketing of the brand	Brand Awareness (Recall and Recognition) Brand Image (Attributes, Benefits, Attitudes)	Conceptual paper	Brands in general
Simon and Sullivan (1993)	FBBE	The incremental cash flows which accrue to branded products over unbranded products	Macro and micro approaches	Estimation technique to extract BE from firm's other assets	Macro for a sample of industries and companies; micro for Coca-Cola and Pepsi
Kamakura and Russell (1993)	CBBE	The utility associated with the product features and the value attached to the brand names	Perceived value, brand dominance, intangible value	Scanner-data	Hotels
Park and Srinivasan (1994)	CBBE	The added value endowed by the brand to the product.	Attribute-based and non attribute-based components.	Conjoint analysis	Toothpaste and mouthwash
Cobb-Walgren et al. (1995)	CBBE	Apply Aaker's (1991) and Keller's (1993) definitions	Brand awareness, advertising awareness, perceived quality, brand associations	Perceptual components of Aaker (1991) definition	Hotels and households cleaners
Aaker (1996)	CBBE	Aaker's (1991) and market-based perspective (market behavior of the brand)	Brand awareness, perceived quality, brand associations, and brand loyalty	Conceptual	Brands in general
Yoo et al. (2000)	CBBE	The incremental utility or value added to a product by its brand name.	Associations with awareness, perceived quality, loyalty	15 items scale + 4 items Overall brand equity	Athletic shoes, camera film and color television sets
Yoo and Donthu (2001)	CBBE	Consumers' different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes.	Brand loyalty, perceived quality, awareness/associations	10 items scale + 4 items Overall brand equity	Athletic shoes, camera film and color television sets
Ailawadi et al. (2003)	FBBE	The marketing effects or outcomes that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name	Revenue premium measure	Revenue premium measure over a private label product	Consumer packaged goods industry
Netemeyer et al., (2004)	CBBE	Aaker's (1991) and Keller's (1993)	Perceived quality, perceived value for the cost, uniqueness, and the willingness to pay a price premium	16 items	Fast-food restaurant, Colas, Pastes, Jeans, Shoes
Srinivasan et al. (2005)	CBBE	The incremental contribution per year obtained by the brand in comparison to the underlying product (or service) with no brand-building efforts.	Brand awareness, attribute perception biases, and non-attribute preference	Direct and indirect effects of sources on choice probability	Digital cellular phone market
Pappu et al. (2005)	CBBE	The value endowed by the brand to the product.	Brand awareness, associations, perceived quality, and loyalty	13 items	Car and Tv brands
Konecnik and Gartner (2007)	CBBE	The sum of factors (or dimensions) contributing to a brand's value in the consumer's mind.	Awareness, image, quality, and loyalty	37 items	Destination - Slovenia
Buil et al. (2008)	CBBE	Aaker's (1991)	Brand awareness, perceived quality, brand loyalty, brand associations (perceived value, brand personality and organization)	21 items	Soft drinks, sportswear, cars, and consumer electronics
Christodoulides and de Chernatony (2010)	CBBE	A set of perceptions, attitudes, knowledge, and behaviors on the part of consumers that results in increased utility and allows a brand to earn greater volume or greater margins than it could without the brand name.	Review paper	Review paper	Review paper
Chen (2010)	CBBE/ Green BE	A set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service.	Overall brand equity	4 items based on Yoo et al (2000), Yoo and Donthu (2001) and Delgado-Ballester and Munuera-Alemán (2005)	Information and electronics products
Nam et al (2011)	CBBE	Brady et al. (2008) definition: a perception of belief that extends beyond mere familiarity to an extent of superiority that is not necessarily tied to specific action. Familiarity does not imply belief in superiority ... Brand equity does not imply action, only perception.	Physical quality, staff behaviour, ideal self-congruence, brand identification and lifestyle-congruence	16 items	Hotel and restaurant industry
Spry et al (2011)	CBBE	The incremental value added by a brand name to a product.	Brand awareness, associations, loyalty and perceived quality	Field experiment + questionnaire	Plasma TV and USB
Schivinski and Dabrowski (2015)	CBBE	Aaker's (1991)	Brand awareness/associations, perceived quality and brand loyalty	10 items	Non-alcoholic beverages, clothing

(continued on next page)

Table 1 (continued)

Article	BE approach	Conceptualization	Dimensions	Measurement	Research field
Godey et al (2016)	CBBE	Keller's (1993)	Brand awareness and Brand image	7 items based on Kim and Hyun (2011)	and mobile network providers. Luxury sector
Çifci et al. (2016)	CBBE	Aaker's (1991) and Keller (1993)	Yoo and Donthu (2001) and Nam et al. (2011) dimensions.	Cross validation of Yoo and Donthu's (2001) and Nam et al (2011) CBBE models.	Global fashion brands
Frías-Jamilena et al. (2017)	CBBE	Aaker's (1991, 1996) and Keller's (1993, 2003)	Destination brand awareness, brand quality, brand image, brand loyalty, brand value and Overall destination brand equity (ODBE)	19 items + 4 items ODBE	Destination
Heinberg et al (2018)	CBBE	Aaker's (1991)	Overall Brand equity	3 items based on Yoo et al (2000)	Toiletries and the beverage segments
Iglesias et al. (2019a)	CBBE	A relational market-based asset generated by means of interactions and relationships between brands and their customers	Overall Brand equity	3 items based on Yoo et al (2000)	Banking industry

Source: The authors.

illuminates the structure of the conceptual subdomains of this topic and identifies the primary issues of interest to scholars over three decades of academic research. Second, the results provide a snapshot of the thematic evolution of BE research over the past 30 years. This enables us to identify the central themes in each decade and to determine how they have transformed over time, from the fledgling stage of BE research to the current consolidated stage. The results of this analysis will provide academics and professionals with a better understanding of the state of the art and point to potential trajectories for future research, taking into account both the motor themes and emerging or transversal themes in the research field.

2. Methodology

2.1. Bibliometric analysis: Data collection and analysis

From among the various bibliographic databases in existence, we opted to extract the data for this research from the WoS and Scopus databases, which are widely used in bibliometric studies (e.g., Del Barrio-García et al., 2020; Muñoz-Leiva, Viedma-del-Jesús, Sánchez-Fernández, and López-Herrera, 2012; Muñoz-Leiva et al., 2015; Rodríguez-López et al., 2020), for a wider coverage. The data were downloaded from the WoS core collection and Scopus for the period 1990–2019 using the following search query, with no restriction on the scientific field:

Query: TS = “Brand equity”

The rationale for selecting this timeframe was that there are hardly any relevant studies prior to 1990 indexed in both databases. We focused our search on journal articles as the unit of analysis, as the academic community considers such publications to be the most up-to-date source of knowledge in the field of marketing (Del Barrio-García et al., 2020; Leone, Robinson, Bragge, and Somervuori, 2012). Having initially obtained a total of 2,307 items in WoS and 2,322 items in Scopus, we then screened them to detect and eliminate duplications and remove any article not related directly to the topic under study. The final sample comprised 2,730 scientific articles that included a total of 7,426 keywords. These had to be refined through a normalization process to homogenize words in the singular and plural (e.g., “consumer” and “consumers”), words featuring typographical errors, or words in British vs. American English (e.g., “behavior” vs. “behaviour”). In addition, to avoid distorting the results of the analysis and to be able to identify the primary topics and research trends more clearly, we removed the search term itself (“brand equity”) from the set of keywords. In addition, a process of standardization of the names of authors and journals was also carried out, since some of the records in WoS and Scopus have different nomenclatures, for instance “Keller, KL” vs. “Keller, Kevin, L.” or *Journal*

of Product & Brand Management vs. *Journal of Product and Brand Management*. After these adjustments and the complete debugging process, the final number of keywords to be analyzed stood at 2,551.

We divided the overall timeframe, 1990–2019, into three decades to facilitate the longitudinal analysis of the evolution of the relevant themes: 1990–2000, 2001–2010, and 2011–2019. These three decades correlate to an initial phase of research around the concept of BE (comprising 107 articles), a second phase, characterized by continued growth (531 articles), and a third phase in which extensive research output was published (2,092 articles).

2.2. Analytical tools used

To obtain the list of items, we used the *WoS Analyze Results* and *Scopus Analyze Search Results* tools; to carry out the co-word analysis and produce the scientific maps of the co-occurrence of keywords, we used SciMAT software (Cobo, López-Herrera, Herrera-Viedma, and Herrera, 2012); and, to perform the bibliographic coupling, we used VOSviewer software.

