



**HAL**  
open science

## What can we learn from marketers? A bibliometric analysis of the marketing literature on business model research

Raphaël Maucuer, Alexandre Renaud, Sébastien Ronteau, Laurent Muzellec

### ► To cite this version:

Raphaël Maucuer, Alexandre Renaud, Sébastien Ronteau, Laurent Muzellec. What can we learn from marketers? A bibliometric analysis of the marketing literature on business model research. Long Range Planning, 2022, 55 (5), pp.102219. 10.1016/j.lrp.2022.102219 . hal-03718522

**HAL Id: hal-03718522**

**<https://hal.science/hal-03718522>**

Submitted on 22 Jul 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial 4.0 International License

# What can we learn from marketers? A bibliometric analysis of the marketing literature on business model research

**Raphaël Maucuer, ESSCA School of Management**

55 Quai Le Gallo, 92100 Boulogne-Billancourt, France, [raphael.maucuer@essca.fr](mailto:raphael.maucuer@essca.fr)  
+33 6 58 24 82 76 (corresponding author)

**Alexandre Renaud, EM Normandie**

64 Rue du Ranelagh, 75016 Paris, France, [arenaud@em-normandie.fr](mailto:arenaud@em-normandie.fr)

**Sébastien Ronteau, Audencia Business School**

8 Route de la Jonelière, 44312 Nantes, [sronteau@audencia.com](mailto:sronteau@audencia.com)

**Laurent Muzellec, Trinity Business School**

Luce Hall, Pearse St, Dublin 2, D02 H308, Ireland, [laurent.muzellec@tcd.ie](mailto:laurent.muzellec@tcd.ie)

# What can we learn from marketers?

## A bibliometric analysis of the marketing literature on business model research

### **ABSTRACT**

Strategic management has extensively contributed to the development of business model research. Although marketing concepts (e.g., customers, value creation, delivery, and exchange) form an essential part of any business model description, from an academic standpoint, the strategy literature has been slow to incorporate contributions from the marketing literature on business model research. Drawing on mixed bibliometric techniques combining co-citation analysis (CCA) and bibliographic coupling analysis (BCA), we seek to fill this gap by exploring the origins and trends of business model research in marketing journals (285 articles published in 38 marketing journals). The CCA reveals three theoretical pillars labelled 'business model rationale in marketing', 'business model conceptual origins', and 'business model literature developments' that provide a consistent base for cross-fertilization. The BCA uncovers eight conversations organized into two research streams, namely 'holistic perspective' and 'downstream perspective'. Considering these results, we discuss the partial appropriation of marketing issues by strategists and propose a three-pronged research agenda based on consumer data as a major source of competitive advantage.

**Keywords:** business model research; marketing discipline; downstream; demand-side; customer-centric; bibliometrics.

## 1. INTRODUCTION

Studies of business models constitute a flourishing research domain, which emerged in the early 2000s to provide an alternative to traditional strategy theories. The business model is commonly defined as a new unit of analysis, centered on activities, seeking to explain how value is created and captured by a firm (Zott, Amit, & Massa, 2011) and delivered to its stakeholders (Casadesus-Masanell & Ricart, 2010).

Originally fueled by various disciplines (Zott et al., 2011) such as strategic management, entrepreneurship, and innovation (Budler, Župič, & Trkman, 2021; Foss & Saebi, 2017), the business model literature reached maturity in 2011 (Maucuer & Renaud, 2019). At that time, only eight marketing articles on business models had been published (Coombes & Nicholson, 2013), whereas other disciplines churned out hundreds of them. This disparity is surprising, considering the conceptual proximity between marketing and business model concepts (Ehret, Kashiap, & Wirtz, 2013) and the potential of the marketing discipline to make a distinctive contribution to business model research (Gatignon, Lecocq, Pauwels, & Sorescu, 2017).

The American Marketing Association (AMA, 2017) defines marketing as the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that are valuable for customers (Ringold & Weitz, 2007; Sheth & Uslay, 2007), partners, and society at large (Gundlach & Wilkie, 2009, 2010). The centrality of value creation and delivery in both marketing and business model literatures induces a significant synergy (Coombes & Nicholson, 2013), while business model typologies regularly include components that relate to core marketing activities (Ehret et al., 2013).

The potential of marketing to contribute to the business model literature has already been recognized. It may contribute to greater understanding of the antecedents of business model innovation, the role of customers in business model design, and the impact of (new) business models on industry dynamics (Gatignon et al., 2017). For instance, marketing metrics

(e.g., customer satisfaction and customer lifetime/value), methods (e.g., surveys, digital data), and concepts (e.g., value-in-use) could help operationalize and evaluate the business model performance (Ehret et al., 2013). In the context of new generations of business models built on digital business models (Verhoef & Bijmolt, 2019), platforms (Muzellec, Ronteau, & Lambkin, 2015), digital technologies (Paiola & Gebauer, 2020), and/or data (Erevelles, Fukawa, & Swayne, 2016), marketing provides a fine-grained analysis of customers and users' behaviors, which are relatively overlooked by strategists.

Since 2013, the considerable development of the concept has required an updated and exhaustive literature review. Drawing on bibliometrics, this study aims at analyzing the contribution of the marketing business model literature to the strategic management field. Initially developed by Garfield (1963) and de Solla Price (1965), bibliometrics is an alternative to the traditional qualitative and interpretive approach to literature reviews (Bandara, Furtmueller, Gorbacheva, Miskon, & Beekhuyzen, 2015; Okoli, 2015). Utilizing quantitative tools and techniques, it helps researchers analyze large sets of scientific publications. Through the identification of citation patterns (Arnott & Pervan, 2012), bibliometric methods provide greater objectivity concerning the classification of publications related to a particular research field (Župič & Čater, 2015). They complement the traditional approach by adding the 'quantitative bones' of the statistical analysis of aggregated bibliometric data to the interpretive 'qualitative flesh' embodying the researchers' subjectivity (Tarrow, 1995).

Following the mixed bibliometric framework proposed by Walsh and Renaud (2017), we combined descriptive statistical analysis, co-citation analysis (CCA), and bibliographic coupling analysis (BCA) to answer the following three research questions: What is the level of development of the marketing business model literature? (RQ1) To answer this question, we analyzed the volume and nature of this body of literature. Second, does the marketing business model literature share a conceptual commonality with the strategic management discipline?

(RQ2) CCA is a relevant approach that can be used to identify the theoretical pillars of a corpus of research. Third, what are the current research streams of the marketing business model literature? (RQ3) A BCA may help identify potential specific areas of interest. Taking on these three research questions enabled us to assess the contribution of the marketing business model literature to the strategic management one.

This in-depth literature analysis offers an unprecedented understanding of the specific contribution of marketing to business model research and of the dynamics within the business model literature at large. It suggests that the marketing business model literature is a key contributor to the field as its presence has rapidly increased over the past decade in several high-impact journals and provides a fertile ground for scientific conversations. Second, it is fully compatible with the strategic management literature as its theoretical pillars are mostly grounded in the legacy of the classical business model perspective. Finally, it is composed of eight thematic conversations anchored in marketing traditions, organized into two main research streams that offer a productive basis of inspiration for strategic management scholars.

In the following section, we detail why and how mixed bibliometric analyses can be used to unveil further fundamental contributions of the marketing literature on business models. The results of these analyses on the origins and trends of business model research in marketing are then presented. The CCA revealed three clusters that represent the origins of business model research in marketing, while the BCA identified eight research areas that structure the marketing business model literature. The discussion explores how the marketing literature could influence and nurture future research on business models in the field of strategy.

## **2. METHODOLOGY**

### **2.1. A MIXED BIBLIOMETRIC ANALYSIS**

Co-citation analysis (Garfield, 1979; Small, 1973) is one of the most common bibliographic techniques used in management sciences. It was designed to investigate the

rationale for the development and legitimization of a discipline, research domain, or concept. The main purpose of the method is to analyze the patterns of citations in a set of scientific publications, considering that two documents are co-cited by a third when the latter simultaneously cites them (Small, 1973). It relies on two assumptions: the citational repetition of two articles demonstrates their complementarity (Callon, Courtial, & Penan, 1993), and researchers who co-cite the same references share the same representation and perspectives of their research domain (Small, 1973). Hence, the similarity between two references in each area of scholarship is measured by their frequency of co-citation (McCain, 1990).

Bibliographic coupling analysis (Kessler, 1963) arouses increasing interest in management studies. It seeks to identify ‘the research front’ (Jarneving, 2005) of a specific scientific literature as groups of documents that illustrate its current research themes/trends. The method posits that the higher the number of common references between two documents, the closer the two units are. Therefore, the similarity between two articles is due to their overlapping bibliographies, and the number of shared references determines the BCA index.

Only a few researchers have conducted mixed bibliometric analyses even though they are a powerful method for enhancing literature reviews (Walsh & Renaud, 2017); CCA provides a retrospective perspective through the analysis of the cited references and the identification of the foundations of a field, while BCA focuses on the current and emerging trends.

## **2.2. DATA COLLECTION**

This paper aims to analyze all the articles published in marketing journals that address the business model concept. Among the available databases, we opted for Scopus as it offers a better balance between ease of interface usage, completeness, and cleanness of the retrieved data (Mariani & Borghi, 2019).

The data collection and cleaning follow a three-step process. First, we retrieved 478 papers published before September 2021 in 76 marketing journals in the ABS ranking list that cite 'business model' in their title, abstract, or keywords. Then, we excluded 193 non-core articles (i.e., articles that do not cite any business model reference) that did not address the relevant scientific discussion. Thus, we obtained a first order sample composed of 285 articles that cited 15,157 single references (see Figure 1). Finally, as Scopus provides raw data, we cleaned the database to obtain a homogeneous list of formatted citations to ensure analysis accuracy and robustness.

**[Insert Figure 1]**

### **2.3. DATA PROCESSING**

The methodological workflows of BCA and CCA are similar: first, the second-order sample is defined, after which the proximity between pairs of documents is computed using the CCA/BCA index and methods of normalization; finally, the results are clustered and visualized. For both methods, we processed the bibliographic data on VOSviewer 1.6.10 (van Eck & Waltman, 2011; Waltman, van Eck, & Noyons, 2010). This freeware manages every step of the analysis and enables researchers to make choices pertaining to thresholds, normalization methods, and clustering parameters.

#### **Co-citation Analysis**

The CCA begins with the identification of the 'intellectual core' (Noma, 1984), namely the most cited references in the research corpus (see Figure 1). As it is almost impossible to analyze thousands of references, it is necessary to focus on the most relevant ones, by considering citation frequencies. The main difficulty is to set a threshold to identify references belonging to the intellectual core. Next, researchers need to determine the intellectual core by trial and error (Renaud, Walsh, & Kalika, 2016), striking a balance between the mathematical rigor of statistics and an extended interpretive perspective (de Solla Price, 1965). A large



intellectual core increases the exhaustiveness of both the analysis and the statistical noise, which might blur some important features. The average size of the intellectual core in the existing literature incorporates 30–50 articles. In this study, we tested three thresholds involving two criteria: the citation rate of the reference in the first-order sample and the size of the intellectual core obtained (see Table 1). We analyzed and compared the results obtained using the three thresholds and found that the threshold of 20 citations offers a good balance between exhaustiveness and sense.

### **[Insert Table 1]**

The second stage of a CCA involves data processing. From the co-citation frequencies, we built a square symmetric matrix, the raw co-citation matrix. The treatment of the raw co-citation matrix raises a fierce debate among the researchers involved in bibliometrics. Some authors consider the raw matrix self-sufficient for the analysis (Ahlgren, Jarneving, & Rousseau, 2003; Leydesdorff & Vaughan, 2006), while others believe that raw co-citation indexes are subject to a scale effect (Fernandez-Alles & Ramos-Rodríguez, 2009) and that the null frequencies distort the statistical treatment (Rowlands, 1999). Therefore, the co-citation matrix must be normalized. The association strength, integrated into the VOSviewer software, is the most reliable proximity measure (van Eck & Waltman, 2009).

