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The Business Model and its Core Elements. Proposal of Definition and Table of Core Elements

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ABSTRACT

The concept of the business model has garnered the attention of business administration researchers and professionals for over 50 years, and especially since the last decade of the 20th century, as a result of the appearance and widespread use of the internet in business.

Despite the large number of doctrinal contributions, studies and analyses carried out, these years of research have not resulted in consensus among authors and professionals regarding either a definition or the core elements of a business model.

This article provides a proposal for the definition of business model, as well as a proposal for a table of elements which includes those that we believe will be of great importance in the future of organisations, such as their approach to security, the code of ethics and their own capacity for transformation. To create the definition and table of elements, numerous publications regarding the concept of the business model were analysed, mainly from between 1996 and 2017, when the concept was most highly developed in the academic literature.

The article suggests future lines of research to study the evolution of the concept of the model, the greater or lesser importance of certain elements, as well as the impact on the bottom line of the transformation of and innovation in the model itself.

KEY WORDS: Business model, value proposition, market segmentation, transformation, code of ethics, security

JEL Classification: M10, A13

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1. Introduction

According to García-Echevarría (2002, p. 55) "of every 10 strategic designs, nine are not successfully implemented. The inability to achieve their goals proposed, with the new dimensions of companies and their growth, is directly related to the suitable selection and implementation of the business management models used".

Does the concept of the business model for managing organisations in general, and businesses in particular, have an influence on the reality described above? Only by conceptualising the business model and establishing the keys for its implementation, will it be possible to determine if it can effectively meet businesses' need to fulfil their strategic objectives for growth. Despite its widespread use, the concept is still confusing and it even "seems that the executives, reporters, and analysts who

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use the term 'business model' don't have a clear idea of what it means" (Linder & Cantrell, 2000, p.2). Thus, there is still no consensus regarding its definition; as such, Porter's (Porter, 2001, p.71) statement remains true: "the definition of a business model is murky at best".

The objective of this paper is to provide a complete definition of business model that is easy to understand and put into practice, and to include in said definition a system of core elements which are interrelated in order to guarantee their implementation. To do so, based on the bibliographic analysis methodology, a review of 200 contributions published in the academic literature between 1996 and 2017 is carried out, with the aim of determining the concept of business model and its key characteristics. Certainly, the conceptualisation of the business model and of its implementation is complex, as it is of vital importance for the management of any organisation in general, and companies in particular, in order to achieve their strategic and growth objectives, and, therefore, to ensure their long-term sustainability. Whether intuitively or in a perfectly defined and structured manner, every organisation sets out to fulfil its mission, its vision and its objectives, following the road map established by its business model and the elements that comprise it.

The concept became a part of doctrinal analysis, academic research and business practice in the 1990s, as a result of the internet´s boom and the possibilities that new technologies offered to create disruptive ways of doing business, establishing innovative value propositions and new ways of establishing relationships with key customers and partners. The technological development of the last 25 years in the digital field has been exponential, unimaginable and of such a magnitude that it has highlighted the value of the concept of business model and of its constitutive elements, reinforcing the need to master its definition and description and making the concept useful and relevant. With the advance of new Information and Communications Technologies (ICT), and of the development of digitalisation in companies, innovation in the model and its elements, the own model's capacity for transformation, led by the management, and their ability to innovate, create new value propositions, adapt the model's elements to the new demands, made possible by the technology, and, finally, to cooperate and co-create with their strategic partners will be increasingly important.

This article is organised as follows: the next section, section two, provides a review of how the concept of business model has evolved in the academic literature and the main definitions that have particularly enriched the concept through their contribution. Section three identifies the different elements of the business model set forth by the different authors in the bibliographic review. Section four proposes both a definition and a table of elements of the business model, which are complete, yet simple. Finally, the main conclusions of the study are presented and future lines of research are suggested.

2. Evolution of the Concept of Business Model

According to Osterwalder, Pigneur and Tucci (2005), the term "Business Model" appears in the literature for the first time in an article by Bellman, Clark, Malcolm, Craft and Ricciardi (1957). It appeared again in the title and abstract of another academic article by Jones in 1960, (as cited in Osterwalder et al., 2005, p. 4) but it wasn't until the end of the 1990s that its use became widespread as a concept, connected to the emergence of the internet in the economy and in business. It was debated widely in a variety of academic fields and practical applications, and especially with regard to Information and Communications Technologies (ICT), online electronic commerce and business administration (Pateli & Giaglis, 2003). Since the appearance of the term in 1957, many Business Management and Administration authors and academics have delved into the concept to try to give it a definition, as such a definition is not evident.

