Integrating The Business Model Puzzle: A Systematic Literature Review

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Abstract

The business model is a fashionable theme, but there is much confusion on its meaning and features. This paper provides a systematic literature review of the business model in Strategy and General Management fields, analysing 282 articles and 11 correlated books. We propose a conceptual framework in order to organise the review according to two areas of interest: the ontological aspects (i.e., origins, definitions, components and taxonomies of the business model; the relationship between the business model and strategy); and the evolutionary aspects (i.e., the business model innovation; the open business model; and the sustainable business model). Results suggest that, despite high academic interest, an agreed conceptualisation of the business model is still lacking. Hence, this study aims to uncover, classify and integrate the main units of analysis on business model research, while also identifying future directions and perspectives.

Keywords: Business Model, Systematic Literature Review, Business Model Innovation, Open Business Model, Sustainable Business Model.

1. INTRODUCTION

The concept of the Business Model (BM) became popular in the 1990s but has achieved much more widespread adoption in practice [75], [110] than in academic research, as the emergence of the BM concept was not theory-driven [131]. The previous literature reviews on the BM (Appendix 1) provided causes for reflection, increased the knowledge of the theme and attracted the attention of many scholars. However, the proliferation of multi-faceted contributions has led to the need to review them by proposing a systematic literature review with the aim to uncover, classify and integrate the main units of analysis on BM research, with particular attention to its evolutionary aspects. Moreover, the diffusion of several types of BM to satisfy the different needs of firms requires a definition of the basic elements and features that characterize the concept of BM.

In this context, this paper provides a systematic literature review on the BM in the field of management and strategy. Adopting a replicable, scientific and transparent process, we identified key scientific contributions to this theme. We analysed 282 articles and 11 books, identifying two areas of interest: the ontological aspects (origins, definitions, components and taxonomies of the BM; the relationship between BM and strategy); and the evolutionary aspects (Business Model

Innovation (BMI); the Open Business Model (OBM); and the Sustainable Business Model (SBM)). The findings show the existence of numerous and different contributions on the BM and pinpoint gaps and aspects that should be deepened in future research.

The remainder of this paper is structured as follows. In the next section, we explain the method adopted for the systematic literature review. The third section reports the results of the review, organised according to the areas of interest identified. The last section draws conclusions, limitations, and suggestions for future research.

2. METHOD

Traditional "narrative" reviews lack rigour, while systematic reviews differ by adopting a replicable, scientific and transparent process. Therefore, we chose to realise a systematic review to limit systematic error, mainly by attempting to identify, appraise and synthesise all relevant studies, following the method proposed by Tranfield et al. [174] within the management field. It comprises three stages that incorporate nine phases (Table1).

Stage I - Planning the review
Phase 0 - Identification for the need for a review
Phase 1 - Preparation of a proposal for a review
Phase 2 - Development of a review protocol
Stage II - Conducting a review
Phase 3 - Identification of research
Phase 4 - Selection of studies
Phase 5 - Study quality assessment
Phase 6 - Data extraction and monitoring progress
Phase 7 - Data synthesis
Stage III - Reporting and dissemination
Phase 8 - The report and recommendations
Phase 9 - Getting evidence into practice

TABLE 1: Stages of A Systematic Review [174].

Stage I – "Planning the review". We initially identified the need for a systematic literature review (Phase 0) of the BM concept and aspects addressed by scholars. Regular meetings and discussions led us to prepare a proposal for a review (Phase 1), in which we agreed to delimit the review to strategy and management field.

After an iterative process of clarification and refinement, we developed a review protocol (Phase 2), that is, a plan that helps to protect objectivity by providing an explicit description of the steps to be taken [173].

Stage II – "Conducting a review". We identified keywords and search terms following the method proposed by Massaro et al. [123], selecting the approach of "a keyword search in a particular field", according to which it is necessary to identify a set of sources, such as journals, and select a keyword (Phase 3). Therefore, we searched for contributions that contain "Business Model" in the article title, abstract or keywords, and those published in journals ranked in the ABS for the "General Management, ethics and social responsibility" and "Strategy" categories (Phase 4). We used both the ISI Web of Science search engine and the Scopus database, excluding books, book reviews, and conference papers. The choice to search for contributions published in journals ranked in the ABS allowed us to satisfy a reasonable degree of quality assessment (Phase 5).

In the phase of selection of studies, we decided to include “Strategic Entrepreneurship Journal”, for the Special Issue on BM in 2015, and “Journal of Business Models”, because it is specifically focused on this topic.

Discarding articles present in both databases, we obtained 600 articles. We carefully read the abstracts of these articles and noted that some of them concern the BM in a marginal way or are focused on other themes (Phase 6). Hence, the final number of articles that we considered for this review was 282.

To select books, we utilised the backward search, that is, reviewing the references of the articles yielded from the keyword search, identifying 11 books on BM, cited by the 282 articles selected. Moreover, we also considered some pioneering contributions such as Viscio and Pasternack [178], Timmers [172], Alt and Zimmermann [8], Tapscott [167], and Dubosson-Torbay et al. [65], – although they were not published in the considered journals –, as well as the work of Ghaziani and Ventresca [76] – for the important analysis of the term “BM” over the years – and Baden-Fuller et al. [17].

For each of these contributions, we noted the following information in a chart: title, author, year, journal in which it was published and the summary of its content. In this way, we identified a synthesis of what has been written on a subject or a topic (Phase 7). According to Massaro et al. [123], researchers must identify units of analysis within selected papers and treat them as independent elements to be measured and analysed, and, as stated by Krippendorff [105], units should not be considered givens, but they emerge in the process of reading. Hence, we developed a conceptual framework (Figure 1) as a tool to map current research that stems from the analysis of the articles. On the left side, we include the ontological aspects of the BM: origins, definitions, components, and taxonomies. We also consider strategy as a comprehensive thematic background in order to identify the relationships between the BM and strategic concepts, theories, and approaches. On the right side, we placed the innovative aspects of the BM, that is, BMI, the OBM, and the SBM.

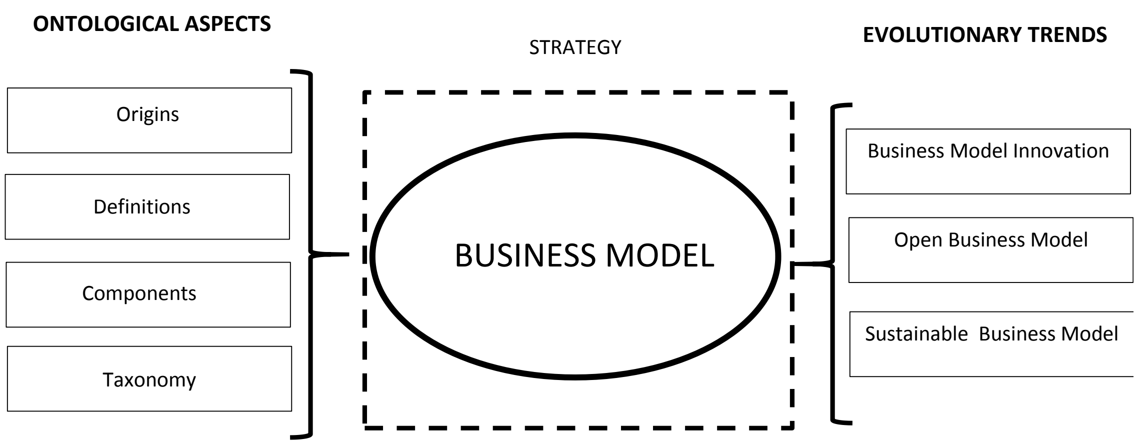

FIGURE 1: Conceptual Framework for the systematic review.

Stage III – Reporting and dissemination. In Phase 8, we provided a full “descriptive analysis” of the field, reporting the findings of a “thematic analysis”, and lastly, we got evidence into practice (Phase 9).

