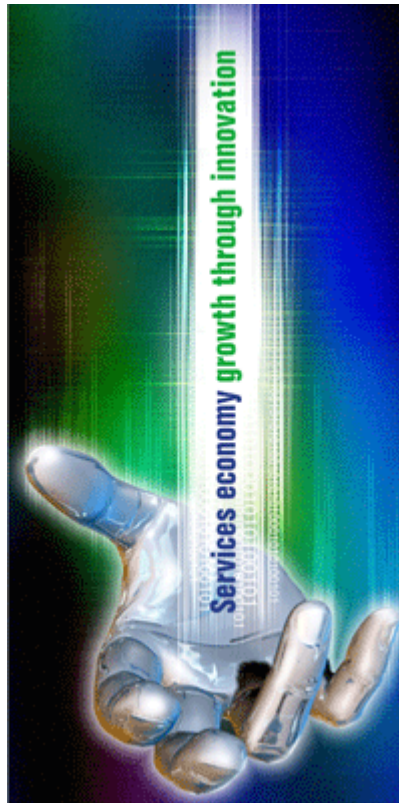




Business Service Management

Volume 3 – Understanding business models

31st March 2011

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Acknowledgment

This whitepaper is made possible by the CRC Smart Services Business Service Management project. We are very grateful to the comments and input to previous versions of this paper that we received from members of this project. In particular, we like to thank Michael Rosemann (Queensland University of Technology), Rohit Shawarika (Infosys) and Michael Lachapelle (Lachapelle Business Design Inc).

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Executive Summary

With the growing importance of services for economies and organisations and information technology as driver and enabler of service innovation, there is a need for the holistic management of services in an organisation to ensure alignment between the needs of the customer and the objectives of the organisation. Business Service Management (Rosemann, Fielt, Kohlborn, & Korthaus, 2009) is a management discipline that view services from a business perspective and deals with the service orientation of the organisation and the provisioning and use of business services.

One of the prominent topics in Business Service Management is business models for (new) services. Business models are useful for service management and engineering as they provide a broader and more holistic perspective on services. Business models are particularly relevant for service innovation as this requires paying attention to the business models that make new services viable and business model innovation can drive the innovation of new and established services. Before we can have a look at business models for services, we first need to understand what business models are. This is not straight-forward as business models are still not well comprehended and the knowledge about business models is fragmented over different disciplines, such as information systems, strategy, innovation, and entrepreneurship. This whitepaper, ‘Understanding business models,’ introduces readers to business models. In another whitepaper, ‘Towards service-oriented business models’ (Fielt, 2011), we will more specifically address the use of business models for services.

This whitepaper contributes to enhancing the understanding of business models, in particular the conceptualisation of business models by discussing and integrating business model definitions, frameworks and archetypes from different disciplines. After reading this whitepaper, the reader will have a well-developed understanding about what business models are and how the concept is sometimes interpreted and used in different ways. It will help the reader in assessing their own understanding of business models and that of others. This will contribute to a better and more beneficial use of business models, an increase in shared understanding, and making it easier to work with business model techniques and tools.

In particular, the reader will learn how **a business model describes the value logic of an organization in terms creating and capturing customer value**. The business model offers an integrated approach to value with a focus on customer value and value creation is stressed. It is directed at a focal organization, but it can include the business network if required. The business model is a useful concept and has a similar meaning in different settings (e.g. entrepreneurship, technology innovation, information systems).

The reader will also be presented with a description and discussion of different business model frameworks, such as the Business Model Canvas (Osterwalder & Pigneur), the Four-Box Business Model (Johnson) and Business Model Schematics (Weill & Vitale). Business model frameworks make it possible to specify a business model by a number of elements in a systematic way. While these frameworks differ depending on the purpose and context, they all need to fit the definition and cover the essential value dimensions: value proposition, value architecture and value economics. Readers who are currently working with a specific framework will benefit from getting a broader perspective in term of becoming knowledgeable about a number of different frameworks and how they can be positioned relative each other. Readers who consider getting started with a specific framework will get the necessary basic knowledge and will be able to make a more informed choice.