Co-word analysis is a powerful tool that enables the interactions between keywords in a scientific field to be identified, described, and represented visually (Muñoz-Leiva et al., 2015; Del Barrio-García et al., 2020). This tool analyzes the frequency of co-occurrence of two keywords—that is, it quantifies the number of documents (in this case, articles) in which these words appear together. The relative prominence of each theme addressed in the scientific articles indexed in WoS is presented using strategic diagrams provided by SciMAT. These are presented on the basis of four quadrants divided by two axes referring to density and centrality, respectively (see Fig. 1, a) (Cobo et al., 2012).

Density measures the internal strength of the keywords or thematic network, while centrality refers to the degree of interaction between different networks. Thus, in the high-density and high-centrality quadrant, we would find the primary research themes that attract the most scientific output and citations related to this topic—that is, the “motor themes”. By contrast, in the low-density, low-centrality quadrant we find emerging themes or those fading out. The upper left-hand quadrant, representing high density and low centrality, refers to those themes that are highly developed internally but isolated—unconnected to other networks. Finally, in the lower right-hand quadrant (low density and high centrality), we find those essential or core themes that cut across various areas of knowledge.

The right half of Fig. 1, (b), shows an example of the relationships between different thematic networks that would be included in the strategic diagram. The size of each sphere is proportional to the number of articles that contain the keyword, while the thickness of the lines connecting the spheres is proportional to the co-occurrence between the

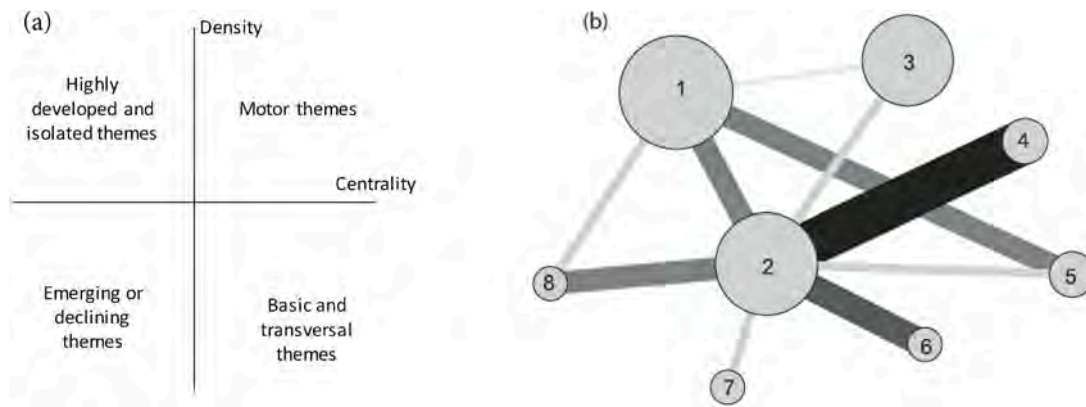


Fig. 1. Example of a strategic diagram and thematic network Source: Adapted from Cobo et al. (2012). Note: The numbers in the spheres refer to examples of different themes in the thematic network.

two keywords. This methodology enables subtopics within main topics to be identified and provides an overview of the thematic evolution of the topic under study (Cornelius and Persson, 2006; López-Herrera et al., 2012).

Turning to the bibliographic coupling technique, this is based on the assumption that two publications that share common references are similar in content (Kessler, 1963; Weinberg, 1974; Donthu et al., 2021a). By using this approach, it is possible to visualize recent contributions that have not yet had a major impact, thereby reflecting the most current scientific output in the field (Bretas and Alon, 2021).

The results of this analysis provide thematic clusters that are based on those publications that share bibliographical citations in common, which offers a more up-to-date representation of the research field (Donthu et al., 2021a). The bibliographic coupling technique uncovers those current topics showing signs of positive growth that scholars may wish to consider in future research (Donthu et al., 2021b). In this analysis, the size of the spheres represents the relative number of the total number of links to other articles, while the relative proximity of the spheres and the thickness of the links symbolize the degree of similarity between articles based on the number of references they have in common (Andersen, 2019).

3. Results

3.1. Scientific output on the topic of brand equity

To respond to RQ1, we examine the evolution of published scientific articles dealing with BE, by year, during the selected timeframe (see Fig. 2). We can observe that, during the first decade (1990–1999) and the first half of the second decade (2000–2004), research on this topic was slow to evolve. In contrast, scholarly attention increases considerably from the second half of the 2000s to the present, reaching over 50 publications per year. The last five years have seen a major upsurge in the number of articles published—more than 200 a year—due to the publication of Special Issues such as that of the *Journal of Product and Brand Management* in 2017.

Regarding the journals that have published a greater number of articles on this topic (RQ2), the aforementioned *Journal of Product and Brand Management* stands out, with 131 articles, followed by the *Journal of Business Research* (93 articles) and the *Journal of Brand Management* (82 articles). It is perhaps only logical that among the publications with the strongest interest in the topic of BE are the two most prestigious journals in the realm of brand management. Table 2 lists the top 25

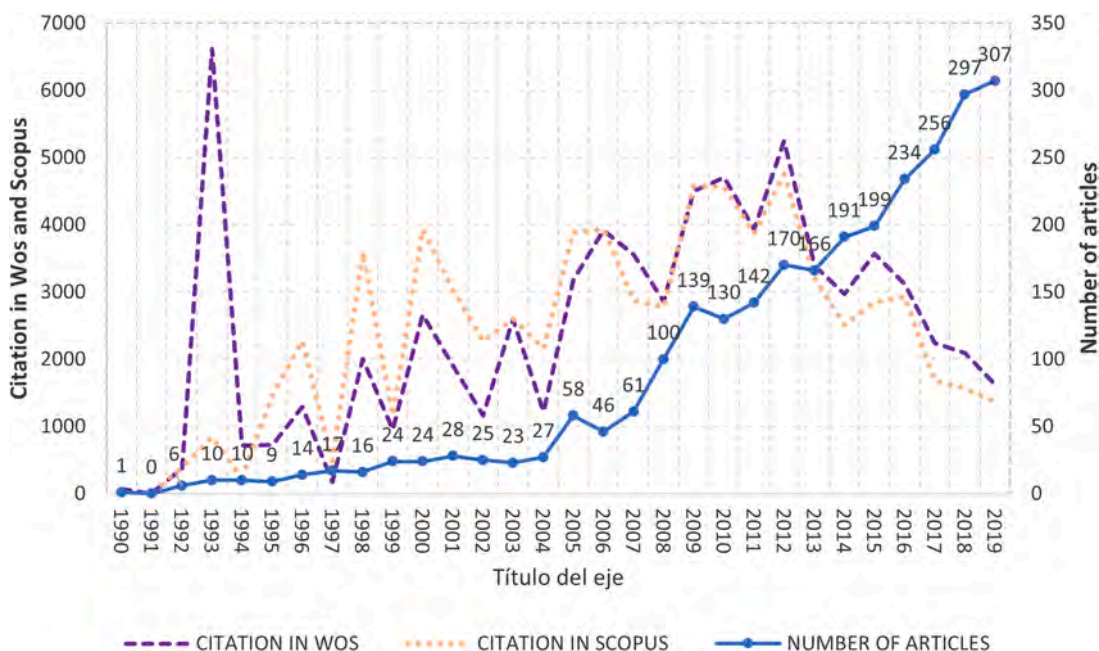


Fig. 2. Evolution in the number of scientific articles dealing with BE (1990–2019) and citation in WoS and Scopus. Source: The authors.

journals with the most articles, together accounting for 907 or 33.22% of the total of 2,730 articles indexed in WoS and Scopus. The data show that there is a wide variety of journals from different fields interested in BE, from those specializing in brand management to general business and marketing, advertising, and retailing journals. This gives a sense of the transversal nature of academic research on BE. However, it should be noted that some of these journals have published a smaller number of articles dealing with BE but have nevertheless achieved a greater reach in terms of number of citations (e.g., *Journal of Marketing*, *Journal of Marketing Research*, or *Journal of the Academy of Marketing Science*).

To achieve a more complete overview of this research field and answer RQ3, we also analyzed the authors with the greatest research output. The total number of authors who have published on this subject during the 30-year period under study is 4,979. Table 3 lists the 25 most prolific authors on BE indexed in WoS and Scopus (that is, with the highest number of articles published) and the total number of citations received in each database.