3. RESULTS

3.1 Origins of the Business Model

According to Markides [118], the concept of the BM is not new, and its first use in the literature is traceable to Lang [109]. Osterwalder et al. [139] found that the term "BM" was used for the first time in an academic article in 1957 [22] to refer to the simulation of reality through a model but it was Jones, in 1960, who used "BM" for the first time in the title and abstract of an academic article, published in the Accounting Review [59]. Other uses were in McGuire [126] and the Manson Research Corporation [117]. Konczal [103] and Dottore [63] are considered pioneers of the BM concept for the proximity to today's understanding of the term [185].

The theme of BM attracted increased attention from the 1990s, in the context of the "New Economy". Viscio and Pasternak [178] identified some forces that drove this age of change: information was becoming rapidly available, markets were globalizing, intensive competitive pressure had been intensifying, the pace of business was faster, industry structures continued to evolve, technological innovation created new market opportunities, and capital markets evolved significantly. Additionally, other factors are considered, i.e., the advent of the Internet, the deregulation of certain industries, the adoption of e-commerce [60], [193] and the privatisation and advances in ICT [154], [37]. In the literature, the growing interest in this theme is highlighted by the progressive increase of articles published, in particular from 1995 [76].

Until the beginning of the 2000s, the main theme has been the e-BM [172], [115], [9] because the area of interest was ICT. The BM was used to explain to investors how new firms of the Internet industry can generate value from technology, share value between stakeholders [132] and generate income thanks to strategic innovations in terms of activities or sources of revenues from incumbent firms [143], in comparison to their brick and mortar counterparts. The emergence of the new way of doing business arose from the consequences of environmental changes, such as the reduction of transaction, communication and collaboration costs; a cheaper integration of customers in the company; the highest marketing speed; and the loss of efficiency of economies of scale.

Subsequently, the BM was used in many sectors and industries and for many purposes; these are the reasons why, even today, there is no unified definition of the BM [69].

3.2 Definition of the Business Model

One of the main debates on the BM concerns its definition. In the early years, a few scholars were worried about giving an agreed definition. Mullins and Komisar [134] underlined that, since its advent, the BM has come to mean everything and anything and nothing at all. In 1998, Timmers argued that the literature about Internet e-commerce was not consistent in the usage of the term "BM", and often authors did not even give a definition of the term. This situation persisted until the beginning of the 2000s, and as argued by Eisenmann et al. [66], "BMs are widely used but rarely defined". With the diffusion of the BM beyond the e-commerce sector, the number of definitions multiplied, but each scholar adopted a particular definition according to their own interest [130]. Differences observed in the way to conceive the same concept can be ascribed to the diversity of fields to which the studies belong, the focus on several aspects of the BM, and the scope for which the BM is used.

Porter expressed a critical position with respect to the BM from the outset and defined the BM as a part of the Internet's destructive lexicon, as an invitation for faulty thinking and self-delusion, and stated that the definition of a BM is murky at best and simply having a BM is an exceedingly low bar to set for building a company [145].

Baden-Fuller and Mangematin [18] took a particular position. They believed that, despite the debates on the definition of the BM, there was an effective agreement among scholars: the model must link the workings inside the firm to outside elements, including the customer inside and how value is captured or monetised.

We systematised definitions of the BM on the basis of principal concepts that authors associated with the BM, taking the cue from Zott et al. [193] (Appendix 2).

The BM has been defined as “a description” of an entire system [129], a complex business [12], how the firm operates [119], a company’s value proposition [131], the rationale of how an organisation creates, delivers and captures value [138], the value logic of an organisation [69], and the combination of firms’ business strategy, organisation and capabilities [41]. Moreover, the BM illustrates how the enterprise is positioned within its market sector and how it organises its relations with its suppliers, clients, and partners in order to generate value [56]. Similarly, Weill and Vitale [180] defined the BM “as a description of the roles and relationships among a firm’s consumers, customers, allies and suppliers that identifies major flows of product, information and money and the major benefits to participants”.

Shafer et al. [160] and Arend [13] defined the BM as a “representation” of a firm's underlying logic and strategic choices for creating and capturing value within a value network.

Timmers [172] was one of the first authors who provided a definition of the e-BM as an “architecture” for product, services and information flows, including a description of various business actors and their roles, a description of the potential benefits for these actors and a description of sources of revenues. Several authors took inspiration from Timmers’ [172] definition, such as Tapscott [167] and Al-Aali and Teece [6].

According to Magretta [114], the BM is a “story” that explains how the enterprises work and describes, as a system, how the pieces of a business fit together. Therefore, the BM answers Peter Drucker’s age-old questions: who the customer is, what does the customer value, how do we make money in this business, and what is the economic logic that explains how we can deliver value to customers at an appropriate cost. Similarly, Mitchell and Coles [127, 128] defined the BM as the who, what, when, where, why and how much a company uses to provide its good and services and receive value for its efforts.

Casadesus-Masanell (Ricart, [35]; Zhu, [38]; Heilbron, [34]) claimed his vision of the BM as a “set” of choices. Similarly, Girotra and Netessine [79] referred to a “set” of key decisions, while Afuah [3] and Aversa et al. [15] considered the BM as a “set” of activities and cognitive actions. Doz and Kosonen [64] referred to “sets” of structured and interdependent operational relationships between a firm and its customers, suppliers, partners and other stakeholders. In this way, they referred to the objective definition of the BM that is opposed to a subjective definition that is linked to a cognitive structure and recalled by Martins et al. [121].

The definition of the BM as a “system” of activities has been shared by many authors (e.g., [16]; [176]).

Nevertheless, many contributions on the BM referred to a plethora of concepts (Appendix 2).

The academic community is not the only one to question the definition of the BM. There are research studies published by consulting companies, including PwC, EY, and international organisations such as IIRC (International Integrated Reporting Council) that defined the BM as the organisation’s chosen system of inputs, business activities, outputs and outcomes that aims to create value over the short, medium and long-term [90].

3.3 Components of the Business Model

Regarding the components of the BM, there is not an agreement in the literature, as was the case for its definition. Components are also named building-blocks [138], key questions [130] or functions [51]. To analyse contributions, we created a chart that highlights the model proposed by each author, the number of components for each one, and the classification of components based on four macro categories, i.e., customer category, organisation category, strategy category, financial category. Each comprises dimensions in which are inserted components on the basis of the significance attributed by the author. The last column indicates the number of components proposed by each author, while the last row indicates the number of single dimensions and macro-categories (See Appendix 3).

3.3.1 Customer category

With "customer", the authors referred to "customer segment" and "customer" as the different groups of people or organisations an enterprise aims to reach and serve [181] [138]. "Value proposition" is strictly linked to the "customer segment" [181] and is intended as the answer to the question "Who are our customers, and what do we offer to them that they value?" [189]. Thus, the value proposition refers to the products and services a firm offers [65] [5], and it seeks to solve customer problems and satisfy customer needs [138]. According to many authors, the value proposition helps customers to more effectively, conveniently, and affordably do a job they have been trying to do [95].

The dimension "relationship" has been considered by Dubosson-Torbay et al. [65] and Osterwalder and Pigneur [138], including the customer relationship, the infrastructures and the network of partners (that are necessary in order to create value and to maintain a good customer relationship), and channels [181] to communicate and reach customer segments to deliver a value proposition.

3.3.2 Organisation Category

"Organisation" is the widest dimension because it includes many aspects of the firm related to business management, including: "governance" [178]; "choices" and "consequences", considered the concrete choices made by management about how the organisation must operate and the consequences of these choices [36]; "structure", which determines which roles and agents constitute and comprise a specific business community [8]; and "market factors", defined as the type of organisation (B2B, B2C or both) [130]. Other components refer to the organisation of activity and the relationship with other firms to combine resources [60] and to the manner in which the value proposition is feasible [69] and in which it delivers its products or services to its target customers [91].

The dimension "value creation" includes the "value constellation", that is, how value is created [158] [189], and the "value network", which includes all elements that allow for creating value as suppliers and information flow, etc. [179] [160].

The dimension "activities" concerns the choices of activities that the enterprise would perform [138] [88].

With "process", the authors referred to different key elements of the business organisation. Alt and Zimmermann [8] and Johnson et al. [95] referred to the process of value creation; Johnson et al. [95] highlighted the ways of working together to address recurrent tasks in a consistent way, while Ricciardi et al. [148] focused on interactions.