The reader will also be introduced to business model archetypes and classifications that help understanding business models in a more concrete and specific way and can be used for designing and innovating business models. Sometimes detailed descriptions of specific archetypes are provided, for example, about the free model or the razor-and-blade model. Classifications contain multiple archetypes in the form of list and typologies. A business model framework can support a systematic description and comparison of archetypes. Typologies make use of classification criteria to show how business model archetypes relate to each other. Business model archetypes can be used for as starting-point for designing a business model, either individually or by making combinations. They can also be used for understanding the evolution or change of business models.

Introduction

Every company has a business model, whether that model is explicitly articulated or not (Chesbrough, 2006; Teece, 2010). Examples of business models are often encountered in reference to specific companies or products, e.g. the Apple's iPod/iTunes model, SouthWest Airlines' low-cost carrier model, Rolls Royce's 'Power-by-the-Hour' model for aircraft engines, or as more generic, abstract models such as the freemium model or the long-tail 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).

Business models have received a lot of attention from entrepreneurs, managers, investors, consultants, IT professionals, journalists, and academics since the 1990s. Companies in every industry rely on the concept, for example, it was used in the annual reports of about 27% of the Fortune 500 firms in 2001 (Shafer, Smith, & Linder, 2005). Factors driving this growing attention include the emerging knowledge economy, the growth of the Internet and e-commerce, the outsourcing and offshoring of many business activities, and the restructuring of the financial services industry around the world (Teece, 2010). In particular, the accelerating growth of e-business has raised the interest in transforming traditional business models or developing new ones that better exploit the opportunities enabled by technological innovations (Pateli & Giaglis, 2004).

The first question that comes to mind is what business models really do? According to Doganova and Eyquem-Renault (2009), this question can be addressed from three different viewpoints: essentialist, functionalist and pragmatic. From an essentialist viewpoint they provide an accurate and truthful description, or representation, of a reality that exists beyond the business model: the firm. From a functionalist (or instrumental) viewpoint, business models envisage a future venture and the value creation logic that it will entail. Their usefulness comes from their explicative and predictive power and they are part of a (entrepreneurial) planning activity. From a pragmatic viewpoint, business models appear as market devices enhancing socially-situated practices of calculation and decision-making. The focus is in their materiality, use and dynamics. In addition, there is the design perspective where the focus is on the creation of conceptual models and tools that can help entrepreneurs, managers, investors and other stakeholders with designing, innovating and managing their business models. Osterwalder et al. (2005) identify the following five categories of functions for business model concepts and tools:

1. Understanding and sharing: Capture, visualize, understand, communicate, and share
2. Analysing: Measure, track, observe, and compare
3. Managing: Design, plan, change, implement, react, align. and improve decisions
4. Prospecting (future): Innovate, manage portfolio, simulate, and test
5. Patenting

With respect to the last function, this could be formulated more broadly as strategizing and could also include first mover advantages, externalities, and synergies. Al-Debei and Avison (2010) discuss the functions of the business model as alignment tool (between strategy and business processes/IT), as interceding framework between technology and business, and as strategic-oriented knowledge capital (portraying the underlying logic of a business system and demonstrating high-level business rules and practices). Gordijn and Akkermans (2001) emphasize the role of e-business models as the first step in requirements analysis for e-business information systems.

In academic literature, business models are discussed in different disciplines, such as e-business, information systems, management, entrepreneurship, innovation, strategy and economics (Amit & Zott, 2001; Hedman & Kalling, 2003; Morris, Schindehutte, & Allen, 2005; Pateli & Giaglis, 2004; Teece, 2010). However, the business model concept struggles to gain prominence in academic research (Morris et al., 2005). One reason may be that ‘the concept draws from and integrates a variety of academic and functional disciplines, gaining prominence in none’ (Chesbrough & Rosenbloom, 2002).