The third and final stage of a CCA is the visualization of the results. Bibliometric research has been conducted to combine the techniques of factor analysis and multidimensional scaling (MDS) (Di Stefano, Peteraf, & Verona, 2010) to identify and visualize the ‘invisible colleges’, namely the groups of co-cited documents that share the same concern, theoretical bases, or methodological approach (Crane, 1972; de Solla Price, 1965; Noma, 1984). The use of these statistical tools has gradually declined with the emergence of network analysis visualization tools (van Eck, Waltman, Dekker, & van den Berg, 2010; Župič & Čater, 2015)

along with clustering techniques. For instance, VOSviewer produces graph-based maps and a clustering system that is based on the Leiden algorithm (Traag, Waltman, & van Eck, 2019).

### **Bibliographic Coupling Analysis**

In BCA, the literature should be relatively homogeneous to facilitate the identification of the research front. The more consistent the sample is, the more common references it has, and the easier the analysis is. To define the second-order sample composed of 267 articles (see Figure 1), we excluded 18 general literature reviews and editorials from the analysis due to their specific citation patterns. The former tends to cite an excessive number of references, while the latter tends to cite a few but mainstream ones. Both these cases could create artificial proximities with most of the other references and affect the quality of the BCA outcomes.

Regarding a large sample size, Župič and Čater assert that ‘identifying which documents are more important than others is a challenge when undertaking bibliographic coupling’ (2015: p. 434). According to Walsh and Renaud (2017), one way to manage this complexity is to reduce the dataset by restricting the analysis to the most inter-related articles (i.e., the articles having the largest number of bibliographic coupling links). Following this recommendation, we developed an interpretive research design based on a step-by-step and recursive analysis of the 267 articles selected (see Figure 2).

### **[Insert Figure 2]**

We started the analysis on the 50 most connected articles. We double-coded the abstracts of the articles comprising the clusters given by the BCA. We identified four main themes (i.e., ‘business model dynamic’, ‘servitization’, ‘market configuration’, and ‘societal issues’). Next, we reprocessed the analysis with the 100 most connected articles; previous conversations were confirmed, and new ones emerged, namely ‘retail’ and ‘business model and Internet of Things’ (IoT). According to these new categories, we reconsidered the previous

coding. We followed this iterative and recursive process until we had analyzed all 267 articles and stabilized the coding for the eight conversations.

After this first round, we independently coded titles, abstracts, and, if necessary, full texts to specify the subthemes in each conversation. Subsequently, we addressed the codes and discussed them to consolidate the labels. Some subthemes common to several conversations were linked together. For instance, the subtheme ‘business model innovation’ was common to the conversations ‘business model dynamics’, ‘societal issue’, and ‘business model and IoT’. The set of links formed a consistent network of interconnected conversations. The codes are synthesized in Table 2.

**[Insert Table 2]**

### **3. RESULTS**

#### **3.1. EXPLORING THE MATURITY OF MARKETING BUSINESS MODEL RESEARCH**

Business model research in marketing has grown exponentially from 106 publications between 1991 and 2011 to almost 500 in 2020 (purple curve in Figure 3). Among them, we distinguish *core articles* that cite the business model literature (red curve) from *non-core articles* that use the term ‘business model’ as an a-theoretical concept (blue curve).

**[Insert Figure 3]**

We notice that the blue curve, representing non-core articles, increases steadily over the whole period while the red curve, representing core articles, increases exponentially over the last decade. Whereas the number of annual publications from 1991 to 2010 was relatively low and grew slowly (not more than 7 core articles a year), the trend shows a quick growth from 2011 (with almost 40 core articles per year over the last 3 years and 81 core articles in 2021, a number that is expected to increase). As of 2019, the number of core articles exceed the number of non-core articles.

The start of this quick growth corresponds to the publication of influential literature reviews by Coombes and Nicholson (2013) and Ehret et al. (2013). This justifies the need for a new in-depth analysis of the current literature as the number of articles that deal purely with business models has almost quintupled (+230 articles) since then. These articles are now the main contributors to the business model literature in marketing, and we expect this trend to grow over the next decade.

We identified the 30 most influential business model articles published in marketing journals (see Table 3) by considering two indicators: the raw and normalized numbers of citation. We computed a normalized citation count following Walsh and Kalika (2018), i.e., the raw number of citations in one article divided by the average number of citations of all articles published in the same year. For instance, a normalized citation weight of 5 would indicate that an article is cited five times more than average. As it reduces the temporal scale effect, the normalized citation index enables the consideration of articles published during the last period as impactful. The great diversity of authors and publications with relatively similar impact on the literature is striking.

**[Insert Table 3]**

A total of 681 authors contributed to the core business model marketing literature since 2000. Among them, only 15% have published more than once. The authors who have contributed the most are Vinit Parida from Luleå University of Technology (10 articles), followed by Marko Kohtamäki from University of Vaasa (9 articles), and Kaj Storbacka from Hanken School of Economics and Joakim Wincent from Luleå University of Technology (5 articles each). It is worth noting that all of them represent Scandinavian universities.

The growing interest in the business model concept has been supported by 38 marketing journals, though their contribution to the literature is fragmented. However, almost two thirds of the articles (198 out of 285 – see Table 4) have been published in the *Journal of Business*

*Research* (JBR – 95 or 33%), *Industrial Marketing Management* (IMM – 66 or 23%), and *Journal of Business and Industrial Marketing* (JBIM – 37 or 13%). The remaining 31% are published in journals with fewer than 10 publications. Articles published in the *Journal of Business Research* and in *Industrial Marketing Management* are particularly influential as they have been highly cited (raw and normalized). In other words, these journals particularly facilitated the scientific discussion on business models in marketing over the last decades, and they are nowadays the reference media for publishing business model-oriented marketing research and disseminating it across the wider business model community.

**[Insert Table 4]**

### **Insights from the descriptive analysis**

After a relative slow take-off, this literature has grown rapidly over the last decade and has reached a critical mass of publication comparable to other major disciplines dealing with the business model concept (Maucuer & Renaud, 2019). This growth has attracted many marketing journals and scholars. We identified that this dynamic has been supported by three highly impactful journals that offer a forum for the development of this conversation. Consequently, the marketing business model literature has reached sufficient maturity and can be considered a credible contributor.

### **3.2. EXPLORING THE THEORETICAL PILLARS OF MARKETING BUSINESS MODEL RESEARCH**

By virtue of the CCA, we identified the intellectual core (see Appendix A), namely the set of references on which the business model literature in the marketing discipline is based. The intellectual core is composed of 36 references (see Table 5), published between 1989 and 2018. Among them, 34 refer to articles published in 19 scientific journals, and the remaining 2 refer to books. We noted that most of these articles are published in high-impact factor journals. Several authors contributed to different documents of the intellectual core such as Christoph

Zott from IESE Business School, Raphael Amit from the Wharton School University of Pennsylvania, or David Teece from Berkeley.

**[Insert Table 5]**

The main insight obtained from the intellectual core is that the business model literature in marketing is anchored in different scientific backgrounds. The scientific origins of these references show that 6 are published in marketing journals (17%), 11 (30%) in the strategic management discipline, 5 (14%) in the innovation and entrepreneurship disciplinary legacy, and finally 14 (39%) are published in other scientific journals (10 articles in general management, 1 in information systems, 1 organization studies, and 1 in social sciences) and in a method-oriented book.

This invisible college is composed of three theoretical pillars (see Figure 4) labelled as follows: business model rationale in marketing (Cluster 1), business model conceptual origins (Cluster 2), and business model literature developments (Cluster 3).

**[Insert Figure 4]**

**Cluster 1: Business model rationale in marketing**

Cluster 1 comprises 10 references that justify the business model approach potential to deal with marketing-related issues. The business model covers the upstream and downstream aspects of a business (Osterwalder & Pigneur, 2010), which is particularly relevant for transversal marketing topics such as the new dominant logic (Vargo & Lusch, 2004), servitisation (Oliva & Kallenberg, 2003), or customer–supplier relationships (Tuli, Kohli, & Bharadwaj, 2007). New technologies also encourage the development of more cross-functional approaches that link customer value to firm resources (Barney, 1991) and value creation to capture processes (Porter & Heppelmann, 2014). The cluster is also composed of methodological articles mobilized by researchers to explore business model–related issues

based on case studies (Dubois & Gadde, 2002; Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 1984).

### **Cluster 2: Business model conceptual origins**

Cluster 2 comprises 10 references that have contributed to the conceptualization of the business model in the contexts of established or entrepreneurial firms (Zott & Amit, 2007). It can be seen as a model of the sources of value creation (Amit & Zott, 2001) or as a story of how firms ‘make money’ (Magretta, 2002). The concept is intertwined with the firm strategy to provide ‘a heuristic logic that connects technical potential with the realization of economic value’ (Chesbrough & Rosenbloom, 2002: p. 529). The literature explores the core elements of the business model and offers several conceptual frameworks (Mason & Spring, 2005; Morris, Schindehutte, & Allen, 2005; Osterwalder, Pigneur, & Tucci, 2005; Shafer, Smith, & Linder, 2005). It also sheds light on two different conceptual approaches to business models, namely the essentialist perspective (Amit & Zott, 2008) and the cognitive perspective (Doganova & Eyquem-Renault, 2009).

It appears that the origins of the concept are anchored in various disciplines such as strategic management, innovation, marketing, general management, and management of information systems. Moreover, all the references have been published in some of the most impactful journals belonging to each discipline (including *Strategic Management Journal*, *Research Policy*, *Organization Science*, *Journal of Business Research*, and *Communication of the AIS*). This played a fundamental role in the legitimization of the concept in academia.

### **Cluster 3: Business model literature developments**

Cluster 3 is composed of 16 articles that offer the foundations for the development of the literature on marketing business models. We distinguished two kinds of article. The first mainly dealt with different aspects of business model dynamics such as business model design (Zott & Amit, 2010), business model innovation (Amit & Zott, 2012; Chesbrough, 2010;

Johnson, Christensen, & Kagermann, 2008; Schneider & Spieth, 2014; Teece, 2010), and business model evolution (Demil & Lecocq, 2010), as well as its internal dynamics (Casadesu-Masanell & Ricart, 2010). This conversation appears to be supported by the dynamic capabilities perspective (Teece, Pisano, & Shuen, 1997; Teece, 2007, 2018). The second type comprises literature reviews, both general (Massa, Tucci, & Afuah, 2017; Wirtz, Pistoia, Ullrich, & Göttel, 2016; Zott et al., 2011) and specific to business model innovation (Foss & Saebi, 2017; Spieth, Schneckenberg, & Ricart, 2014).

Most of the articles have been published in two impactful strategic management journals: *Long Range Planning* (7 articles) and *Strategic Management Journal* (2 articles). This shows that the strategic management discipline took the lead on the development of the literature and contributed to structuring the conversation. Therefore, the marketing business model literature has built on this legacy to make its own specific contributions.

### **Preliminary insights from the CCA**

The theoretical pillars of marketing business model research reveal a strong filiation with the traditional business model literature, including the strategic management literature. The classical works of this literature take a significant place in the intellectual core, serving as a cornerstone that provides the conceptual and theoretical roots of the concept. This shows that this literature shares a conceptual commonality with the traditional literature. This conceptual alignment offers suitable conditions for marketing business model research to contribute to strategic management research.

Moreover, these insights challenge the thesis of a silo-based development of the business model literature (Zott et al., 2011; Wirtz, Pistoia, Ullrich, & Göttel, 2016; Massa, Tucci, & Afuah, 2017). This perspective considers that each discipline dealing with the business model concept was developed in isolation, leading to a heterogeneity of definitions. Following Maucuer and Renaud (2019), we confirmed that the business model literature, despite its



diverse origins, is rooted in common intellectual groundings. Hence, heterogeneity may not be related to the concept's definition per se (*conceptual heterogeneity*) but is rather associated with specific research areas developed by each discipline (*thematic heterogeneity*).

### **3.3. EXPLORING RESEARCH STREAMS IN MARKETING BUSINESS MODEL RESEARCH**

The BCA unveils the various research areas that structure the marketing business model literature (see Appendix B) and highlights the rich contribution of the marketing discipline to the scientific conversation on business models.

As described in the section on methods, our coding process helped us make sense of the research front by identifying three layers of interpretation: two streams of research, eight conversations, and 22 research themes (see Table 2). Each research theme could be either specific to one conversation or shared by several. The shared research themes helped us identify links between the conversations and organize them into two autonomous research streams: a *holistic perspective of business models* covering three conversations (business model dynamics, societal issues, and emerging technologies) and a *downstream perspective of business models* covering five conversations (customers, revenue models, servitization, retail, and market configuration). Figure 5 illustrates this scientific network.