The components of the BM proposed by Amit and Zott [9] and Mason and Leek [122] merit a separate mention. Mason and Leek [122] referred to the specific case of BM evolution and identified the inter-firm routines (i.e., the transfer mechanisms that would be used in the early stages of the dynamic BM), the network structure (i.e., how actors worked together) and forms of knowledge (that we included in the "strategy category").

Amit and Zott [9] focused on transaction and identified the following components: the transaction content (i.e., the good or information that are being exchanged), the transaction governance (i.e., the ways in which flows of information, resources and goods are controlled), and the transaction structure (i.e., the parties that participate in the exchange and the ways in which these parties are linked). Subsequently [192], they referred to the BM as an activity system and indicated the activity system content (the selection of activities), the activity system structure (how the activities are linked), and the activity system governance (who performs the activities) as components.

Moreover, they proposed four value drivers of e-businesses: novelty, lock-in, complementarity, and efficiency.

3.3.3 Strategy Category

The dimension “strategy” includes all components that refer to strategic aspects, such as “business units” [178], “mission” [8], “strategic objectives” and “success factors” [181], and “scope” [5]. Some authors referred to components necessary to achieving competitive advantage, such as “sustainability” of a competitive advantage [5], “competitive strategic factors” [130], “market power of innovators versus owners of complementary assets” [158], and “process or operational advantage”, which yield performance benefits when more adroit deployment of resources leads a firm to enjoy superior efficiency or effectiveness on the key variables that influence its profitability [125].

In “resource”, we included all components that refer to the resources necessary for the firm to achieve a competitive advantage. Some authors just indicated the term “resources” [60] [52] or “key resources” [95] [138] [148], while others indicated in detail what type of resources they considered essential for the BM, e.g., “technology” [8], “forms of knowledge” [122], and “IT infrastructure and core competencies” [181].

“Capabilities” are referenced both in general [5] and as “internal capabilities” inclusive of production/operating systems, selling/marketing, and information management, etc. [130], as well as “leadership capabilities” [179].

3.3.4 Financial Category

Dimension “costs” refer to the “cost structure” [5] [138]. “Profit” is considered irrelevant for the BM by Mullins and Komisar [134] but is mentioned by many authors in the form of “profit site” [5] to indicate its location in a value configuration; “profit formula” to indicate margins and velocity required to cover assets and fixed cost structure and how the company creates value for customers and company [95] [52]; “profit model” [91]; and “profit equation”, to indicate how value is captured from revenues generated through the value proposition [188].

All authors that have considered “revenues” a component of the BM (e.g., [115] [8] [133], which refers to the cash a company generates from each customer segment [138].

3.4 Taxonomies of the Business Model

“Taxonomy emerged as an explicit logic of classification, developed first by Plato and Aristotle. In many ways, it is the foundation of all natural science, establishing fundamental similarities and differences” [58]. Taxonomies delimit and classify different types of organisations “a posteriori” and provide the basis for explaining, predicting, and understanding organisational phenomena [120]. In fact, as Crombie and Hacking note, taxonomy is one of the classic means of acquiring scientific knowledge [19].

We ordered the publications on taxonomies of the BM in chronological order, indicating the number of taxonomies for every single author (see Appendix 4). It is highlighted that from 1998 to 2003 the shared feature was the use of Internet and electronic commerce to conduct business.

Timmers [172] for the first time classified the different way of doing business electronically, without using the term taxonomy, identifying 11 BMs.

Later, Weill and Vitale [181] identified 8 “Atomic eBMs”, while Afuah and Tucci [5] proposed a taxonomy based on seven revenue models.

Also, Lam and Harrison-Walker [107] proposed a classification of e-BMs, but it was based on two dimensions: relational objectives and value-based objectives. The first dimension was, in turn, decomposed into direct access, network development, and corporate communications; the second dimension included financial improvement and product, and channel enrichment.

Wirtz and Lihotzy [186] classified four basic Internet BMs, according to the way they were financed.

Starting from 2005, taxonomies refer to the different way to create value.

Allmendinger and Lombreglia [7] focused on four basic BMs available to product makers that decide to embrace smart services, while Schweizer [158] identified four kinds of BMs that differed for the relationship between the firm and the value chain.

Zott and Amit [191] based their classification of the BM on novelty and efficiency variables. The novelty-centred BMs refer to new ways of conducting economic exchanges among various participants, while efficiency-centred BMs refer to the measures firms may take to achieve transaction efficiency.

The taxonomy developed by Camison and Villar-Lopez [33] was the result of a cluster analysis of BMs in Spanish industrial corporations, from which 4 distinct categories emerged: the multidivisional model, integrated model, hybrid model and network-based model.

In addition, Sanchez and Ricart [154] proposed a classification of BMs based on the different pattern of entry into low-income markets: Isolated BMs act as efficiency seekers and attempt to take advantage of differences in factor productivity endowments; Interactive BMs are mainly focused on learning and innovation and tend to have an increased number of interdependencies with local and fringe actors.

Johnson [94] pinpointed 3 BM archetypes and discussed their differences. The “solution shops” comprised professional service companies that customise solutions to unique problems, and their primary resources were people and knowledge; the “value-adding process businesses” produces high-volume solutions at a lower cost, and their ability is to invent, manufacture, market and distribute their goods or service at scale; the “facilitated networks” provide the backbone systems with which like-minded customers can exchange goods and services, share information, collaborate, or socialise with little intermediation.

Chatterjee [45] categorised BMs based on efficiency and perceived value, but he also considered a variant for the diffusion of efficiency through the value chain thanks to the connection with suppliers, customers, and stakeholders.

Lyubareva et al. [111] identified three online BMs whereas Baden-Fuller et al. [17] proposed four conceptual principle-based BM categories.

The most recent contribution is that of Kortmann and Piller [104] that proposed a 3x3 matrix, to identify 9 BM archetypes, in which the horizontal axis distinguished three stages of value creation that offer various options to capture value (production, consumption stage, and circulation), while the vertical axis distinguished three types of collaboration that can be used to reallocate activities to external partners (closed BMs, alliances, and platforms).

3.5 Business Model and Strategy

Strategy and the BM share the problem of lacking a univocal definition; therefore, after an initial overlapping of the two concepts, many academics attempted to define borders and differences between strategy and the BM. The initial confusion was linked to the fact that the term BM is used ambiguously in the corporate strategy literature without clear differentiation from other closely related concepts, such as business strategy [33]. Seddon et al. [159] speculated that people with an information technology background prefer the term BM, while people with a management background use the term strategy instead. For many researchers, the origins of the BM concept can be found in Chandler’s “Strategy and Structure” [44]. The position of Afuah and Tucci [4] is emblematic because they described the BM as “how the firm plans to make money long-term using the Internet.” In fact, “this definition is a modern variation on Andrews’ definition of the strategy of a business unit" [51]. Chesbrough and Rosenbloom [51] considered the definition of corporate and business strategy of Ansoff [11] as a predecessor of and equivocated to that of a BM definition.

For many authors, strategy is distinct from the BM [114] [18] because they refer to different factors: the former is more focused on value capture, competition and value for shareholders, while the latter focuses on value creation, cooperation and value for stakeholders [51] [193].

Casadesus-Masanell and Ricart [36] reinforced this belief, highlighting that "every organisation has some BM and not every organisation has a strategy". Furthermore, the BM can be viewed as a reflection of the realised strategy [160], suggesting that strategy can be viewed as a contingent plan that helps the BM development. [138] reversed this perspective, stating that the BM is similar to a blueprint for a strategy to be implemented through organisational structures, processes, and systems. George and Bock [75] stated that strategy is a dynamic set of initiatives, activities, and processes, whereas the BM is a static configuration of organisational elements and activity characteristics. Moreover, strategy may be reflexive and is competitor- or environment-centric; the BM is inherently non-reflexive and opportunity-centric. Finally, strategy is the process of optimizing the effectiveness of that configuration against the external environment, while in contrast, the BM is the organisation's configurational enactment of a specific opportunity.