The concept of a business model lacks theoretical grounding in economics or in business studies, such as organizational and strategic studies, and marketing science (Teece, 2010). According to Teece, economic theory neglects business models because they solve real world problems that are often neglected in theoretical market constructs. This lack of theoretical grounding has resulted in the fact that academics often mean different things when they address business models (Al-Debei & Avison, 2010) and that there is a lack of progress in our understanding (Morris et al., 2005).

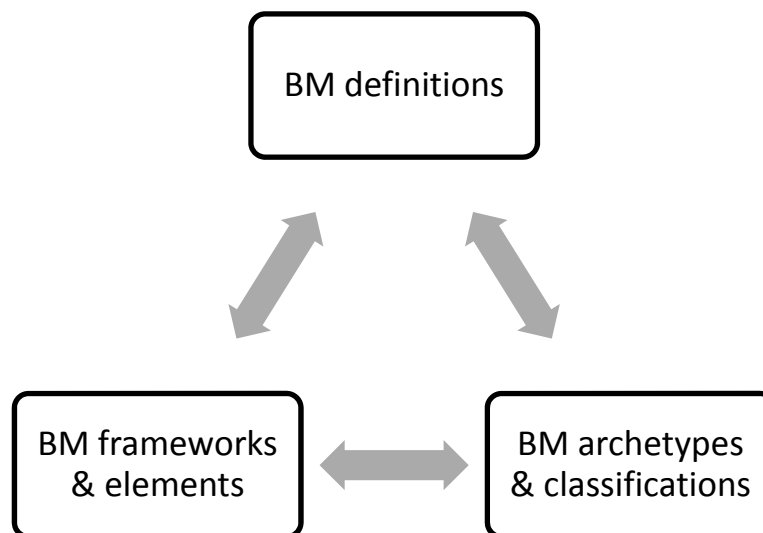


Figure 1. Areas of interest for understanding business models.

Business model research has addressed definitions, components, taxonomies, conceptual models, design methods & tools, adoption factors, evaluation models and change methodologies (Pateli & Giaglis, 2004). Over the years, business model research has matured from an early focus on definitions, taxonomies and ‘shopping lists’ of components to frameworks with building blocks, modelling business models (reference models and ontologies) and practical applications and tools (Osterwalder et al., 2005). However, business models are still not well understood and the knowledge about business models is fragmented. While people agree on its importance to the success of an organization, the concept is still fuzzy and vague, and lacks consensus on its definition and compositional elements (Al-Debei & Avison, 2010; Morris et al., 2005; Shafer et al., 2005). There is a divergence of understanding among people, in particular between those who are business-oriented and those who are technology-oriented (Osterwalder et al., 2005).

The objective of this whitepaper is to provide a better understanding of the business model concept (Figure 1). We study three areas that are relevant for its conceptualisation: business model definitions, business model frameworks and business model archetypes. We first revisit the basic discussions in the business model literature about definitions which has laid the foundation for most of the business model research (Osterwalder et al., 2005; Pateli & Giaglis, 2004). Thereafter, we will address the two related areas which are considered to be main streams of business model research: business model frameworks and elements, and business model archetypes and classifications (Hedman & Kalling, 2003).

Business Model Definition

While defining the business model concept has been among the first tasks of early researchers in the area (Osterwalder et al., 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). We will first discuss the background of the concept in detail. Then we will address different definitions in more detail and discuss the role of (customer) value in particular. In the concluding remarks we will present some insights from this discussion, a working definition, and some additional comments about its use and limitations.

The early years

Historically, 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). ‘Osterwalder et al.(2005) traced the origins of the business model discussion in scholarly business journals and concluded that the popularity of the term ‘business model’ is a relatively young phenomenon. According to their research it appeared for the first time in an academic article in 1957 and in the title and abstract of a paper in 1960. 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. Their research shows that the early discourse was framed around computer/systems modelling while the current discourse is mostly framed around value creation. In addition, the term business model is also often framed as a tacit conception where its meaning is taken-for-granted. Ghaziani and Ventresca also note that while different communities are sensitive to a global meaning of the term business model, they also use it in ways that suits their local needs, for example, in marketing its meaning is often framed around relationship management.