**[Insert Figure 5]**

#### **Research stream 1: Holistic perspective of business models**

Research stream 1 (125 references) is composed of three clusters: business model dynamics (79 references); societal issues (33 references); and business model and IoT (13 references), based on a holistic approach to business models.

The research cluster 'business model dynamics' relates to the various processes that outline the lifecycle of a business model, namely the design (Kulins, Leonardy, & Weber, 2016), evolution (Nailer & Buttriss, 2020), adaptation to the external environment (Ferreira, Proença, Spencer, & Cova, 2013), internationalization (Guercini & Milanese, 2017),

management of co-existing business models (Benson-Rea, Brodie, & Sima, 2013), or even the downfall of a business model (Brea-Solís & Grifell-Tatjé, 2019). In line with these issues, some authors worked on business model agility (Battistella, De Toni, De Zan, & Pessot, 2017) or flexibility (Mason & Mouzas, 2012). Business model innovation (Spieth, Roeth, & Meissner, 2019) is also analyzed and characterized as an adaptative (Ricciardi, Zardini, & Rossignoli, 2016) or agile (Ghezzi & Cavallo, 2020) process.

The research cluster labeled ‘societal issues’ refers to the strategies of firms to implement sustainable business models. It can be divided into three subconversations: corporate social responsibility (CSR) issues (Lloret, 2016), bottom-of-the-pyramid (BoP) strategies (Iheanachor, David-West, & Umukoro, 2021) to address low-income markets, and the impact of societal issues on business model innovations (De Silva, Al-Tabbaa, & Khan, 2021). The first deals with generic aspects of CSR at a company (Czinkota, Kaufmann, Basile, & Ferri, 2020) or customer level (Nijhof, Bakker, & Kievit, 2019). The second provides frameworks to execute BoP strategies (Pels & Sheth, 2017; Pitta, Guesalaga, & Marshall, 2008) in various contexts such as the mobile industry (Iheanachor, David-West, & Umukoro, 2021) or subsistence marketplaces (Faruque Aly, Mason, & Onyas, 2021). The third connects societal issues with business model innovation in both for-profit (Ahmed, D'Souza, Ahmed, Nanere, & Khashru, 2021; Klein, Schneider, & Spieth, 2021; Siebold, 2021) and non-profit (McDonald, Masselli, & Chanda, 2021) organizations. It also promotes the emergence of circular business models (Fehrer & Wieland, 2021; Parida, Burström, Visnjic, & Wincent, 2019).

The research cluster ‘business model & IoT’ comprises contemporary articles referring to a promising emerging technology. We identified five literature reviews that offer either general state-of-the-art and research directions about IoT (Ng & Wakenshaw, 2017; Palmaccio, Dicuonzo, & Belyaeva, 2021), or more specific ones that address the challenges raised by this technology for Industry 4.0 (Matthyssen, 2019) and servitized business models (Leminen,

Rajahonka, Westerlund, & Wendelin, 2018; Suppatvech, Godsell, & Day, 2019). Other scholars have analyzed the implications for manufacturers and industrial actors, specifically in terms of their capabilities (Hasselblatt, Huikkola, Kohtamäki, & Nickell, 2018), business models (Ehret & Wirtz, 2017), and ecosystems (Hakanen & Rajala, 2018).

## **Research stream 2: Downstream perspective of business models**

Research stream 2 (142 references) is composed of five clusters overlapping with the traditional topics of the marketing literature: customers (16 references), revenue models (19 references), servitization (33 references), retail (25 references), and market configuration (49 references). These topics refer to different downstream business model components and therefore provide a more granular perspective of business models.

The conversation named ‘customers’ offers an interesting standpoint to analyze their role in business models under the impetus of customer empowerment (Chipp & Chakravorty, 2016) and rapid platform growth (Yang, Wang, & Zhao, 2019). It provides insights on their impact on business model performance (Cloughton, 2020) as well as new perspectives on how firms could better integrate customer behavior into their business models by bringing into play the concepts of customer adoption (Konya-Baumbach, Schuhmacher, Kuester, & Kuharev, 2019), intention to use (Neunhoeffler & Teubner, 2018; Lian, 2021), or willingness to pay (Punj, 2015). It also offers a fertile ground to explore the emerging alternative modes of consumption promoted by the sharing economy (Alonso-Almeida, Perramon, & Bagur-Femenías, 2020; Saravade, Felix, & Firat, 2021).

The second conversation deepens the reflection on ‘revenue models’ with three research themes. Some articles introduce frameworks and tools to improve the revenue streams in different business model contexts such as freemium models (Chica & Rand, 2017; Li, Jain, & Kannan, 2019), subscription models (Gebauer et al., 2020), auction models (Shin & Park, 2009), and platform models (Kumar, Lahiri, & Dogan, 2018). Others explore the impact of

revenue models on customer behaviors. For instance, Cziehso, Schaefers, and Kukar-Kinney (2019) examine customer reactions after the switch from a free to a fee-based revenue model, while Wang et al. (2021) analyze factors influencing consumers' purchase decision making in online-to-offline business models. The last few focus on either the industry (Gamble, Brennan, & McAdam, 2017) or business model dynamics related to the adoption of a new revenue model (Huotari & Ritala, 2021; Shi, Li, & Bigdeli, 2016).

The 'servitization' conversation deals with the challenges (Zhang & Banerji, 2017) of various service-related business models, such as solution business models (Storbacka, 2013), service-based business models (Brax & Visintin, 2017), product-service system (PSS) business models (Oliveira, Mendes, Albuquerque, & Rozenfeld, 2018), etc. Some authors analyze the effect of servitization or service infusion on business model reconfiguration (Forkmann, Henneberg, Witell, & Kindström, 2017; Forkmann, Ramos, Henneberg, & Naudé 2017), contestation (Palo, Åkesson, & Löfberg, 2019), or performance (Nezami, Worm, & Palmatier, 2018). For instance, Bustinza, Lafuente, Rabetino, Vaillant, and Vendrell-Herrero (2019) analyze how service providers can help manufacturers increase their performance. Other scholars focus on the impact of digital transformation on services (Zaki, 2019) or on servitization business models in the context of ecosystems (Kohtamäki, Parida, Oghazi, Gebauer, & Baines, 2019) or supply chains (Vendrell-Herrero, Bustinza, Parry, & Georgantzis, 2017). Finally, there are studies that explore the relationship between servitization strategies and customer-oriented organizations (Ambroise, Prim-Allaz, & Teyssier, 2018; Ruiz-Alba, Soares, Rodríguez-Molina, & Frías-Jamilena, 2019).

The research cluster labelled 'retail' refers to innovation in the retail industry, which is generally driven by digital technologies. These innovations are based on network redesign and dynamics that impact the firms' performance. Authors have examined different innovative retail business models (Sorescu, Frambach, Singh, Rangaswamy, & Bridges, 2011) or formats

(Reynolds, Howard, Cuthbertson, & Hristov, 2007), some of which integrate the issue of sustainability (Bilińska-Reformat, Kucharska, Twardzik, & Dolega, 2019). For instance, they examine service platforms (Chandna & Salimath, 2018), business-to-business relationships (Cobbs & Hylton, 2012), franchising models (Quach, Weaven, Thaichon, Grace, & Frazer, 2020), reseller networks (Gupta, Vääänen, & Khaneja, 2016), and omnichannel strategies (Jocevski, Arvidsson, Miragliotta, Ghezzi, & Mangiaracina, 2019; Verhoef, Kannan, & Inman, 2015).

The research cluster named ‘market configuration’ refers to the external interface of a business model through different types of relationships such as platforms (Nucciarelli et al., 2017), supply chains (Liu, Liu, & Gu, 2021; Liu, Purvis, Mason, & Wells, 2020), networks (Bankvall, Dubois, & Lind, 2017; Ng, Ding, & Yip, 2013), and cooptation (Crick & Crick, 2020, 2021; Ritala, Golnam, & Wegmann, 2014). These relationships are frequently understood as supports for business model innovation (Velu, 2016) in open business models (Frankenberger, Weiblen, & Gassmann, 2013; Gamble, Clinton, & Díaz-Moriana, 2021), customer-oriented business models (Djelassi & Decoopman, 2013; Nucciarelli et al., 2017), or technology-based business models (Palo & Tähtinen, 2011, 2013). They are also perceived as devices that structure the environment (Storbacka & Nenonen, 2011a, 2011b), for instance, by connecting two sides of a market (Muzellec et al., 2015) or developing the sharing economy (Klarin & Suseno, 2021; Xu, Hazée, So, Li, & Malthouse, 2021).

### **Preliminary insights from the BCA**

Our work not only confirms the intuition of Coombes and Nicholson (2013) regarding the potential contributions of marketing to business models but also provides some insights on the prevailing research trends. The BCA we conducted shows the great diversity of marketing business model research, organized into two research streams according to their level of granularity in the use of the concept. The first research stream examines the business model as

a whole and focuses on its overall dynamics, specifically on business model innovation and design driven by societal and technological trends. This research stream, although specific to the marketing literature, remains relatively close to the interests of strategists (i.e., on social/sustainable business models (Spieth, Schneider, Clauß, & Eichenberg, 2019; Laasch, 2018) and on the technological aspect of business models (Baden-Fuller & Haefliger, 2013; Morkunas, Paschen, & Boon, 2019)).

The second research stream groups marketing-specific conversations rooted in a more downstream approach to business models concerning customers, retail, revenue models, servitization, and market configuration. We noted that this literature is focused on the emerging trends affecting those dimensions (e.g., alternative modes of consumption, omnichannel strategies, freemium models, solution-based business models, and digital platforms economy) and provides insights into their impact on business models.

#### **4. DISCUSSION**

Our work signals the recent evolution whereby the marketing field now seems well engaged in the business model literature. The marketing literature on business models has boomed over the last decade to produce a significant body of published articles. This should lead scholars involved in business model research to consider marketing as a key contributor to the business model literature. In this section, we first outline how the strategy literature has restricted marketing to relatively peripheral considerations, and we highlight the potential contributions of this discipline to business model research. Next, we propose a threefold developmental strategy based on consumer data as a major source of competitive advantage.

##### **4.1. THE PARTIAL APPROPRIATION OF MARKETING ISSUES BY STRATEGISTS**

Traditionally, strategy has sought to explore the sources of competitive advantage in upstream activities, such as resources and competencies, sourcing, or production. Strategy research on business models has followed this legacy, generally focusing on the firms' activity

system to analyze value creation and capture processes (Zott et al., 2011). However, these sources of competitive advantage tend to dwindle in favor of downstream activities (Dawar, 2013)- In this regard, Priem, Wenzel, and Koch (2018) call for the development of a demand-side strategy and business model perspective that '[brings] consumers back into the spotlight for both strategy and entrepreneurship scholars' (p.27).

Some strategic management researchers have initiated this movement by developing conversations under the construct of demand-side strategy that looks downstream towards product markets instead of looking upstream towards factor markets (Priem, Butler, & Li, 2013). They borrow traditional marketing concepts to investigate customers' contribution to sustainable competitive advantages (Aversa, Haefliger, Hueller, & Reza, 2020; Biloshapka & Osiyevskyy, 2018), industry-specific issues in retail (Silva, Hassani, & Madsen, 2019) and services (Rozentale & van Baalen, 2021). However, they remain influenced by the conceptual heritage of strategy since they mostly adopt a perspective centered on the focal firm while they tackle these marketing issues. For example, Aversa et al. (2020) explore the link between business model diversification and sustainable competitive advantages by investigating customer complementarities from a firm-focused perspective. Similarly, Biloshapka and Osiyevskyy (2018) tackle issues of customer value through a top-down approach, i.e., a managerial lens. In these two topical contexts, 'businesses are capturing what they know about customers, rather than what a customer thinks and feels about the firm' (Hodgkinson, Jackson, & West, 2021: p. 4). In a nutshell, the marketing dimensions are considered but not analyzed as such. They remain black boxes that should be opened to propose a more embodied approach to better understand 'effective value propositions and the underlying processes of developing them' (Priem, Wenzel, & Koch, 2018: p. 29).

