

Conceptualising Business Models: Definitions, Frameworks and Classifications

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Abstract

The business model concept is gaining traction in different disciplines but is still criticized for being fuzzy and vague and lacking consensus on its definition and compositional elements. In this paper we set out to advance our understanding of the business model concept by addressing three areas of foundational research: business model definitions, business model elements, and business model archetypes. We define a business model as a representation of the value logic of an organization in terms of how it creates and captures customer value. This abstract and generic definition is made more specific and operational by the compositional elements that need to address the customer, value proposition, organizational architecture (firm and network level) and economics dimensions. Business model archetypes complement the definition and elements by providing a more concrete and empirical understanding of the business model concept. The main contributions of this paper are (1) explicitly including the *customer* value concept in the business model definition and focussing on value creation, (2) presenting four core dimensions that business model elements need to cover, (3) arguing for flexibility by adapting and extending business model elements to cater for different purposes and contexts (e.g. technology, innovation, strategy) (4) stressing a more systematic approach to business model archetypes by using business model elements for their description, and (5) suggesting to use business model archetype research for the empirical exploration and testing of business model elements and their relationships.

Keywords: business model, business model classification, business model concept, business model definition, business model element, business model framework, customer value, value creation.

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Introduction

Every company has a business model, whether that model is explicitly articulated or not (Chesbrough, 2006; Teece, 2010). Examples of companies with well-known business models are SouthWest Airlines' low-cost carrier model, Rolls Royce's 'power-by-the-hour' model and Threadless' 'customer is the company' model. Business models matter; the same idea or technology taken to market through two different business models will yield two different economic outcomes (Chesbrough, 2010). Business models are required because of the features of market economies where there is consumer choice, transaction costs, heterogeneity amongst consumers and producers, and competition (Teece, 2010). According to Ghaziani and Ventresca (2005) the public talk about 'business models' commenced in the early 1970s and rose to prominence halfway the 1990s, at the same time as the digital economy.

Academic research on business models started appearing late 1990s with early work from, for example, Timmers (1998), Weill and Vitale (2001) and Afuah and Tucci (2001). However, related concepts have appeared earlier such as Drucker's 'theory of business' (Drucker, 1994). The business model concept has been applied in studies as a basis for enterprise classification, as a factor for enterprise performance and as a focal point for innovation (Lambert & Davidson, 2013). Business models have received attention from different disciplines, such as e-business, information systems, management, entrepreneurship, innovation, strategy and economics (Amit & Zott, 2001; Bouwman & Fiel, 2008; Hedman & Kalling, 2003; Morris, Schindehutte, & Allen, 2005; Pateli & Giaglis, 2004; Teece, 2010; Zott & Amit, 2013). However, while many researchers stress the importance of business models, the concept is still fuzzy and vague and there is little consensus on its definition and compositional elements (Al-Debei & Avison, 2010; Morris et al., 2005; Shafer, Smith, & Linder, 2005). While defining the business model concept has been among the first tasks of early researchers in the area (Osterwalder, Pigneur, & Tucci, 2005), the definitions themselves have been subject to much debate (Pateli & Giaglis, 2004) and a general accepted definition has not yet emerged (Morris et al., 2005; Zott, Amit, & Massa, 2011).

The objective of this paper is to increase our foundational understanding of the business model concept by addressing three areas of research: business model definitions, business model frameworks and elements, and business model classifications and archetypes. These three areas are important for the conceptualisation of business models and have been a core focus of research (Osterwalder et al., 2005; Pateli & Giaglis, 2004). We conclude that a business model can be defined as 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. Moreover, we argue that the three areas of business model research complement each other in advancing our understanding of the business model concept. The business model definition can provide us with a generic and abstract conceptualization. Specifying the compositional elements of a business model can make the business model concept more specific and concrete and makes it suitable for different purposes and contexts (e.g. e-business, strategy, or innovation). Business model classifications and archetypes provide a more empirical and practical perspective and can provide insights into the relationships between business model elements. A better understanding of the business model concept can improve the quality of business model research and enable a more cumulative research tradition in this relatively young field of research.

While we will intensively relate to business model literature, this paper does not use a systematic literature review as main approach as we think that the further advancement of the business model concept benefits more from the underlying reasoning than from the systematic canvassing of a still developing and murky field. Moreover, when relevant we will make use of existing literature reviews on business models (e.g., Al-Debei & Avison, 2010; Morris et al., 2005; Shafer et al., 2005; Zott et al., 2011). The remainder of this paper is organized as follows. Firstly we discuss the business model definitions in more details. Thereafter, we address business model frameworks and elements. Next, we discuss business model classifications and archetypes. Finally, we present some concluding remarks and identify opportunities for future research.

Business Model Definitions

While defining the business model concept has been among the first tasks of early researchers (Osterwalder et al., 2005), the definitions have been subject to much debate (Pateli & Giaglis, 2004) and a general accepted definition has not yet emerged (Al-Debei & Avison, 2010; Morris et al., 2005; Shafer et al., 2005; Zott et al., 2011). Table 1 provides an overview of some of the prominent definitions over time. We will first explore these definitions and highlight some of the similarities and differences to increase our understanding of the business model concept. Thereafter, we will specific zoom into the notion of value creation. We will end this

section with a working definition explicitly targeting customer value and some specific considerations that need to be taken into account when developing or using business model definitions.