Related concepts have also appeared for some time in the management literature. Some examples of related concepts by prominent management scholars are ‘theory of business’ (Drucker, 1994), ‘business idea’ (Normann, 1977, as cited in Hedman & Kalling, 2003) and ‘business concept’ (Hamel, 2000). Magretta (2002) refers to Peter Drucker’s ‘age-old questions’ when discussing what good business models are: Who is the customer? And what does the customer value? In his 1994 HBR article, Peter Drucker (1994) refers to the notion of a ‘theory of the business,’ which is very similar to the idea of organizations having a business model. Drucker’s theory of business refers the assumptions on which an organization has been built and is being run. These assumptions shape any organization’s behaviour, dictate its decisions about what to do and what not to do, and define what the organization considers meaningful results. Drucker also warns that organizations run the risk that these assumptions no longer fit reality and that therefore their theory of the business no longer works.

About business and models

As the term ‘business model’ consists of the terms ‘business’ and ‘model,’ it may be helpful to first understand the specific meaning of each term (Osterwalder et al., 2005; Shafer et al., 2005). Osterwalder et al. (2005) base themselves on WordNet 2.0 to define both ‘business’ and ‘model’:

- Business: ‘the activity of providing goods and services involving financial, commercial and industrial aspects’.
- Model: ‘a simplified description and representation of a complex entity or process’.

With respect to model, representation implies conceptualization, which can be described as ‘the objects, concepts and other entities that are assumed to exist in some area of interest and their inter-relationship (Genesereth & Nilsson, 1987; cited in Osterwalder et al., 2005). Therefore, according to Osterwalder et al. (2005), the reflection on the business model concept must go in the following direction: ‘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. 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.’

The use of the term ‘business model’ shows a continuum with respect to a focus on business or model aspects (Osterwalder et al., 2005). Some authors use the term to simply refer to the underlying business logic of an organization, for example, as stories that explain how enterprises work (Magretta, 2002). Other authors emphasize the model aspect, for example, as an ontology (Osterwalder, 2004). Osterwalder et al. (2005) stress that ‘these two viewpoints differ because the former generically refers to the way a company does business, whereas the latter refers to a conceptualization of the way a company does business in order to reduce complexity to an understandable level.’ The latter view results in the development of meta-models describing the elements of a business model and their relationships in a more formal way (for example, Gordijn, 2002).

In addition to a qualitative description, there is often also a qualitative model included in the business model. Magretta (2002) sees a relation between the rise of the term ‘business model’ and the widespread use of the personal computer and the spreadsheet. Magretta refers to ‘tying narrative to numbers’ and states that there are two tests for a business model: the narrative test (‘the story doesn’t make sense’) and the numbers test (the profit & loss doesn’t add up). Another example is provided by Gordijn and Akkermans (2001) who combine a more formal modelling of e-business models with and a profitability evaluation (economic feasibility) in quantitative terms.

In addition, Doganova and Eyquem-Renault (2009) emphasize the business model as a scale model and its existence and circulation as paper tool, diagram or material object. They argue that a business model is a demonstration rather than a description. As a demonstration it needs to gain the interest of the relevant actors (e.g. future customers, resource providers, employees, investors, etc.) by ‘mobilising the repertoires of both proof and persuasion, and the logic and rhetoric elements that they include.’ In this way they are part of a dynamic of trials that contribute to the emergence of a new entity. ‘The scale model is built for the purpose of producing encounters, in which it is performed by its inscription in a document and its display to an audience.’

A discussion of definitions

The appendix provides an overview of different definitions for the business model concept. We will explore some of these definitions and highlight some of the similarities and differences to increase our understanding of the business model concept. One of the first definitions that became popular, was proposed by Timmers (1998). He defined a business model as ‘an architecture for the product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors; and a description of the sources of revenues.’ This definition has also influenced the definition of Weill and Vitale (2001) and is also very similar the definition of Mahadevan (2000). These conceptualizations see the business model as an architecture and address the business network with a focus on the different roles of the actors and their

interactions. A network approach is also very explicit in Tapscott's definition (2001) and his work on business webs (Tapscott, Lowy, & Ticoll, 2000).