There have even been scholars of the doctrine, such as Michael Lewis (Lewis, 1999), who have referred to the business model as an art; and, as an art, it is the type of thing that people may recognise as good or bad, but it is difficult to define (Ovans, 2015). Lewis (1999, p. 391), on the other hand, defines "Business Model" very simply: "all it (business model) really meant was how you planned to make money".

Lewis' definition, like that of many other Business Management and Administration scholars, is based on the concept in "The Theory of the Business" by Drucker (1994). Drucker, who never used the term "business model", based his definition on the assumptions upon which the given business or organisation was built, and which shape the culture of the organisation, condition its decisions with regard to what to do or what not to do, and define what the company or organisation sees as an acceptable result, all in terms of the market in which it operates, its customers and competitors, its competitive advantage, its culture, values, technology, and its strengths and weaknesses. The author emphasises the assumptions, to explain that what underlies the poor financial situations of many successful companies is the fact that their "business theories", that is, their "assumptions about how a company obtains its income", are no longer valid. His "The Theory of the Business", built around the aforementioned assumptions, is closer to Michael Porter's definition of strategy (Porter, 1996).

On the foundations of Drucker's contributions, Magretta (2002, p. 86) provided her definition in the following manner: "business models are, at heart, stories – stories that explain how enterprises work. A good business model answers Peter Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?" Magretta approaches her definition from a return to the basic principles of business management. According to Magretta, the concept expanded in doctrine and in the practice of Business Administration as a result of the introduction of the personal computer and spreadsheets as essential elements of business management, as they resulted in a true revolution in terms of being able to test a great number of management variables. They enabled professionals to carry out all kinds of sensitivity analyses and to delve deeper into the study of the behaviour of specific variables and their impact on the bottom line. Thus, they could model businesses and anticipate the results before launching a business, instead of analysing them after the fact, once they had implemented an action plan expecting a specific result. This allowed for a shift from management based on applying theory and trial and error analysis to management based on laboratory analysis, or, more accurately, spreadsheet analysis, which enabled potential entrepreneurs to "model" the business based on an analysis of the behaviour of its elements and by varying hypotheses and scenarios. This dynamic contributed decisively both to the advent of the concept "business model" and to its expansion in doctrine and business practice.

The rapid, intense development of Information and Communications Technologies (ICT), the expansion of the internet and an increasingly changing environment were also important factors for its popularisation (Jansen, Steenbakkers, & Jägers, 2007). This means that most of the bibliography and research on business models has dealt with internet and electronic businesses (Hedman & Kalling, 2003). In 2005, Osterwalder, Pigneur and Tucci published an interesting study in which they demonstrated the close relationship between the concept "business model" and the development of Information and Communications Technologies, relating the number of times the term appeared in academic and specialised journals and the evolution of the NASDAQ index between 1996 and 2003. It is of enormous interest, and certainly very illustrative, that the two curves run parallel, as can be seen in Figure 1. According to the authors, "it is not quite clear what to conclude from this observation besides the fact that the topic of business models probably has a relationship with technology" (Osterwalder et al., 2005, p.4).

Naturally, technology, information systems and bandwidth have made all types of communication possible around the world, making information accessible to a number of people that was unthinkable before this technological leap. Above all, said advances have decreased transaction costs (Amit & Zott, 2001; Tapscott, Ticoll, & Lowy, 2000), such that the opportunities and possibilities for designing businesses increased at a faster pace than the increase in the availability and cost of information and communication technologies. This same availability at reasonable costs made possible the advent of business models based on interrelated offers of captive products, designed specifically to reinforce and support one another. Think, for example, of Apple and its business model based on iTunes: the music access and download service using software through its website is closely linked to the sale of the iPod, its digital music player. "In terms of business models, this website (Apple's website) forms a whole set of business design choices that reinforce one another" (Osterwalder et al., 2005, p. 4). In that same study, the authors underline that the review of the literature clearly shows two focuses. On the one hand, there are