Among the top 25 authors with the greatest number of publications related to BE (19) and number of citations received (7,839 in WoS and 3,640 in Scopus) is Professor Keller, who is shown to be one of the most prolific authors in this field. This is perhaps not surprising, as he published the seminal work “Conceptualizing, measuring, and managing customer-based brand equity” (*Journal of Marketing*, 1993), in which he proposed the definition and measurement of BE from the customer’s perspective. Since then, his approach has provided the basis for many other researchers to refocus their investigations. Other relevant contributions in this field are those that Keller published with Hoeffler, linking BE to corporate societal marketing (Hoeffler and Keller, 2002), and his work concerning multichannel retailing (Keller, 2010).

We also find Professors Gil-Saura and Šerić, both from the University of Valencia (Spain). Among their works are studies dealing with the influence of environmental practices on BE (e.g., Moise et al., 2019) and analysis of BE in the hotel sector (e.g., Šerić and Gil-Saura, 2019; Šerić et al., 2018) and in the retail sector (e.g., Gil-Saura, Šerić, Ruiz-Molina, and Berenguer-Contrí, 2017), among others. These have been published in journals including the *Journal of Brand Management*, *International Journal of Contemporary Hospitality Management*, and *Journal of Product and Brand Management*. Although these authors occupy the top positions by number of publications, in terms of the total number of citations received, they occupy lower positions in the ranking, which could be due to the fact that their publications are more recent.

Two other authors who stand out in this knowledge area are S. Pike and R. Pappu. Pike makes interesting contributions in the field of tourist destinations, which have been cited by many other researchers. Some of Pike’s work focuses on long-haul destinations in emerging markets, where the author applies the concept of CBBE to countries such as Australia, Argentina, Brazil, and Chile (e.g., Pike and Bianchi, 2016; Pike, Bianchi, Kerr, and Patti, 2010; Bianchi, Pike, and Lings, 2014). Meanwhile, Pappu is the second author (behind Keller) in the top 25 by total number of citations. Among his main contributions are those that seek to improve the measurement of BE (Pappu, Quester, and Cooksey, 2005), research related to country image and country-of-origin (Pappu, Quester, and Cooksey, 2006; 2007), or celebrity brand endorsement and brand credibility (Spry et al., 2011), among others.

In response to RQ4, Table 4 lists the 25 most-cited articles in the WoS and Scopus scientific databases. Here, Aaker (1996) stands out for his seminal importance, given his conceptualization of BE and his proposed approach to measuring this concept, which laid the foundations for CBBE alongside the aforementioned work by Keller (1993). Other notable contributions in this area are those of Yoo et al. (2000) and Yoo and Donthu (2001), who analyzed the effect of the various elements of the marketing mix on BE and proposed a measurement scale for this construct (covering both a unidimensional measure and an overall measure). This scale has been increasingly used in the literature in recent years, given its sound psychometric properties (Frías-Jamilena, Polo-Peña, and Rodríguez-Molina, 2017). As we can see, the most-cited

Table 2
Top 25 journals by number of documents.

Journal	Ranking by number of articles	% with respect to the total sample	Number of citations in WoS	Number of citations in Scopus
Journal of Product and Brand Management	131	4.80%	3,456	6,469
Journal of Business Research	93	3.41%	5,901	6,419
Journal of Brand Management	82	3.00%	1,808	1,374
European Journal of Marketing	56	2.05%	2,252	2,543
Industrial Marketing Management	37	1.36%	2,358	2,095
Journal of Consumer Marketing	35	1.28%	82	2,356
Marketing Intelligence & Planning	33	1.21%	527	424
Journal of Advertising Research	33	1.21%	1,087	769
Journal of Marketing	29	1.06%	10,014	5,181
Journal of Marketing Research	29	1.06%	3,283	3,175
Journal of Retailing and Consumer Services	29	1.06%	782	831
International Journal of Contemporary Hospitality Management	28	1.03%	658	360
Asia Pacific Journal of Marketing and Logistics	26	0.95%	324	355
Journal of the Academy of Marketing Science	26	0.95%	3,622	3,406
International Journal of Hospitality Management	25	0.92%	1,025	729
Tourism Management	25	0.92%	2,087	1,900
Journal of Marketing Management	24	0.88%	554	477
Marketing Science	23	0.84%	2,927	2,676
International Journal of Research in Marketing	23	0.84%	1,389	1,799
Journal of Business Industrial Marketing	22	0.81%	313	277
Journal of Business Ethics	20	0.73%	1,714	1,383
International Journal of Market Research	20	0.73%	466	644
Journal of Travel Tourism Marketing	20	0.73%	433	420
Journal of Destination Marketing Management	19	0.70%	553	339
Service Industries Journal	19	0.70%	421	402
Total	907	33.22%	48,036	46,803

Source: The authors.

Table 3
Top 25 authors, by numbers of articles.

Authors	Current Affiliation	Number of articles in WoS	Number of citations in WoS	Number of articles in Scopus	Number of citations in Scopus	Total Articles
Keller, K.L.	Dartmouth College (USA)	15	7,839	15	3,640	19
Gil-Saura, I.	University of Valencia (Spain)	17	269	14	254	17
Seric, M.	University of Valencia (Spain)	16	215	9	182	16
Pike, S.	Queensland University of Technology (Australia)	14	874	10	725	15
Kim, K.H.	Changwon National University (South Korea)	14	427	8	375	14
Christodoulides, G.	American University of Sharjah (United Arab Emirates)	13	826	11	770	14
De Chernatony, L.	Aston University (UK)	11	785	10	844	13
Calvo-Porrá, C.	University of A Coruña (Spain)	7	52	10	72	13
Ko, E.	Yonsei University (South Korea)	12	870	8	947	12
Tasci, A.D.A.	University of Central Florida (USA)	12	202	10	137	12
Mishra, A.	Indian Institute of Management Indore (India)	9	99	9	88	12
Pappu, R.	University of Queensland (Australia)	11	1,317	10	1,592	11
Dwivedi, A.	Charles Sturt University (Australia)	10	194	10	230	11
Martínez, E.	University of Zaragoza (Spain)	8	354	9	551	10
Erdem, T.	New York University (USA)	7	1,004	10	2,273	10
Levy-Mangin, J.P.	University of Quebec (Canada)	7	59	7	69	10
Ambler, T.	London Business School (UK)	3	180	10	577	10
Evans, W.D.	The George Washington University (USA)	6	100	9	211	9
Johnson, L.W.	Swinburne University of Technology (Australia)	8	216	5	130	8
Butt, M.M.	Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (Pakistan)	8	173	7	150	8
Delgado-Ballester, E.	University of Murcia (Spain)	8	470	7	548	8
Gómez, M.	University of Castilla-La Mancha (Spain)	8	265	7	272	8
Molina, A.	University of Castilla-La Mancha (Spain)	8	265	7	272	8
Srivastava, R.K.	Indian Institute of Technology (India)	8	193	5	24	8
Anselmsson, J.	Lund University School of Economics and Management (Sweden)	7	198	8	222	8
Total		247	17,446	225	15,155	284

Source: The authors.

articles dealing with BE focus on the consumer perspective—an approach that has attracted the interest of a growing number of researchers since the 1990s (Tasci, 2020).

In terms of the journals that have published these articles, we can observe a degree of variety, but it is the *Journal of Marketing* that stands out in particular, with the greatest number of articles (5).

3.2. Thematic analysis: Subtopics of brand equity

To answer RQ5, SciMAT was used to analyze the evolution of these topics across the three time periods under study. To interpret the data correctly, we must take into account that the size of the spheres refers to the number of articles on each theme, proportionally, and distinguish the different types of lines connecting the themes (Murgado-Armenteros et al., 2015). The solid lines symbolize a thematic nexus between two themes—that is, they either refer to the same theme, but in different periods, or one theme is contained within the thematic network of another because they are both researched from a related perspective. The dotted lines signify that both themes have keywords in common. The thickness of the lines, whether solid or dotted, is proportional to the degree of co-occurrence of the keywords from the two topics, which indicates the strength of the association between themes.

As can be observed in Fig. 3, BE research presents moderate cohesion between periods. Certain thematic areas are present in the first two periods, such as “Brand”, while “Product”, “Customer”, “Firm”, “Satisfaction” and “Brand Awareness” span the last two periods. We can also observe that several of the research themes under analysis are included in the thematic network of another research topic (from the following time period), as indicated by the solid lines. There are two themes that appear for the first time in the third period without presenting any signs of an evolutionary trajectory up to that point: “Social Media” and “Sport”. “Social Media” is of particular interest in so far as it has become

a highly-developed theme in the scientific literature related to BE and has aroused the interest of a large number of authors (e.g., Bruhn, Schoenmueller, and Schäfer, 2012; Kim and Ko, 2012; Llopis-Amorós et al., 2019). By contrast, “Sport” can be considered an emerging theme in the literature in the last decade (e.g., Wang and Tang, 2018; Wetzel et al., 2018).