DaSilva and Trkman [59] counterposed two concepts using the same underlying logic related to vision and mission and emphasised that strategy reflects what a company aims to become, while BMs describe what a company really is at a given time.

The incentive at the interest towards the BM was given by the need to find an explanation for the fact that some businesses are more profitable than others, in the same industry, even if they apply the same strategy [136]. Similarly, neither strategy nor BMs, in isolation, indicate success for an electronic business, but both are required [116].

In the strategic field, many academics have attempted to find a theoretical foundation and a framework to analyse the BM, and they take as reference many theories such as transaction cost economics, Schumpeterian innovation, the resource-based view of the firm (RBV) and dynamic capabilities, strategic networks, and value chain analysis [36].

The transaction cost theory was proposed for the first time by Coase [53] and further developed by Williamson [183], who claimed that the transaction's efficiency increases with the decrease in transaction costs. Transactions made through the Internet reduce costs thanks to the universality, distribution channel and low-cost standard [5], and the softening of asymmetry information for the ease way in which consumers can obtain information, and this discourages opportunistic behaviours [9] [161]. In particular, [191] focused on the novelty and efficiency as design themes of BMs, which, respectively, are referred to as the new way to conduct economic trade among attendees and to efficiency that allows for the reduction in transaction costs.

Afuah and Tucci [5] ascribed to the Internet the property of creative destroyer, and in an explicit way, they linked it to Schumpeter's "creative destruction" in many industries. Casprini [40] moved from the Schumpeterian innovation theory of economic development to define BMI as "a fundamental rethink of the firm's value proposition in the context of new opportunities". Moreover, in line with the five sources of value creation noted by Schumpeter, BMI may be seen as a source of value creation [9] capable of disrupting existing industry structures.

The RBV is used in academia to explain the origin of the BM concept [185], based on Schumpeter's vision [157] of value creation through the unique combination of resources. Many researchers considered it an ideal theoretical framework to analyse the capability of the BM to determine the development of competitive advantage that, therefore, depends on features of each BM [84] [33]. Moreover, the RBV attempts to convince the managers to first look inside their firms, rather than outside [77], and the BM is a tool that allows them to concentrate on all internal aspects of the firm and evaluate them as single units and as a part of a complex system. An important contribution to the RBV was given by Penrose [141]. She claimed that the growth of firms is the result of the interaction among its resources, organisation, and capabilities to offer a new value proposition in the market. This theory is used by Demil and Lecocq [60] as a basis for the concept of the BM operational and of the RCOV (Resource Competencies Organization Value) model. They hold that the Penrosian view helps to ground the concept of BM in a solid and parsimonious theoretical framework because it provides analytical categories that help us anchor the concept and to provide a clear understanding of the BM dynamic, as well as introduce the idea that disequilibrium is a permanent characteristic of firms' BMs.

The dynamic capabilities perspective emerges as a reaction to the limits of the RBV, to explain how firms can sustain a competitive advantage although sudden environmental changes. This perspective is used when the enterprise is exposed to uncertainty and to changes and it needs to react, changing resources on which the value creation is based, reconfiguring the way of doing business [156] [2]. The dynamic capability can be considered the ability to seize new opportunities and to change the existing BM by reconfiguring the value chain constellation and protecting knowledge assets, competencies, complementary assets and technologies in order to achieve sustainable competitive advantage [158].

Strategic networks are defined as long-term agreements between different but linked organisations, which allow firms to gain a competitive advantage over competitors outside the network [92]. Gulati et al. [81] highlighted the idea that strategic networks potentially provide a firm with access to information, resources, market and technologies with an advantage from learning, scale and scope economies and allow firms to achieve strategic objectives. Hamel [82] argued that for entry into the "age of revolution", it is necessary for firms to develop a new BM in which both value creation and value capture were included in the value network.

The strategic networks theory is used to partially explain the success of the earliest e-BM [9] [107]. Recently, it was used as a theoretical framework for case studies on the BM [113] [85] and by the literature, on BMI [122] and the OBM [48].

Furthermore, in the recognition of the components of the BM, academics frequently referred to the "network" component, both for the value network [179] [160], and the partner network. In the network, the essential element is the customer, who cannot be considered an inert subject, but a protagonist of the co-creation of value [146], and based on this certainty, the user-centric BM was introduced [86]. In particular, with 'user-centric BMs', they meant BMs designed to allow, and even to trigger, involvement from users in activities at all stages of the value chain and from designing new products and developing production processes to crafting marketing messages and managing sales channels.

Afuah [3] applied Porter's theory on competitive strategies to the BM, affirming that a firm makes more money than its rivals if its BM offers products or services at a lower cost than do its rivals, or offers differentiated products at premium prices that more than compensate for the extra costs of differentiation; the firm is well-positioned vis-a-vis its suppliers, customers, rivals, complementors, substitute products and potential new entrants to appropriate value. Zott and Amit [190] addressed the relationship between the BM and product market strategies (differentiation and cost leadership), suggesting that these concepts are complements rather than substitutes.

Even value chain analysis is a strategy tool introduced by Michael Porter [144] to analyse value creation at the firm level that can be helpful in examining value creation in virtual markets [9]. Therefore, a systematic approach to identify architectures for BMs can be based on value chain de-construction and re-construction [172]. The theme of de-construction of the value chain is also used for the creation of new businesses or to create the BM [158]. According to Chesbrough and Rosenbloom [51], the purpose of the BM is to define the structure of the value chain within the firm required to create and distribute the offering. In this sense, the BM expresses how a company makes money by specifying where it is positioned in the value chain [147].

There is an emerging literature in strategy that explores competitive interactions between organisations with different BMs. Casadesus-Masanell and Ricart [37] asserted that to compete with rivals that have similar BMs, companies must quickly build rigid consequences so that they can create and capture more value than rivals do, while it is different when enterprises compete against dissimilar BMs because, in this case, the results are often unpredictable. Moreover, they highlighted that companies can compete through BMs in three ways: they can strengthen their own virtuous cycles, block or destroy the cycles of rivals, or build complementarities with rivals' cycles, which results in substitutes mutating into complements.

Wirtz [184] identified three generic strategies to defend the competitive sustainability of the BM: the block strategy, the run strategy, and the team-up strategy.

3.6 Business Model Innovation

The theme of BMI is more recent than the concept of the BM, as demonstrated by the trend in publications, which shows an exponential growth of articles on BMI since 2006. Such a theme is addressed in several research fields, as innovation management, strategic management, and entrepreneurship literature [156] - in which we found the largest number of articles – in engineering and computer science. We also retrieved some specific literature reviews on BMI: Schneider and Spieth [156], Spieth et al. [164], Casprini [40] and Foss and Saebi [70]. This suggests that such a topic is an important phenomenon that needs to be conceptualised and theorised on its own [70], considering that the definition of BMI is not agreed upon. It has been noted that many companies become too focused on executing today's BM and forget that BMs are perishable [80]) because, in the past, executives had the luxury of assuming that BMs were more or less immortal [83].

Factors that led companies to feel the need to innovate the BM are the effects of increasing globalization of the business environment, technological and behavioural developments [156], interindustry competition, and the disruptions from BMs that offer better customer experiences instead of simply products [125].

According to some authors, BMI can be considered the new driver of competitive advantage [41]: in fact, the company has at least as much value to gain from developing an innovative new BM as from developing an innovative new technology [49].

Some authors address factors that drive BMI. Johnson et al. [95] observed five strategic circumstances that require BM change: the opportunity to address the needs of large groups of potential customers through disruptive innovation; the opportunity to capitalise on a brand – new technology by wrapping a new BM around it; the opportunity to bring a job-to-be-done focus where one does not yet exist; the need to fend off low-end disrupters; and the need to respond to a shifting basis of competition. Coblence and Sabatier [54] argued that six drivers of BM revision can be identified from the literature: technology, competition, environment, customer needs, profitability, and organisational architecture. Martins et al. [121] argued that the BM can be proactively innovated in the absence of exogenous change through processes of generative cognition.

