



Value co-creation: Concept and contexts of application and study[☆]



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ARTICLE INFO

Article history:

Received 1 February 2015

Received in revised form 1 July 2015

Accepted 1 September 2015

Available online 17 November 2015

Keywords:

Co-creation

Bibliometric analysis

Fields of application

Contexts of study

ABSTRACT

This study aims to identify the main perspectives and contexts of the usage of the term co-creation of value in business and management existing in the Web of Knowledge database. To do so, a bibliometric analysis identifies the articles that other authors cite the most, their citations, and co-citations, thus enabling the definition of networks of authors and journals along with their respective similarity (clusters). Content analysis enables the characterization of the clusters through the grouping of shared words and the respective content. The results suggest that out of the diverse approaches and fields that study co-creation, its logic as a driver of business innovation, the development of new products and services, the experience of consumers of brands and in co-creation processes are particularly prominent alongside co-creation as the foundation stone for market relationships. These results also show some gaps in the literature that need further research.

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1. Introduction

Value co-creation is not only a key concept within service marketing and business management (Saarijärvi, Kannan, & Kuusela, 2013), but also a term that commonly describes a shift in considering organization as a definer of value to a more participative process in which people and organizations together generate and develop meaning (Ind & Coates, 2013).

Norman and Ramírez (1993) report that the definition of value creation should no longer be a process taking place during manufacturing but something that customers govern in their own consumption context (Grönroos, 2008; Vargo & Lusch, 2004; Vargo & Lusch, 2008a). According to the S-D logic (Vargo & Lusch, 2004) the creation of value now results from a joint production process involving both the company and the customer (Prahalad & Ramaswamy, 2004a; Prahalad & Ramaswamy, 2004b). In this new approach, the suppliers apply their knowledge and capacities to the production and branding of a product or service and the customers apply their knowledge and capacities to the daily usage of that product or service (Vargo, Maglio, & Akaka, 2008). A product or service thereby incorporates value through its actual usage (value-in-use) rather than through its sale price (value-in-exchange) (Vargo & Lusch, 2006), and hence only the end-beneficiary determines such value (Vargo & Lusch, 2008a).

[☆] The authors thank the Portuguese Science Foundation (PEst-OE/EGE/UI0403/2014) for funding through NECE: Research Unit in Business Sciences.

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Despite researchers' consensus on the more active role of the customer and the subjective and procedural nature of value, no consensus exists on the definition of the concept and the processes inherent to that concept. As Saarijärvi et al. (2013) state, 'value' 'co' and 'creation' may refer to different types of value (for the company or the customer) through different processes (B2C, B2B, C2B or C2C) and with different actors (the company and/or the customer).

In this context, this study presents a systematic perspective on the usage of the term co-creation of value aiming to identify what value, and value for whom authors are referring to when they use the term co-creation in business and management literature. The present study thus seeks to contribute to a better systematization of the literature through analyzing usage of the co-creation of value term within the scope of management articles; hence allowing the identification of the most prominent areas of the term usage as well as the identification of areas lacking research.

2. Approaches to the co-creation of value

The co-creation of value first appears as a concept in the business management literature in Prahalad and Ramaswamy's (2004a) article, although these same authors in an earlier article (2000) make reference to the different roles that consumers and suppliers play in the marketplace through mutual collaboration reaching beyond the traditional system of prices.

Following this first debut in the literature, there is a large amount of research on co-creation from different perspectives. Scholars approach co-creation from a service-science perspective within the

scope of service theory, innovation studies (Galvagno & Dalli, 2014; Saarijärvi et al., 2013), many-to-many marketing, post-modern marketing (Saarijärvi et al., 2013), and consumer culture theory. The concept of co-creation of value is changing the focus of approaches from some specific fields of marketing such as business marketing, experiential marketing, communication, and branding (Galvagno & Dalli, 2014).