Another early definition comes from Rappa (2000) who sees a business model as 'the method of doing business by which a company can sustain itself – that is, generate revenue.' This emphasis on the monetary aspects in terms of the revenue model, financial arrangements or profitability, is also prominent in some other definitions (for example, Afuah & Tucci, 2001; Mullins & Komisar, 2009; Teece, 2010). This often comes also with a stronger emphasis on an organization and competitive advantage (for example, Afuah & Tucci, 2001.; Morris et al., 2005). However, most authors who include strategic aspects in their conceptualization of business models do stress that it does not cover the full strategy (e.g., Chesbrough & Rosenbloom, 2002). Other authors quite explicitly differentiate between business models with an emphasis on cooperation and strategy with an emphasis on competition (Magretta, 2002).

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). For example, Morris et al. (2005) define a business model as '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.' However, others are less inclusive in their business model definition and explicitly differentiate from other concepts or exclude some specific elements. Timmers (1998) differentiates the business model from the marketing model, which also includes the marketing strategy addressing the commercial viability via the competitive advantage, positioning, marketing mix, and product-market strategy. Amit and Zott (2001) see the revenue model, 'the specific modes in which a business model enables revenue generation,' as a distinct yet complementary concept to the business model.

As becomes apparent from the previous discussion, there is quite some confusion about the unit of analysis. Some definitions refer explicitly to an organizational entity, mostly at the organizational level (such as organization, company or business) and sometimes at the network level. Examples of referring to the organizational level are Rappa (2000), Afuah and Tucci (2001) and Osterwalder, Pigneur and Tucci (2005). Examples of referring to the network level are the definitions of Timmers (1998), Mahadevan (2000), Gordijn and Akkermans (2001), Weill and Vitale ((2001) and Tapscott (2001). Rarely a definitions refers to both explicitly (see for an exception, for example the definition of Shafer et al., 2005) and some leave the organizational entity out of the definition (see, for example, the definitions of Chesbrough & Rosenbloom, 2002; Morris et al., 2005). While the explicit inclusion of (and the implicit focus on) organization and network in the business model definitions differ, most of them do include both levels in their conceptualization based on their further discussion, operationalization and application of the business model concept (see also some of the related business frameworks and elements in the next section).

A focus on a specific organization does seem to go with an emphasis on sustainable revenues, profitability and competitive advantage, as discussed above. The definitions that refer to organizations (or firms) are not explicit about the organizational level, i.e. corporate or business unit. Most seem to imply the business unit level, for example, Chesbrough and Rosenbloom (2002) refer to the relation with business unit strategy. In addition, it is left open whether a business unit has one business model

or can have multiple business models sequentially and/or simultaneously. In related work on value innovation, Kim and Mauborgne (2005) take the ‘strategic move’ as unit of analysis instead of the organization, which they define as ‘the set of managerial actions and decisions involved in making a major market-creating business offering.’ This unit of analysis may be a fruitful approach for business models. In addition, there are some definitions that have a different unit of analysis than the organization or network, for example, a specific service (Bouwman, De Vos, & Haaker, 2008).

Many (earlier) definitions summarize what a business model is made off (Bouwman, De Vos et al., 2008; Osterwalder et al., 2005; Timmers, 1998); these definitions are very close to the frameworks and elements described in the next section. Other (later) definitions are more formulated around the value logic in terms of creating, delivering and capturing value (Chesbrough, 2006; Johnson, 2010; Osterwalder & Pigneur, 2010). Ghaziani and Ventresca (2005) concluded that the business model discourse is mostly framed around value creation. In general, the value concept is present in almost all of the definitions but it is mostly not further explained or specified. One notable exception is the work of Gordijn and Akkermans (2001) who explicitly refer to ‘economic value’. Those definitions that do not refer to value often have concepts related to (customer) value like benefits for the actors (Timmers, 1998) or related to economic value like revenue or money (Rappa, 2000). Because of its prominence in the definitions, we will discuss the value concept in more details later.