BMI is different according to not only the distinct phases of the life cycle of the enterprise [163] but also the type of firm. Indeed, many research studies have suggested that family businesses innovate less because of their risk-averse strategic management [28], while Yunus et al. [188] compared the BMI literature and the Grameen experience to explain how to build social BMs. Bouncken and Fredrich [30], through case studies, showed that the firm's alliance experience enhances the value capture of BMI, similar to alliance research, which looks at performance in alliances on a more general level.

Some authors showed a sequence that encompass intertwined determined and emergent changes affecting core components on their elements [60], while others claimed that BMI refers to the search for new logics of the firm and new ways to create and capture value for its stakeholders [39] or represents a firm's response to changing sources of value creation [156]. Recently, Foss and Saebi [70] defined BMI as designed, novel, and nontrivial changes to the key elements of a firm's BM and/or the architecture linking these elements, while Berends et al. [23] discussed process in which action and cognition intertwine, and Wirtz [185] outlined the description of the design process for giving birth to a fairly new BM on the market.

Recently, a debate arose in the literature around the type of change that correctly can concern the BMI, depending on whether it interests any of the building blocks of a BM [127] or that is a radical change in the way a company does business [168]. According to some authors, BMI occurs when a firm adopts a novel approach to commercialise its underlying assets [72] or by adding novel activities, by linking activities in novel ways or by changing one or more parties that perform any of the activities [10]. Additionally, Demil and Lecocq [60] claimed that the observable sign of BM evolution is a substantial change in the structure of its costs and/or revenues, re-engineering an organisational process and externalising a value chain activity.

Another aspect addressed in the literature is the process of BMI. Mullins and Komisar [134] pinpointed a systematic and continuous process to innovate the BM, comprising four key building blocks: analogues, antilogs, leaps of faith, and dashboards. Johnson [94] believed that the BMI is an iterative journey and, therefore, you may need to move back and forth between the boxes before you come up with the right design that makes all four components work together correctly. Cavalcante [42] asserted that there is a "pre-stage", that is, a new empirical based construct that suggests that there might be an intermediary step before effective BM change. During the pre-stage, managers need to support the creation and development of new, specific core processes that will lead to the particular type of BM change they plan.

In the process of BMI, the role of entrepreneurs is crucial to proactively address evolving customer needs [62] and to maintain a dynamic perspective on their BMs with a focus on continuous fine-tuning and adaptation to ensure sustainable value creation, robustness, and scalability [163]. Organisations need to identify internal leaders for BM change in order to manage the results of these processes [49]. Moreover, enterprises that choose to innovate their BM, face the choice of adopting a completely new BM, passing through a new one but in the end returning to the original BM type, or never changing its initial BM [41]. If an enterprise adopts a new BM, it should decide whether to place it side by side with the existing BM or manage the presence of both. Sabatier et al. [151] proposed the notion of the BM portfolio to define a range of different activities a firm undertakes to allow it to meet different consumers' needs and build the idiosyncrasy of its bundle of activities. The portfolio of the BM is strictly linked to the principles of related diversification, and [152] defined four different types of managerial actions to manage the BM portfolio: BM reconfiguration, BMI, BM elimination and BM coordination. One risk related to the presence of parallel BMs is cannibalization. In this case, management needs to balance between two BMs and leverage the synergies between the new and the old BM [176]. Markides [118] proposed three approaches to manage two different and conflicting BMs: keep the two BMs physically separate in two distinct organisations, but in this way a company fails to exploit any potential synergies between them; the temporal separation by placing the new BM in a separate unit but reintegrate it in the main business over time or by placing the new BM within the existing business but separate it over time; and using contextual ambidexterity.

Kim and Min [100] distinguished among original and imitative BMI. The original BMI occurs when a firm creates a new BM thanks to its own technological breakthrough or endogenous reconfiguration of ways of doing business. The imitative BMI is an incumbent's addition of a new BM already developed by other firms.

Special cases of BMI are the blue ocean strategy [99] and white space [94]. The backbone of the blue ocean strategy is the logic of value innovation. The value innovation occurs only when a firm joins the innovation; the utility, the price and costs, and such strategic approach regularly distinguishes winners and losers [99]. Johnson's concept of white space was the range of potential activities not defined or addressed by the company's current BM, that is, the opportunities outside its core and beyond its adjacencies, which require a different BM to exploit. This requires a reinvention of the BM, changing all four elements and realigning the way they interact.

3.6.1 Business Model Innovation and Enterprise Performance
The BM is frequently defined as one of the critical factors of competitive advantage and firm performance [5] [134]. Specifically, the "BM affects firms' possibilities for value creation and value capture" [190]. Brettel et al. [32] highlighted that the impact of the BM on the firm's performance is different depending on whether the firm is in the earlier or the later stages of the organisational life cycle.

In particular, the innovation of BM positively influences the performance of entrepreneurial firms even under varying environmental regimes [190]. To support this thesis, it has been argued that more than half of the twenty-six companies founded since 1984 (e.g., Amazon.com, eBay, Google, Starbucks) entered in the Fortune 500 between 1997 and 2007 through BMI [94]. This because BMI allows firms to reduce costs, optimise processes, introduce new products, enter new markets and improve the financial performance [70].

Giesen et al. [78] demonstrated that all of them can lead to successful financial results, and the network plays or external collaboration are particularly effective in older companies compared to younger ones.

In the literature, there are numerous examples of firms that became leaders in their sector thanks to the innovation of their BM: Bell and Shelman [21] analysed the KFC case; Aspara et al. [14] studied the transformation of Nokia's corporate BM; Johnson [94] showed the case of Amazon; Teece [170] highlighted that Google developed a BM around this innovation to capture value. Michael Dell was a true BM pioneer, and, armed with his innovative BM, has consistently outperformed rivals for more than a decade. This case shows that "when a new model changes the economics of an industry and is difficult to replicate, it can by itself create a strong competitive advantage" [114].

One of the sectors more affected by technology innovation is the newspaper. In this context, Karimi and Walters [97] investigated the effects of corporate entrepreneurship on disruptive BMI adoption and the effects of disruptive BMI adoption on BM performance. They created and tested a theoretical model using sample data collected from the newspaper industry through a web survey. Their results showed that at low or high levels of disruptive BMI adoption, its impact on BM performance is high, whereas, at medium levels of disruptive BMI adoption, its impact on BM performance is marginal.

3.7 Open Business Models
With the increased adoption of Open Innovation (OI) practices - the adoption of open source software and collaborative initiatives with competitors and the creation of an innovation community and network - OBMs have emerged as a new design theme [47]. Chesbrough [46] counterposed the paradigm of Closed Innovation at the Open Innovation Paradigm. OI means that valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well. This open movement modifies the innovation process and the organisation, leading to the "OBM". After combining the BM and customer participation literature, Plè et al. [143] developed a theoretical framework named "Customer-Integrated BMs" in which the customer was considered as a resource; this can affect the other components of the BM and the interrelations between these parts.

Chesbrough [48] argued that innovation became an increasingly open process thanks to a growing division of labour: if an enterprise has an idea but cannot market it, it does so with a partner. For this reason, the OBM enabled an organisation to be more effective in creating and capturing value: it helped to create value by leveraging many more ideas, thanks to inclusion of a variety of external concepts, and allowed greater value capture by utilizing a firm's key asset, resource or position, not only in that organisation’s own operations but also in other companies’ businesses.

Demil and Lecocq [61] gathered the concept of the OBM, highlighting that a firm may choose to open some elements to some actors and restrict access to some others, such as in the case of Android that is open for the software developers but completely closed for the other OEMs (Original Equipment Manufacturers). Thus, it had the power to deeply modify the structure of a sector, and these modifications of the market structure followed the modifications of relationships between the actors of the market.

Other scholars addressed the theme of the OBM using the definition of Chesbrough [43] [104].

Kohler (2015) claimed that businesses built upon a crowd were novel because they changed the governance of who performs the activities that satisfy the needs of the market. Hence, he defined the “Crowdsourcing BM”, which comprised three elements: first, it needed to adopt an OBM; second, the crowdsourcing model leveraged technology to invite users to participate in value creation activities; and third, this BM transferred value creating activities to a crowd. Kohler argued that this BM typology is hard to imitate by competitors and through success cases, showed the effectiveness in enabling significant value capture of the crowdsourcing BM.