Table 5 shows in more detail the most notable themes that characterize the research on BE for each period, by number of articles, number of citations, and h-index.

3.2.1. “Emerging research” period

In the early stages of research on the topic of BE (1990–1999), the keywords used in the literature are quite disparate, as this is an emerging stage (both in terminology and conceptual debate). However, of the 107 articles indexed in WoS and Scopus, the keywords “Perception” and “Brand Extension” stand out, appearing in 8 articles, respectively, followed by “Consumer” (7), and “Brand” (3). If we compare by relevance, according to the number of citations, the themes that stand out in the first period are, once again “Perception” (5,455) and, to a lesser extent, “Consumer” (2,152) (see Fig. 4).

“Consumer” appears as a theme that occupies a central position in the strategic diagram as, during this period, it does not present a sufficient entity to become a motor theme, but nor is it positioned as a highly-developed theme, given the different perspectives on BE studied in this first period. During the early years, “Consumer” was studied in relation to other variables such as satisfaction (e.g., Tax et al., 1998). However, given the limited consensus on the definition of BE, its dimensionality, and its measurement, which continues to this day, the main studies focused on proposed definitions of the concept, BE management, and its measurement, which provided the basis for subsequent studies (e.g., Aaker, 1996; Cobb-Walgren, Ruble, and Donthu, 1995; Simon and Sullivan, 1993; Park and Srinivasan, 1994). Elsewhere, “Perceptions” as a

Table 4
Top 25 articles by total citations in WoS and Scopus.

Authors	Title	Journal	Year	Citations (WoS)	Citations (Scopus)	Total Citations
Keller, K.L.	Conceptualizing, measuring, and managing Customer-Based Brand Equity	Journal of Marketing	1993	5,064	*	5,064
Tax, S.S.; Brown, S.W.; Chandrashekar, M.	Customer evaluations of service complaint experiences: Implications for relationship marketing	Journal of Marketing	1998	1,172	1,423	1,714
Yoo, B.; Donthu, N.; Lee, S.	An examination of selected marketing mix elements and brand equity	Journal of the Academy of Marketing Science	2000	1,155	1,375	1,706
Aaker, D.A.	Measuring brand equity across products and markets	California Management Review	1996	1,072	1,392	1,633
Yoo, B.; Donthu, N.	Developing and validating a multidimensional consumer-based brand equity scale	Journal of Business Research	2001	1,064	1,234	1,515
Keller, K.L.; Lehmann, D.R.	Brands and Branding: Research findings and future priorities	Marketing Science	2006	876	975	1,215
Park, C.W.; MacInnis, D.J.; Priester, J; Eisingerich, A.B.; Lacobucci, D	Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers	Journal of Marketing	2010	806	926	1,127
Keller, K.L.	Brand synthesis: The multidimensionality of brand knowledge	Journal of Consumer Research	2003	772	892	1,084
Berry, L.L.	Cultivating service brand equity	Journal of the Academy of Marketing Science	2000	712	835	1,020
Escalas, J.E.; Bettman, J.R.	You are what they eat: The influence of reference groups on consumer's connections to brands	Journal of Consumer Psychology	2003	697	714	923
Erdem, T., Swait, J.	Brand equity as a signaling phenomenon	Journal of Consumer Psychology	1998	+	913	913
Kim, A.J.; Ko, E	Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand	Journal of Business Research	2012	606	748	911
Cobbwalgren, C.J.; Ruble, C.A.; Donthu, N	Brand equity, brand preference, and purchase intention	Journal of Advertising	1995	468	593	708
Netemeyer, R.G.; Krishnan, B; Pullig, C; Wang, G.P.; Yagci, M; Dean, D; Ricks, J; Wirth, F	Developing and validating measures of facets of customer-based brand equity	Journal of Business Research	2004	480	554	670
Dawar, N; Pillutla, M.M.	Impact of product-harm crises on brand equity: The moderating role of consumer expectations	Journal of Marketing Research	2000	430	486	590
Chen, Y.S.	The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust	Journal of Business Ethics	2010	423	465	581
Lassar, W., Mittal, B., Sharma, A.	Measuring customer-based brand equity	Journal of Consumer Marketing	1995	+	567	567
Erdem, T; Swait, J; Valenzuela, A	Brands as signals: A cross-country validation study	Journal of Marketing	2006	397	456	548
Ailawadi, K.L.; Lehmann, D.R.; Neslin, S.A.	Revenue premium as an outcome measure of brand equity	Journal of Marketing	2003	390	479	536
Hoeffler, S; Keller, K.L.	Building brand equity through corporate societal marketing	Journal of Public Policy & Marketing	2002	367	414	527
Pappu, R; Quester, P.G.; Cooksey, R.W.	Consumer-based brand equity: improving the measurement - empirical evidence	Journal of Product & Brand Management	2005	350	426	524
Simon, C.J.; Sullivan, M.W.	The measurement and determinants of brand equity – a financial approach	Marketing Science	1993	523	*	523
Konecnik, M; Gartner, WC	Customer-based brand equity for a destination	Annals of Tourism Research	2007	359	375	471
Nam, J; Ekinci, Y; Whyatt, G	Brand equity, brand loyalty and consumer satisfaction	Annals of Tourism Research	2011	302	347	429
Srinivasan, S; Hanssens, D.M.	Marketing and Firm Value: Metrics, Methods, Findings, and Future Directions	Journal of Marketing Research	2009	312	349	417

Note: (+) No WoS coverage year; (*) No SCOPUS coverage year.

Source: The authors.

theme enjoyed high internal strength and high centrality, positioning itself as a motor theme. It was studied largely in relation to price (e.g., Kalra and Goodstein, 1998) and quality (e.g., Buchanan, Simmons, and Bickart, 1999), among other themes.

3.2.2. Growth period

In the second period (2000–2009), a broader range of themes is identified by the bibliometric analysis, notably “Product” (with 49 appearances), followed by “Quality” (46), “Brand” (32), “Customer (24), “Satisfaction” (15), “Firm” (14), and “Brand Awareness” (10).

Regarding the relative importance in terms of number of citations, in this second period, “Product” (6,488) and “Quality” (5,948) stand out in particular (see Fig. 5). Notably, “Product” becomes a motor theme here,

presenting high internal strength and a strong degree of interaction between thematic networks (centrality). That is, it progressed from being a complementary research topic of “Perception” in the first period to becoming a motor theme in its own right. It is related to other themes such as brand extensions (e.g., Martinez and Pina, 2009) or price (e.g., Ailawadi, Lehmann, and Neslin, 2003).

“Quality” also progressed, from being a complementary research theme to “Perception” in the first period to becoming a motor theme during the second period. It is primarily related to other themes, such as perception, loyalty, and model (e.g., Erdem, Keane, and Sun, 2008; Mitra and Golder, 2006).