From the S-D logic perspective, the service, rather than the products, should be the fundamental unit of exchange because services and products represent the only means to convey the service and to enable customers to benefit from the competences of the company (Vargo & Lusch, 2004; Vargo et al., 2008). Co-creation represents a fundamental component of this logic because collaboration allows markets to get supplies and to generate benefits (Vargo & Lusch, 2004). Vargo (2009) correspondingly maintains that within this logic, all economies become service economies, all social and economic actors become integrators of resources with operant resources the basis of competitive advantage. Indeed, companies cannot provide value but only proposals of value with the customer always participating as a co-creator of value. Hence, in the service-science approach to co-creation, co-creation occurs whenever the resources of one system integrate with those available in other service systems, contributing to overall systemic well-being (Vargo et al., 2008), and portraying these service systems as configurations of value comprising people, technology, and propositions of value. This approach complements the S-D-logic approach with a more macro perspective on co-creation that focuses on understanding how co-creation takes place between different service systems.

The service-logic perspective, in turn, focuses on the distinction between a customer service logic and that of a service supplier (Grönroos, 2008, 2011). In this perspective, customers prove responsible for creating value by combining their resources with those of the supplier within the scope of their daily activities and their value-creation processes. Hence, suppliers co-create value whenever customers allow them to interact and participate in their value-creation activities (Grönroos, 2006a, 2006b; Grönroos, 2008).

The many-to-many marketing perspective highlights the role of customer networks, emphasizes the importance of actors diversity and, for example, the inclusion of intermediaries, employees, neighbors and society in general in the co-creation of value (Saarijärvi et al., 2013). The perspective of innovation and the development of new products and services correspondingly emphasizes the importance of co-creation as a source of innovation (Bogers, Afuah, & Bastian, 2010).

The post-modern marketing perspective of co-creation focuses on the interventionist role of consumers in the design and provision of supplies for the market, defining consumers as prosumers (Bendapudi & Leone, 2003). Finally, the perspective of consumer-culture theory conceives co-creation as a means for attaining symbolic and cultural values in connection with the supply of the market, enabling consumers to achieve their projects and goals.

This description of the different approaches to the co-creation of value suggests that diverse fields and perspectives deploy co-creation enhancing different aspects. Some perspectives give more relevance to firms' value (S-D Logic), some to the process of how value develops (service science, service logic, many-to-many marketing) and other to customers' value (post-modern marketing and consumer-culture theory). However, this study aims to ascertain which of these approaches receives the greatest attention in recent research. Therefore, the analysis of the citations and co-citations, explores the most prominent fields of application alongside the authors, their articles, and journals that attain the highest profile in the literature on co-creation. The study provides a systematization of the literature on the co-creation of value within the scope of the management field, thus contributing to the development of this field of study by providing a more robust research foundation.

3. Method and data

3.1. Method

To attain the objectives set, a bibliometric analysis helps to identify the articles that this type of study cites the most. Bibliometric analysis represents the methodological approach that scholars universally apply for evaluating the research undertaken in any particular field (Mutschke, Mayr, Schaefer, & Sure, 2011).

This analysis also extends to the authors of the co-citations and to the journals appearing in articles on co-creation, thus enabling the definition of networks of authors and journals along with their respective clusters. The analysis calculates the geographic location of authors regarding both country and institution alongside the number of publications.

For the graphical mapping of items, a multidimensional scaling allows the creation of a two-dimensional graph that depicts the co-citation connections among articles. In this graph, the points that meet at the origin of the reference points represent articles with connections to other articles with different approaches and with a set of rather heterogeneous quotations. After the multidimensional scaling, a hierarchical cluster analysis provided groups of related articles in distinct sets, each representing a dominant theoretical line of research.

3.2. Data

This study uses data from the following indices: Science Citation Index Expanded (1900–present), Social Sciences Citation Index (1956–present), Arts & Humanities Citation Index (1975–present), Conference Proceedings Citation Index - Science (1990–present), Conference Proceedings Citation Index - Social Science & Humanities (1990–present). These data appear in the online Thomson/Reuters-ISI database, which contains thousands of academic publications and bibliographic information on authors, their affiliations and citations. The research took place in December 2014 through recourse to the Web of Science™ Core Collection database, without any chronological filter, and applying the following research terms: “co-creation” and “cocreation” in the title, abstract, or keywords in articles appearing within the scientific fields of “Business”, “Management”, “Operations Research Management Science,” and “Economics.” This procedure guaranteed that the articles dealt with the topic under analysis. This research step resulted in 426 articles with dates of publication ranging from 1998 (1 article) to 2015 (1 article).