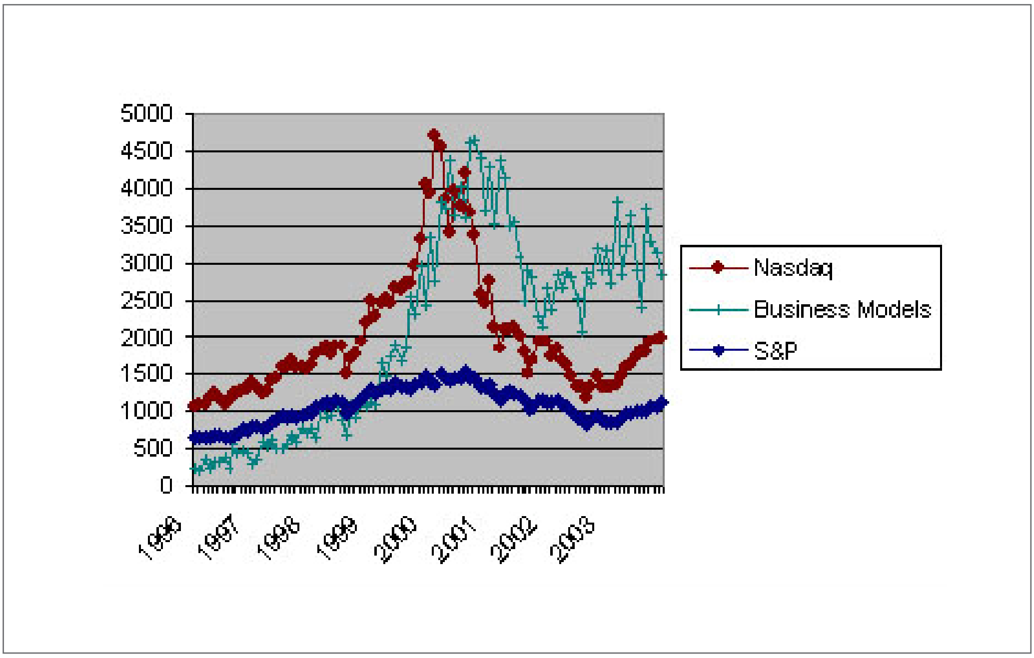

Figure 1. Occurrences of the Term "Business Model" Compared to NASDAQ Fluctuations
Adapted from Clarifying business models: Origins, present, and future of the concept by Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). In Communications of the association for Information Systems, 16(1), 1, p. 4.

authors who emphasise the way in which a company does business (Galper, 2001; Gebauer & Ginsburg, 2003), and, on the other, those who focus on modelling the logical story that describes a company's business, in an attempt to simplify it and make it explainable by listing its elements and describing the relationships between them (Gordijn, 2002; Osterwalder, 2004).

In any event, the concept of business model is a complex phenomenon with multiple facets that "integrates a variety of academic and functional disciplines, gaining prominence in none" (Chesbrough & Rosenbloom, 2002, p. 533).

The conceptualisation of the business model has not been without its critics. Along the lines of Schneider and Spieth (Schneider & Spieth, 2013), business model researchers have been accused of lagging behind the reality of businesses and of lacking formal structure (Casadesus-Masanell & Ricart, 2010; Plé, Lecocq & Angot, 2010; Zott, Amit, & Massa, 2011). Other authors claim that the concept lacks sufficient theoretical foundations (George & Bock, 2011; Morris, Schindehutte, & Allen, 2005; Nenonen & Storbacka, 2010; Teece, 2010). Additionally, there are authors who argue that the concept is based on different theoretical approaches that are inconsistent with one another (Camisón & Villar-López, 2010; Casadesus-Masanell & Ricart, 2010; Zott et al., 2011). Finally, in recent years, some authors have questioned whether efforts dedicated to debating the definition of business model should have been spent on more practical purposes (Baden-Fuller & Haefliger, 2013).

Some authors state that the business model needs to adapt its spatial dimensions, organisational limits and structure. An organisation's strategic choices "can make the difference in terms of the company's ability to access resources, develop competences, create a network, benefit from knowledge spill-overs and therefore excel, innovate and implement its strategy" (Onetti, Zucchella, Jones, & McDougall-Covin, 2012, p. 358).

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Table 1. Distribution of the number of elements in the concept of business model in the studies analysed

Number of elements	Number of studies	%
3	5	11%
4	11	24%
5	4	9%
6	12	27%
7	5	11%
8	3	7%
9	1	2%
10	2	4%
12	1	2%
15	1	2%

Others, like Kraussl-Derzsi (2011) emphasise technology, and argue that in order to be viable, a business model must be technologically viable, and it will be when a technologically acceptable solution makes it possible to provide the service as expected; therefore, a business model is viable if it is viable in terms of value and technology (D'Souza, Wortmann, Huitema, & Velthuijsen, 2015).