Based on Kohler’s thinking, Tauscher [169] developed the “Crowd-Based BM”, which extended the usefulness of crowdsourcing by building an entire value logic around crowd contributors that directly influenced the customer experience. Moreover, Tauscher identified criteria and practices that influence the firm’s value from crowd creation and engagement as well as the practices for creating superior value for the crowd and capturing value from the crowd effectively.

The maturity of the firms, in terms of age and experience, may influence the adoption and design of OBMs. For example, while younger firms may be more flexible and, therefore, better capable of matching internal organisation and OI strategy, more mature companies with more experience in OI may better understand the organisational requirements of OI strategies. [153].

Saebi and Foss [153] developed a framework for OBMs, examining the effect of different OI strategies (Market-based, Crowd-based, Collaborative, and Network-based) on three BM dimensions: content, structure, and governance. In this way, the authors identified four OBMs: Efficiency-centric, User-centric, Collaborative, and Open platform.

3.8 The Sustainable Business Model

During the analysis of articles for this literature review, we noted another emerging topic strictly linked to BM, i.e., the SBM. This part of the literature can be considered as an emerging integrative subfield of the BM [112]. This theme deserves the attention of many areas of interest: management, strategy, economic sociology, innovation, history, technologies studies [68].

The importance of SBM was highlighted by the Brundtland Report in 1987 [87], but the literature handled this topic only a few years ago and is currently arising much interest. As argued by Lüdeke-Freund and Dembek [112], the notion of SBM is often used in an inconsistent way, confusing the financial sustainability and the sustainable development of the natural environment and society. Using the method of Tranfield et al. [174], we took into account 29 articles for the analysis of SBM.

The SBM is defined as BM that creates competitive advantage through superior customer value while contributing to sustainable development of the company and society [188] or as the model where sustainability concepts shape the driving force of the firm and its decision making [166]. A prerequisite for the emergence of SBM is a sustainability logic [155] and, according to Abdelkafi and Tauscher [1], the SBM enables the firm to reinforce the interdependence among the value created for its customers and the environment and for itself. The integration of sustainable aspects in the BM is driven by the BMI [29] [73]. BMI for sustainability is defined as an approach that aims to achieve sustainability goals by generating economic value [20] and as "an innovation that create significant positive and/or significantly reduced negative impacts for the environment and/or society, through changes in the way the organisation and its value-network create, deliver value and capture value (i.e. create economic value) or change their value propositions" [27].

In fact, this innovation implies changes in the relationship with stakeholders [124] [68], in the supply chain (involving suppliers who take responsibility), in the financial model (reflection the distribution of costs and benefits among actors involved in the BM) [29] or in the value proposition [189] that creates value not only for customers but also for multiple stakeholders as well as environment and society [20]. In particular, while in the BM the creation of value for customer and firm can destroy value for other stakeholders, the SBM reduces the destruction of value on society and environment focusing on eco-design and eco-efficiency and using new forms of collaborations and new skills [150]. The socio-economic and cultural factors that push for a SBM are circular economy [135], consumer awareness, corporate social responsibility, sharing economy and collaborative consumption, and technological innovation [173].

The lack of a shared framework of SBM, leads to a diffusion of several types of SBM, many of which are based on CANVAS model, that is incomplete without sustainability principles and guidelines [71], as: Transformative Business Sustainability [180], the Triple Layer BM Canvas [96], the Flourishing Business Canvas [67], the Strongly SBM [175]. Wells [182] propose frameworks of BM for sustainability identifying principles, architecture and components, while Yang et al. [188] introduce a framework based on the logic that the sustainable BMI can be achieved starting from the identification of value uncaptured by the current BM.

Some authors pose their attention on the process necessary to a sustainable business modelling. Baldassarre et al. [20] proposed a process to a sustainable value proposition design adopting a dynamic perspective that considers three steps: understanding the stakeholders (Talking), identifying their need and interest (Thinking), combining them into a value proposition (Testing). Roome and Louche [150] identified four phases to transform the BM in a SBM: managers identify the need of change ("Identifying"); the company adopts new concepts ("Translating"); the firm develops new internal routines ("Embedding"); the learning process reaches actors linked to the firm ("Sharing").

Moreover, many case studies are developed as Johannsdottir [93] on insurer companies to demonstrate how non-manufacturing industries could modify its BM to support sustainable economic growth passing from linear BM to a closed-loop BM. Bittencourt Marconatto et al. [25] showed that the government pressure could be a strategic opportunity to a development of a SBM, while Birkin et al. [24] with their case study on Nordic organizations explained that the critical factor for the implementation of SBM is the social context. Moreover, Hogevold [87] through the analysis of a Norwegian company, argued that implementing the SBM is profitable and this is confirmed by Hutchinson et al. [89] that with a research on Canadian fast food showed that the sustainability program may be a competitive necessity for firms harmful to the environment. Ritala et al. [149] examined the SBMs adopted by listed companies in the S&P500 index and observed that companies are focused on win-win situations where environmental goals, good reputation and cost reduction are simultaneously achieved.

Clearly, SBM should be managed by entrepreneurs with specific competencies and principles that identify the sustainable entrepreneurs [26] and with a relational leadership [106].

4. CONCLUSION AND FUTURE RESEARCH

The BM has become an important theme in the strategic and management field, but it has generated a great debate in the literature because of the lack of a common definition and characterisation. Through a systematic literature review, this study attempts to shed light on the BM concept and identifies a number of thematic categories. Specifically, after recognition of the origins and definitions of BM, we distinguished components and taxonomies, showing that each author perceived BM in a different way. We also identified and categorised academic contributions on three emerging themes: BMI; OBM; and SBM. Finally, we focused on the strategic field because BM contains many strategic theories and elements and can also be used as a strategic tool. This study allows a wide understanding of BM's concept defining its main aspects and showing the evolution and the direction of the research on such topic. Indeed, on the one hand, many contributions on the ontological aspects of BM are organized and linked in our research framework. On the other hand, an increasing attention on the evolutionary themes can be observed, e.g., the integration of sustainability issues on BM, the adoption of open innovation by BM, or the importance of BMI for the achievement of competitive advantage by firms. In this context, our conceptual framework is useful to analyze BM of firms identifying its elements and recognizing the peculiarity of different evolutionary BMs.

This literature review has some limitations. First, this analysis is limited to the management and strategy fields. Second, we considered only journals ranked in the ABS, excluding conference papers and books that did not emerge with a backward search. Third, this review neither evaluates nor criticises the articles reviewed, as our goal was to integrate research outcomes in order to identify the central issues on the BM adopting a neutral representation.

However, several future research directions can be identified, as suggested below.

First, since we provided an integrative summary of BM research, that is, an overview of "broad themes in the literature" [57], theoretical and methodological reviews are needed. Theoretical reviews incorporate theories relevant to the study; in these regards, scholars can build from relationships between the BM and strategy identified in this review in order to develop a theoretical framework to guide the formulation of research questions, hypotheses, and propositions for future empirical research. Concerning the methodological reviews, future studies should focus on the strengths and weaknesses of the methods adopted in the relevant literature, paying particular attention to case studies as the preferred research method used in the BM literature.

Second, the research on the relationship between BM elements, their antecedents, and effects, should be deepened, as well as research into the type of BM. In the perspective of concrete adoption from enterprises of various dimensions, rules should be defined to design the BM and to develop the BMI, revealing which factors influence the success of BMI and how much the capability of entrepreneurs affects it. It is important to define phases for BMI, which are differences on the basis of the life cycle of firms, or risks and the costs of innovation, by means of case studies in order to demonstrate its validity.

Third, it is necessary to deepen the theme of the influence of the BM and BMI on firms' performance, drawing from the suggestions collected in this review, with case studies such as Wal-Mart [31] and Apple [95]. Moreover, it is important to comprehend whether BMI is more profitable than technological innovation and what are the outcomes if the same new technology is implemented with different BMs.