4. Results

4.1. Chronological growth and the co-citation network

Fig. 1 sets out the annual trends in the publication numbers of the authors. The annual publication average comes in at 2011.6 ± 2.3 , highlighting that the research field under study is still undergoing a maturing phase. The database lists only two articles on this theme until the 2000. From 2003 onwards, article publications appear every year, although only after 2007 does an exponential increase in article publications begin to emerge. From 2010, the number of articles soars with each year, reaching to 40 articles or more.

Regarding citations, the 426 articles feature an average of 10.8 ± 23.0 citations. No articles cited 137 of those articles (32.2%), whereas citations range from one to five for 130 articles (30.5%). Table 1 presents the 20 most-cited articles and citations per year.

After narrowing down the initial sample of 426 articles to those articles containing at least twenty citations, the final sample comprises 62 articles. Each of this 62 article set contains no less than 10 citations and 2202 articles cite at least one of these articles. Correspondingly, the study analyzes co-citation in 62 articles. The size of the sample is 56 articles because six articles do not contain any co-citations. Co-

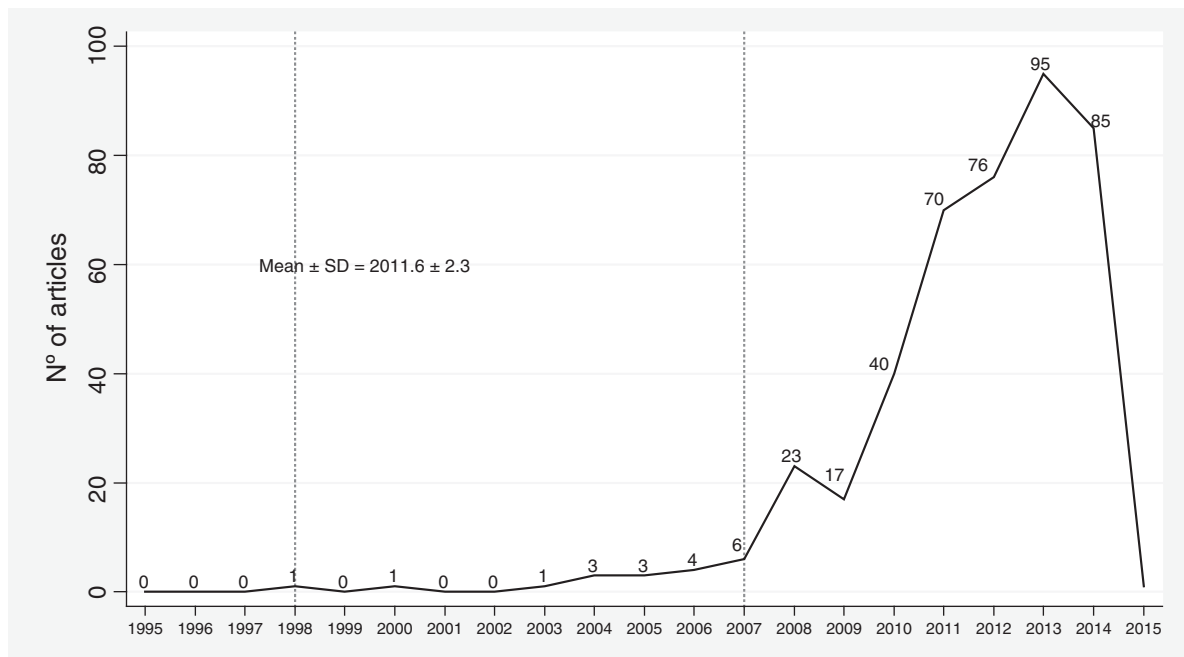


Fig. 1. Number of articles by year of publication.

citation analysis serves to group the 56 articles into clusters (Table 2), resulting in four clusters.

Content analysis, through recourse to NVivo, shows the characterization of the clusters according to content and the words these articles share. Fig. 2 depicts the clusters according to the most common words appearing in the articles following the elimination of the words common to various clusters such as service, co-creation, customer, and consumer.

As Fig. 2 shows, in terms of content, cluster 1 envisages co-creation as a business logic, including articles focusing on a service logic as the logic of business innovation. Within this market logic, exchange occurs to access resources that have potential value (Chandler & Vargo, 2011). In this exchange, actors integrate operant resources (capacities and knowledge) that drive results of value through co-creation processes (Fyrberg & Juriado, 2009; Zhang & Chen, 2008). Hence, Ballantyne and

Varey (2008) refer to how services represent an appropriate logic to marketing and that services constitute the key piece to unifying any business relationship.