In this study, the period from 1996 to 2016 has been identified as having the greatest number of publications on the concept of business model, and as also offering the most exhaustive definitions of said concept. During this period, 28 definitions were published that offered additional contributions to the concept. Said definitions are presented in Table A.1 of the Appendix. Three currents of thinking can be identified here. First, there are the authors who define business model by focusing on the value management the organisation provides (13 authors). Others define the concept in relation to the organisation's structure (10 authors). Finally, a series of authors agrees in focusing the definition on those activities that the organisation must perform to achieve its objectives (five authors). Thus, it can be observed that in recent years the focus has been more on organisational structures and the activities required to meet the organisation's objectives, instead of the main focus of earlier years, which was value creation.

This in no way means that each of these "schools" ignores or disregards the other approaches. Indeed, every organisation must consider all three aspects: value, organisation, and activities to fulfil objectives.

3. The Elements that Constitute the Business Model as Proposed in the Academic Literature

It is also of great interest to analyse the concept of business model itself, which is characterised not just by its definition, but also by the elements that comprise it. To that end, 45 studies with their different lists have been analysed; these studies are considered to be sufficiently representative both due to their relevance, as well as the novelty of each of their contributions. Table A.2 of Appendix offers a complete list of these studies, with the authors and the elements defined as integral to the business model by each of them. This table identifies 30 different elements from the theories of the 45 studies cited. Over 70% of the authors add at least one additional element to the panel.

Most offer a definition with few elements. Table 1 shows the 30 elements identified, as well as their frequency. Here, it can be seen that the most popular

Table 2. Most relevant core elements and number of studies that identify them

Elements	Number of times	%
Value Proposition	31	69%
Revenue Stream	23	51%
Customers	18	40%
Target Market / Segmentation	16	36%
Key Resources	14	31%
Value Chain	14	31%
Key Partners	14	31%
Competitive Strategy	13	29%
Differentiating Competences	12	27%
Product	12	27%
Organization and Organizational culture	11	24%
Cost Structure	9	20%
Key Processes	8	18%
Profitability and Stakeholders	8	18%
Distribution Channel	8	18%
Business Logic	7	16%
Technology	7	16%
Financing	6	13%
Corporate Governance and Sustainability	6	13%
Infrastructure	4	9%
Sales Process	4	9%
Operations	4	9%
Positioning	3	7%
Key Information	3	7%
Brand	3	7%
Mission	2	4%
Legal Framework	2	4%
Competitive Situation	2	4%
Key Executives	1	2%
Macroeconomics	1	2%

Table 3. Sub-elements and the core elements that contain them

Elements	Sub-elements
Revenue Stream	price decisions and discounts that affect price
Customers	customer relationship management (CRM)
Key Resources	installed production capacities
Value Chain	company's position in the value chain
Key Partners	suppliers of raw materials or parts of the process that are fundamental to providing the service (in the case of service companies)
Profitability and Stakeholders	everything involving the company's profits and compensation of owners and shareholders
Business Logic	its long-term sustainability
Distribution Channel	logistic flow to bring the product/service to the end customer through the value chain
Technology	state of the art for producing the product or providing the service
Digitalisation	Information and Communications Technologies (ICT)
Corporate Governance and Sustainability	all environmental aspects involved in managing the business
Key Information	content and quality of the management information
Mission	Vision

number of elements is six; said number of elements is proposed by 12 out of the 45 studies (27%). Thirty-two of 42 studies (71%) propose a definition of six or fewer elements. Table 3 shows the number of times the 30 elements are proposed in the 45 studies. It becomes clear that there are several elements that are dominant in this study. The most commonly cited element is the value proposition, mentioned by 69% of the authors studied as one of the elements comprising the business model, followed by revenue stream (51%), customer relationships (40%), customer segmentation and the target market (36%), key resources, the position in the value chain and the network of key partners (31%), competitive strategy (29%), differentiating competences and the product (27%) and organization and organizational culture, which was named by 24% of the studies.

In order to compile Table 2, we have unified terminology, interpreting the meaning indicated by the corresponding author and identifying each element according to that meaning, in a way that some of the elements include sub-elements that fully identify them.

Table 3 presents the sub-elements found in the bibliography which are identified as part of a larger element.

From this analysis, it can also be concluded that greater dissemination of the concept, through an increase in research interest and its more widespread use in business practice, does not have a direct impact on the identification of more or new elements, or on a greater consensus with regard to said elements.