To develop such an approach, strategy can now rely on the solid intellectual capital of the marketing literature on business models, which considers the consumer as a key component

of the value creation system. The clusters forming the downstream perspective of marketing business model research constitute a fruitful source of inspiration (see Figure 5).

The ‘customers’ and ‘revenue model’ clusters effectively move the epicenter of value creation downstream, towards the customers and demand side. As mentioned previously, the strategic literature has traditionally adopted the entrepreneurs’ and managers’ point of view (i.e., focusing on the internal resources, innovative processes, company’s network, and its competitive landscape) and overlooked the role of customers in the value creation process. Yet, new business models are increasingly customer-centric (Parvatiyar, Sisodia, & Shainesh, 2020): business models based on freemium (Chica & Rand, 2017; Li, Jain, & Kannan, 2019), multi-sided platforms (Muzellec et al., 2015, Kumar, Lahiri, & Dogan, 2018), or subscription (Gebauer et al., 2020) shift the focus of analysis from the firm to the user and customer. They are now perceived as the vehicle for creating, delivering, and capturing value in the more extensive time and space of the ecosystem.

Driven by digital technologies, the retail perspective (see ‘retail’ cluster) encourages research on different types of market channels and configurations. A better understanding of these different aspects might challenge and enrich the reflections on business model design. For instance, the strategic literature could find inspiration in these discussions to redesign business model components and redefine the participation of consumers and end-users in creating value (see Sorescu et al., 2011).

Finally, the research cluster dedicated to servitization could also be a source of interest for strategists as it redefines business models from downstream to upstream perspectives. Servitization is a central issue for the performance of many platforms, specifically freemium platforms, in which adding relevant services to value propositions is a key aspect of conversion strategies (Kumar, 2014; Rietveld, 2018).



#### **4.2. CONSUMER DATA IS THE NEW OIL: AN AGENDA FOR FUTURE RESEARCH**

Combined with the development of digital technologies, these four downstream clusters suggest that new market configurations now thrive on users' data harvesting and analyzing (Aversa, Haeffliger, Hueller, & Reza, 2020; Trabucchi, Muzellec, & Ronteau, 2019). Hence, the value of a business resides in its consumers' data and in the metadata generated through the exchanges between the firm and the users. The ability to acquire and retain customers is no longer the outcome of a good business model; rather, it is becoming the strategic lenses through which the viability of a business model is assessed. These new opportunities for value creation and capture based on big data (Hartmann, Zaki, Feldmann, & Neely, 2016; Sorescu, 2017; Paiola & Gebauer, 2020; Erevelles, Fukawa, & Swayne, 2016) give a pivotal role to customers (Teece & Linden, 2017; Verhoef & Bijmolt, 2019). The rise of digital platforms as an alternative form of organizations (Rangaswamy, Moch, Felten, van Bruggen, Wieringa, & Wirtz, 2020) is a vivid illustration of such tendencies.

In the digital economy, value needs to be conceptualized as a fluid and dynamic flow between the focal firm and two or more sides – often consisting of business customers and individual users (Muzellec et al., 2015). Technologies such as artificial intelligence, algorithmic capabilities, electronic data interchange (EDI for B2B companies), gamification, and social media interface (for B2C) have led to the emergence of business models based on data. Owing to technology, value is created through exchanges – recorded as data – between participants and eventually monetized via data analytics. Accordingly, it becomes imperative for the strategists to understand the role of consumer data in fomenting a competitive advantage. It opens several avenues for research that question the performance, performativity, and sustainability of business models (see Figure 6).

### **[Insert Figure 6]**

First, strategists should consider consumer data as a core unit of analysis in the evaluation of a business model performance. Drawing on a long tradition of quantification in consumer behavior (Ambler, Kokkinaki, & Puntoni, 2004, Hennig-Thurau, Hofacker, & Bloching, 2013), the digital marketing literature has produced a wide range of tools (Ledden, Kalafatis, & Mathioudakis, 2011; Pookulangara, & Koesler, 2011; Punj, 2015) and techniques (Chica & Rand, 2017; Fader & Hardie, 2007; Hennig-Thurau, Gwinner, & Gremler, 2002; Kasabov & Warlow, 2010; Schumann, von Wangenheim, & Groene, 2014; Sugai, 2005) to measure marketing performance in the context of emerging technologies. With consumers' data becoming a major source of competitive advantage, strategists should build upon these metrics (i.e., Net Promoter Score, customer satisfaction, conversion rate, churn rate, lifetime value) to develop a more granular approach to business model performance, regardless of its development phase (innovative vs. traditional).

Second, strategists should also consider the role of data-driven ecosystems on business model performativity (Garud, Gehman, & Tharchen, 2018). Customer experiences are based on 'moments' of interactions with several entities (services, products, and contexts), where data and data exchange systems (such as AWS Data Exchange or APIs) are the new operating systems of competitive advantage. Researchers should investigate how value is created through the exchange of consumer data across traditional corporate boundaries, and thus further examine the performativity of business models. This would help uncover how these data-driven ecosystems are redesigning business models. Moreover, the strategic significance of data circulating across corporate boundaries challenges the 'balancing act between the quest for increased legitimacy within its ecosystem and the need to mitigate imitation by competitors' (Snihur, Zott, & Amit, 2020, p.36), and questions how competition over consumer data impacts business models.

Finally, the new digital competitive landscape relies on a proliferation of automated and technology-driven value propositions, pushing us to rethink the foundations of customer relationship and raising social and ethical considerations. These considerations go far beyond the marketing practices as they question the rules of competition and capitalism (Zuboff, 2019). For instance, platform business models rely on engagement strategies that lead to addictive behaviors in consumers (Balakrishnan & Griffiths, 2018), privacy paradoxes (Kokolakis, 2017) and asymmetric value appropriation (Ellegaard, Medlin, & Geersbro, 2014). Consumer footprints and their valuation raise fundamental questions in terms of corporate social responsibility and ethics, notably to what extent a business model is entitled to use data to serve and capture value from or for customers. In this regard, the sustainability of the value creation mechanism for consumer data-driven business models should remain scrutinized (Snihur & Bocken, 2022). Future research could guide decision-makers toward the best ways to balance business and societal interests.

## **5. CONCLUSION**

By performing a mixed bibliometric analysis, we have provided evidence of the contribution of the marketing literature to business model research. First, we have developed an unprecedented understanding of the marketing discipline's current contribution to business model research. We have uncovered the historical dynamics underpinning marketing business model research and its distinctive contribution by revealing both the theoretical pillars and the current trends concerning this promising body of research. Second, our analysis of the marketing literature has brought to light a noteworthy developmental strategy for future business model research based on downstream customer-centric and data-driven approaches to business models. These insights could help strategic management scholars reconsider their research agenda to move beyond their partial appropriation of marketing-related issues and develop a more embodied approach to downstream aspects of business models. The third

contribution this study makes is methodological. We have offered an innovative way of using BCA to comprehend emerging or weakly structured fields of research. It can be used as a pre-coding tool that enables researchers to slightly adjust the content of clusters by interpreting the data. An in-depth comparative analysis of the marketing discipline with other disciplines involved in the development of fields such as information systems management and entrepreneurship literatures would complement our study and provide an avenue for future research.

## REFERENCES

- Ahlgren, P., Jarneving, B., Rousseau, R., 2003. Requirement for a cocitation similarity measure, with special reference to Pearson's correlation coefficient. *Journal of the American Society for Information Science and Technology*, 54(6), 550–560.
- Ambler, T., Kokkinaki, F., Puntoni, S., 2004. Assessing marketing performance: reasons for metrics selection. *Journal of Marketing Management*, 20(3-4), 475-498.
- American Marketing Association (AMA). 2017. Definitions of Marketing. Retrieved from [www.ama.org](http://www.ama.org).
- Arnott, D., Pervan, G., 2012. Design science in decision support systems research: An assessment using the Hevner, March, Park, and Ram guidelines. *Journal of the Association for Information Systems*, 13(11), 923–949.
- Aversa, P., Haefliger, S., Hueller, F., Reza, D.G., 2020. Customer complementarity in the digital space: Exploring Amazon's business model diversification. *Long Range Planning*, 54(5), 101985.
- Baden-Fuller, C., Haefliger, S., 2013. Business models and technological innovation. *Long Range Planning*, 46(6), 419–426.
- Balakrishnan, J., Griffiths, M.D., 2018. Loyalty towards online games, gaming addiction, and purchase intention towards online mobile in-game features. *Computers in Human Behavior*, 87, 238–246.
- Bandara, W., Furtmueller, E., Gorbacheva, E., Miskon, S., Beekhuyzen, J., 2015. Achieving rigor in literature reviews: Insights from qualitative data analysis and tool-support. *Communications of the Association for Information Systems*, 37(8), 154–204.
- Biloshapka, V., Osiyevskyy, O., 2018. Three value-focused strategic questions for continuously updating your business model. *Strategy & Leadership*, 3, 45–51.

- Budler, M., Župič, I., Trkman, P., 2021. The development of business model research: A bibliometric review. *Journal of Business Research*, 135, 480-495.
- Callon, M., Courtial, J.P., Penan, H., 1993. *La Scientométrie*. Presse Universitaire de France, Paris.
- Casadesus-Masanell, R., Ricart, J.E., 2010. From strategy to business models and onto tactics. *Long Range Planning*, 43(2-3), 195-215.
- Chica, M., Rand, W., 2017. Building agent-based decision support systems for word-of-mouth programs: A freemium application. *Journal of Marketing Research*, 54(5), 752-767.
- Coombes, P., Nicholson, J.D., 2013. Business models and their relationship with marketing: A systematic literature review. *Industrial Marketing Management*, 42(5), 656-664.
- Crane, D., 1972. *Invisible Colleges: Diffusion of Knowledge in Scientific Communities*. University of Chicago Press, Illinois.
- Dawar, N., 2013. When marketing is strategy. *Harvard Business Review*, 91(12), 100-108.
- de Solla Price, D.J., 1965. Networks of scientific papers. *Science*, 149(3683), 510-515.
- Di Stefano, G., Peteraf, M., Verona, G., 2010. Dynamic capabilities deconstructed: A bibliographic investigation into the origins, development, and future directions of the research domain. *Industrial and Corporate Change*, 19(4), 1187-1204.
- Ehret, M., Kashyap, V., Wirtz, J., 2013. Business models: Impact on business markets and opportunities for marketing research. *Industrial Marketing Management*, 42(5), 649-655.
- Ellegaard, C., Medlin, C.J., Geersbro, J., 2014. Value appropriation in business exchange – Literature review and future research opportunities. *Journal of Business and Industrial Marketing*, 29(3), 185-198.
- Erevelles, S., Fukawa, N., Swayne, L., 2016. Big data consumer analytics and the transformation of marketing. *Journal of Business Research*, 69(2), 897-904.
- Fader, P.S., Hardie, B.G., 2007. How to project customer retention. *Journal of Interactive Marketing*, 21(1), 76-90.
- Fernandez-Alles, M., Ramos-Rodríguez, A., 2009. Structure of human resources research: A bibliometric analysis of the *Journal of Human Resource Management*, 1985-2005. *Journal of the American Society for Information Science and Technology*, 60(1), 161-175.
- Foss, N.J., Saebi, T., 2017. Fifteen years of research on business model innovation: How far have we come, and where should we go?. *Journal of Management*, 43(1), 200-227.
- Garfield, E., 1963. Citation indexes in sociological and historical research. *American Documentation*, 14(4), 289-291.
- Garfield, E., 1979. Is citation analysis a legitimate evaluation tool?. *Scientometrics*, 1(4), 359-375.