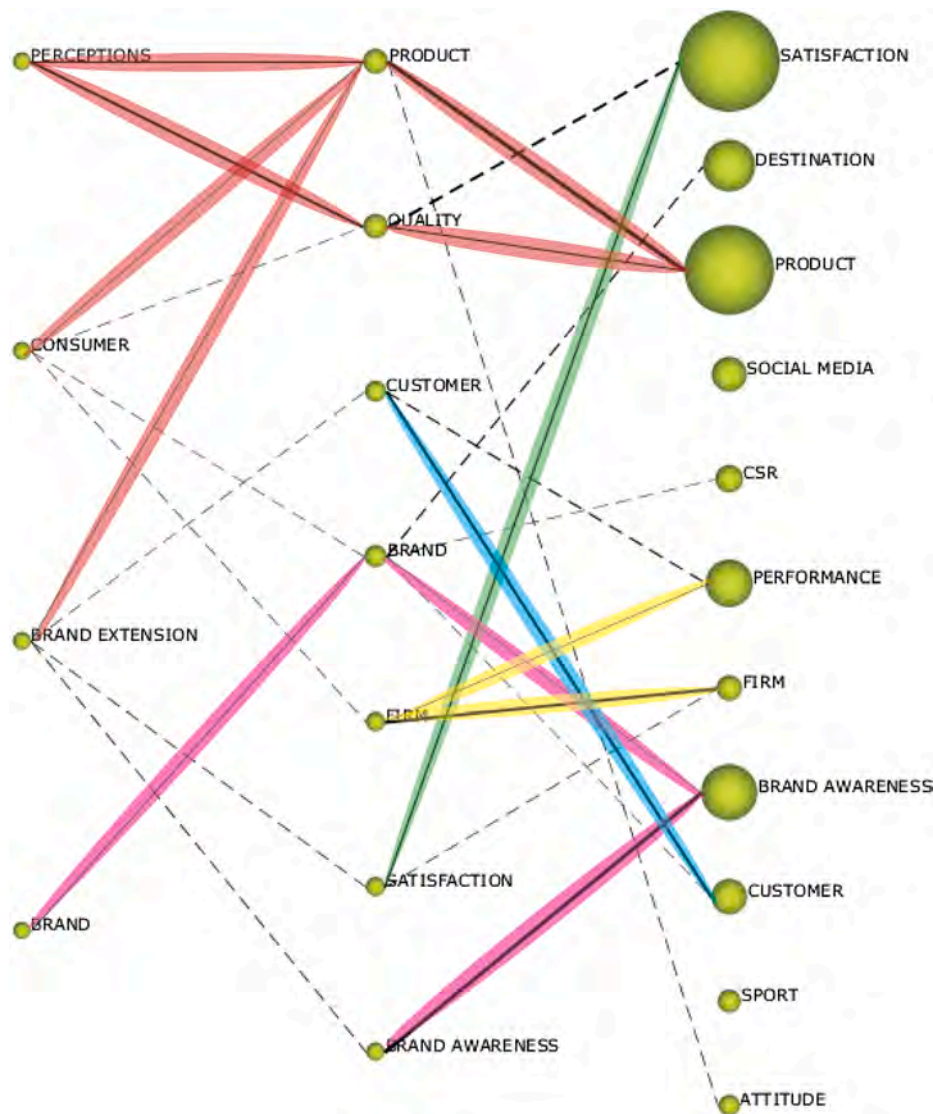


Fig. 3. Longitudinal evolution map. Source: The authors.

3.2.3. Period of expansion

The third period (2010–2019) witnessed a diversification of research topics, culminating in 11 primary themes mainly dealing with how to measure BE from the consumer perspective. This approach started in the 1990s, when scholarly interest in the purely financial perspective waned. In the last decade, various studies have applied the concept of CBBE in different sectors, adapting and proposing different dimensions and ways of measuring BE (e.g., Hsu, Oh, and Assaf, 2012; Sarker, Mohd-Any, and Kamarulzaman, 2019; Sürücü, Öztürk, Okumus, and Bilgihan, 2019), which reflects the lack of consensus regarding its conceptualization, dimensionality, and measurement (Londoño et al., 2016).

In this decade, the keyword with the highest incidence in terms of number of articles is “Satisfaction”, making 481 appearances. “Product” (416), “Brand Awareness” (225), “Destination” (201), “Performance” (172), “Customer” (109), and “Social Media” (105) each make between 100 and 400 appearances in the scientific literature. With fewer than 100 appearances, we find “CSR” (63), “Firm” (51), “Sport” (35), and “Attitude” (27).

Regarding the citations received by each of these research topics in this period (see Fig. 6), of particular note are “Satisfaction”, with 5,977 citations, and “Product”, with 5,910. “Satisfaction” has evolved consistently from the second analysis period, from being an emerging research topic to becoming the primary motor theme of the last decade, presenting high

internal strength and high centrality. Studies dealing with satisfaction in recent years have been related to loyalty (e.g., Nam, Ekinci, and Whyatt, 2011), perceptions (e.g., Spry et al., 2011), and satisfaction with the service (e.g., So and King, 2010).

“Product” is another motor theme in this third period, and here it is mainly related to different facets of the consumer, such as consumer satisfaction (e.g., Nam et al., 2011), the effect of social network marketing on consumer behavior (e.g., Godey et al., 2016), or quality (e.g., Sean Hyun and Kim, 2011). To a lesser extent, its thematic network draws on publications related to price, and information.

A third motor theme in this last period is “Destination”, which has generated vibrant interest in the field tourism, with numerous studies analyzing the CBBE of tourist destinations (e.g., Frías-Jamilena et al., 2017; Gartner and Ruzzier, 2011; Rodríguez-Molina, Frías-Jamilena, Del Barrio-García, and Castañeda-García, 2019) and destination image (e.g., Bianchi et al., 2014).

“Brand Awareness” has mostly been researched in relation to the other dimensions of CBBE, such as brand loyalty or brand associations (e.g., Christodoulides et al., 2015; Im, Kim, Elliot, and Han, 2012) or its impact on CBBE (e.g., Huang and Sarigöllü, 2014; Jara and Cliquet, 2012). Also in this third period, we note the presence of several research topics or groups of keywords that are set to become possible emerging topics for future research related to BE, such as “Sport” and “Attitude”.

Table 5
Performance of themes by periods.

Periods	Theme	Number of articles	Number of citations	H-index
1990–1999	Perceptions	8	5,455	7
	Consumer	7	2,152	7
	Brand Extension	8	318	7
2000–2009	Brand	3	298	3
	Product	49	6,488	33
	Quality	46	5,948	32
	Customer	24	1,397	17
	Brand	32	2,770	23
	Firm	14	949	8
	Satisfaction	15	1,182	14
	Brand Awareness	10	1122	8
2010–2019	Satisfaction	481	5,977	37
	Destination	201	2,550	27
	Product	416	5,910	39
	Social Media	105	1,733	18
	CSR	63	1,154	17
	Performance	172	2,816	26
	Firm	51	655	13
	Brand	225	1,966	23
	Brand Awareness			
	Customer	109	1,577	19
	Sport	35	137	7
	Attitude	27	437	10

Source: The authors.

By contrast, the theme of “Firm” appears to be in decline, having changed position and no longer featuring in the “highly-developed theme” quadrant. This may be due to the fact that, in the 1990s, scholarly attention on the consumer-based perspective began to grow, thanks to the works of Aaker (1991, 1996) and Keller (1993, 2003), and this interest heightened even more in subsequent decades as the financial perspective became less prominent. Academic articles applying CBBE to different products and industries have grown in number (Tasci, 2020), while the themes based mainly on consumer perception have diversified, as the results show.

In short, these results demonstrate the connection between BE and other scientific fields such as tourism, CSR, or sport, highlighting the historical evolution of academic research on BE.

3.3. Bibliographic coupling

Finally, to answer RQ6, VOSviewer was used to mitigate the potential downsides of co-word analysis by providing a representation of the present-day research field (as recommended by Donthu et al., 2021a). This step helps achieve a richer and deeper understanding of the recent literature on a given topic (based on a narrower and more current time period) to determine the orientation of the most recent contributions to the research field (Andersen, 2019; Vogel and Guttel, 2013). Fig. 7 shows the bibliographic coupling network of the BE topic for the last five years (similar to those provided by other studies on different topics, such as Andersen, 2019, and Donthu et al., 2021b). The nodes symbolize articles while the links between them represent bibliographic couplings. For this analysis, we drew on 1,293 articles published between 2015 and 2019, and one can observe three main clusters that dominate recent BE