4. Towards a Proposal for a Business Model Definition and its Core Elements

Twenty-eight main definitions have been identified in this article. Each contributes to completing the concept, but they do so in a complex manner; therefore, none has evoked the consensus of Business Administration and Management theoretical and practical professionals.

A review of the literature is rounded out with the contribution of a definition of business model. The originality of this definition is based on the fact that it is both complete and easy to understand and communicate, following the principle that only what is understood can be communicated, and one can only implement something that they understand.

Thus, the following definition is proposed:

> *"A business model is the story about an organisation's value proposition, defined through a panel of key elements that comprise its way of operating, and based on three fundamental characteristics:*
>
> - *It must be unique, to guarantee the generation of competitive advantages and that it will be chosen by customers in the short term*
> - *It must be adaptable, to guarantee its long-term viability*
> - *It must be scalable, to ensure that revenue grows above investment in resources"*

In this definition, we have tried to integrate different points of view to propose a concept that will be useful, following Jensen (2013), who insists that the effectiveness of any definition of business model is directly related to its ability to describe the reality of the business or organisation.

To round out the proposed definition, this study also offers a proposed table of elements, which includes those that are considered to be key to conceptualise the business model. Said elements are considered from a dynamic point of view, such that the company's ability to transform the model to adapt it to the changes in its environment will guarantee its long-term survival. This proposal, set out in Table 4, consists of a system of 11 elements that constitute the business model. As can be deduced from the frequency data from Table 1, the proposed table does not follow the majority opinions of the authors analysed, who mainly choose panels of fewer than six elements.

According to most of the authors selected (69%, as noted in Table 2), the central foundation of the business model is the value proposition, which must lay out the customer needs that the model meets, the problems it solves for them, the value it provides to them, and must describe the customer experience and the aspects that differentiate the company from its competition.

Additionally, the first pillar of the model is the customers to whom the proposition is directed. The model must set parameters for their segmentation, the identification of key customers, and the management of a differentiating relationship with each segment. It must also establish the communication channels and commercial and logistical relations with said customers.

A second pillar is talent and its management in the organisation. This includes all aspects related to recruiting and retaining talent, access to human capital, developing corporate DNA, employees' focus on the customer and their identification with the organisation's business model. Thirty-one percent of the authors analysed include talent management as a key element of the business model.

Financial aspects are included in the foundation of the model: revenue stream and its sustainability, and the organisation's cost structure, which includes aspects of risk, such as critical items, fixed and variable cost structures, degree of automation and economies of scale.

Surrounding all of this is the necessary infrastructure. This includes, on the one hand, key partners and the degree of reliance on them, technology or the production of the good or service provided and corporate social responsibility; on the other, the model must describe all key aspects of the infrastructure depending on the business, such as those related to environmental protection, or collaboration with development and education in the community.

This proposal includes three new elements, which are considered to be essential in describing all current and future business models, and which will continue to be increasingly important. These three elements are the approach to security aspects, complying with regulations and the ethical code and the ability to transform the model itself.

The first two will be increasingly demanded by society, and, therefore, by customers, shareholders and

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Table 4. Proposal for a table of core elements that comprise the business model

STRUCTURAL AXIS	CENTRAL AXIS VALUE PROPOSAL AND ITS TRANSFORMATION	TRANSPARENCY AXIS
Structure	**Which of my customers' needs do I satisfy?**	**Compliance management**
Structure	Which of my customers' needs do I satisfy?	Compliance management
Key partners	How do I help my customers to be successful?	
Suppliers	What problems do I solve?	
Level of reliance	What differentiates me from my competition?	
Production	What is the customer's experience?	
Technology		
Corporate Social Responsibility	**Transformation Ability**	**Approach to Security**
Environmental protection	Leadership	Policy
Sustainability	Adaptation experiences	Organisation
Community Development	Disruptive models	Resources
	Co-creation	
	Digital transformation	
	Impact to bottom line	
	Barriers to change and their management	
TALENT PILLAR	**CUSTOMER PILLAR**	**FINANCIAL PILLAR**
Talent Management	**Customer Segmentation**	**Revenue Stream**
What talent do I need?	How many customer segments do I identify?	Volatility
Do I have access to the human capital I need?	What is my model to each segment (CRM)?	
What is my corporate DNA like?	What is the model for relations with key customers?	
Is my organization focused on the customer?		
Does the team identify with the model?	**Channels**	**Cost Structure**
What are my recruitment and retention tools?	How do we make ourselves known?	Criticality
How do I manage motivation?	How do we help customers choose us?	Fixed/variable structure
Compensation and performance evaluation systems	What is the purchase process like?	Economies of scale
Do I offer company training? Do I measure its impact?	How do we ensure delivery to the customer?	Cooperation
Tools for managing diversity	What is after sales service like?	Degree of automation

stakeholders; organisations will no longer be able to exist without offering sufficient guarantees of transparency with regard to their commitments and procedures related to said aspects.