- Gatignon, H., Lecocq, X., Pauwels, K., Sorescu, A., 2017. A marketing perspective on business models. *AMS Review*, 7, 85–89.
- Garud, R., Gehman, J. and Tharchen, T., 2018. ‘Performativity as ongoing journeys: Implications for strategy, entrepreneurship, and innovation’. *Long Range Planning*, 51(3), 500-509.
- Gebauer, H., Arzt, A., Kohtamäki, M., Lamprecht, C., Parida, V., Witell, L., Wortmann, F., 2020. How to convert digital offerings into revenue enhancement – Conceptualizing business model dynamics through explorative case studies. *Industrial Marketing Management*, 91, 429–441.
- Gundlach, G.T., Wilkie, W.L., 2009. The American Marketing Association’s new definition of marketing: Perspective and commentary on the 2007 revision. *Journal of Public Policy & Marketing*, 28(2), 259–264.
- Gundlach, G.T., Wilkie, W.L., 2010. Stakeholder marketing: Why “Stakeholder” was omitted from the American Marketing Association’s official 2007 definition of marketing and why the future is bright for stakeholder marketing. *Journal of Public Policy & Marketing*, 29(1), 89–92.
- Hartmann, P.M., Zaki, M., Feldmann, N., Neely, A. 2016. Capturing value from big data – A taxonomy of data-driven business models used by start-up firms. *International Journal of Operations & Production Management*, 36(10), 1382–1406.
- Hennig-Thurau, T., Gwinner, K.P., Gremler, D.D. 2002. Understanding relationship marketing outcomes: An integration of relational benefits and relationship quality. *Journal of Service Research*, 4(3), 230–247.
- Hennig-Thurau, T., Hofacker, C.F., Bloching, B. 2013. Marketing the pinball way: Understanding how social media change the generation of value for consumers and companies. *Journal of Interactive Marketing*, 27(4), 237-241.
- Hodgkinson, I.R., Jackson, T.W., West, A.A., 2021. Customer experience management: Asking the right questions. *Journal of Business Strategy*. In press.
- Jarneving, B., 2005. A comparison of two bibliometric methods for mapping of the research front. *Scientometrics*, 65(2), 245–263.
- Kasabov, E., Warlow, A.J., 2010. Towards a new model of “customer compliance” service provision. *European Journal of Marketing*, 44 (6), 700–729.
- Kessler, M.M., 1963. Bibliographic coupling between scientific papers. *American Documentation*, 14(1), 10–25.
- Kokolakis, S., 2017. Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, 64, 122–134.
- Kumar, V. 2014. Making “freemium” work. *Harvard Business Review*, 92(5), 27–29.
- Kumar, V., Lahiri, A., Dogan, O.B., 2018. A strategic framework for a profitable business model in the sharing economy. *Industrial Marketing Management*, 69, 147–160.

- Laasch, O. 2018., Beyond the purely commercial business model: Organizational value logics and the heterogeneity of sustainability business models. *Long Range Planning*, 51(1), 158–183.
- Ledden, L., Kalafatis, S.P., Mathioudakis, A. 2011., The idiosyncratic behaviour of service quality, value, satisfaction, and intention to recommend in higher education: An empirical examination. *Journal of Marketing Management*, 27(11–12), 1232–1260.
- Leydesdorff, L., Vaughan, L., 2006. Co-occurrence matrices and their applications in information science: Extending ACA to the web environment. *Journal of the American Society for Information Science and Technology*, 57(12), 1616–1628.
- Li, H., Jain, S., Kannan, P.K., 2019. Optimal design of free samples for digital products and services. *Journal of Marketing Research*, 56(3), 419–438.
- Mariani, M., Borghi, M., 2019. Industry 4.0: A bibliometric review of its managerial intellectual structure and potential evolution in the service industries. *Technological Forecasting and Social Change*, 149, 119752.
- Massa, L., Tucci, C.L., Afuah, A., 2017. A critical assessment of business model research. *Academy of Management Annals*, 11(1), 73–104.
- Maucuer, R., Renaud, A., 2019. Business model research: A bibliometric analysis of origins and trends. *M@n@gement*, 22(2), 176–215.
- McCain, K.W. 1990. Mapping authors in intellectual space: A technical overview. *Journal of the American Society for Information Science*, 41(6), 433–443.
- Morkunas, V.J., Paschen, J., Boon, E., 2019. How blockchain technologies impact your business model. *Business Horizons*, 62(3), 295–306.
- Muzellec, L., Ronteau, S., Lambkin, M., 2015., Two-sided internet platforms: A business model lifecycle perspective. *Industrial Marketing Management*, 45, 139–150.
- Noma, E., 1984. Co-citation analysis and the invisible college. *Journal of the American Society for Information Science*, 35(1), 29–33.
- Okoli, C., 2015. A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37(43), 879–910.
- Paiola, M., Gebauer, H., 2020. Internet of Things technologies, digital servitization and business model innovation in BtoB manufacturing firms. *Industrial Marketing Management*, 89, 245–264.
- Parvatiyar, A., Sisodia, R., Shainesh, G., 2020. Customer centricity in the digital age: Rediscovering value, in: *Handbook of Advances in Marketing in an Era of Disruptions: Essays in Honour of Jagdish N. Sheth*. Sage, New Delhi, pp. 215–222.
- Pookulangara, S., Koesler, K., 2011. Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348–354.

- Priem, R.L., Butler, J.E., Li, S., 2013. Toward reimagining strategy research: Retrospection and prospection on the 2011 AMR Decade Award article. *Academy of Management Review*, 38(4), 471–489.
- Priem, R.L., Wenzel, M., Koch, J., 2018. Demand-side strategy and business models: Putting value creation for consumers center stage. *Long Range Planning*, 51(1), 22–31.
- Punj, G. 2015. The relationship between consumer characteristics and willingness to pay for general online content: Implications for content providers considering subscription-based business models. *Marketing Letters*, 26(2), 175–186.
- Rangaswamy, A., Moch, N., Felten, C., van Bruggen, G., Wieringa, J.E., Wirtz, J., 2020. Corrigendum to ‘The Role of Marketing in Digital Business Platforms’. *Journal of Interactive Marketing*, 53, 129.
- Renaud, A., Walsh, I., Kalika, M., 2016. Is SAM still alive? A bibliometric and interpretive mapping of the strategic alignment research field. *The Journal of Strategic Information Systems*, 25(2), 75–103.
- Rietveld, J. 2018., Creating and capturing value from freemium business models: A demand-side perspective. *Strategic Entrepreneurship Journal*, 12(2), 171–193.
- Ringold, D.J., Weitz, B., 2007. The American Marketing Association definition of marketing: Moving from lagging to leading indicator. *Journal of Public Policy & Marketing*, 26(2), 251–260.
- Rowlands, I., 1999. Patterns of author co-citation in information policy: Evidence of social, collaborative and cognitive structure. *Scientometrics*, 44(3), 533–546.
- Rozentale, I., van Baalen, P.J., 2021. Crafting business models for conflicting goals: Lessons from creative service firms. *Long Range Planning*, 102092.
- Schumann, J.H., von Wangenheim, F., Groene, N., 2014. Targeted online advertising: Using reciprocity appeals to increase acceptance among users of free web services. *Journal of Marketing*, 78(1), 59–75.
- Sheth, J.N., Usley, C., 2007. Implications of the revised definition of marketing: From exchange to value creation. *Journal of Public Policy & Marketing*, 26(2), 302–307.
- Silva, E.S., Hassani, H., Madsen, D.Ø., 2019. Big data in fashion: Transforming the retail sector. *Journal of Business Strategy*, 41(4), 21–27.
- Small, H., 1973. Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24(4), 265–269.
- Snihur, Y., Zott, C, Amit, R., 2020. Managing the Value Appropriation Dilemma in Business Model Innovation. *Strategy Science* 6(1), 22-38.
- Snihur, Y., Bocken, N., 2022. A call for action: The impact of business model innovation on business ecosystems, society, and planet. *Long Range Planning*, 102182.



- Sorescu, A., 2017. Data-driven business model innovation. *Journal of Product Innovation Management*, 34(5), 691–696.
- Sorescu, A., Frambach, R.T., Singh, J., Rangaswamy, A., Bridges, C., 2011. Innovations in retail business models. *Journal of Retailing*, 87, S3–S16.
- Spieth, P., Schneider, S., Clauß, T., Eichenberg, D., 2019. Value drivers of social businesses: A business model perspective. *Long Range Planning*, 52(3), 427–444.
- Sugai, P., 2005. Mapping the mind of the mobile consumer across borders: An application of the Zaltman metaphor elicitation technique. *International Marketing Review*, 22(6), 641–657.
- Tarrow, S., 1995. Bridging the quantitative-qualitative divide in political science. *American Political Science Review*, 89(2), 471–474.
- Teece, D.J., 2010. Business models, business strategy and innovation. *Long Range Planning*, 43(2–3), 172–194.
- Teece, D.J., Linden, G., 2017. Business models, value capture, and the digital enterprise. *Journal of Organization Design*, 6(1), 1–14.
- Traag, V.A., Waltman, L., van Eck, N.J., 2019. From Louvain to Leiden: Guaranteeing well-connected communities. *Scientific Reports*, 9(1), 1–12.
- Trabucchi, D., Muzellec, L., Ronteau, S., 2019. Sharing economy: Seeing through the fog. *Internet Research*, 29(5), 996–1013.
- Van Eck, N., Waltman, L., 2009. How to normalize co-occurrence data? An analysis of some well-known similarity measures. *Journal of the American Society for Information Science and Technology*, 60(8), 1635–1651.
- Van Eck, N.J., Waltman, L., 2011. Text mining and visualization using VOSviewer, arXiv preprint arXiv: 1109.2058.
- Van Eck, N., Waltman, L., Dekker, R., van den Berg, J., 2010. A comparison of two techniques for bibliometric mapping: Multidimensional scaling and VOS. *Journal of the American Society for Information Science and Technology*, 61(12), 2405–2416.
- Verhoef, P.C., Bijmolt, T.H.A., 2019. Marketing perspectives on digital business models: A framework and overview of the special issue. *International Journal of Research in Marketing*, 36(3), 341–349.
- Walsh, I., Kalika, M., 2018. Network dynamics in the French-speaking and English-speaking IS research communities. *Systèmes d'Information et Management*, 23(4), 67–145.
- Walsh, I., Renaud, A., 2017. Reviewing the literature in the IS field: Two bibliometric techniques to guide readings and help the interpretation of the literature. *Systèmes d'Information et Management*, 22(3), 75–115.
- Waltman, L., Van Eck, N.J., Noyons, E.C., 2010. A unified approach to mapping and clustering of bibliometric networks. *Journal of Informetrics*, 4(4), 629–635.

- Wirtz, B.W., Pistoia, A., Ullrich, S., Göttel, V., 2016. Business models: Origin, development and future research perspectives. *Long Range Planning*, 49(1), 36–54.
- Zott, C., Amit, R. 2007. Business model design and the performance of entrepreneurial firms. *Organization Science*, 18(2), 181–199.
- Zott, C., Amit, R., Massa, L., 2011. The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019–1042.
- Zuboff, S., 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs, New York, p. 468.
- Župič, I., Čater, T., 2015. Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472.

## APPENDICES

### APPENDIX A: INTELLECTUAL CORE OF THE MARKETING BUSINESS MODEL LITERATURE

#### *Cluster 1. Business model rationale in marketing*

- Barney, J., 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Dubois, A., Gadde, L.E., 2002. Systematic combining: An abductive approach to case research. *Journal of Business Research*, 55(7), 553–560. [https://doi.org/10.1016/S0148-2963\(00\)00195-8](https://doi.org/10.1016/S0148-2963(00)00195-8)
- Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of Management Review*, 14(4), 532–550. <https://doi.org/10.5465/amr.1989.4308385>
- Eisenhardt, K.M., Graebner, M.E., 2007. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/amj.2007.24160888>
- Oliva, R., Kallenberg, R., 2003. Managing the transition from products to services. *International Journal of Service Industry Management*, 14(2), 160–172. <https://doi.org/10.1108/09564230310474138>
- Osterwalder, A., Pigneur, Y., 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons, Hoboken.
- Porter, M., Heppelmann, J.E., 2014. How smart connected products are transforming competition, *Harvard Business Review*, 94(1–2), 1–23.
- Tuli, K.R., Kohli, A.K., Bharadwaj, S.G., 2007. Rethinking customer solutions: From product bundles to relational processes. *Journal of Marketing*, 71(3), 1–17. <https://doi.org/10.1509/jmkg.71.3.001>
- Vargo, S.L., Lusch, R.F., 2004. Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1–17. <https://doi.org/10.1509/jmkg.68.1.1.24036>
- Yin, R.K., 1984. *Case Study Research, Design and Methods*, first edition, Sage, Thousand Oaks.