Despite the consensus among these authors on the need to define a service logic as a logic of business, the way in which the interaction takes place, and where and when value creation occurs, is not completely clear. For example, Chandler and Vargo (2011) conceptualize the exchange of services across diverse different levels, the micro (actor to actor), meso (triads of actors that make both direct and indirect exchanges) and macro (systems of actors), which determine the proceedings of the exchange and thus, how the actors integrate the resources. Depending on the context, resources may or may not hold value to a specific actor; therefore, the context influences the co-creation of value. Fyrberg and Juriado (2009) state that this exchange occurs in networks and is the basis for the process of co-creation. Hence, a system-

Table 1

Articles that the co-creation field cites the most (position in parenthesis).

Article	Total citations	Article	Average citations by year
Payne, Storbacka, & Frow (2008)	251 (1)	Payne et al. (2008)	35.9 (1)
Ostrom et al. (2010)	167 (2)	Ostrom et al. (2010)	33.4 (2)
Sheth et al. (2000)	138 (3)	Vargo and Lusch (2011)	21.5 (3)
Spohrer and Maglio (2008)	137 (4)	Spohrer and Maglio (2008)	19.6 (4)
Thrift (2006)	96 (5)	Edvardsson et al. (2011)	14.5 (5)
Spohrer and Maglio (2008)	89 (6)	Van Doorn et al. (2010)	14.0 (6)
Matthing et al. (2004)	88 (7)	Chandler and Vargo (2011)	13.8 (7)
Vargo and Lusch (2011)	86 (8)	Bogers et al. (2010)	12.8 (8)
Cova and Salle (2008)	79 (9)	Spohrer and Maglio (2008)	12.7 (9)
Etgar (2008)	76 (10)	Grönroos (2011)	12.3 (10)
Van Doorn et al. (2010)	70 (11)	Hoyer, Chandy, Dorotic, Krafft, and Singh (2010)	12.0 (11)
Bogers et al. (2010)	64 (12)	Lee et al. (2012)	11.7 (12)
Hoyer et al. (2010)	60 (13)	Cova and Salle (2008)	11.3 (13)
Nambisan and Baron (2007)	59 (14)	Zwass (2010)	11.0 (14)
Edvardsson et al. (2011)	58 (15)	Etgar (2008)	10.9 (15)
Chandler and Vargo (2011)	55 (16)	Thrift (2006)	10.7 (16)
Zwass (2010)	55 (16)	Grönroos and Ravalid (2011)	10.5 (17)
Nambisan and Baron (2009)	55 (16)	Grönroos and Voima (2013)	10.5 (17)
Kozinets et al. (2008)	55 (16)	Brodie et al. (2011)	10.3 (19)
Cova and Dallı (2009)	54 (20)	Sheth et al. (2000)	9.2 (20)

Table 2
Groups resulting from cluster analysis of the co-citations on the co-creation of value.

Cluster 1 – Co-creation as a business logic	Cluster 2 – Co-creation and new product/service development
Ballantyne and Varey (2008)	Bolton and Saxena-Iyer (2009)
Chandler and Vargo (2011)	Kohler et al. (2009)
Edvardsson et al. (2011)	Hoyer et al. (2010)
Fyrberg and Juriado (2009)	Potts et al. (2008)
George and Bock (2011)	Oliveira and von Hippel (2011)
Grönroos and Ravalid (2011)	Kristensson et al. (2008)
Grönroos and Voima (2013)	Shaw et al. (2011)
Grönroos (2011)	Kozinets et al. (2008)
Heinonen et al. (2010)	Brodie et al. (2011)
Lee et al. (2012)	Fueller (2010)
Spohrer and Maglio (2008)	Bogers et al. (2010)
Michel, Brown, and Gallan (2008a)	Witell et al. (2011)
Moller et al. (2008)	Fournier and Avery (2011)
Ng et al. (2009)	Cova and Dalli (2009)
Ostrom et al. (2010)	Matthing et al. (2004)
Payne et al. (2008)	Thrift (2006)
Spohrer and Maglio (2008)	Nambisan and Baron (2007)
Vargo and Lusch (2011)	Zwass (2010)
Vargo et al. (2008)	Nambisan and Baron (2009)
Zhang and Chen (2008)	Bonsu and Darmody (2008)
Cluster 3 – Co-creative experiences and loyalty	Cluster 4 – Co-creation and relationships
Etgar (2008)	Sheth et al. (2000)
Dong et al. (2008)	Cova and Salle (2008)
Liu (2007)	Cheung et al. (2010)
Xie, Bagozzi, & Troye (2008)	Payne et al. (2009)
Edvardsson et al. (2005)	Sharma and Sheth (2004)
Franke and Schreier (2008)	Pitelis and Teece (2010)
Norton et al. (2012)	Tynan et al. (2010)
Arnould (2005)	Pitelis and Teece (2009)