Researchers have come up with different definitions in an attempt to explain what the essence and purpose of a business model is (Pateli & Giaglis, 2004). Definitions have had different foci and have been more and less inclusive. Timmers (1998, p. 4) provides one of the first business model definitions. This definition influenced the definition of Weill and Vitale (2001) and is quite similar to the definitions of Mahadevan (2000) and Tapscott (2001). These definitions see the business model as an architecture and address the busi-

Table 1: A selective overview of business model definitions (ordered by year and author name).

Author(s)	Definition
Timmers (1998)	Definition of a business model: (a) an architecture for the product, service and information flows, including a description of the various business actors and their roles; and (b) a description of the potential benefits for the various business actors; and (c) a description of the sources of revenues. (p.4)
Mahadevan (2000)	A business model is a unique blend of three streams that are critical to the business. These include the value stream for the business partners and the buyers, the revenue stream, and the logistical stream. (p. 59)
Rappa (2000)	In the most basic sense, a business model is the method of doing business by which a company can sustain itself -- that is, generate revenue. The business model spells-out how a company makes money by specifying where it is positioned in the value chain.
Afuah and Tucci (2001)	A business model is the method by which a firm builds and uses its resources to offer its customers better value than its competitors and 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. (p. 3-4)
Amit and Zott (2001)	A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities. (p. 511)
Tapscott (2001)	A 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. (p. 5)

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Table 1: A selective overview of business model definitions (ordered by year and author name).

Author(s)	Definition
Chesbrough and Rosenbloom (2002)	The business model provides a coherent framework that takes technological characteristics and potentials as inputs, and converts them through customers and markets into economic inputs. The business model is thus conceived as a focusing device that mediates between technology development and economic value creation. (p. 532) It “spells out how a company makes money by specifying where it is positioned in the value chain” (p. 533)
Morris et al. (2005)	A business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets. (p. 727)
Shafer et al. (2005)	We define a business model as a representation of a firm’s underlying core logic and strategic choices for creating and capturing value within a value network. (p. 202)
Chesbrough (2006)	At its heart, a business model performs two important functions: value creation and value capture. First, it defines a series of activities that will yield a new product or service in such a way that there is net value created throughout the various activities. Second, it captures value from a portion of those activities for the firm developing the model. (p. 108)
Johnson, Christensen, and Kagermann (2008)	A business model, from our point of view, consists of four interlocking elements that, taken together, create and deliver value. The most important to get right, by far, is the customer value proposition. The other elements are the profit formula, the key resources and the key processes. (p. 52-53)
Demil and Lecocq (2010)	Generally speaking, the concept refers to the description of the articulation between different BM components or ‘building blocks’ to produce a proposition that can generate value for consumers and thus for the organization. (p. 227)
Osterwalder and Pigneur (2010)	A business model describes the rationale of how an organization creates, delivers, and captures value. (p. 14)
Teece (2010)	In short, a business model defines how the enterprise creates and delivers value to customers, and then converts payments received to profits. (p. 173)
Zott and Amit (2010)	A business model can be viewed as a template of how a firm conducts business, how it delivers value to stakeholders (e.g., the focal firms, customers, partners, etc.), and how it links factor and product markets. The activity systems perspective addresses all these vital issues [...]. (p. 222)
George and Bock (2011)	[...] a business model is the design of organizational structures to enact a commercial opportunity. (p.99) [...] three dimensions to the organizational structures noted in our definition: resource structure, transactive structure, and value structure. (p.99)

ness network with a focus on the different roles of the actors and their interactions and relationships. Another early definition comes from Rappa (2000) who emphasises the monetary aspects, which is also prominent in some other definitions (e.g., Afuah & Tucci, 2001; Mullins & Komisar, 2009; Teece, 2010). This often comes with a stronger emphasis on the organization and strategic aspects (e.g., Afuah & Tucci, 2001; Morris et al., 2005). Most authors do stress that a business model does not cover the full strategy (e.g., Chesbrough & Rosenbloom, 2002). Others quite explicitly differentiate between business models and strategy (e.g., Magretta, 2002; Mansfield & Fourie, 2004). More comprehensive definitions combine the ideas of an architectural representation of the business network and the generation of revenues for the focal organization (Dubosson-Torbay, Osterwalder, & Pigneur, 2002; Morris et al., 2005). However, others are less inclusive in their business model definition and explicitly differentiate it from other concepts (e.g. strategy) or exclude some specific elements. For example, Timmers (1998) differentiates the business model from the marketing model, which addresses the commercial viability via the competitive advantage, positioning, marketing mix, and product-market strategy. Amit and Zott (2001) see the revenue model as a distinct, yet complementary concept to the business model.

There is quite some confusion about the organizational entity as business model definitions refer to the firm level (e.g., Afuah & Tucci, 2001; Osterwalder et al., 2005; Rappa, 2000) as well as the network level (e.g., Mahadevan, 2000; Tapscott, 2001; Timmers, 1998; Weill & Vitale, 2001). While some position it as a new level of analysis nested between the firm and the network level (e.g., Amit & Zott, 2001). Some definitions do not include an explicit reference to the organizational entity (e.g., Chesbrough & Rosenbloom, 2002; Morris et al., 2005). Most authors do include both levels in their conceptualization based on their further discussion, operationalization and application of the business model concept (see also the discussion below on business frameworks and elements). Most firm level definitions do not differentiate between the corporate entity and the business unit although most seem to imply the business unit. A notable exception is Chesbrough and Rosenbloom (2002), who explicitly relate the business model to the business unit strategy.