#### *Cluster 2. Business model conceptual origins*

- Amit, R., Zott, C., 2001. Value creation in e-business. *Strategic Management Journal*, 22(6–7), 493–520. <https://doi.org/10.1002/smj.187>
- Chesbrough, H., 2002. The role of the business model in capturing value from innovation: Evidence from Xerox corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3), 529–555. <https://doi.org/10.1093/icc/11.3.529>
- Doganova, L., Eyquem-Renault, M., 2009. What do business models do? *Research Policy*, 38(10), 1559–1570. <https://doi.org/10.1016/j.respol.2009.08.002>
- Magretta, J., 2002. Why business models matter. *Harvard Business Review*, 80(5), 86–92.
- Mason, K. Spring, M., 2011. The sites and practices of business models. *Industrial Marketing Management*, 40(6), 1032–1041. <https://doi.org/10.1016/j.indmarman.2011.06.032>
- Morris, M., Schindehutte, M., Allen, J., 2005. The entrepreneur's business model: Toward a unified perspective. *Journal of Business Research*, 58(6), 726–735. <https://doi.org/10.1016/j.jbusres.2003.11.001>
- Osterwalder, A., Pigneur, Y., Tucci, C.L., 2005. Clarifying business models: Origins, present, and future of the concept. *Communications of the Association for Information Systems*, 16(1), 1–40. <https://doi.org/10.17705/1CAIS.01601>
- Shafer, S.M., Smith, H.J., Linder, J.C., 2005. The power of business models. *Business Horizons*, 48(3), 199–207. <https://doi.org/10.1016/j.bushor.2004.10.014>

- Zott, C., Amit, R., 2007. Business design and the performance of entrepreneurial firms. *Organization Science*, 18(2), 181–199. <https://doi.org/10.1287/orsc.1060.0232>
- Zott, C., Amit, R., 2008. The fit between product market strategy and business model: Implications for firm performance. *Strategic Management Journal*, 29(1), 1–26. <https://doi.org/10.1002/smj.642>
- Cluster 3: Business model literature developments***
- Amit, R., Zott, C., 2012. Creating value through business model innovation. *MIT Sloan Management Review*, 53(3), 41–49.
- Casadesus-Masanell, R., Ricart, J.E., 2010. From strategy to business models and onto tactics. *Long Range Planning*, 43(2–3), 195–215. <https://doi.org/10.1016/j.lrp.2010.01.004>
- Chesbrough, H., 2010. Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2–3), 354–363. <https://doi.org/10.1016/j.lrp.2009.07.010>
- Demil, B., Lecocq, X., 2010. Business model evolution: In search of dynamic consistency. *Long Range Planning*, 43(2–3), 227–246. <https://doi.org/10.1016/j.lrp.2010.02.004>
- Foss, H.J., Saebi, T.F., 2017. Fifteen years of research on business model innovation: How far have we come and where should we go? *Journal of Management*, 43(1), 2000–2227. <https://doi.org/10.1177/0149206316675927>
- Johnson, M.W., Christensen, C.M., Kagermann, H., 2008. Reinventing your business model. *Harvard Business Review*, 86(12), 50–59.
- Massa, L., Tucci, C., Afuah, A., 2017. A critical assessment of business model research, *Academy of Management Annals*, 11(1), 73–104. <https://doi.org/10.5465/annals.2014.0072>
- Schneider, S., Spieth, P., 2014. Business model innovation and strategic flexibility: Insights from an experimental research design. *International Journal of Innovation Management*, 18(6), 1440009. <https://doi.org/10.1142/S136391961440009X>
- Spieth, P., Schneckenberg, D., Ricart, J., 2014. Business model innovation – State of the art and future challenges for the field. *R&D Management*, 44(3), 237–247
- Teece, D.J., Pisano, G., Shuen, A., 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7%3C509::AID-SMJ882%3E3.0.CO;2-Z)
- Teece, D.J., 2007. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Teece, D.J., 2010. Business models, business strategy and innovation, *Long Range Planning*, 43(2–3), 172–194. <https://doi.org/10.1016/j.lrp.2009.07.003>
- Teece, D.J., 2018. Business models and dynamic capabilities. *Long Range Planning*, 51, 20–49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Wirtz, B., Pistoia, A., Ullrich, S., Gottel, V., 2016. Business models: Origin, development and future research perspectives, *Long Range Planning*, 49(1), 36–54. <https://doi.org/10.1016/j.lrp.2015.04.001>
- Zott, C., Amit, R., 2010. Business model design: An activity system perspective, *Long Range Planning*, 43(2–3), 216–226. <https://doi.org/10.1016/j.lrp.2009.07.004>
- Zott, C., Amit, R., Massa, L., 2011. The business model: Recent developments and future research, *Journal of Management*, 37(4), 1019–1042. <https://doi.org/10.1177/0149206311406265>

**APPENDIX B: RESEARCH TRENDS IN THE MARKETING BUSINESS MODEL LITERATURE**

<b>Research Stream 1: Holistic perspective of business models (125 references)</b>	
<b>Business model dynamics (79 references)</b>	<p>Alberti-Alhtaybat et al. (2019); Alshawaaf &amp; Lee (2021); Araujo &amp; Easton (2012); Auletta (2015); Balboni et al. (2019); Battistella et al. (2017); Benson-Rea et al. (2013); Bestet al. (2021); Bhatti et al. (2021); Bouncken &amp; Fredrich (2016); Bouncken &amp; Fredrich (2016); Brea-Solís &amp; Grifell-Tatjé (2019); Burströmet al. (2021); Caputoet al. (2021); Carlborg et al. (2021); Ciampi et al. (2021); Cillo et al. (2021); Clinton et al. (2018); Cosenz &amp; Bivona (2021); Costa Climent &amp; Haftor (2021); Crick et al. (2018); Dabirian et al. (2019); Day (2011); Di Vaio et al. (2021); Duffy et al. (2020); Ferreira et al. (2013); Fleury &amp; Fleury (2014); Gelhard et al. (2016); Ghezzi &amp; Cavallo (2020); Groeger et al. (2019); Guercini &amp; Milanesi (2017); Heider et al. (2021); Hock-Doepgen et al. (2021); Huarng (2013); Keiningham et al. (2020); Knudsen et al. (2021); Kohtamäki et al. (2020); Kulins et al. (2016); Lee et al. (2018); Loon (2019); Lopez-Nicolas et al. (2020); Mason &amp; Mouzas (2012); Mason &amp; Spring (2011); Matarazzo et al. (2021); Mattsson &amp; Andersson (2019); Melander &amp; Arvidsson (2020); Merrilees (2007); Miroshnychenko et al. (2021); Morris et al. (2005); Nailer &amp; Buttriss (2020); Palmié et al. (2021); Parry (2020); Payne et al. (2020); Press et al. (2020); Rajala et al. (2012); Randhawa et al. (2021); Ricciardi et al. (2016); Ritter &amp; Pedersen (2020a); Ritter &amp; Pedersen (2020b); Rodríguez et al. (2020); Romero et al. (2016); Rossi et al. (2020); Shashishekar et al. (2021); Simmons et al. (2013); Sjödin et al. (2021); Smith (2016); Spieth et al. (2019); Sraha et al. (2020); Stott et al. (2016); Suh &amp; Chow (2021); Sund et al. (2021); Sundström et al. (2021); To et al. (2019); To et al. (2020); Verhoef et al. (2021); Wallnöfer &amp; Hacklin (2013); Wlömert &amp; Papies (2019); Yang et al. (2020); Zhang et al. (2021)</p>
<b>Societal issues (33 references)</b>	<p>Abreu et al. (2020); Ahmed et al. (2021); Bucher et al. (2016); Clube &amp; Tennant (2020); Czinkota et al. (2020); De Silva et al. (2021); Di Vaio et al. (2020); Elg et al. (2021); Faruque Aly et al. (2021); Fehrer &amp; Wieland (2021); Gasparin et al. (2021); Gupta et al. (2017); Iheanachor et al. (2021); Klein et al. (2021); Kullak et al. (2021); Lienbacher et al. (2021); Lin &amp; Chen (2021); Lloret (2016); Mason &amp; Chakrabarti (2017); McDonald et al. (2021); Moroz &amp; Gamble (2021); Mukendi et al. (2020); Nijhof et al. (2019); Parida et al. (2019); Pels &amp; Sheth (2017); Pies et al. (2020); Pitta et al. (2008); Reficco et al. (2021); Seshadri (2013); Siebold (2021); Svensson et al. (2016); Tykkyläinen &amp; Ritala (2021); Weerawardena et al. (2021)</p>
<b>Business model &amp; IoT (13 references)</b>	<p>Ehret &amp; Wirtz (2017); Falkenreck &amp; Wagner (2021); Haaker et al. (2021); Hakanen &amp; Rajala (2018); Hasselblatt et al. (2018); Langley et al. (2021); Leminen et al. (2018); Leminen et al. (2020); Matthyssens (2019); Ng &amp; Wakenshaw (2017); Paiola et al. (2020); Palmaccio et al. (2021); Suppatvech et al. (2019)</p>

<b>Research Stream 2: Downstream perspective of business models (142 references)</b>	
<b>Customers (16 references)</b>	Alonso-Almeida et al. (2020); Campbell et al. (2012); Chipp & Chakravorty (2016); Cloughton (2020); da Fonseca & Campos (2021); Ham et al. (2021); Jackson & Smith (2014); Konya-Baumbach et al. (2019); Lian (2021); Mostaghel & Chirumalla (2021); Neunhoeffler & Teubner (2018); Punj (2015); Saravade et al. (2021); Storbacka & Nenonen (2009); Yang et al. (2019); Yrjölä et al. (2021)
<b>Revenue models (19 references)</b>	Chica & Rand (2017); Cziehso et al. (2019); Gamble et al. (2017); Gebauer et al. (2020); Haftor et al. (2021); Huotari & Ritala (2021); Kumar et al. (2018); Li et al. (2019); Niemand et al. (2019); Oderanti & Li (2018); Schulz et al. (2019); Shi et al. (2016); Shin & Park (2009); Stofberg & Bridoux (2019); Terho et al. (2012); Torres et al. (2021); Töytäri et al. (2015); Wang et al. (2021); Wu et al. (2013)
<b>Servitization (33 references)</b>	Ambroise et al. (2018); Barquet et al. (2013); Brax & Visintin (2017); Bustinza et al. (2019); Crowley et al. (2018); Dai et al. (2020); Davies et al. (2007); Forkmann et al. (2017a); Forkmann et al. (2017b); Hsieh et al. (2013); Kamalaldin et al. (2020); Khanra et al. (2021); Kindström & Kowalkowski (2014); Kohtamäki et al. (2015); Kohtamäki et al. (2019); Korkeamäki & Kohtamäki (2021); Korkeamäki et al. (2020); Nezami et al. (2018); Oliveira et al. (2018); Paiola & Gebauer (2021); Palo et al. (2019); Parvinen et al. (2013); Rabetino et al. (2015); Rapaccini et al. (2020); Ruiz-Alba et al. (2019); Saarijärvi et al. (2014); Storbacka (2013); Storbacka et al. (2011); Tronvoll et al. (2020); Vendrell-Herrero et al. (2017); Windahl (2015); Zaki (2019); Zhang & Banerji (2017)
<b>Retail (25 references)</b>	Bauer et al. (2005); Bijmolt et al. (2021); Bilińska-Reformat et al. (2019); Burt et al. (2021); Chandna & Salimath (2018); Cobbs & Hylton (2012); Ferrell et al. (2017); Gonzalez-Padron (2017); Gupta et al. (2016); Haas (2019); Hänninen (2021); Hill & Scott (2004); Jocevski et al. (2019); Laifi & Josserand (2016); López-López & Giusti (2020); Massa & Testa (2011); Meyer-Ohle (2014); Ng et al. (2005); Quach et al. (2020); Reynolds et al. (2007); Sandberg (2011); Sandberg et al. (2013); Sorescu et al. (2011); Theurillat & Donzé (2017); Verhoef et al. (2015)
<b>Market configuration (49 references)</b>	Amara et al. (2016); Arvidsson (2021); Aspara et al. (2021); Bankvall et al. (2017); Bengtsson & Kock (2014); Brink (2017); Cantù et al. (2015); Cozzolino et al. (2021); Crick & Crick (2020); Crick & Crick (2021); Dean & Alhothali (2017); Depeyre et al. (2018); Djelassi & Decoopman (2013); Ehret & Haase (2012); Frankenberger et al. (2013); Frehe et al. (2017); Gamble et al. (2021); Garrett & Wrigley (2019); Guercini & Runfola (2020); Gupta (2006); Hänninen et al. (2019); Hynes & Elwell (2016); Iyer (2004); Jocevski et al. (2020); Kapoor et al. (2021); Kennedy et al. (2004); Klarin & Suseno (2021); Klimanov & Tretyak (2019); La Rocca et al. (2019); Lin et al. (2020); Liu et al. (2020); Liu et al. (2021); Maglio & Spohrer (2013); Melander & Muzellec et al. (2015); Ng & Wakenshaw (2013); Nucciarelli et al. (2017); Palo & Tähtinen (2011); Palo & Tähtinen (2013); Rangaswamy et al. (2020); Ritala et al. (2014); Stewart & Zhao (2000); Storbacka & Nenonen (2011a); Storbacka & Nenonen (2011b); Thorbjørnsen et al. (2009); Van Bockhaven et al. (2015); Velu (2016); Wang et al. (2011); Wieland et al. (2017); Xu et al. (2021)