level approach is the best system to explain service science (Ng, Maull, & Yip, 2009; Vargo & Lusch, 2011). Edvardsson, Tronvoll, and Gruber (2011) refer to the need to understand the value in context. According to these authors, value is a social construction that changes according to social forces, that exists within social structures, and that may prove asymmetric to the authors depending on the respective social individual context.

According to Maglio and Spohrer (2007) and Spohrer and Maglio (2008), grasping the means of functioning of these co-creation systems represents the foundations for systematic innovation in the service sector because this knowledge would enable the design, improvement, and scaled implementation of service systems. Lee, Olson, and Trimi (2012) even refer to how co-creation constitutes one of the cornerstones to the new innovation paradigm: co-innovation. Within this framework, authors in this cluster attempt to grasp the processes of creation and co-creation of value. Grönroos and Voima (2013) define value creation as stemming from consumers' usage of products and services in their daily lives, whereas co-creation of value takes place when an interaction between the company and the customer exists. Thus, three spheres of action exist: the customer sphere, the joint customer and company sphere, and the supplier sphere. Payne et al. (2008) designate these same processes as the processes of customer value creation, processes of supplier value creation, and processes of encounter. According to Grönroos (2011) and Grönroos and Ravalid (2011), the customer does not co-create with the company but rather a company co-creates with a customer when the latter allows such cooperation; hence, a customer-based logic results. Companies understanding the experiences of customers and the value-in-use represent a point of departure for defining the business logic (Heinonen et al., 2010). Business logic implies a change in the conception of the attributes of this value-in-use, from produced operands to embedded operands, and from a company-based perspective to a perspective focusing on the customer and enabling innovative discontinuities (Michel, Brown, & Gallan, 2008b). Suppliers that incorporate the experience and the

capacities of customers in the co-creation of services will prove stronger in the future (Moller, Rajala, & Westerlund, 2008). Ostrom et al. (2010) identify these questions as research priorities.

Cluster 2 (Fig. 2), co-creation and development of new products/services, incorporates articles that approach co-creation as a source of knowledge for innovation in new-product and service development (Bogers et al., 2010; Fueller, 2010; Kristensson, Matthing, & Johansson, 2008; Kohler, Matzler, & Fueller, 2009; Kozinets, Hemetsberger, & Schau, 2008; Matthing, Sanden, & Edvardsson, 2004; Oliveira & Von Hippel, 2011; Potts et al., 2008; Shaw, Bailey, & Williams, 2011; Thrift, 2006; and Witell, Kristensson, Gustafsson, & Löfgren, 2011). Bogers et al. (2010) refer to how users as innovators may be the final consumers, the companies, or the intermediary consumers. A large majority of these articles (Kozinets et al., 2008; Nambisan & Baron, 2007; Nambisan & Baron, 2009; Kohler et al., 2009; and Fueller, 2010) explore the facet of innovation in the virtual world, where technologies facilitate the participation and involvement of the consumer in the co-creation of value.

Witell et al. (2011) refer to how co-creation creation activities such as the means of innovation relate not only to co-creation during consumption (co-creation for usage) but also co-creation during the process of innovation (co-creation for others), with this co-creation implying acting as a creator of ideas with value in context. In a similar fashion, Zwass (2010) refers to the co-creation of value as a form of innovation occurring not only in company-sponsored activities but also in autonomous co-creation activities, in which individuals and communities voluntarily produce activities of value even if the support of such activities is the platform that company provides.