Some definitions follow from, or are influenced by, the specific context in which the business model concept is used. Amit and Zott (2001) focus on e-business and its impact on transactions. According to their definition ‘a business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities.’ Chesbrough and Rosenbloom (2002) focus on technological innovation. According to them, ‘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.’ Here the business model is conceived as ‘a focusing device that mediates between technology development and economic value creation.’ We also see the use of the business model concept for government organizations (e.g., Janssen, Kuk, & Wagenaar, 2008) and more socially-oriented organizations (e.g., Yunus, Moingeon, & Lehmann-Ortega, 2010). 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, makes it even harder to come to a well-defined and agreed upon conceptualisation of the business model concept.

While people agree on the importance of the business model to the success of an organization, the concept is still fuzzy and vague, and lacks consensus on its definition and compositional elements (Al-Debei & Avison, 2010; Morris et al., 2005; Shafer et al., 2005). Different researchers have tried to address this problem by identifying, classifying and, sometimes, unifying the different kinds of definitions. Table 1 presents three studies that have identified and categorized different kinds of business model definitions. George & Bock (2009) state that business model is commonly described and reflects on [1] organizational design (e.g., Timmers, 1998), [2] the resource-based view of the firm (e.g., Demil & Lecocq, 2010), [3] narrative and sense-making (e.g., Magretta, 2002), [4] the nature of innovation (e.g., Chesbrough & Rosenbloom, 2002), [5] the nature of opportunity (e.g., Afuah, 2004), and [6] transactive structures (e.g., Amit & Zott, 2001).

Morris et al. (2005) state that the most rudimentary level, the business model is defined solely in terms of the company's economic model that is concerned with the logic of profit generation. At the operational level, the business model represents an architectural configuration with a focus on the internal activities and the design of infrastructure that enables the company to create value. At the strategic level, business model definitions emphasize the overall direction in the company's market positioning, interactions across organizational boundaries, and growth opportunities to create and sustain competitive advantage. These levels represent a hierarchy where the perspective increases in comprehensiveness as one progressively moves from the economic to the operational to the strategic levels.

As discussed earlier, this strategic perspective on business models is not commonly agreed upon by different authors defining business models. 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 activity/role-related approach of Osterwalder et al. is quite similar to the operational level of Morris et al. while there is some overlap between the value/customer-oriented approach of Osterwalder et al. and the strategic level of Morris et al.

Table 1. Categorizations of business model definitions.

George & Bock (2009)	Morris et al. (2005)	Osterwalder et al.(2005)
- organizational design - the resource-based view of the firm - narrative and sense-making - the nature of innovation - the nature of opportunity - transactive structures	- Economical level - Operational level - Strategic level	- activity/role-related approach - value/customer-oriented approach

It is all about (customer) value

Most business model definitions refer to 'value,' as stressed earlier in the discussion of definitions above. Ghaziani and Ventresca (2005) concluded that the business model discourse is mostly framed around value creation. Moreover, they conclude that 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.' '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.'

Most definitions that are specifically focussed on 'value' refer to creating, delivering and/or capturing value (Chesbrough, 2006; Johnson, 2010; Osterwalder & Pigneur, 2010; Teece, 2010). For example, Chesbrough (2006) 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.' Mostly authors nowadays emphasise value creation while earlier they emphasised value capture, however, this does not mean that value capture is ignored (Zott, Amit, & Massa, 2010).

While most authors are not very explicit about what they mean with value, most definitions seem to refer to mean customer value (i.e. value for the customer) (such as, Afuah, 2004; Dubosson-Torbay et al., 2002; Osterwalder & Pigneur, 2010; Tapscott, 2001; Teece, 2010). However, there are some definitions that defer from this focus on customer value and refer to value for both the customer and the company (e.g., Bouwman, De Vos et al., 2008; Johnson, 2010), economic value (Gordijn & Akkermans, 2001) or value streams (Mahadevan, 2000). Moreover, when definitions refer to capturing customer value then this seems to refer to business value (i.e. value for the business) in terms of economic value.