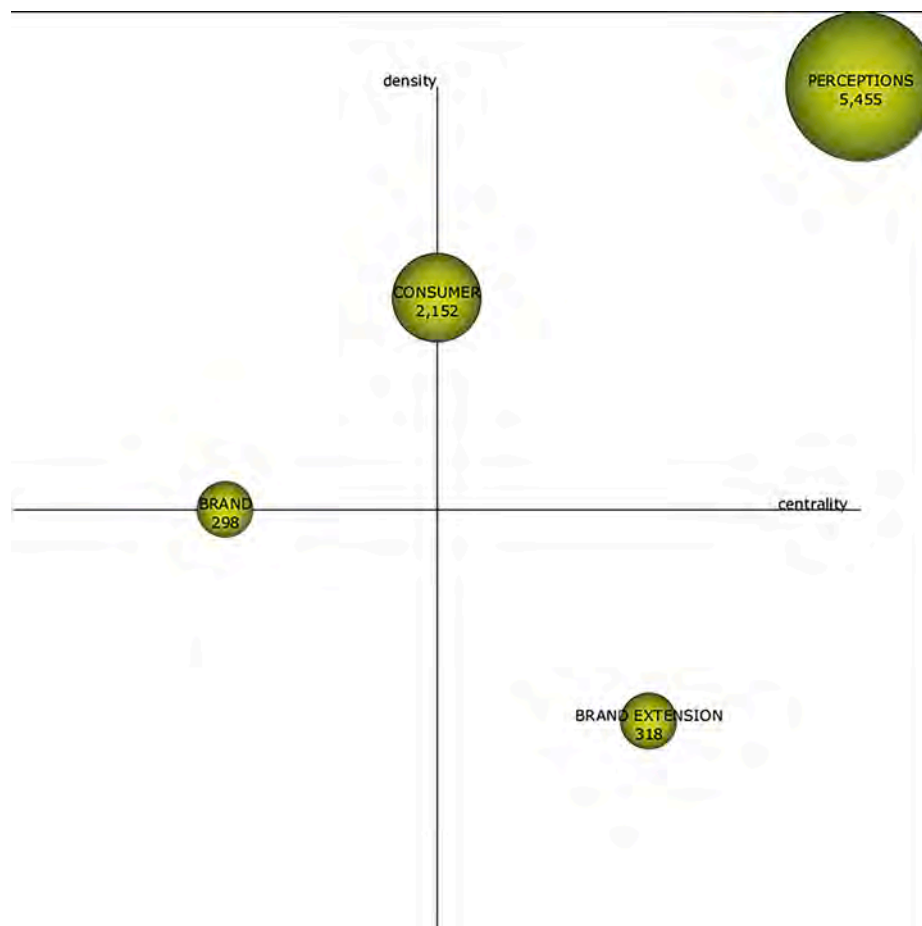


Fig. 4. Strategic diagram for the period 1990–1999. Source: The authors.

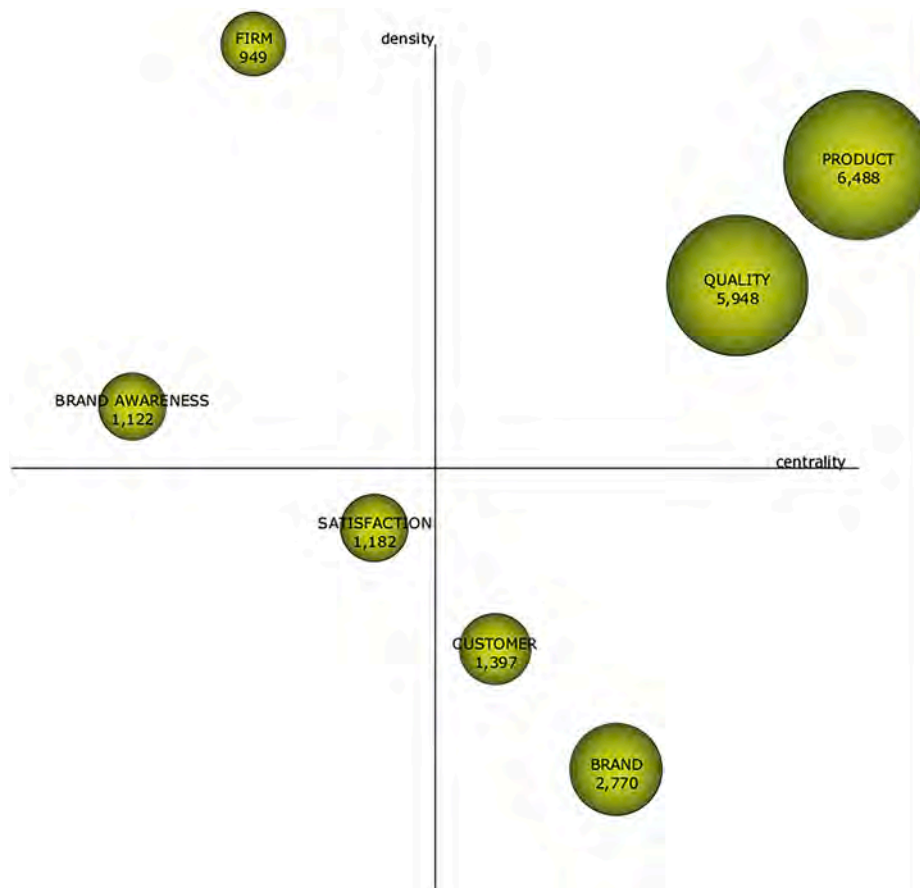


Fig. 5. Strategic diagram for the period 2000–2009. Source: The authors.

research.

Cluster 1, in red, consists of articles that attempt to conceptualize and measure BE in different domains, such as the international sphere (e.g., Christodoulides et al., 2015; Davcik et al., 2015), retail (e.g., Londoño et al., 2016), and fashion and sportswear (e.g., Su and Chang, 2018; Su and Tong, 2015), and to analyze its determinants (e.g., Girard et al., 2017), including from a cultural perspective (e.g., Chatzipanagiotou et al., 2019; Filieri et al., 2019). Cluster 1, then, shows that there is no definitive scholarly consensus on the dimensions, relationships, or measures of CBBE (Tasci, 2020). Therefore, this first cluster could be labeled “Conceptualization and measurement of BE”.

Cluster 2, in blue, can be referred to as “Tourism research”. This cluster presents a high degree of cohesion in terms of the themes explored in the different studies, which focus mainly on tourist destinations (e.g., Frías-Jamilena et al., 2017; Yang, Liu, and Li, 2015), long-haul markets (e.g., Pike and Bianchi, 2016), the wine tourism sector (e.g., Gómez, Lopez and Molina, 2015), or measuring the BE determinants of tourist destinations (e.g., Frias-Jamilena et al., 2020).

Cluster 3, in yellow, is of lesser importance, although it is closely related to Cluster 2. It is mainly focused on a more specific area of the tourism sector, namely, “Hospitality and restaurants”. Here we find studies dealing with restaurants (e.g., Han, Nguyen and Lee, 2015; Lu, Gursoy, and Lu, 2015) or the hotel sector (e.g., González-Mansilla et al., 2019; Seric et al., 2018). Articles centering on leisure, such as events, also appear here (e.g., Llopis-Amorós et al., 2018).

Cluster 4, which we can call “Corporate and experience”, includes articles focused on corporate variables and how these affect BE, its various dimensions, and the consumer experience. Articles in this cluster, in particular, focus on corporate image and reputation (e.g., Heineberg, Ozkaya, and Taube, 2018), CSR (e.g., Muniz et al., 2019), or the consumer experience (e.g., Iglesias et al., 2019a).

The results of a bibliographic coupling and a co-word analysis would typically be expected to broadly align. However, in this case, the co-word analysis presents research themes that do not appear as a cluster in the bibliometric coupling results. That is, the two analyses only coincide to a certain extent, with “Destination” as the motor theme of the period and “CSR” as a highly developed theme.

4. Main conclusions

Bibliometric studies provide an overview of past, present, and future research, identifying possible emerging research topics. The present research is pioneering in that it provides the first bibliometric study, based on co-word analysis and bibliographic coupling, of a topic of extensive interest in the marketing literature—namely, BE—and shows the evolution of research on this topic over the last three decades. With regard to RQ1, the analysis conducted here shows that the research on BE has expanded both in volume and in scientific impact, as evidenced by the growing number of articles published on this theme. It is now considered an essential topic in the marketing literature (Del Barrio-García and Prados-Peña, 2019), with 4,979 authors publishing 2,730 articles across a 30-year period, 2,092 of which appeared in the last decade.

RQ3 and RQ4 were concerned with identifying the authors and publications with the greatest impact in the field. Our data analysis reveals a degree of heterogeneity in terms of scientific output, based on the number of publications and citations. We can observe that there are certain authors with a smaller number of articles on this subject that have nevertheless achieved a significant impact in terms of citations (e.g., S.S. Tax, B. Yoo, and D.A. Aaker), compared to other authors with a greater number of publications but less scientific impact (e.g., I. Gil-Saura or M. Šerić). This may be due, in part, to the length of time that