Cova and Dalli (2009) refer to the new role of the consumer in these processes as the concept of consumer–employee and consider consumers to be the main sources of value and, as such, responsible for the creation of value. These new consumers are neither partners nor co-producers but rather workers in an intangible sense, whose work results in benefits for other consumers and, in a final instance, benefits for the market. Bonsu and Darmody (2008) point out that, although co-creative activities empower customers, these activities also ensnare customers in productive company activities. Conversely, Fournier and Avery (2011) argue that consumers decide if, and when, brands interact with them. Nambisan and Baron (2009) and Fueller (2010) identify how the involvement of consumers is also not completely neutral in interest, on the contrary, their participation stems from perceptions of the benefits consumers may obtain even when financial reasoning does not always drive these motivations. Simple feedback, recognition, or experience of the interaction may prove sufficient reward. According to Brodie, Hollebeek, Juric, and Ilic (2011), these interactive and co-creative experiences lie at the core of customer engagement; therefore, the emphasis should rest on conveying the result of the actual co-creation process itself and, more specifically, on the interactive process (Bolton & Saxena-Iyer, 2009; Nambisan & Baron, 2007).

Cluster 3 (Fig. 2), spanning co-creative experiences and loyalty, brings together a set of articles that approach the experience of consumer co-creation, especially regarding the co-production of services in accordance with Vargo and Lusch's (2006) perspective. This perspective distinguishes two components of co-creation: the value-in-use, in which actors create the value at consumption, and co-production, involving the participation of the consumer in the actual production of the service. These articles define the consumer as a Prosumer that integrates physical activities, mental effort, and socio-psychological experiences into the production of their own products (Xie et al., 2008).

According to Franke and Schreier (2008), consumers perceive products that they design as unique and therefore, correspondingly having an additional value that reaches beyond the esthetic and functional value of the products. Norton, Mochon, and Ariely (2012) term this idea the IKEA effect: assembling the products enables consumers to feel competent and show evidence of this competence in comparison



Fig. 2. Most cited words.

to products that they do not co-create. To leverage this effect, companies need to grasp the decision-making processes inherent to co-production activities, comprising diverse stages: the development phase of the conditions prior to participation, the development of motivations, calculation of the cost–benefits to co-production, activating involvement in co-production and, finally, the generation of results and the evaluation of process results (Etagar, 2008).

Edvardsson, Enquist, and Johnston (2005) point out that consumer participation can and should begin even before experiencing the service, defending that companies involve consumers in pre-purchase service experiences that may add co-created and personalized value, thus boosting this form of loyalty. In the same way, Dong, Evans, and Zou (2008) refer to how co-creation by consumers may also result in the recovery of a service. Hence, customer participation in restoring a service represents a clarification of the role of the customer, thus raising the future perceived value of co-creation, satisfaction with the recovery of the respective service, and heightening future co-creation intentions. The key to success and future loyalty involves grasping the co-creation experience of the consumer and perceiving how the company might use its resources to help consumers integrate their cultural resources into the extraction of value within the framework of project implementation (Arnould, 2005).

Finally, Cluster 4 (Fig. 2), co-creation and relationships, brings together a set of articles that focus on the relationships between companies and their customers, be they relationships among companies (B2B) or between a company and its final consumers (B2C), and on the design of these relationships to return resources and advantages that foster value. Cheung, Myers, and Mentzer (2010) state that co-creation of value occurs

among companies through relationships that develop. Cova and Salle (2008) approach the importance of involving in co-creation not only the actors within the network of suppliers but also those belonging to customer networks. For these authors, the co-creation of value with the customer network is the lacking edge in B2B suppliers.

In terms of B2C relationships, Payne, Storbacka, Frow, and Knox (2009) state that the experience of interrelating with the brand is important for co-creation and for managing the brand experience, highlighting the need for the company to underpin co-creative processes through emotionally supporting encounters, cognition-supporting encounters, and action-supporting encounters. The experience only ends up generating value when the parties get involved and make exchanges, when no separation exists between production and consumption (Tynan, McKechnie, & Chhuon, 2010). According to Sheth, Sisodia, and Sharma (2000) and Sharma and Sheth (2004), the core factor to marketing co-creation stems precisely from the interaction between the company and the customer.

In general, Pitelis and Teece (2009) and Pitelis and Teece (2010) detail how co-creation and the relationships companies establish in the market incorporate the very essence of the companies and explain companies' very reason for existence in demonstrating a capacity to leverage co-specialized and complementary assets.