Some definitions follow from, or are influenced by, the specific context in which the business model concept is used. For example, Amit and Zott (2001) focus on value creation in e-business and see the business model as depicting the design of transaction content, structure, and governance transactions. Chesbrough and Rosenbloom (2002) focus on technological innovation and position the business model as mediating between technology development and economic value creation. The business model concept is also applied for organizations that have less of a profit focus such as socially-oriented organizations (e.g., Yunus, Moingeon, & Lehmann-Ortega, 2010) and government organizations (e.g., Janssen, Kuk, & Wagenaar, 2008). This use of business models for different purposes and in different contexts, such as start-ups and established companies, different types of innovation, different kinds and varying importance of technology, for-profit and not-for-profit, etc. may also explain why there is no widely agreed upon definition.

Some researchers have tried to address the problem of different business model definitions by identifying categories or themes reflecting the different origins or meanings of the concept (Table 2). Osterwalder et al. (2005) distinguish between an activity/role-related approach, which is more inward looking and a value/customer-oriented approach, which is more outward looking. The categories of Morris et al. (2005) represent a hierarchy where the perspective increases in comprehensiveness as one progressively moves from the economic to the operational to the strategic levels. Wirtz (2011) suggests that definitions developed from a technology orientation to an organization orientation to a strategic orientation. Given this wide variety of origins and meanings of the business model concept, it is not surprising that a general accepted definition has not yet emerged. Therefore, it will be important for the definition to provide a generic and abstract conceptualization that can be applied for different purposes and in different contexts (e.g. technology, innovation, strategy).

Many (earlier) definitions summarize what a business model is made off (e.g., Bouwman, De Vos, & Haaker, 2008; Osterwalder et al., 2005; Timmers, 1998); these definitions are very close to the frameworks and ele-

Table 2: Categorizations or themes for business model definitions (ordered by year and author name).

Authors	Categories/themes
Morris et al. (2005)	<ul style="list-style-type: none"> • Strategic level • Operational level • Economical level
Osterwalder et al. (2005)	<ul style="list-style-type: none"> • Activity/role-related approach (inward looking) • Value/customer-oriented approach (outward looking)
George and Bock (2011)	<ul style="list-style-type: none"> • Organizational design • The resource-based view of the firm • Narrative and sense-making • The nature of innovation • The nature of opportunity • Transactive structures
Wirtz (2011)	<ul style="list-style-type: none"> • Strategy-oriented approaches • Organization-oriented approaches • Technology-oriented approaches
Zott et al. (2011)	<ul style="list-style-type: none"> • E-business and IT • Strategy • Technology and innovation management

ments discussed below and are less useful for deriving a generic and abstract definition. Other (later) definitions are more formulated around the value logic in terms of creating, delivering and/or capturing value (e.g., Chesbrough, 2006; Johnson, 2010; Osterwalder & Pigneur, 2010; Teece, 2010). For example, Chesbrough (2006, p. 108) states that a business model performs two important functions: value creation and value capture. 'First, it defines a series of activities that will yield a new product or service in such a way that there is net value created throughout the various activities. Second, it captures value from a portion of those activities for the firm developing the model.' Ghaziani and Ventresca (2005) concluded that the business model discourse is mostly framed around value creation. Even if the meaning is framed differently, these frames still

embody the same idea, namely, 'the question of how to create value in the face of a changing business environment' (p. 545). 'The different frames emphasize different aspects of the same problem. Generating revenues and managing relationships, although ostensibly different, both have something to say about the challenge of creating value in the unsettled Digital Economy' (p. 545).

While most authors are not very explicit about what they mean with value, most definitions seem to refer to customer value (i.e. value for the customer) (e.g., Afuah, 2004; Dubosson-Torbay et al., 2002; Osterwalder & Pigneur, 2010; Tapscott, 2001; Teece, 2010). Because most authors do not discuss what they mean with 'value' and 'customer value,' it is hard to compre-

hend a definition of business model without a better understanding of the value concept. The concept of value has a long history in axiology or 'the theory of value' (Holbrook, 1999) and has been of interest to many different fields in the social sciences, including economics, strategic management and marketing (Khaliifa, 2004; Sanchez-Fernandez & Iniesta-Bonillo, 2006). We will take a closer look at the value concept in marketing literature (and related management literature) as this is the most obvious source for customer value. In addition, we will briefly discuss the ideas on value creation in strategic management as this is the field where most business model authors rely on for their theoretical foundation. However, as will follow from the brief overview below, there are no straight answers to be found here either as customer value is a complex and multi-dimensional concept and value creation is still ill understood from a strategic perspective.

Conceptualizations of customer value range from more simplified, uni-dimensional to more complex and holistic, multi-dimensional approaches (Sánchez-Fernández & Iniesta-Bonillo, 2007). Woodruff (1997) defines it as 'a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations' (p. 142). Woodruff's definition reflects the richness and complexity of the concept, but may not be readily translated into an effective operational definition (Parasuraman, 1997). Holbrook (1999) emphasizes that consumer value is an 'interactive relativistic preference experience' (p. 5). An 'interactive' approach entails that 'value depends on the characteristics of some physical or mental object but cannot occur without the involvement of some subject who appreciates these characteristics' (p. 6). It is 'relativistic' because it depends on relevant comparisons, it varies between people and it changes among situations. And 'experience' means that consumer value resides in the consumption experience rather than in the product purchased. Customer value in the use context is also described as use value (or value-in-use), which is value created with and determined by the user during the consumption process (Bowman & Ambrosini, 2000; Dixon, 1990). This is differentiated from exchange value (or value-in-exchange), which is value embedded in the product itself (i.e. added during the production pro-

cess) and determined at the point of exchange process (Bowman & Ambrosini, 2000; Dixon, 1990). Bowman and Ambrosini (2000) see use value as being defined by customers, based on their perceptions of the usefulness of the product on offer. In monetary terms it is the amount the customer is prepared to pay for the product. They explicitly refer to *perceived* use value to stress that it is subjectively assessed by the customer. Exchange value is realized when the product is sold and it is the amount paid by the buyer to the producer.