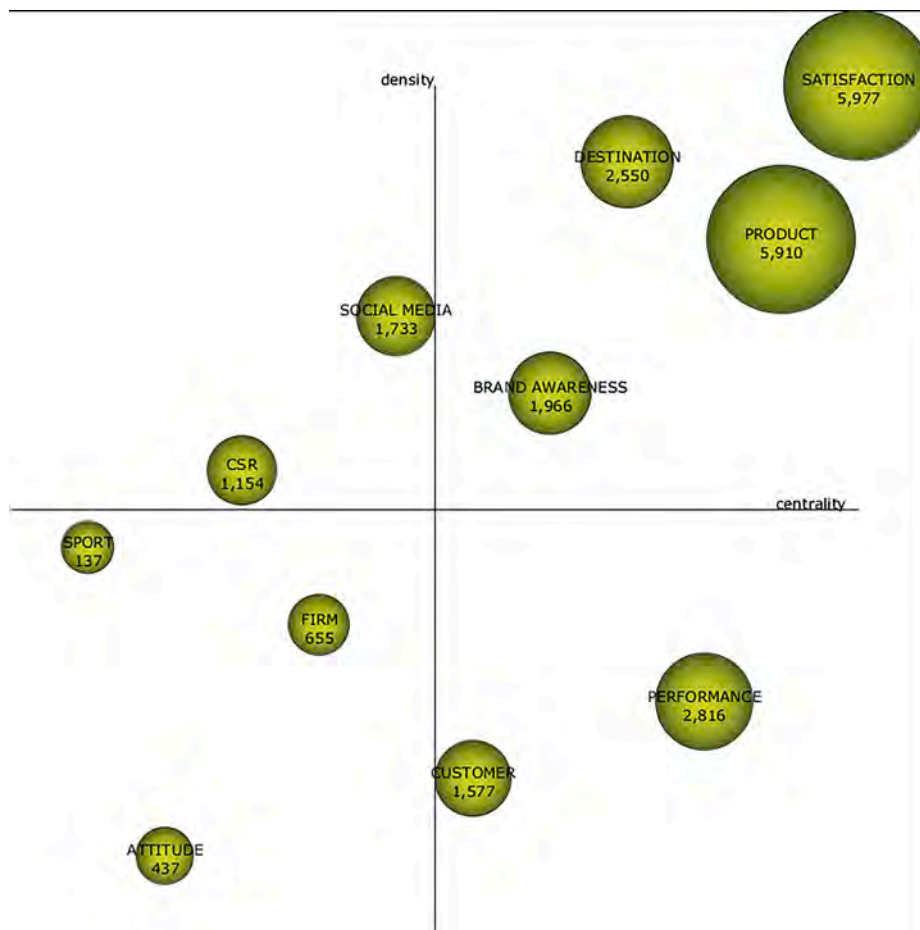


Fig. 6. Strategic diagram for the period 2010–2019. Source: The authors.

has passed since the publication, such as is the case with the seminal works of Aaker and Keller, but it is especially related to the journal in which the articles were published (e.g., *Journal of Marketing*, *Journal of the Academy of Marketing Science*, *California Management Review*, *Journal of Business Research*).

Related to this point and turning to RQ2, if we analyze the journals with the highest number of articles on BE, we find that the *Journal of Marketing* (5 articles) and the *Journal of Business Research* (3) are the ones with the most articles of the 25 most-cited articles in this area (Ailawadi et al., 2003; Erdem et al., 2006; Keller, 1993; Kim and Ko, 2012; Netemeyer et al., 2004; Park et al., 2010; Tax et al., 1998; Yoo and Donthu, 2001). It is also striking that those journals in the top 25 (those that have published the most articles on this topic during the last three decades)—namely, *Journal of Product and Brand Management*, *Journal of Business Research*, and *Journal of Brand Management*—have continued to maintain that privileged position in the last 5 years. This points to the on-going interest of the journals’ editorial boards in this topic. That said, there are also other journals that account for many of the articles published in the total sample analyzed that have greatly reduced the amount of articles published on BE in recent years. Among these are *Industrial Marketing Management*, *Journal of Marketing Research*, and *Journal of Marketing*. By contrast, other journals of a more specialized nature, such as *International Journal of Contemporary Hospitality Management*, *Sustainability*, and *Journal of Destination Marketing and Management*, have been highly receptive to articles on this topic, which indicates a changing trend, toward research themes with a more diverse outlook—such as, for example, tourist destinations, which has become one of the motor themes of the last decade, as deduced from the bibliographic coupling and co-word analysis.

As noted by Tasci (2020), BE is considered a primary indicator of business success in different industries. It is therefore vital for academia to identify the principal research themes (including the emerging and motor themes) related to this topic from the last few decades. The present analysis extracts a series of diagrams representing the key research themes that have arisen throughout each of the decades studied (1990–1999, 2000–2009, and 2010–2019), as well as their longitudinal evolution.

This research contributes to the literature by presenting the temporal evolution of BE research over three decades, revealing the most important BE-related themes of each period. Using the co-word analysis method to respond to RQ5, we can observe that the diversification of research themes has grown in line with the number of scientific articles. Although BE has been investigated from several perspectives, the financial lens was used mainly in earlier studies, in the 1980s and 1990s (e.g., Blattberg and Wisniewski, 1989; Farquhar, 1989; Kamakura and Russell, 1993). Indeed, it was not until 1990 that the first articles were indexed in the WoS database and Scopus. In this first decade, the perspective based on consumer perceptions began to receive greater scholarly attention thanks to the contributions of Aaker (1991) and Keller (1993), who proposed CBBE as a construct that captured consumers’ cognitive, affective, and conative responses to firms’ branding activities. This observation is reflected in the results and in the strategic diagram pertaining to this first period, whose motor themes are “Perceptions” and “Consumer”.

The second decade witnessed a diversification of research themes related to BE, and here the consumer perspective became consolidated. This decade also saw a proliferation of articles proposing research models featuring different dimensions and measurement scales for the

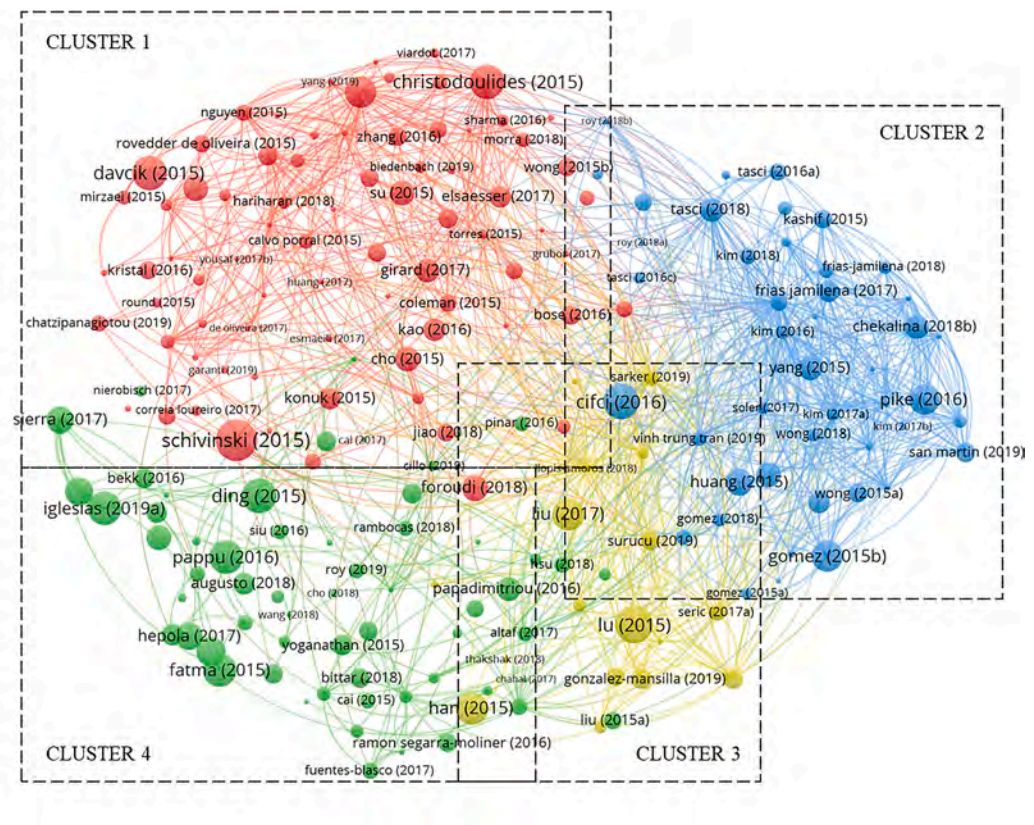


Fig. 7. Results of bibliographic coupling analysis. Source: The authors.

construct (e.g., Yoo and Donthu, 2001a), with “Customer” becoming a basic and transversal theme during this second decade. Meanwhile, “Product” and “Quality” became a motor theme in relation to quality, brand extensions, and price (e.g., Ailawadi et al., 2003; Netemeyer et al., 2004; Yoo and Donthu, 2001a).