4.2. Authors and citations

The results report 913 authors contributing to the 426 articles under study. In this academic group, those reporting the largest number of publications are Edvardsson, (13 articles), Vargo, (11 articles) and Fuller

(8 articles). The most-cited authors are Storbacka (319 citations), Vargo (249 citations) and Edvardsson (249 citations), with those returning the largest number of citations by article being Storbacka (63.8 citations per article), Brown (40.2 citations per article), and Gronroos (23.4 citations per article). Authors whose articles have the largest number of citations (Fig. 3) are Vargo and Lusch (2004) with 215 citations, Vargo and Lusch (2007) with 130 citations, Payne et al. (2008) with 90 citations, Prahalad and Ramaswamy (2004b) with 74 citations, and Prahalad and Ramaswamy (2000) with 61 citations, representing the core articles that the articles under study cite the most.

In the case of the 4989 sources appearing in the 426 articles under study, 26 have at least 100 citations, and the journals attaining the greatest frequency levels are: Journal of Marketing (1551 citations), Journal of Academy of Marketing Science (841 citations), Industrial Marketing Management (717 citations), Journal of Consumer Research (687 citations) and Harvard Business Review (498 citations).

5. Discussion and conclusion

This research study aims at clarifying the fields of application and study of the co-creation of value by analyzing the most-cited articles in the literature and hence, the articles with the greatest influence on this area of knowledge.

The analytical procedures underpin the conclusions that Maglio and Spohrer (2007); Ostrom et al. (2010); Payne et al. (2008); Sheth et al. (2000), and Thrift (2006) advance the field of knowledge mostly after 2007. Regarding authorship, the authors making the greatest contribution to this field of knowledge are Edvardsson, Vargo, and Fuller. The journals publishing the greatest number of articles on the co-creation of value are Industrial Marketing Management, the Journal of Service Management, and Marketing Theory. In terms of national origins, in descending order, the United States, the United Kingdom, Finland, Sweden, and Germany are the sources of the largest number of articles on this field.

The articles putting forward the core knowledge to this field, according to the number of citations they receive, are the works by Payne et al.

(2008); Prahalad and Ramaswamy (2000); Prahalad and Ramaswamy (2004a, 2004b); Vargo and Lusch (2004); Vargo and Lusch (2007).

The four clusters resulting from the analysis reflect different fields of application and approaches to studying co-creation. Cluster 1 relates to articles discussing the co-creation of value from a logic of business innovation. This cluster includes the approaches to the co-creation of value taking an S-D logic perspective, the services logic perspective, and the service science perspective. This cluster includes articles on the theory of co-creation that attempt to conceptualize and explain how co-creation takes place (micro, meso, macro; and social context, networks, and systems) and who actually co-creates (the consumer or the company). However, the results of the analysis of the articles that form this cluster suggest that many aspects of this business logic need further research. Although these articles try to systematize how co-creation happens from a theoretical viewpoint, a need exists for a better understanding, for example, on how companies should organize themselves to allow value co-creation, what resources companies need in order to boost co-creation, and what mechanisms companies should implement to learn about consumers' value co-creation processes.

Another field of co-creation of value application and study involves innovation and the development of new products and services (Cluster 2) in which co-creation features as a source of innovative ideas among companies or among companies and consumers. These articles focus on how companies can enhance innovation while learning from the consumer. Studies also explore the co-creation of value by analyzing and understanding loyalty and the experiences of consumers, correspondingly approaching the circumstances surrounding experiencing brands. Such is the case of the articles featuring in Cluster 3, with co-creation appearing before and during service provision, and even after service delivery. This cluster thus applies the post-modern marketing perspective that approaches the role of the consumer as a prosumer. Articles within this cluster convey the idea that helping customers to achieve greater value leads to loyalty. A need exists for further research on this idea to understand what strategies are better to support consumers' value-creation processes and to achieve customers' loyalty. Other studies report the absence of a linear relationship between