In general, (strategic) management literature has not paid a lot of attention to consumers (Brief & Bazerman, 2003). The emphasis has traditionally been on the supply side where the producers (solely) create value as reflected in the common term 'added value' (Priem, 2007). So far there is little consensus on what value creation is and how it can be achieved in the management literature (Lepak, Smith, & Taylor, 2007). A notable exception is Priem (2007), who introduces an orientation on consumers and value creation – the 'consumer benefit experienced' viewpoint – as an alternative for the dominant orientation on producers and value capture in strategic management approaches based on firm positioning, transaction cost, and resource-based view. One of the fundamental ideas behind this perspective is that consumers experience value during their consumption activities. So products and services are not 'value laden' as they are without value when they are unconsumed. In subsequent work, Priem, Li, and Carr (2012) refer to 'demand-side' research that looks at explaining and predicting managerial decisions that increase value creation within a value system based on product markets and consumers (downstream from the focal firm) instead of factor markets and producers (upstream of the focal firm). A demand-side approach recognizes that consumer's heterogeneity of demand contributes to firm heterogeneity and emphasizes that firms first must compete to create more consumer value (to join the value system) and only then compete to capture that value. Adner and Zemsky (2006) also argue that value creation presents a distinct set of challenges and stress the role of demand-side factors in sustainable competitive advantage. Following the discussion of the business model definition and the value concept, we conclude that from a generic and abstract perspective a business model provides an integral view on the value logic of an or-

ganization by bringing together customer (use) value and value creation with business (exchange) value and value capture. We propose the following definition: ***a business model describes the value logic of an organization in terms of how it creates and captures customer value.*** This definition is similar to most of the more recent definitions of other authors, in particular Osterwalder and Pigneur (2010), Chesbrough (2006), and Johnson (2010), except our explicit reference to *customer* value. Moreover, we excluded 'delivering' value from our definition as we see the separation of creating value and delivering value as a supply-side perspective focussing on producers adding value. Customer (use) value cannot be created without involving the user and considering the use context.

Our business definition is abstract and generic enough to cover the use of the business model concept for different purposes and in different contexts and to cater for the evolution of the business model concept over time within this relatively young and emerging field. This is facilitated by not including a comprehensive list of elements but leaving that to more specific and operational frameworks (as discussed below). Our definition reflects the current business model discourse, which is mostly framed around value creation (Ghaziani & Ventresca, 2005). The core reasoning of the business model is about the creation of customer value and linking this to the capture of customer value (for the creation of business/exchange value). This aligns well with the ideas of Peter Drucker who states that 'There is only one valid definition of business purpose: to create a customer' and 'It is the customer who determines what a business is' (Drucker, 2007, p. 31). While most business model authors nowadays emphasise value creation this does, however, not mean that value capture is ignored (Zott, Amit, & Massa, 2010). But while there is some attention to capturing the customer value created, business value and sustainable competitive advantage are stressed in strategy (Chesbrough & Rosenbloom, 2002). Our definition model focuses on the firm level, but this does not exclude taking the network level into account. The specific firm can be the focal organization of a business network that plays a prominent role in creating and capturing customer value. In this way the business model can become a new level of analysis positioned between the firm and the network level (Zott et al., 2011).

Based on the discussion of the business model definition, we also see opportunities for further developing the definition. Because most authors do only limitedly address what is meant with customer value and value creation, we suggest that business model research pays more attention to other literature in this area, in particular from marketing and strategic management. However, the current literature on customer value and value creation will not provide any straight answers either as customer value is a complex and multi-dimensional concept and value creation is still ill-understood, in particular from a strategic perspective. Moreover, there is an opportunity for business model research to contribute to the strategy literature as the business model can contribute to an expanded boundary model that includes value creation and integrates a demand side perspective (Priem, Butler, & Li, 2013)

Business Model Frameworks and Elements

Closely related to the business model definitions are the compositional elements describing what a business model is made-off. The elements are also referred to as, for example, building blocks (e.g., Osterwalder & Pigneur, 2010), components (e.g., Pateli & Giaglis, 2004), (key) questions (e.g., Morris et al., 2005), or functions (e.g., Chesbrough & Rosenbloom, 2002). Business model elements are sometimes presented as part of the definitions and other times described in separate lists, frameworks or ontologies. Gordijn, Osterwalder, and Pigneur (2005) state that this kind of research has evolved from 'shopping lists' of components, to components as building blocks, to reference models and ontologies. This means the description of elements has become more explicitly conceptualized, shared and formal. Business model frameworks and ontologies do not only define the elements, they also define the relationships between the elements (e.g., Gordijn et al., 2005). They often also introduce some hierarchal structure, in particular a two-layered model with higher-level and lower level elements (e.g., Johnson et al., 2008; Morris et al., 2005; Osterwalder, 2004). Table 3 presents a selective overview of business model frameworks to briefly introduce the topic by describing a few prominent examples and highlight

some communalities and differences. Note that it is not our intention to be comprehensive here but to mainly focus on a representative set of well-known frameworks from different origins (in particular e-business, innovation, and entrepreneurship). See for more complete overviews, for example, Shafer et al. (2005) and Zott et al. (2011).