Fourth, in recent years, important themes have included social and environmental sustainability, and many authors claimed that the traditional BM differs from the sustainability BM. For this reason, scholars should supply a formal model, explaining the differences in the value creation, value capture, value destroyed, and in components, compared to the traditional one.

Finally, an interesting research topic would be the disclosure of the BM. In line with Nielsen and Roslender [137], we believe that a BM informed disclosure represents a considerable promise for an enhanced and extended financial reporting approach. In this context, researchers should pay attention to disclosure quantity (i.e., what firms disclose) and quality (i.e., how firms disclose) of the BM, considering the effects on accounting choices, the influence of the nature of firms and the tone of the disclosure. Future research should provide more evidences and compare different levels of firms' disclosure among different communication channels, such as annual reports, integrated reports, sustainability reports, strategic plans and corporate websites.

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APPENDIX

Appendix 1. Previous Literature Reviews on Business Model

AUTHORS	YEAR	DATA SOURCE AND SAMPLE	FINDINGS
George and Bock	2011	FIRST STEP: search in EBSCO "business model" in all text. Limit to: management and business study. SECOND STEP: search in the ISI Web of Science "business model" in the topic N= 108 articles	• Organisational design • Resource-based view • Narrative and sense making • Nature of innovation • Transactive structure • Opportunity facilitator
Zott, Amit, Massa	2011	FIRST STEP: search in academic journals from 1975 to 2009 SECOND STEP: search in EBSCO "business model" in the title, abstract, keywords THIRD STEP: selections of articles published in journals ranked in the ISI N=103 articles	• E-business • Business models and strategy • Innovation and technology management
Lambert, Davidson	2013	FIRST STEP: search in the ProQuest "business model" in the title, limit to empirical research published from 1996 to 2009 SECOND STEP: limit to scholarly peer reviewed papers N=69 articles	• Business model as basis for enterprise classification • Business models and enterprise performance • Business model innovation
Klang, Wallnofer, Hacklin	2014	FIRST STEP: search in the ISI Web Of Science "business model" or "business models" in the title, abstract or keywords SECOND STEP: Limit to "Social Science" as the general category, "Business and Economics" as the subject area and articles, reviews, editorials, books, as document type THIRD STEP: using a list of journals extracted from the 2008 Journal Citation Reports (JCR) Social Science Edition. FOURTH STEP: search manually for articles in press in the 50 Top Journals in determined categories. FIFTH STEP: selection of more relevant paper N=54 publications	• Syntax of the business model concept • Antecedents of the business model paradox

Wirtz et al	2016	FIRST STEP: search in EBSCO "business model" in abstract or title. Limit to: peer-reviewed papers SECOND STEP: search "business model" in the title N=681 articles	• Innovation • Change and evolution • Performance and controlling • Design

Appendix 2. Definitions of Business Model

AS	AUTHORS	YEAR	DEFINITION
"description"			
	Applegate	2000	“A description of a complex business that enables study of its structure, the relationships among structural elements, and how it will respond in the real world.”
	Weil and Vitale	2001	"Business model as a description of the roles and relationships among a firm’s consumers, customers, allies and suppliers that identifies major flows of product, information and money and the major benefits to participants."
	Morris et al.	2006	"Business model is used to describe a company's unique value proposition (the business concept), how the firm uses its sustainable competitive advantage to perform better than its rivals over time (strategy), and whether, as well as how, the firm can make money now and in the future (revenue model)."
	Osterwalder and Pigneur	2010	"A business model describes the rationale of how an organization creates, delivers, and captures value."
	Fielt	2013	"A BM describes the value logic of an organization in terms of how it creates and captures customer value and can be concisely represented by an interrelated set of elements that address the customer, value proposition, organizational architecture and economics dimensions."
	Morris	2013	"A business model is a description of a whole system, a combination of products and services delivered to the market in a particular way, or ways, supported by an organization, positioned according to a particular branding that, most importantly, provides experiences to customer that yield a particular set of strong relationship with them. Further a business model describes how the experiences of creating and delivering experiences and value may evolve along with the changing needs and preferences of customers."

	Casprini et al.	2014	"A BM describes the combination of a firm's business strategy, organisation, and capabilities and the resulting FS, taking into consideration its particular context. A BM represents the firm' s behaviour and the evolution of this behaviour over time, shifting within the three ideal types: NPD-oriented, Market Management-oriented, and Organisational Processes-oriented."
	Markides	2015	"I argue that the business model as a (detailed) description of how the firm operates; is a concept that is too close to the notion of strategy."
	Cosenz	2017	"The BM illustrates how the enterprise is positioned within its market sector, and how it organizes its relations with its suppliers, clients, and partners in order to generate value."
"representation"			
	Shafer et al.	2005	"A representation of a firm's underlying logic and strategic choices for creating and capturing value within a value network."
	Arend	2013	"We define the business model as a useful representation of how the organization creates value through transforming and transferring matter, by drawing on available factors, fuelled by an identifiable economic engine."
"architecture"			
	Timmers	1998	"The Business model is an architecture for product, services and information flows, including a description of various business actors and their roles, a description of the potential benefits for these actors and a description of sources of revenues."
	Tapscott	2001	"Business model refers to the core architecture of a firm, specifically how it deploys all relevant resources (not just those within its corporate boundaries) to create differentiated value for customers."

	Dubosson-Torbay et al.	2002	"A business model is nothing else than the architecture of a firm and its network of partners for creating, marketing and delivering value and relationship capital to one or several segments of customers in order to generate profitable and sustainable revenue streams."
	Al-Aali and Teece	2013	“A business model defines an organizational and financial architecture that embraces and integrates (hopefully in a consistent fashion): the feature set of the product or service; the benefit (value proposition) from consuming/using the product or service; the market segments to be targeted; the “design” of revenue streams and cost structures; the way products/services are to be combined and offered to the customer; and the mechanisms by which value is to be captured."
	Kohler	2015	"A business model explains the process of how a company creates and captures value; it represents the architecture of the value creation, delivery, and capture mechanisms an enterprise employs; and it helps us understand how the firm is embedded in and interacts with its surrounding ecosystem."
"story"			
	Magretta	2002	"Business models as stories that explain how the enterprises work; business models describe, as a system, how the pieces of a business fit together, but they don’t factor in one critical dimension of performance: competition."
"set"			
	Afuah	2004	"A business model is the set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value."
	Aversa et al.	2015	"We refer to business modelling as the set of cognitive actions aimed at representing (complex) business activities in a parsimonious, simplified form (i.e., a business model), as well as to the set of activities that cognitively manipulate the business model to evaluate alternative ways in which it could be designed."

	Baden-Fuller and Morgan	2010	"One role of business models is to provide a set of generic level descriptors of how a firm organises itself to create and distribute value in a profitable manner."
	Casadesus-Masanell and Ricart	2009	"A business model consist of the set of choices, and the set of consequences derived from the choices."
	Casadesus-Masanell and Zhu	2010	"The business model is a set of committed choices that lays the groundwork for the competitive interactions that will occur between the incumbent and the ad-sponsored entrant down the line."
	Casadesus-Masanell and Heilbron	2015	"A collection of decisions enforced by the authority of the firm on its employees."
	Doz and Kosonen	2010	"Business models can be defined both objectively and subjectively. Objectively they are sets of structured and interdependent operational relationships between a firm and its customers, suppliers complementors, partners and other stakeholders, and among its internal units and departments."
	Girotra and Netessine	2014	"Any business model is essentially a set of key decisions that collectively determine how a business earns its revenue, incurs its costs, and manages its risks."
"system"			
	Baden-Fuller and Haefliger	2013	"We define the business model as a system that solves the problem of sensing customer needs, engaging with those needs, delivering satisfaction and monetizing the value."
	Chatterjee	2013	"A business model is a configuration (activity systems) of what the business does (activities) and what it invests in (resources) based on the logic that drives the profits for a specific business."
	Kavadias et al.	2016	"A business model is a system whose various features interact, often in complex ways, to determine the company’s success."