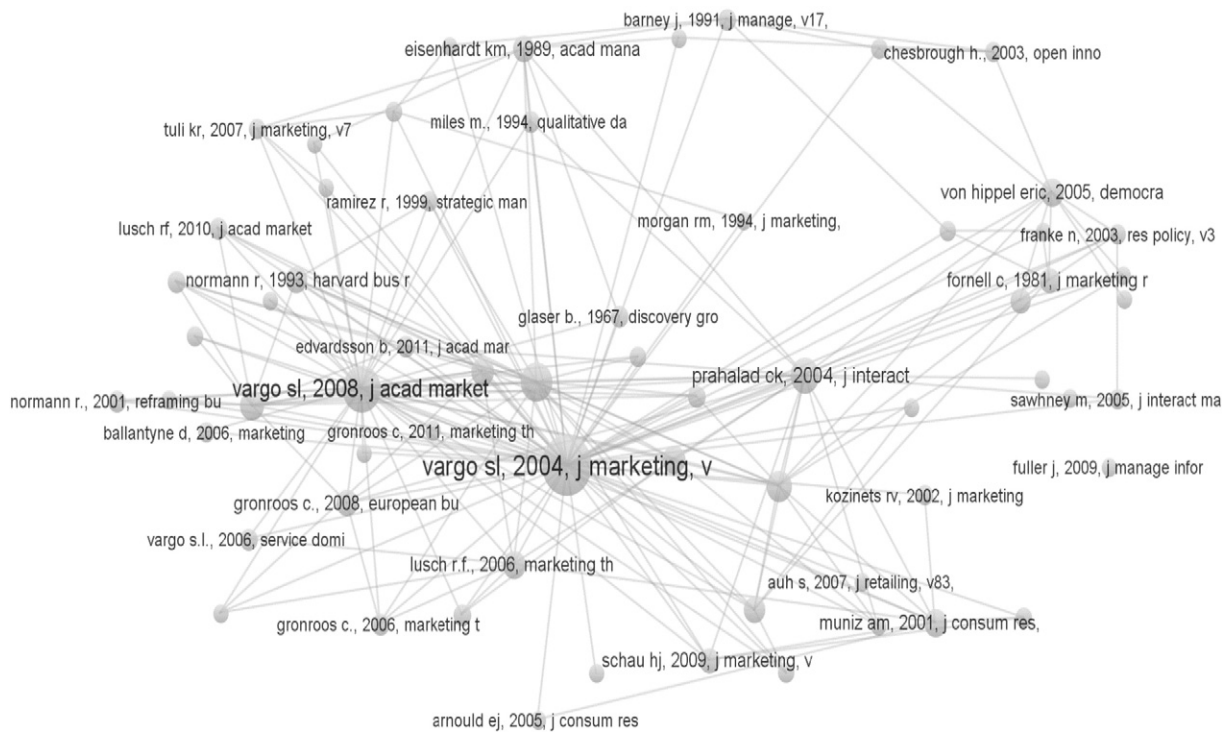


Fig. 3. Network of references appearing in the 426 articles.

customer satisfaction and loyalty; however, more research may help to understand the nature of the relationship between greater value and loyalty.

Finally, results show that research exists on the co-creation of value in the field of relational marketing (Cluster 4) again focusing on both companies and consumers and on how these relations enable companies to obtain resources and advantages that create value. This cluster includes perspectives such as the many-to-many marketing model. Therefore, future research should focus on understanding, for instance, how consumers interact among them to create value or even on understanding what kind of resources customers need to carry out these processes.

In conclusion, out of the diverse approaches and fields in which co-creation studies exist, (1) co-creation's logic as a driver of business innovation, (2) the development of new products and services, (3) the experience of consumers in co-creation processes, and (4) consumers' experiences of brands are gaining particular prominence, and have co-creation as the foundation stone for market relationships. However, the analysis also identifies some gaps of the literature that need further research.

6. Limitations and future lines of research

Despite the limitations inherent to any research project, this study holds important implications for the field of value co-creation in that this study analyzes co-citation data and incorporates a quantitative approach, which enables the mapping of scientific publications and intellectual structure, thereby tracing the research trends in relation to theories on co-creation. Clearly, various issues remain open to future analysis. Especially interesting would be examining the most recent publications and correspondingly those receiving less citations, which this study excludes, to identify and/or define alternative groups of theories. Implementing alternative methods may also complement the results. Hence, future studies should consider alternative analytical approaches, for example, looking exclusively at journals of marketing and integrating specific analyses of the most recent references. These and other alternative methodological approaches may further enrich the understanding of the research on co-creation and the connections existing between the various universities, and academic and theoretical perspectives.

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