The most well-known and widely used framework is the Business Model Canvas (Osterwalder & Pigneur, 2010). The Business Model Canvas is presented as a shared language for describing, visualizing, assessing and changing business models. It is focussed on design and innovation, in particular by using visual thinking which stimulates a holistic approach and storytelling. The Canvas is a follow up of the Business Model Ontology (Osterwalder, 2004). In this ontology the elements are grouped into four pillars: customer interface (segments, relationships and channels), product (value proposition), infrastructure management (activities, resources, and partners) and financial aspects (revenues and costs). Osterwalder (2004) shows how the ontology synthesizes most of the other business model frameworks and elements at that time (e.g., Afuah & Tucci, 2001; Hamel, 2000; Magretta, 2002).

The Four-Box Business Model (Johnson, 2010; Johnson et al., 2008) has many similarities with the Business Model Canvas. Johnson stresses the interdependencies between the boxes in terms of consistency and complementarity and sees this as the way in which a simple framework can become quite complex. However, there is not much further discussion of these interdependencies or support for dealing with them. The main difference between the Business Model Canvas and the Four-Box Business Model is that the former has a customer pillar while the latter does not have a separate customer box but covers customer aspects to some extent in the value proposition box. Moreover, while the Business Model Canvas has key partnerships as a separate element, the Four-Box Business Model puts it under key resources. The Four-Box Business Model includes more detailed operational (business rules, behavioural norms and success metrics) and financial (target unit margin and resource velocity) aspects than the Business Model Canvas.

Chesbrough and Rosenbloom (2002) discuss business models in relation to technological innovation. They position the business model as a heuristic logic and focusing device that mediates between technology development and economic value creation. Chesbrough and Rosenbloom state that 'the business model provides a coherent framework that takes technological characteristics and potentials as inputs, and converts them through customers and markets into economic inputs' (p. 532). The elements of Chesbrough and Rosenbloom are quite similar to the Business Model Canvas and the Four-Box Business Model. They do explicitly mention the value network as one of the elements, which includes customers, suppliers, complementors, and competitors. Moreover, Chesbrough and Rosenbloom also see the competitive strategy as an element in the business model, which is not the case for the Business Model Canvas and the Four-Box Business Model. However they do stress that this does not cover the full strategy and that there are differences between the business model and strategy, such as the fact that the business model emphasizes value creation while the strategy emphasizes value capture.

Morris et al. (2005) approach the business model from an entrepreneurship perspective. Similar to the Four-Box Business Model, they also include more details on the financial aspects (operating leverage, volumes, and margins). In line with Chesbrough and Rosenbloom, Morris et al. also include competitive strategy as an element in the business model. Moreover, one of their elements addresses the personal factors of the entrepreneur or investor in relation to their time, scope, and size ambitions, which they also refer to as 'the investment model.' This takes into account that there are different venture types possible such as the subsistence, income, growth and speculative models. In addition, Morris et al. also stress the importance of internal and external fit with respect to the six elements. While internal fit (consistency and reinforcement between the components) is required for a working model, a strong internal fit can undermine adaptability and result in a poor external fit when the environment is turbulent. Morris et al. also note that the components interact with each other and that the investment model (component 6) effectively delimits decisions made in all other areas.

Table 3: A selective overview of business model frameworks and elements (ordered by year and author name).

Author(s)	List/Framework and Elements
Weill and Vitale (2001)	<p><i>Business Model Schematics</i></p> <ul style="list-style-type: none"> • roles and relationships (electronic and primary – including the firm of interest, its customers, suppliers and allies) • major flows of product, information, and money • revenues and other benefits each participant receives <p><i>Atomic E-business Model</i></p> <ul style="list-style-type: none"> • Strategic objectives & value proposition • Sources of revenue • Critical success factors • Core competencies <p><i>E-business Initiative</i></p> <ul style="list-style-type: none"> • Combination of atomic models • Targeted customer segments • Channels to the customer • IT infrastructure capability
Osterwalder (2004); Osterwalder and Pigneur (2010)	<p><i>Business Model Canvas</i></p> <ul style="list-style-type: none"> • Customer Segments • Customer Relationships • Communication, Distribution & Sales Channels • Value Propositions <ul style="list-style-type: none"> • Key Resources • Key Activities • Key Partnerships • Revenue Streams • Cost Structure
Chesbrough and Rosenbloom (2002)	<p><i>Technology-market mediation</i></p> <ul style="list-style-type: none"> • Value proposition • Market segment • Value chain <ul style="list-style-type: none"> • cost structure & profit potential • value network • competitive strategy
Morris et al. (2005)	<p><i>Entrepreneur's business model</i></p> <ul style="list-style-type: none"> • How do we create value? (factors related to the offering) • Who do we create value for? (market factors) • What is our source of competence? (internal capability factors) <ul style="list-style-type: none"> • How do we competitively position ourselves? (strategy factors) • How we make money? (economic factors) • What are our time, scope, and size ambitions? (personal/investor factors)

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Table 3: A selective overview of business model frameworks and elements (ordered by year and author name).