Because most authors do not discuss what they mean with ‘value’ and ‘customer value,’ it is hard to discuss 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 (Khalifa, 2004; Sanchez-Fernandez & Iniesta-Bonillo, 2006). We will firstly focus on the specific use of the value concept in marketing (and related management literature) as this is the most obvious source for customer value but often neglected in business model literature. Then we will briefly discuss the concept of value in strategic management as this is the field where most business model authors rely on for their conceptual foundation of the value concept. Note that this applies only to a limited number of authors, as most authors do not address the theoretical background of the business model or concepts.

With respect to customer value, 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.’ Holbrook (1999) emphasizes that consumer value is an ‘interactive relativistic preference experience.’ 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.’ It is ‘relativistic’ because it depends on relevant comparisons, it varies between people and it changes among situations. With ‘experience’ Holbrook means that consumer value resides in the consumption experience rather than in the product purchased.

Customer value is also described as use value (value-in-use), which is value created with and determined by the user during the consumption process (Bowman & Ambrosini, 2000; Grönroos, 2006; Lusch & Vargo, 2006). This is differentiated from exchange value (or value-in-exchange), which is value embedded in the product itself (i.e. added during the production process) and determined at the point of exchange (Bowman & Ambrosini, 2000; Grönroos, 2006; Lusch & Vargo, 2006). Exchange value is often closely related to monetary value or economic value (Gordijn, 2002; Gordijn & Akkermans, 2001).

Another related term is the ‘value proposition’ which is often a dimension or element in the business model frameworks discussed later. It refers to the value (or benefits) the provider promises to deliver to the customers. According to Kaplan and Norton (2000) the customer value proposition describes ‘the unique mix of product and service attributes, customer relations, and corporate image that a company offers.’ It defines how the organization can differentiate itself from competitors to establish and develop relationships with its target customers. Kaplan and Norton argue that a value proposition is critical for linking the internal organization to improved customer outcomes. Anderson, Narus and

Van Rossum (2006) state that when value propositions are properly constructed, ‘they force companies to rigorously focus on what their offerings are really worth to their customers’. This will also enable companies to make smarter choices about where to allocate their scarce resources in developing new offerings.

While the relation between customer value and value creation seems obvious, this has not always been the prominent perspective on value creation. Traditionally the emphasis has been on the supply side where the producers (solely) create value as reflected in the common term ‘added value’ (Priem, 2007). According to Priem, this has been influenced by the industrialization and the separation between production and consumption in space and time. Strategic management and entrepreneurship are areas where value creation and capture by the supply side have been addressed substantially. For value creation in e-business, Amit and Zott (2001) discuss different theoretical perspectives from strategic management and entrepreneurship: value chain analysis, Schumpeterian innovation, the resource-based view of the firm, strategic network theory, and transaction costs economics. However, these ‘firm-centred’ theories need to be more driven by and linked the ‘customer-centred’ theories described before, as these ‘firm-centred’ theories do not sufficiently address customer value and the role of the customer in value creation.

As part of our discussion of business model definitions we looked in more detail at the value concept. While this does not provide us with a clear cut answer, as the value literature is even more heterogeneous and fragmented than the business model literature, it shows that the business model with its focus on customer value and value creation resonates with developments of the value concept in marketing and management literature. The business model can be seen as an integrative value logic for organizations with a focus on the value proposition bringing together value creation (customer/use value/added value) and value capture (business/exchange value) with a stronger emphasis on the former.

Concluding remarks about definitions

In this chapter we described the origin of the business model concept, discussed different definitions used in literature and addressed the value concept, which is often used in business model definitions, in detail. Next we will first present two key insights and, thereafter, we will provide a working definition.

The previous discussion of the business model concept results in the following two insights:

The business model is a useful concept in different settings

The business model concept addresses a need for articulating, thinking about, communicating, designing, and innovating the essence of the business that is not addressed by other, related approaches or concepts (e.g. new product development, strategy, etc.). We see the business model concept being used in different disciplines and contexts (e.g. e-business, innovation, entrepreneurship, marketing, etc.) with similarities and differences in the conceptualizations. The essence of what is meant with business model in these different settings is mostly very similar, as described in the next insight.