The third refers to innovation in the model itself so as to guarantee long-term sustainability. Innovation has been incorporated into the debate surrounding the business model over the last 15 years, both by researchers and in the practice of managing companies; however, it is notable that in the review of the literature, research on innovation in business models has mainly focused on processes of organizational change, the results of said change or its implications and consequences (Foss & Saebi, 2017).

Innovation in the business model is described as the model's own ability for transformation, with innovation being included as an element that characterises the business model itself. Innovation within the model allows it to evolve, driven by the digital transformation and the elimination of barriers, towards a future of greater cooperation with customers and key partners, of successful shared projects and of co-creation as the basis of new value propositions that adapt to the organization to guarantee its viability constantly.

5. Conclusions

The aim of this work was to offer a proposal for a business model definition and a table of 11 core elements: the value proposition, customer segmentation, channels for accessing customers, talent management, revenue stream, cost structure, required infrastructure, corporate social responsibility, the approach to security, the code of ethics and regulatory compliance and the ability for transformation.

These last three are new additions to the elements of a business model, and open up future possibilities for research to investigate the evolution of the model towards a greater focus on those elements, and to analyse the impact on the bottom line of transforming the model itself. The model must undergo constant adaptations to guarantee the organization's future sustainability, which is of great interest to business administration.

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Appendix

Table A.1 Most notable definitions in the literature

Author(s)	Year	Focus	Definitions
Afuah & Tucci	2001	set of activities	Business model 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. A business model can be conceptualized as a system that is made up of components, linkages between the components, and dynamics
Ahokangas; Juntunen & Myllykoski	2014	organizational structure	Business models, built around the business opportunity, answer the questions of what companies are offering to their customers in terms of products/services and value proposition, how and where they are planning to do that in practice, and why they think they can do it profitably
Al-Debei, El-Haddadeh & Avison	2008	organizational structure	The business model is an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization presently and in the future, as well as all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its strategic goals and objectives
Amit & Zott	2015	set of activities	The business model describes the system of interdependent activities performed by a focal firm and its partners and the mechanisms that link these activities to each other, to serve a specific purpose toward the fulfillment of the overall objectives. This activity system, in addition to designing the internal organization, needs to consider goals, templates, stakeholders' activities and environmental constraints
Andersson et al.	2006	organizational structure	Business models are created in order to make clear who the business actors are in a business case and to make their relations explicit. Relations in a business model are formulated in terms of values exchanged between the actors.
Baden-Fuller, MacMillan, Demil & Lecocq	2008	organizational structure	Business model is the logic of the firm, the way it operates and how it creates and captures value for its stakeholders
Brandenburger & Stuart	1996	value management	A Business Model is oriented to the total added value created among the different players in the chain. It sets the basis for capturing value by the firm in question, by co-defining the overall value created among the whole chain of transactions, which can be considered the upper limit for the value capture of the given firm

Table A.1 Most notable definitions in the literature (Continued)

Author(s)	Year	Focus	Definitions
Casadesus-Masanell & Ricart	2010	organizational structure	Business models are composed of two different sets of elements: (a) the concrete choices made by management about how the organization must operate, and (b) the consequences of these choices.
Chesbrough & Rosenbloom	2002	value management	The functions of a business model are to articulate the value proposition, identify a market segment, define the structure of the value chain; estimate the cost structure and profit potential of producing the offering, describe the position of the firm within the value network and formulate the competitive strategy
Demil & Lecocq	2010	organizational structure	Business Model can be described with three core components: its resources and competences, its organizational structure and its propositions for value delivery. The interactions between and within them constitute its dynamics. The capability that allows a firm to change them while at the same time building and maintaining sustainable performance is labelled as its "dynamic consistency"
George & Bock	2011	organizational structure	A business model is the design of organizational structures to enact a commercial opportunity
Lewis	1999	value management	All what business model really meant was how you planned to make money
Linder & Cantrell	2000	value management	Business model is the organization's core logic for creating value. The business model of a profit oriented enterprise explains how it makes money
Llorens-Bueno	2010	set of activities	Theoretical scheme of a system, made to facilitate its understanding and set of organized activities, that comprises commercial, financial and industrial aspects, interrelated to deliver products and services to the customers
Magretta	2002	value management	Business models are stories that explain how enterprises work, and answer the questions: Who is the customer? What does the customer value? How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?
Morales	2011	organizational structure	Through the Business Model you describe how you imagine your organization or Company by defining your firm´s "core business", including: why it was founded, the main activities made, how value is captured and how cash flows arise
Osterwalder et al.	2005	value management	A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences.