Johnson et al. (2008);	<i>Four-Box Business Model</i>	
Johnson (2010)	<ul style="list-style-type: none"> • Customer Value Proposition <ul style="list-style-type: none"> • Job-to-be-done • Offering • Profit Formula <ul style="list-style-type: none"> • Revenue Model • Cost Structure • Target Unit Margin • Resource Velocity 	<ul style="list-style-type: none"> • Key Resources • Key Processes <ul style="list-style-type: none"> • Processes • Business Rules & Success Metrics • Behavioural Norms

Weill and Vitale (2001) introduce E-business Model Schematics for describing e-business models. This Framework uses the elements in Timmers' definition (Timmers, 1998) as starting-point and adds a visual representation to it. Moreover, Weill and Vitale differentiate between atomic e-business model and e-business initiatives that are based on combinations of atomic models and identify specific elements for both. What is notable about the approach of Weill and Vitale is its focus on e-business, which comes with special attention for information flows, electronic relationships, and IT infrastructure. Some other frameworks even have a separate, higher-order element addressing technology (e.g., Bouwman et al., 2008; Mason & Spring, 2011). Moreover, the network perspective on the organizational architecture is very prominent in E-business Model Schematics with a description of roles, relationships and flows.

Business model frameworks address what a business model is made-off. As the framework overview above shows, there are significant similarities in terms of the elements that can be used to represent how an organization (in a network setting) creates and captures customer value. From a comparison of 18 frameworks and lists, Morris et al. (2005) state that the number of elements mentioned varies from four to eight and that a total of 24 different items are mentioned as possible elements, with 15 receiving multiple mentions. They conclude 'that the most frequently cited are the firm's value offering (11), economic model (10),

customer interface/relationship (8), partner network/roles (7), internal infrastructure/connected activities (6), and target markets (5). Some items overlap, such as customer relationships and the firm's partner network or the firm's revenue sources, products, and value offering' (p. 727). Al-Debei and Avison (2010) suggest a unified business model conceptual framework with the dimensions value proposition, value architecture, value network, and value finance. Based on our description and discussion of business model frameworks, the findings of Morris et al. (2005) and the unified model of Al-Debei and Avison (2010), we suggest that the core elements of a business model should address the customer, value proposition, organizational architecture and economics dimensions.

The customer dimension identifies the target customers and articulates their problem (a difference between the current and desired situation). This problem (or opportunity) is sometimes also described as the job-to-be-done (Johnson et al., 2008; Ulwick, 2005). The value proposition dimension presents the organization's solution to deal with the customer problem often in terms of an offering and its potential benefits. The value proposition is the first amongst equals and can be seen as the central dimension of the business model, as also argued by, for example, Zott et al. (2011). The organizational architecture dimension addresses how the value proposition can be effectuated by the capabilities and resources of the focal organization and the other actors in the busi-

ness network. There can be differences between the representation of the organizational architecture at the organizational and network level, for example the value chain and the value system (Porter, 1985). The economics dimension focuses on financial considerations (how to make money) in terms of the revenues and costs and their drivers (e.g. margin, economies of scale). Economics can also include non-financial considerations related to social and environmental considerations (e.g. the triple bottom line). Together these business model dimensions cover the core questions about creating and capturing customer value in terms of who, what, why and how. The identification of four dimensions advances our understanding of the business model concept from the earlier discussion on definitions and moves the conceptualisation from abstract and generic to more concrete and specific. ***A business model 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.***

We suggest to include the business model dimensions as high-level core elements and to make use of business model frameworks as multi-level structures specifying a (limited) number of higher-order elements (or pillars, boxes, questions, etc.) and elaborating these in more detail as lower-level elements (or building blocks, components, factors, etc.). This means that depending on the specific purpose, context and/or theoretical foundations of a business model study, a more specialised framework can be used that may have additional higher-order elements and/or more specific lower-order elements. In this way business model research can, on the one hand, build on a cumulative body of knowledge and, on the other hand, be flexible enough to adapt to specific purposes and circumstances. For example, some frameworks may have additional higher-order elements addressing strategy or technology. Or some frameworks may cover the economics dimension by a financial higher-order element and revenues and costs as lower-order elements while others add volume, growth and resource velocity as additional lower-order elements. This flexibility does mean that when developing or using a business model framework, it is required to address the origin and foundation of

the framework and elements and discuss assumptions and limitations.

A business model framework should not only define the elements, but also define the relationships between the elements. According to Morris, Minet, Richardson, and Allen (2006, p. 47) 'a useable business model framework captures the ways in which key decision variables are integrated, including the need for unique combinations that are internally consistent.' It is important to recognize that a business model framework 'more than the sum of its parts, the model captures the essence of how the business system will be focused' (Morris et al., 2005, p. 727). This is in line with suggestions that the business model is a system (Afuah & Tucci, 2001) with complex interdependencies between its elements (Johnson, 2010). Moreover, there should be a blend (Mahadevan, 2000) or balance (Bouwman et al., 2008) between the different dimensions. We suggest to take this one step further, more than a consistency or fit between the business model elements, the strongest business models create synergies between them going beyond tensions and trade-offs between customer and business perspectives and between value creation and capture. However, while the importance of the relationships and consistency between the elements in a business model framework is recognized, this topic is hardly addressed by literature so far except at the even more concrete level of business model archetypes. Moreover, there is also a lack of empirical testing of the business model frameworks and elements. Here also research on business model archetypes can be of great value as this research is often based on empirical studies.

Business Model Classifications and Archetypes

Business model research has been addressing the identification and description of different types of business models. These archetypes are discussed individually or collectively as part of a classification (Hedman & Kalling, 2003; Osterwalder et al., 2005; Pateli & Giaglis, 2004). An archetype can refer to a full business model, often an exemplar based on a specific company such as the 'low-cost carrier model' of SouthWest Airlines, or a simplified, basic model, such as the 'full service pro-

vider' atomic business model (Weill & Vitale, 2001), or a specific aspect or element of a business model, for example, the 'free' business model pattern (Osterwalder & Pigneur, 2010) for the revenue model. In this section we will discuss a number of these archetypes and classifications to get an impression of this area of research and link it to the business model conceptualization. It is not intended as being comprehensive with respect to the full range of archetypes or classifications but is representative and in particular covers e-business research, which has been most prolific in this area.