In more recent years (the third period, from 2010 to 2019), the themes have become even more diversified. Studies dealing with tourism and satisfaction have become consolidated in this decade, with the concept of BE being adapted to tourist destinations and hospitality (e.g., Del Barrio-García and Prados-Peña, 2019; Pike et al., 2010; Rodríguez-Molina et al., 2019) and satisfaction with services (e.g., So and King, 2010), among other facets. “Product”, once again, has been a notable motor theme, in terms of both number of articles and citations. This is due to the adaptation of CBBE to different product brands and industries, and also its study in relation to consumer behavior and satisfaction (e.g., Cleeren, Van Heerde, and Dekimpe, 2013; Godey et al., 2016; Nam et al., 2011) and quality (e.g., Sean Hyun and Kim, 2011).

RQ6 sought to shed light on the predominant research themes related to BE in recent years. Our co-word analysis highlighted some emerging topics in this field of study, such as “Sports” and “Attitudes” (e.g., Ahn, Park, and Hyun, 2018; Biscaia et al., 2016; Martínez and Pina, 2010; Wang, Cheng, Purwanto, and Erimurti, 2011). As these may become motor themes in the future, researchers may want to take these topics into account when planning the direction of their future studies. In this regard, of particular note is the new trend toward areas such as tourism, satisfaction, social conscience, and CSR. Our analysis of longitudinal evolution shows that there are some themes—such as “Social Media”, and “Sport”—that appear in the last decade without having developed any apparent trajectory over the preceding decades, and these could constitute very interesting lines of research to develop in the near future.

These more recent themes largely coincide with the results of the bibliographic coupling, which shows the grouping of 1,293 articles published between 2015 and 2019 into four clusters: “Conceptualization

and measurement of BE”, “Tourism”, “Hospitality and Restaurants”, and “Corporate and experience”. Clusters 2 and 3 focused mainly on the tourism domain, while cluster 4 centered on corporate issues such as CSR oriented to customer satisfaction, thus confirming the current state of the art and highlighting potential lines of research for the future. We recommend the following areas for future development in particular:

- Sports: Given that the sports market is estimated to generate 2021 revenues of \$77.88 billion in the United States alone (PWC, 2019), future studies might address this theme to assess the BE of different sports teams or sponsoring companies (the latter from the perspective of sponsorship or merchandising) (e.g., Tsordia, Papadimitriou, and Parganas, 2018).
- Social Media: Another widely developed theme, but one that is also applicable to future research, is that of social networks. With almost half of the world’s population being social media users as of 2020 (3.6 billion), it is estimated that this will increase to 4.41 billion by 2025 (Statistica, 2020). The continuous emergence of new social media networks creates new opportunities for companies to raise consumer awareness of their products and maintain contact with their target markets. Therefore, we believe this theme should be further explored in relation to the BE of companies in different industries (e.g., Godey et al., 2016; Seo and Park, 2018) or even that of social networks themselves (e.g., Dwivedi et al., 2019).
- Tourism: Tourism, and especially tourist destinations, feature prominently in the results of this study as motor themes in BE over the past decade. The conceptualization of destination-based CBBE and its measurement have been studied extensively in recent literature (e.g., Frías-Jamilena et al., 2017; Pike and Bianchi, 2016). However, its prominent position as both a motor theme in the most recent period and as a cluster in its own right, according to the bibliographic coupling analysis, seems to indicate that this topic still has potential for further research. In addition, the adverse

circumstances brought about by the COVID-19 pandemic have radically changed the global tourism landscape, causing lasting negative effects on this industry (Škare, Soriano, and Porada-Rochoń, 2021). It is therefore necessary to investigate BE in tourism in this radically-changed operating environment.

- Hospitality and restaurants: Research on the hospitality industry, including restaurants, has grown significantly in recent years. However, although there are several studies that apply the BE concept to the restaurant and hotel sector, it needs to be applied to different types of such establishments (Rodríguez-López et al., 2020), especially in the context of the “new normal” brought about by the COVID-19 pandemic, which is affecting this industry worldwide.
- CSR and experience: In recent years, literature has highlighted the importance of delivering unique and memorable brand experiences that help strengthen the consumer–brand relationship (Khan and Fatma, 2017). The continued rise in competition and the dynamism of markets have caused brands to increasingly turn to experiential marketing in search of ways to promote customer engagement and achieve a stable competitive position in the market (Yu et al., 2021). In this context, there are several studies that endeavor to understand the relationship between consumer experience and BE (e.g., Hepola, Karjaluoto, and Hintikka, 2017; Iglesias et al., 2019a), although future studies should enhance this line of research by analyzing the effect of experience on BE in various sectors. Meanwhile, CSR is becoming an essential element among wider business strategies because consumers are increasingly socially aware (and more demanding in this regard). Hence, firms that respond to this demand by investing their efforts in CSR enjoy a competitive advantage over those rivals that opt not to prioritize CSR actions (Guzman and Davis, 2017). This is because we live in a hyperconnected environment in which customers have greater access to information and can thus find out about business behaviors (Iglesias, Markovic, Singh, and Sierra, 2019b). Here, further research on CSR business practices is required, to measure their effect on the BE of different brands and categories of products and services.

In contrast to these more recent themes, in the early years of development of BE as a scholarly topic, our research points to other themes that generated great interest in the literature (such as “Firm”), yet have ceased to be of major interest to researchers. This is clearly related to the evolution of the concept itself, toward a more customer-centric perspective and away from the more financial perspective.

In short, this research is the first systematic quantitative analysis of BE research that applies a bibliometric approach using co-word analysis and science mapping to all the articles published in the last 30 years and indexed in the core collection of the WoS database and Scopus. The work details the structure of scientific knowledge on the BE concept as a research topic (past, present, and potential future), which is of great interest to scholars in helping to shape their research focus.

5. Limitations and future research

Like all scientific research, our work presents a series of limitations that are important to note. First of all, our study focuses exclusively on scientific articles published in the last three decades and indexed in WoS and Scopus. Although these databases include those journals with the greatest scientific impact in the different knowledge disciplines (Muñoz-Leiva et al., 2015), beyond WoS and Scopus there are also other academic journals on marketing and branding that have published scientific articles on BE that we did not include in the present analysis. To overcome this limitation, we propose that future studies also draw on other scientific databases such as Google Scholar in order to gather the knowledge accumulated in those journals not indexed in WoS and Scopus.

A second limitation of our work is that we focused solely on scientific articles—that is, we did not include other types of scientific publications

in our analysis that feature in different databases, such as conference proceedings, books, or book chapters. These types of publications could also be added in future works, although they do present the challenge that, in many cases, they may not be subject to the double-blind peer review system that guarantees a certain standard of scientific quality. Or they may subsequently be published in the form of academic articles, thus introducing the potential for repetition, which could skew the results.

A further limitation relates to the application of the method itself, which can lead to the elimination of research topics with marginal importance depending on the parameters used to reduce and homogenize the data and extract the themes that constitute the results of the study.

Regarding potential future research deriving from this paper, in addition to including other types of publications such as conference proceedings, book chapters, or other types sourced via Google Scholar, other bibliometric techniques, such as co-authorship analysis, could be employed. This approach enables the interactions between authors and their affiliations to be analyzed, thus providing insights into how academics interact with each other through co-authorship based on shared interests in the field of research (Donthu et al., 2021a).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Álvaro J. Rojas-Lamorena is a Predoctoral Fellow in the Department of Marketing and Market Research, at the Faculty of Education, Economy and Technology of Ceuta, University of Granada (Spain). His areas of interest to research are Brand Management, Cross-Cultural Marketing, Consumers' Attitudes and Television Marketing. He has taken part in international conferences.

Salvador Del Barrio-García has a Ph.D. in Business Administration from University of Granada (Spain). He is a Full Professor of Marketing and Market Research Department at this University. His areas of specialization are the Integrated Marketing Communication (IMC), online consumer behavior, cross-cultural communication and tourism marketing. He has published various peer-reviewed papers in prestigious journals such as Journal of Interactive Marketing, Journal of Travel Research, International Journal of Advertising, Journal of Advertising Research, Computers in Human Behavior, European Journal of Marketing, among others.

Juan Miguel Alcántara-Pilar is Associate Professor of Marketing at University of Granada (Spain) at the Faculty of Education, Economy and Technology of Ceuta. His areas of specialization are Marketing Online, Cross-Cultural Marketing, Language Effect on Consumer Behavior and Behaviors in Multi-Racial Communities. He has published several books as co-author on these matters. He has also published various peer-reviewed papers in prestigious journals such as Cross Cultural Management: An International Journal, Computers in Human Behavior, Tourism & Business Studies and International Journal of Business and Economics, among others.