Table A.1 Most notable definitions in the literature (Continued)

Author(s)	Year	Focus	Definitions
Osterwalder & Pigneur	2009	value management	A business model describes the rationale of how an organization creates, delivers, and captures value
Petrovic, Kittl & Teksten	2001	value management	A business model describes the logic of a 'business system' for creating value, that lies behind the actual processes
Rajala & Westerlund	2005	value management	The concept of the business model refers to the ways of creating value for customers and to the ways a business turns market opportunities into profit through sets of actors, activities and collaboration
Ricart	2009	set of activities	A business model consists of a firm´s set of choices and the consequences of those decisions
Salas-Fumás	2009	value management	Analysis unit to study the firm´s path-dependence decisions, that finally describe the value proposition able to explain the commercial success of a certain way of doing business
Shafer, Smith & Linder	2005	value management	Business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network
Svejenova, Planellas & Vives	2010	organizational structure	Business models are depicted as organizational devices that reveal a company's logic for creating and capturing value, and also its approach to constant renewal.
Timmers	1998	value management	Definition of a business model: an architecture for the product, service and information flows, including a description of the various business actors and their roles, a description of the potential benefits for the various business actors and a description of the sources of revenues.
Weill & Vitale	2001	organizational structure	The business model describes the roles and relationships among a firm´s customers, allies and suppliers, the major flows of product, information and money, and the major benefits to the participants
Winter & Sulanzki	2001	set of activities	The business model is a complex set of interdependent routines that is discovered, adjusted, and fine-tuned by "doing"
Wikström, Artto, Kujala & Söderlund	2010	value management	The business models are used for describing or designing the activities needed or wanted from the involved organization(s) to create value for customers and other stakeholders in the surrounding environment

Table A.2a List of authors and elements

Elements	Author(s)										
	Afuah & Tucci 2001	Al-Debei et al. 2008	Alt & Zimmerman 2001	Amit & Zott 2015	Applegate 2001	Baden-Fuller & Morgan 2010	Betz 2002	Casadesus-Masanell & Ricart 2011	Chesbrough & Rosenbloom 2002	Chesbrough 2003	Demil & Lecoqc 2010
Value Proposition	X	X		X	X				X	X	X
Revenue Stream	X	X	X			X				X	X
Customers						X					
Target Market / Segmentation	X					X			X	X	
Key Resources							X				X
Value Chain	X										
Key Partners						X			X	X	
Competitive Strategy		X		X	X				X		
Differentiating Competences		X		X				X	X	X	
Product					X						
Organization and Organizational culture		X	X		X						X
Cost Structure	X		X								
Key Processes	X								X	X	X
Profitability and Stakeholders					X		X				X
Distribution Channel		X						X			
Business Logic											
Technology			X								
Financing							X				
Corporate Governance and Sustainability	X			X				X			
Infrastructure											
Sales Process					X		X				
Operations					X						
Positioning											
Key Information											
Brand					X						
Mission			X								
Legal Framework			X								
Competitive Situation											
Key Executives											
Macroeconomics											
Number of elements	7	6	6	4	8	4	4	3	6	6	6