## TABLES & FIGURES

**Table 1. Second-Order Sample for CCA**

Percentage of citations in the first-order sample	Articles published in marketing journals
6,7%	# min citations: 19 Intellectual core: 47
7%	# min citations: 20 Intellectual core: 36
7,4%	# min citations: 24 Intellectual core: 33

**Table 2. Synthesis of the coding process**

Research streams	Conversations	Research themes
<b>Holistic perspective of business models</b>	Business model dynamics	Business model innovation (BMI) Business model design Evolution Flexibility Internationalization
	Business model & IoT	Business model design Business model innovation (BMI)
	Societal issues	Bottom of the pyramid (BoP) Business model innovation (BMI) Corporate social responsibility (CSR)
<b>Downstream perspective of business models</b>	Customers	Alternative consumption Customer behavior Customer impact
	Revenue models	Customer behavior Dynamics Frameworks & tools
	Servitization	Capabilities Customer orientation Dynamics Ecosystem Frameworks & tools Performance
	Retail	Dynamics Network Performance
	Market configuration	Business opportunities Coopetition Network Platform

**Table 3. 30 Most influential articles in the marketing business model literature**

<b>Authors (Date)</b>	<b>Title</b>	<b>Journal</b>	<b>Norm</b>	<b>Raw</b>
Verhoef et al. (2021)	Digital transformation: A multidisciplinary reflection and research agenda	Journal of Business Research	21	98
Verhoef et al. (2015)	From multi-channel retailing to omni-channel retailing. Introduction to the special issue on multi-channel retailing	Journal of Retailing	7	807
Ghezzi & Cavallo (2020)	Agile business model innovation in digital entrepreneurship: Lean startup approaches	Journal of Business Research	7	101
Kumar et al. (2018)	A strategic framework for a profitable business model in the sharing economy	Industrial Marketing Management	6	123
Kohtamäki et al. (2019)	Digital servitization business models in ecosystems: A theory of the firm	Journal of Business Research	6	96
Langley et al. (2021)	The internet of everything: Smart things and their impact on business models	Journal of Business Research	5	23
Vendrell-Herrero et al. (2017)	Servitization, digitization and supply chain interdependency	Industrial Marketing Management	4	214
Terho et al. (2012)	'It's almost like taking the sales out of selling' – Towards a conceptualization of value-based selling in business markets	Industrial Marketing Management	4	143
Hock-Doepgen et al. (2021)	Knowledge management capabilities and organizational risk-taking for business model innovation in SMEs	Journal of Business Research	4	20
Morris et al. (2005)	The entrepreneur's business model: Toward a unified perspective	Journal of Business Research	3	1169
Day (2011)	Closing the marketing capabilities gap	Journal of Marketing	3	441
Bengtsson & Kock (2014)	Coopetition-Quo vadis? Past accomplishments and future challenges	Industrial Marketing Management	3	290
Ng et al. (2017)	The Internet-of-Things: Review and research directions	Int. Journal of Research in Marketing	3	189
Djelassi & Decoopman (2013)	Customers' participation in product development through crowdsourcing: Issues and implications	Industrial Marketing Management	3	165
Lloret (2016)	Modeling corporate sustainability strategy	Journal of Business Research	3	69



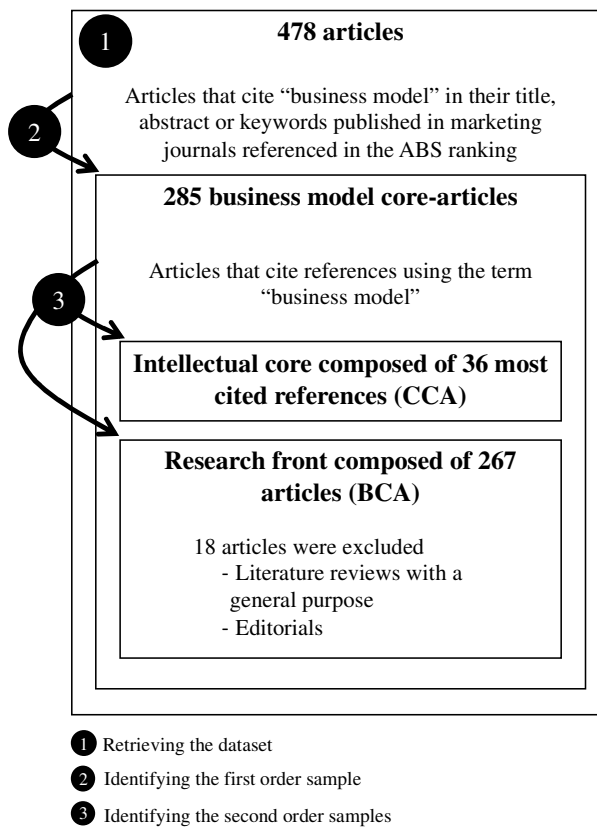
<b>Authors (Date)</b>	<b>Title</b>	<b>Journal</b>	<b>Norm</b>	<b>Raw</b>
Rapaccini et al. (2020)	Navigating disruptive crises through service-led growth: the impact of COVID-19 on Italian manufacturing firms	Industrial Marketing Management	3	45
Parida et al. (2019)	Orchestrating industrial ecosystem in circular economy: A two-stage transformation model for large manufacturing companies	Journal of Business Research	3	44
Crick & Crick (2020)	Coopetition and COVID-19: Collaborative business-to-business marketing strategies in a pandemic crisis	Industrial Marketing Management	3	43
Tronvoll et al. (2020)	Transformational shifts through digital servitization	Industrial Marketing Management	3	38
Caputo et al. (2021)	Digitalization and business models: Where are we going? A science map of the field	Journal of Business Research	3	16
Ciampi et al. (2021)	Exploring the impact of big data analytics capabilities on business model innovation: The mediating role of entrepreneurial orientation	Journal of Business Research	3	16
Matarazzo et al. (2021)	Digital transformation and customer value creation in made in Italy SMEs: A dynamic capabilities perspective	Journal of Business Research	3	13
Miroshnychenko et al. (2021)	Absorptive capacity, strategic flexibility, and business model innovation: Empirical evidence from Italian SMEs	Journal of Business Research	3	13
Tykkylainen & Ritala (2021)	Business model innovation in social enterprises: An activity system perspective	Journal of Business Research	3	12
Weerawardena et al. (2021)	Business model innovation in social purpose organizations: Conceptualizing dual social-economic value creation	Journal of Business Research	3	12
Maglio & Spohrer (2013)	A service science perspective on business model innovation	Industrial Marketing Management	2	158
Barquet et al. (2013)	Employing the business model concept to support the adoption of product-service systems (PSS)	Industrial Marketing Management	2	155
Ricciardi et al. (2016)	Organizational dynamism and adaptive business model innovation: The triple paradox configuration	Journal of Business Research	2	60
Jocevski et al. (2019)	Transitions towards omni-channel retailing strategies: A business model perspective	International Journal of Retail and Distribution Management	2	39
Paiola & Gebauer (2020)	Internet of things technologies, digital servitization and business model innovation in BtoB manufacturing firms	Industrial Marketing Management	2	35

**Table 4. Business model research in marketing journals**

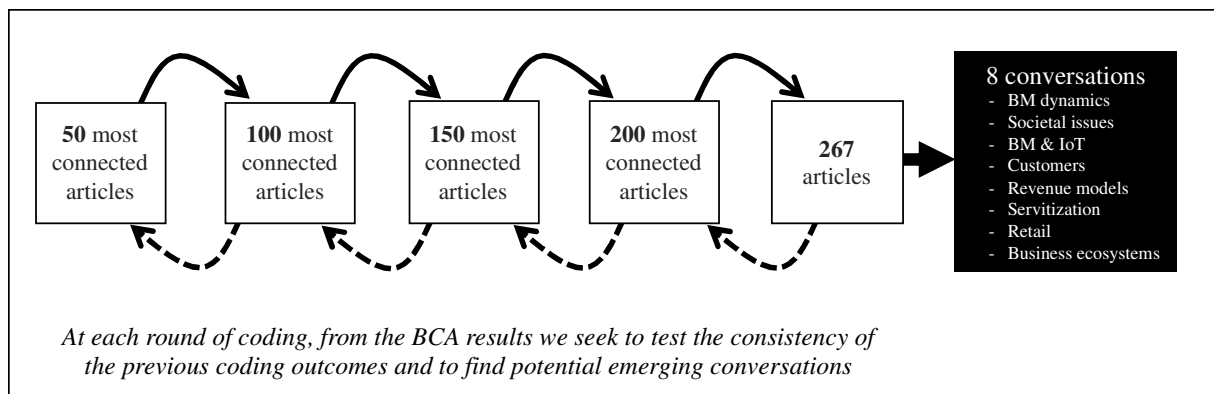
Publications	Marketing journals
[10; 100[	Journal of Business Research (95) Industrial Marketing Management (66) Journal of Business and Industrial Marketing (37)
[1; 10[	International Journal of Retail and Distribution Management (9) International Journal of Research in Marketing; Journal of Retailing and Consumer Services; European Journal of Marketing (6) Journal of Business-to-Business Marketing; International Review of Retail, Distribution and Consumer Research (5) Qualitative Market Research; Journal of Marketing Channels (4) Journal of Services Marketing; Journal of Marketing Research; Psychology and Marketing (3) Journal of Retailing; Journal of Interactive Marketing; Journal of Marketing Management; Journal of Public Policy and Marketing; Journal of Consumer Behaviour; International Journal of Bank Marketing; Journal of Service Theory and Practice; Marketing Intelligence and Planning; Australasian Marketing Journal (2) Journal of Marketing; Qualitative Market Research: An International Journal; Journal of The Academy of Marketing Science; Journal of Consumer Marketing; Journal of Service Research; Marketing Theory; Journal of Consumer Affairs; International Journal of Retail and Distribution Management; Journal of Product and Brand Management; Journal of Brand Management; International Marketing Review; Marketing Letters; Journal of Nonprofit and Public Sector Marketing; Journal of Micromarketing; Journal of International Marketing (1)