Authors in academic literature as well as popular press identify and discuss generic representations of specific types of business models and/or specific instantiations of these specific types. Common examples are the 'razor-and-blades model' of Gillette, the 'power-by-the-hour model' of Rolls Royce, the 'low-cost carrier model' of SouthWest Airlines, the 'direct sales with build-to-order model' of Dell, and the 'the customer is the company model' of Threadless. The in-depth descriptions of business model archetypes often address interesting business models of well-known firms or innovative business models of upcoming firms based on empirical studies. For example, With the rise of the Internet, there was a lot of attention for e-business models, which later on got refined to pure-play and clicks-and-mortars models (e.g., Afuah & Tucci, 2003). Another example, Anderson (2009) discusses how companies can be successful by giving away things for free and using more indirect revenue sources like cross-subsidies or freemium. The in-depth descriptions of business model archetypes are often presented as engaging stories of real world examples or in-depth case studies. This makes the business model concept very concrete and practical.

While some authors focussed on individual business model archetypes, others started producing classifications of multiple business model archetypes in the form of lists or typologies (Table 3). The rise of the Internet resulted in an increase in business model choices (Pateli & Giaglis, 2004) with new e-business models and adapted versions of traditional 'bricks-and-mortar' models. There were many authors trying to describe and understand different e-business models, for example Timmers (1998), Rappa (2000) and Weill and Vitale (2001). Later the specific focus on e-business models

lessened, although many of the newer models are still associated with technology as driver or enabler. Osterwalder and Pigneur (2010) and Johnson (2010) are examples of newer lists that are not e-business focussed. Sometimes classifications make use of business model frameworks to systematically describe each business model archetype, as abstract presentation or exemplary instantiation, with the help of a business model framework. This is, for example, done by Weill and Vitale (2001), Afuah and Tucci (2003), and Osterwalder and Pigneur (2010).

While most business model classifications are lists that present an unordered set of business model archetypes, some provide business model typologies that position archetypes relative to each other based on underlying criteria. For example, Timmers (1998) uses 2 criteria for classifying his Internet business models: (1) functional integration (from single function to multiple functions/integrated) and (2) degree of innovation (from lower to higher). While the typologies provide insights into different types of business models and their relative positioning, there is little integration or consolidation of the different criteria and model types presented by different authors. Moreover, the criteria used to classify business models overlap to some extent with the elements in the business model frameworks, for example, Weill and Vitale (2001) and Afuah and Tucci (2003). It is unclear what the relation between the criteria and elements is. Moreover, there is no holistic and exhaustive business model taxonomy available yet (Lambert, 2006; Pateli & Giaglis, 2004). Whereas a typology is an arbitrary/artificial classification that suits a specific need with categories that are conceptually derived and based on a limited number of variables, a taxonomy is a general/natural classification providing a basis for generalisation with categories that are empirically derived and based on a large number of variables (Lambert, 2006).

The classifications and archetypes can be applied for the design and management of business models, for example, business model composition (Weill & Vitale, 2001), business model decision-making (Morris et al., 2005) and business model maturity (Chesbrough, 2006). Moreover, this kind of research is also important for business model innovation as it can help assessing the novelty of a business model. Weill and Vi-

Table 4: A selective overview of business model classifications (ordered by year and author name).

Author(s)	Classification	Comments	
Timmers (1998)	<i>Internet business models</i> <ul style="list-style-type: none"> • e-shop • e-procurement • e-auction • 3rd party marketplace • e-mall 	Classified by 2 criteria: (1) functional integration; (2) degree of innovation	
Rappa (2000)	<i>Business models on the web</i> <ul style="list-style-type: none"> • Brokerage model • Advertising Model • Infomediary Model • Merchant Model • Manufacturer Model 		
Weill and Vitale (2001)	<i>Atomic e-business models</i> <ul style="list-style-type: none"> • Content Provider • Direct to Consumer • Full Service Provider • Intermediary 	<ul style="list-style-type: none"> • Affiliate Model • Community Model • Subscription Model • Utility Model 	Described by 4 elements (see atomic e-business model in Table 3)
Afuah and Tucci (2003)	<i>(Internet) Business models (based on dominant revenue models)</i> <ul style="list-style-type: none"> • Commission • Advertising • Mark-up • Production 	<ul style="list-style-type: none"> • Referral • Subscription • Fee-for-service 	Described by 4 elements: (1) profit site (role in value network), (2) revenue model, (3) commerce strategy and (4) pricing model
Johnson (2010)	<i>Business model analogies</i> <ul style="list-style-type: none"> • Affinity club • Brokerage • Bundling • Cell phone • Crowdsourcing • Disintermediation • Fractionalization • Freemium • Leasing • Low touch 	<ul style="list-style-type: none"> • Negative operating cycle • Pay-as-you-go • Razors-and-blades • Reverse auction • Reverse razors-and-blades • Product-to-service • Standardization • Subscription club • User community 	
Osterwalder and Pigneur (2010)	<ul style="list-style-type: none"> • Unbundling • Long tail • Multi-sided platforms 	<ul style="list-style-type: none"> • Free (Freemium, Bait & Hook) • Open 	Described by 9 elements (see Business model Canvas in Table 3)

tale (2001) discuss how atomic e-business models can be seen as pure types or as building blocks for more complex compositions in business model design and innovation. They also address how compositions need to take the synergies and conflicts between atomic e-business models into account, for example, while direct-to-customer and virtual community go well together, direct-to-customer should not be combined with content provider. The business model framework of Morris et al. (2005) includes 3 levels: foundation, proprietary and rules levels. The business models archetypes can be used at the foundation level to help making generic decisions regarding what the business is and is to ensure that such decisions are internally consistent. Chesbrough (2006) presents different business models archetypes as part of a maturity model for open innovation. It moves from very basic models with little advantages for the company to highly sophisticated models that drive the innovation activities of a company and form a platform for leading its industry.