Table A.2b List of authors and elements

Elements	Author(s)							
	Donath, Kalakota & Cerf 1999	D´Souza et al. 2015	Dubosson-Torbay, Osterwalder & Pigneur 2002	Eyring, Johnson & Nair 2011	George & Bock 2011	Giesen, Riddleberger, Christner & Bell 2010	Gordijn 2002	Halme, Anttonen, Kuisma, Kontoniemi & Heino 2007
Value Proposition		X	X	X		X	X	
Revenue Stream		X	X	X		X		
Customers	X	X	X					
Target Market / Segmentation			X				X	
Key Resources		X	X	X	X			
Value Chain	X		X		X			
Key Partners		X	X				X	
Competitive Strategy		X					X	
Differentiating Competences								X
Product		X			X			
Organization and Organizational culture					X			
Cost Structure			X	X				
Key Processes		X	X					
Profitability and Stakeholders			X					
Distribution Channel					X			X
Business Logic		X				X		
Technology		X	X		X			
Financing			X					X
Corporate Governance and Sustainability	X							
Infrastructure			X					
Sales Process								
Operations								
Positioning	X					X		
Key Information	X		X					
Brand			X					
Mission								
Legal Framework								
Competitive Situation								X
Key Executives								
Macroeconomics								
Number of elements	5	10	15	4	6	4	4	4

Table A.2c List of authors and elements

Elements	Author(s)									
	Hamel & Ruben	Hedman & Kalling	Hoque	Kindström	Kordnaeij, Mohtadi, Abdi & Danaeefard	Kujala, Artto, Aaltonen & Turkulainen	Linder & Cantrell	Magretta	Mahadevan	Markides
	2000	2003	2002	2010	2011	2010	2000	2002	2000	1999
Value Proposition			X	X		X	X	X	X	
Revenue Stream				X		X	X		X	
Customers	X				X	X	X	X		X
Target Market / Segmentation	X		X	X						
Key Resources	X	X	X							
Value Chain		X	X			X				
Key Partners		X		X		X				
Competitive Strategy	X		X	X						
Differentiating Competences			X	X		X				
Product	X	X			X					X
Organization and Organizational culture			X			X		X		
Cost Structure	X	X								
Key Processes		X								
Profitability and Stakeholders										
Distribution Channel										
Business Logic	X						X			
Technology										
Financing					X					X
Corporate Governance and Sustainability			X							
Infrastructure					X					X
Sales Process							X			
Operations									X	
Positioning										
Key Information										
Brand			X							
Mission			X							
Legal Framework			X							
Competitive Situation			X							
Key Executives		X								
Macroeconomics										
Number of elements	8	7	12	6	4	7	5	3	3	4

Table A.2d List of authors and elements

Elements	Author(s)									
	Mason & Spring 2010	Morris et al. 2005	Okkonen & Suhonen 2010	Osterwalder & Pigneur 2010	Petrovic et al. 2001	Rayport & Jaworski 2002	Ricart 2009	Shafer et al. 2005	Teece 2010	Timmers 1998
Value Proposition	X			X	X	X	X	X	X	
Revenue Stream			X	X	X		X		X	X
Customers	X			X	X	X	X			
Target Market / Segmentation	X	X		X					X	
Key Resources				X	X	X				
Value Chain		X				X	X			
Key Partners						X	X		X	X
Competitive Strategy				X			X	X		
Differentiating Competences		X					X	X		
Product		X	X			X				
Organization and Organizational culture										
Cost Structure				X						
Key Processes				X			X			
Profitability and Stakeholders	X		X							
Distribution Channel		X	X				X			
Business Logic				X			X			X
Technology	X								X	
Financing						X				
Corporate Governance and Sustainability										
Infrastructure										
Sales Process										
Operations					X					
Positioning	X									
Key Information										X
Brand										
Mission										
Legal Framework										
Competitive Situation										
Key Executives										
Macroeconomics		X								
Number of elements	6	6	4	9	5	7	10	3	5	4

Table A.2e List of authors and elements

Elements	Author(s)					
	Van der Vorst, Van Dongen, Nouguier & Hilhorst 2002	Vives & Svejenova 2009	Weill & Vitale 2001	Wikström et al. 2010	Yip 2004	Yunus, Moingeon & Lehmann-Ortega 2010
Value Proposition	X	X	X	X	X	X
Revenue Stream		X	X	X		
Customers		X		X	X	
Target Market / Segmentation		X	X		X	
Key Resources	X				X	
Value Chain	X		X			
Key Partners	X					
Competitive Strategy				X		X
Differentiating Competences				X		
Product		X			X	
Organization and Organizational culture		X		X	X	
Cost Structure	X					
Key Processes						
Profitability and Stakeholders		X				X
Distribution Channel						
Business Logic			X			
Technology			X			
Financing						
Corporate Governance and Sustainability		X				
Infrastructure	X					
Sales Process						
Operations					X	
Positioning						
Key Information						
Brand						
Mission						
Legal Framework						
Competitive Situation						
Key Executives						
Macroeconomics						
Number of elements	6	8	6	6	7	3