**Table 5. Intellectual core of marketing business model literature**

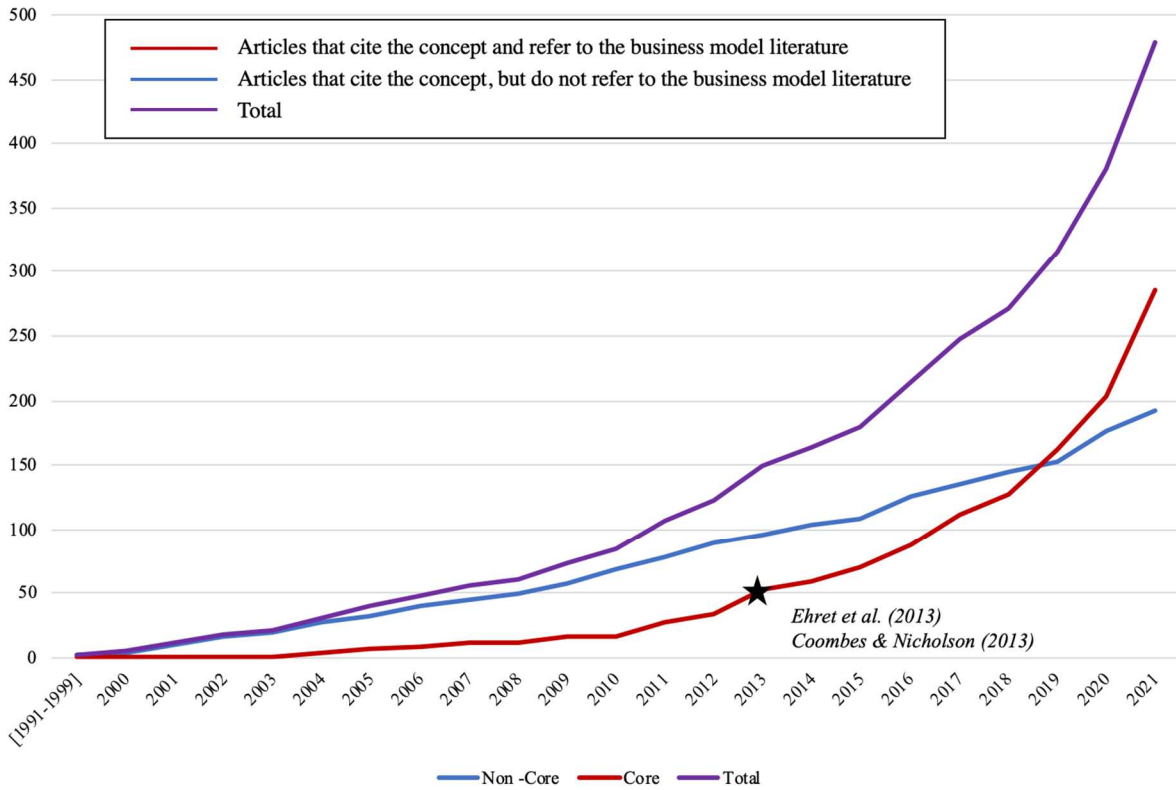
<b>Intellectual core</b>	
<i>Marketing journals</i>	
Dubois & Gadde (2002)	Journal of Business Research
Mason & Spring (2011)	Industrial Marketing Management
Morris et al. (2005)	Journal of Business Research
Oliva & Kallenberg (2003)	International Journal of Service Industry Management
Tuli et al. (2007)	Journal of Marketing
Vargo & Lusch (2004)	Journal of Marketing
<i>Strategy journals</i>	
Amit & Zott (2001)	Strategic Management Journal
Casadesus-Masanell & Ricart (2010)	Long Range Planning
Chesbrough (2010)	Long Range Planning
Demil & Lecocq (2010)	Long Range Planning
Teece (2007)	Strategic Management Journal
Teece (2010)	Long Range Planning
Teece (2018)	Long Range Planning
Teece et al. (1997)	Strategic Management Journal
Wirtz et al. (2016)	Long Range Planning
Zott & Amit (2008)	Strategic Management Journal
Zott & Amit (2010)	Long Range Planning
<i>Entrepreneurship and Innovation journals</i>	
Doganova & Eyquem-Renault (2009)	Research Policy
Osterwalder & Pigneur (2010)	Book
Schneider & Spieth (2014)	International Journal of Innovation Management
Shafer et al. (2005)	Business Horizons
Spieth et al. (2014)	R&D Management
<i>Other journals</i>	
Amit & Zott (2012)	MIT Sloan Management Review
Barney (1991)	Journal of Management
Chesbrough & Rosenbloom (2002)	Industrial and Corporate Change
Eisenhardt (1989)	Academy of Management Review
Eisenhardt & Graebner (2007)	Academy of Management Journal
Foss & Saebi (2017)	Journal of Management
Johnson et al. (2008)	Harvard Business Review
Magretta (2002)	Harvard Business Review
Massa et al. (2017)	Academy of Management Annals
Osterwalder et al. (2005)	Communications of the AIS
Porter & Heppelman (2014)	Harvard Business Review
Yin (1984)	Book
Zott & Amit (2007)	Organization Science
Zott et al. (2011)	Journal of Management



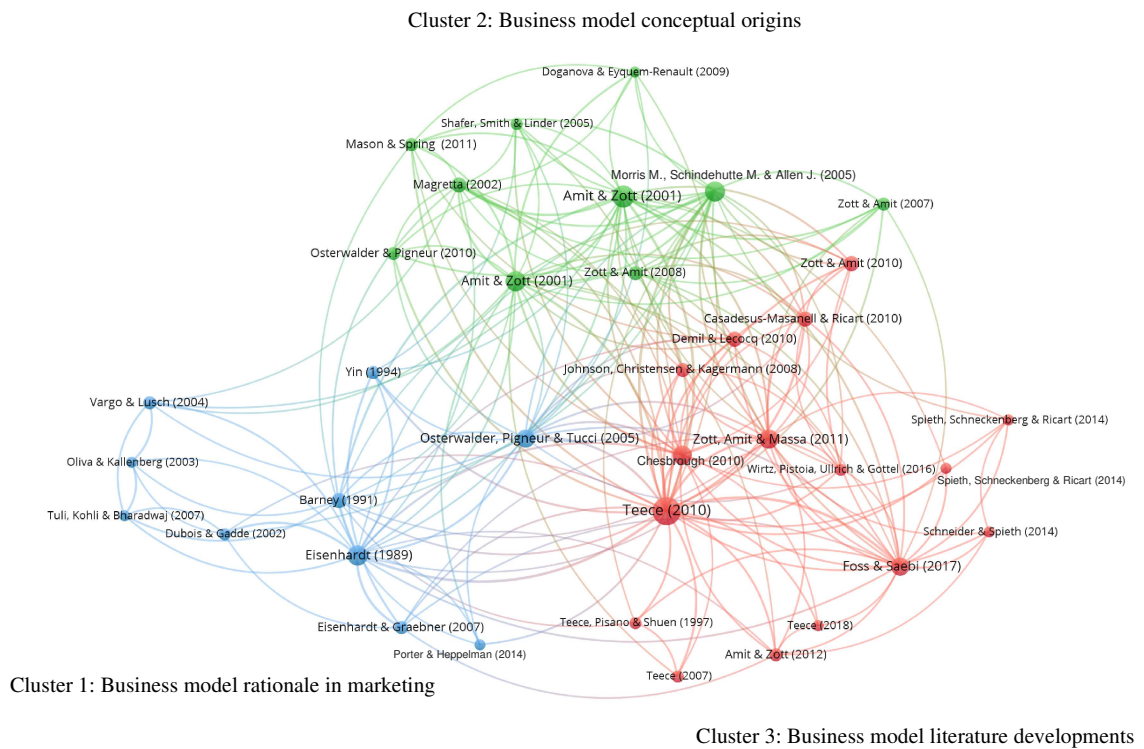
**Figure 1. Data collection process**



**Figure 2. First round of coding: identifying the conversations**



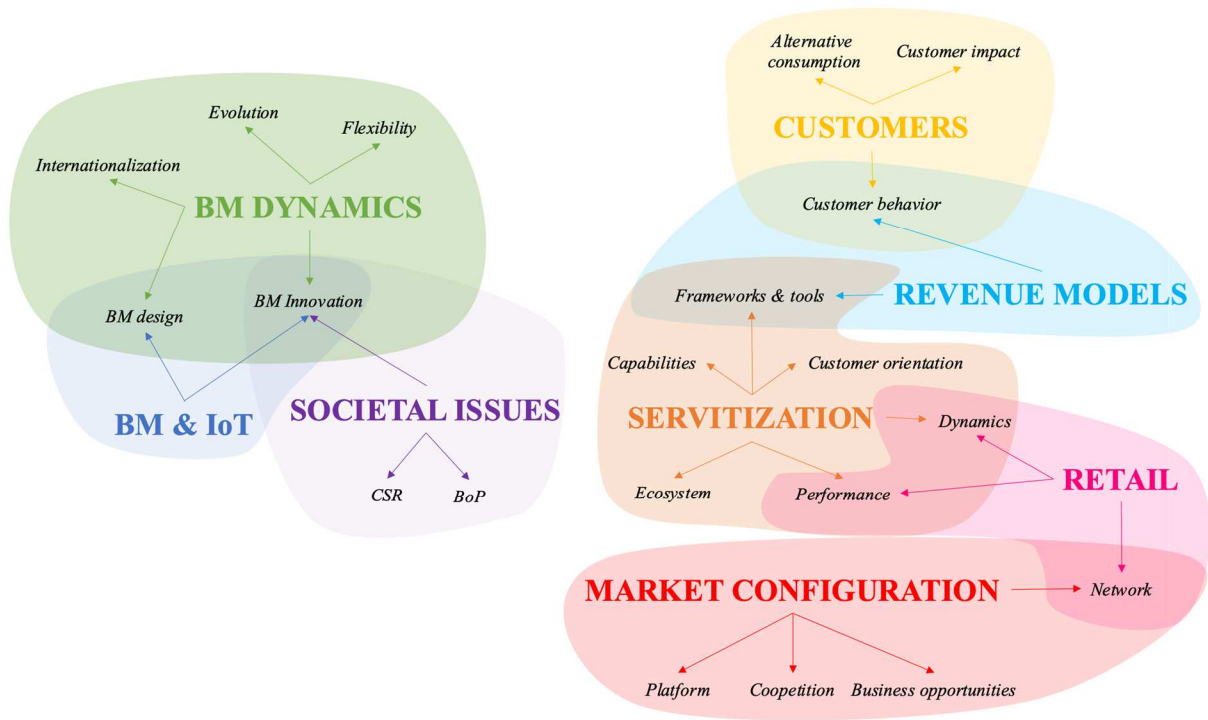
**Figure 3. Dynamics of business model research in marketing**



**Figure 4. CCA mapping of marketing business model research**

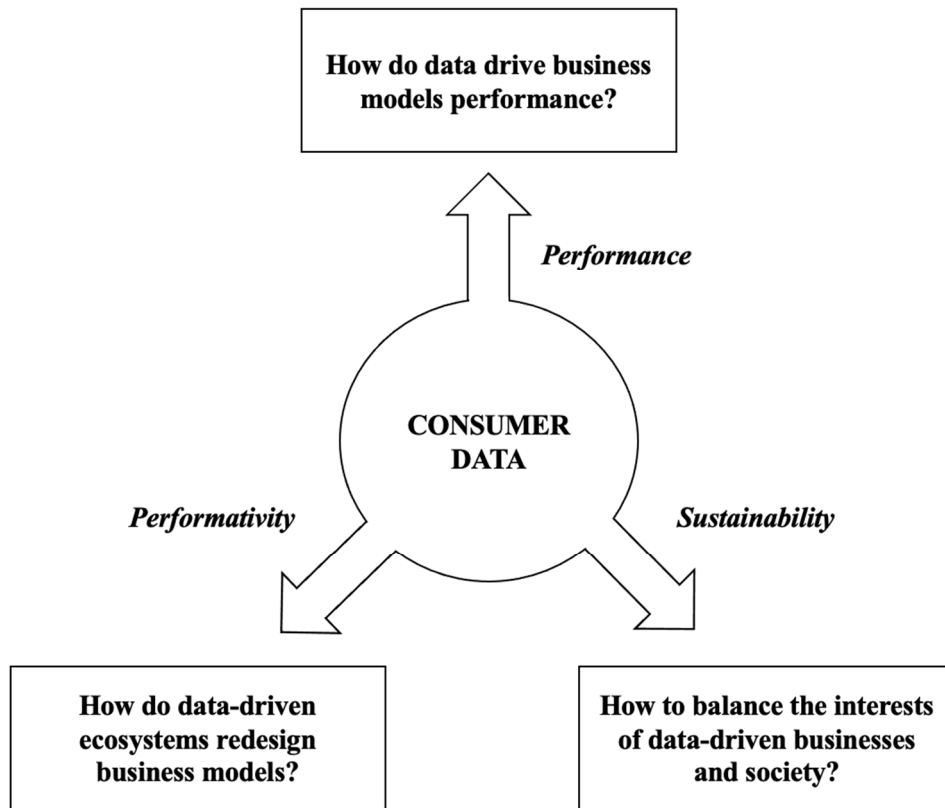
Holistic perspective of business models

Downstream perspective of business models



The research conversation labels are written in capital letters and colored. Each conversation is represented by a colored cloud that covers its related research themes.

**Figure 5. Marketing business model literature network**



**Figure 6. A threefold developmental strategy for business model research**