	Page and Spira	2016	"The model is a system that comprises the activities of the business, its relationships with stakeholders and its comprises the activities of the business, its relationships with stakeholders and its tangible and intangible assets and liabilities."
	Tikkanen et al.	2005	"We define the business model of a firm as a system manifested in the components and related material and cognitive aspects."
	Zott and Amit	2010	"A system of interdependent activities that transcends the focal firm and spans its boundaries."
	Amit and Zott	2012	"A system of interdependent activities that transcends the focal firm and spans its boundaries."
	Velu	2016	"Business models can be seen as complex systems whereby components of the business model need to interact and be aligned to each other in order to create and capture value."
"statement"			
	Stewart and Zhao	2000	"Business model is a statement of how a firm will make money and sustain its profit stream over time."
"idea"			
	McGrath	2010	"The business model concept is a powerful idea for strategic thinking and strategic research, and allows us to shift focus from a pre-occupation with the resources a firm has, to the use to which those resources are put."
"approach"			
	Gambardella and McGahan	2010	"A business model is an organization's approach to generating revenue at a reasonable cost, and incorporates assumptions about how it will both create and capture value."
"standard"			
	Camison and Villar-Lopez	2010	"A business model can be considered as the standard generated by the corporation to organize its processes and tasks with a specific internal configuration of its value chain, manage its assets, realize transactions with external agents, and determine the market in which it intends to compete."
"design"			

	Smith et al.	2010	"By business model, we mean the design by which an organization converts a given set of strategic choices - about markets, customers, value propositions e into value, and uses a particular organizational architecture e of people, competencies, processes, culture and measurement systems - in order to create and capture this value."
	George and Bock	2011	"A business model is the design of organizational structures to enact a commercial opportunity."
"articulation"			
	Demil and Lecocq	2010	"The business model concept generally refers to the articulation between different areas of a firm’s activity designed to produce a proposition of value to customers."
"pattern"			
	Mullins and Komisar	2009	"By business model we mean the pattern of economic activity - cash flowing into and out of your business for various and the timing thereof - that dictates whether or not you run out of cash and whether or not you deliver attractive returns to your investors."
"method"			
	Afuah and Tucci	2003	"This is the method by which a firm builds and uses its resources to offer its customers better value than its competitors and to make money doing so. It details how a firm makes money now and how it plans to do so in the long term. The model is what enables a firm to have a sustainable competitive advantage, to perform better than its rivals in the long term."

Appendix 3. Components of Business Model

			CUSTOMER CATEGORY	
		CUSTOMER	VALUE PROPOSITION	RELATIONSHIP
AUTHOR(S)	YEAR			
Afuah, Tucci	2001	Customer Value		
Alt, Zimmermann	2001			
Amit, Zott	2001			
Zott, Amit	2010			
Baden-Fuller, Haefliger	2013	Customer Engagement Customer		
Casadesus - Masanell, Ricart	2010			
Christensen, Bartman, Van Bever	2016		Value Proposition for Customers	
Demil, Lecocq	2010		Value Proposition	
Dubosson-Torbay, Osterwalder, Pigneur	2002		Value Proposition	Relationship with customer The infrastructure and the network of partners
Fielt	2013	Customer	Value Proposition	
Itami, Nishino	2010			
Johnson, Christensen, Kagermann	2008		Customer value proposition	
Mahadevan	2000		Value Stream	
Mason, Leek	2008			
McGrath	2010	Unit of business (it refers to what customer pay for)		
Morris, Schindeutte, Allen	2005			
Mullins	2009			
Osterwalder, Pigneur	2005	Customer Segment	Value Proposition	Customer Relationship Channels
Ricciardi, Zardini, Rossignoli	2016			

Schweizer	2005			
Shafer, Smith, Linder	2005			
Tikkanen, Lamberg, Parvinen, Kallunki	2005			
Viscio, Pasternak	1996			
Voelpel, Leipold, Tekie	2003		Customer value proposition	
Weil, Vitale	2001	Customer segment	Value Proposition	Channels
Yunus, Moingeon, Lehmann - Ortega	2010		Value Proposition	
	N.	7	10	5
		22		

		ORGANISATION CATEGORY		
ORGANISATION	VALUE CREATION	ACTIVITIES	PROCESS	OTHERS
		Connected Activities		Implementation
Structure			Processes	
Transaction Structure Transaction Governance				Transaction Content
Activity system structure Activity system governance		Activity system content		
Choices Consequences				
			Processes	
Organisational Structure				
Organisational Architecture				
Business System				
			Key Processes	
				Logistical Stream
Inter-Firm Routines Network Structure				
Market factors				Factors related to the offering
		Key activities		

			Key Processes	The cause-effect Relationship The social identities of the actors
	Value Chain Constellation			
	Value Network			Create Value
				Strategy and Structure
Governance				
	Value Network Configuration			
	Value Constellation			
14	4	3	4	8
		33		

	STRATEGY CATEGORY	
STRATEGY	RESOURCES	CAPABILITIES
Scope Sustainability		Capabilities
Mission	Technology	
	Resources	
	Resources and competences	
	Key resources	
	Forms of knowledge	
Process or operational advantage		
Competitive strategy factors		Internal Capabilities
	Key Resources	
	Key Resources	
Market power of innovators versus owners of complementary assets		
Business Units		
		Leadership Capabilities

Strategic objectives Success factors	IT Infrastructure Core competencies	
9	9	3
	21	

	FINANCIAL	CATEGORY		OTHER COMPONENTS	
COSTS	PROFIT	REVENUES	OTHERS		N
Cost Structure	Profit Site	Revenue Sources	Price		10
		Revenues		Legal issues	6
					3
					3
			Monetization	Value Delivery and linkages	4
					2
	Profit Formula				4
					3
			The financial aspects		4
			Economics Dimensions		4
	Profit Model				2
	Profit Formula				4
		Revenue Stream			3
					3
					2
			Economic factors Personal Investor factors		6

		Revenue Model	Gross Margin Model Operating Model Working Capital Model Investment model		5
Cost Structure		Revenue Stream		Key Partnership	9
					4
		Total Revenue Potential			3
			Value capture	Strategic Choices	4
			Finance and accounting	Operations Network	4
				Global Core Linkages Services	5
					3
		Revenue Sources			8
	Profit Equation				3
2	5	7	12	9	
		26		11	

Appendix 4. Taxonomies of Business Models

AUTHOR(S)	YEAR	CONTENT	N.
Timmers	1998	E-shop E-auction E-mall E-procurement Trust services Information brokers Value chain service provider Virtual communities Collaboration platforms Third party marketplace Value chain integrator	11
Weill and Vitale	2001	Content provider Direct to consumer Full service provider Intermediary Shared infrastructure Value net integrator Virtual community Whole of enterprise/government	8
Afuah andTucci	2003	Commision-based model Advertising-based model Markup-based model Production-based model Referral-based model Subscription-based model Fee for service-based model	7
Lam and Harrison-Walker	2003	Internet merchants and portals Virtual product differentiation Brokerage purchase assistance and Retail networks Interactive networks Internet promoters Image building	6
Wirtz and Lihotzky	2003	Content Commerce Context Connection	4
Allmendinger and Lombreglia	2005	The embedded innovator The solutionist The aggregator The synergist	4

Schweizer	2005	Integrated model Orchestrator model Layer player model Market maker model	4
Zott C. and Amit R.	2008	Novelty-centered business model Efficiency centered business model	2
Camison and Villar-Lopez	2010	Multidivisional model Integrated model Hybrid model Network-based model	4
Sanchez and Ricart	2010	Isolated business models Interactive business models	2
Johnson	2010	Solution shop Value-adding process business Facilitated network	3
Chatterjee	2013	Efficiency-based models Perceived value based models Network value (loyalty) based models Network efficiency based models	4
Lyubareva et al.	2014	Partecipative model Distributive model Editorial model	3
Baden-Fuller et al.	2015	Product Model Solutions Model Matchmaking Model Multi-sided Model	4
Kortmann and Piller	2016	Transaction-oriented manufacturer Servitizing manufacturer Rebound manufacturer Co-creating manufacturer Maker platform operator Co-creating service provider Sharing platform operator Recycling alliance Circulation-platform operator	9