Business model classifications and archetypes are important for the conceptualisation of business models, as they are more concrete and empirical than the definitions and frameworks. However, research into classifications and archetypes is very fragmented and not yet well developed, often lacking a systematic approach. Business model archetypes can benefit from more rigorously applying business model frameworks to systematically describe an archetype and specify its scope (i.e. does it cover the complete business model or only certain elements). An archetypical description of a complete business model should at least address the customer, value proposition, organizational architecture, and economics dimensions to provide a holistic understanding of how a certain way of doing business creates and captures customer value. Research into classifications and archetypes can also be used to validate and enrich our understanding of business model definitions and frameworks; in particular it can help to empirically test the business model frameworks and explore the relationships and consistency between business model elements. This also means that research into business model archetypes can make contributions that go beyond identifying and describing a particular archetype.

Concluding remarks

The business model concept is still criticized for being fuzzy and vague and lacking consensus on its definition and compositional elements. In this paper we set out to advance our understanding of the business model concept by addressing three areas of research: business model definitions, business model elements, and business model archetypes. ***We conclude that a business model 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.***

Business model definitions are converging around describing how organizations can create and capture customer value. These kinds of definitions are abstract and generic enough to cover the use of the business model concept for different purposes and in different contexts (e.g. technology, innovation, strategy). We explicitly include the *customer* value (or use value) where other definitions are less clear by referring to value in general or include business value (or exchange value). The focus is on the value creation from the customer perspective and linking value creation to value capture. However, a more strategic perspective is required to fully understand value capture and business value. Moreover, while the focus is on the organization, the business network needs to be included as well when it plays a critical role in creating and capturing customer value. Advancing the business model definition will require further research into customer value and value creation and needs to address related research in marketing and strategic management. Moreover, there is an opportunity for a unique contribution of business model theory focussing on the integration of customer (use) value and value creation with business (exchange) value and value capture.

While the business model definition is abstract and generic, business model frameworks and elements can make the business model concept more specific and operational. We suggest that a business model framework needs to include four dimensions that address the customer, value proposition, organizational architecture and economics. The value proposition can be seen

as the central dimension. Organizational architecture can be both at the firm and network level. Economics can also include non-financial considerations. Together these dimensions cover the basic who, what, why, and how questions about creating and capturing customer value. We suggest using a multi-level structure, which is used by many business model frameworks, and include the business model dimensions as high-level core elements. Additional high-level elements (e.g. technology, competitive strategy) can be included depending on the purpose and context. Also the elaboration into low-level elements can provide additional flexibility. However, there should be a minimal agreed upon set of low-level elements for each high-level (core) element (e.g. revenues and costs for economics). Future research should empirically test the business model framework and elements. Moreover, the development of theory or guidelines about when and how to extent or adapt a framework could greatly contribute to the quality and consistency of the development and application of business model frameworks. In addition, research into the relationship between the business model elements is needed to further advance the frameworks.

Business model classifications and archetypes describe different types of business models more fully or partially (i.e. covering only certain elements or aspects). While some authors have focussed on specific archetypes, others have developed lists or typologies. This research is of great value for better understanding the business model concept due to its empirical nature and practical approach. The classifications and archetypes can be applied for the innovation, design and management of business models. However, research on business model classifications and archetypes has so far been not very systematic and is quite fragmented. This research can benefit from the systematic use of business model frameworks for describing business model archetypes and determining their scope. Moreover, a better understanding of the use of typologies and their underlying criteria is also required. The development of a more holistic and exhaustive business model taxonomy is also seen as an important area of future research. Research into business model archetypes can also help to empirically test the business model frameworks and to further explore the relationships and consistency between business model elements.

Our understanding of the business model concept advanced greatly from the foundational research into business model definitions, business model frameworks and elements, and business model classifications and archetypes. Moreover, we argue that these three areas complement each other in advancing our understanding of the business model concept and creating consensus on its definition and compositional elements. The business model definition can provide us with a generic and abstract conceptualization. Specifying the compositional elements of a business model can make the business model concept more specific and operational and can offer the flexibility to cater for different purposes and contexts. Business model classifications and archetypes can benefit greatly from the use of business model frameworks. Business model definitions and frameworks can be validated and enriched by the empirical research into classifications and archetypes.

As we did not use a comprehensive, systematic literature review, there are limitations to the paper in terms of it covering all business model definitions, business model frameworks and elements, and business model classifications and archetypes in academic literature. However, we did make use of the insights from systematic literature review by others (e.g., Zott & Amit, 2013) to complement the papers that we included in our selective overviews. Moreover, we left a discussion of the theoretical foundation of the business model concept out of this paper. For a full understanding of the concept this should also be addressed. Different theoretical perspectives are indirectly included by their influence on the business model definitions and the business model frameworks and elements.

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