The business model concept is about the value logic of organizations

The business model defines the value logic or rationale of a business. It is a holistic approach integrating different value concepts (use value, exchange value, added value), perspectives (customer value, business value) and approaches (creating value, capturing value). The business model focuses on customer value and value creation. It addresses both the role of the customer and customer-oriented activities and resources (consumption, demand-side) and the role of the provider and provider-oriented activities and resources (production, supply-side). The core element is the value proposition (addressed in more detail in the next chapter) and the most critical issue is linking creating customer value to capturing customer value. Creating customer value is emphasised but capturing of customer value is not ignored. However, an additional strategic perspective addressing competitive advantage is required.

Based on the previous discussion and the presented insights, and in line with many of the more recent definitions (in particular, Chesbrough, 2006; Johnson, 2010; Osterwalder & Pigneur, 2010), we propose the following working definition:

A business model describes the value logic of an organization in terms of how it creates and captures customer value.

We will discuss this definition in more detail with some comments that are related to the choice for and use of this definition:

- The definition is based on Osterwalder & Pigneur (2010), but with customer value and without delivering value. The definition is well aligned with Chesbrough (2006), Johnson (2010), and Teece (2010). We excluded ‘delivering’ value from the definition as we see delivering value as part of creating value. Customer value implies use value, which cannot be created without being delivered.
- We see the identification of the different elements of a business model, such as the value proposition, resources or revenues, not as part of the business model definition, but as part of the business model framework discussed next. A framework operationalizes the definition and makes it more concrete and specific. This creates some flexibility as there can be multiple, different specific frameworks while adhering to a single, generic definition. This caters for the use of the concept for multiple purposes and in different contexts, and the development of the concept over time.
- While the business model has a specific organization as its focus, we want to make explicit that often this focal organization operates in an organizational network and that the organizational network can play a prominent role in creating and capturing value. If this is the case then the network will be included in the business model. However, the network will still be from the perspective of the focal organization.
- An organization can have multiple business models, either in time (sequentially) or at the same time (simultaneously). While outside the scope of the current discussion, this requires understanding of synergies and conflicts between business models and creates a need for business model portfolio management and business model lifecycle management.
- We also leave open the possibility that the organization is a profit or non-profit organization. Capturing value will often be about financial revenue models that contribute to the monetary bottom-line of the organization. However, we do not want to exclude a broader perspective than profitability including also social responsibility and environmental sustainability.

Business Model Frameworks and Elements

Closely related to the business model definitions are the compositional elements describing what a business model is made of. 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. Business model frameworks and ontologies do not only define the elements, they also define the relationships between the elements (e.g., Gordijn, Osterwalder, & Pigneur, 2005). They often also introduce some structure, in particular a two-layered model with higher-level and lower level elements (e.g., Osterwalder, 2004). Next we will discuss a number of frameworks that are either very popular, well published (preferably in a book, not just a paper) and/or have one or more specific characteristics¹. In the concluding remarks we will discuss our perspective upon these frameworks and their elements and address the relation with the definition.

The following seven business model frameworks will be discussed next:

- The Business Model Canvas (Osterwalder & Pigneur)
- The Four-Box Business Model (Johnson)
- The STOF model (Bouwman, De Vos & Haaker)
- Business Model Schematics (Weill & Vitale)
- Technology/market mediation (Chesbrough & Rosenbloom)
- Entrepreneur's business model (Morris, Schindehutte & Allen)
- e3-value (Gordijn & Akkerman)

Osterwalder and Pigneur: The Business Model Canvas

Osterwalder and Pigneur (2010) present the Business Model Canvas in their book 'Business Model Generation.' Their approach is based on Osterwalder's PhD thesis (2004). The Business Model Generation book has more than 100,000 copies printed and it features in many lists of best-selling business books. Next to the authors, 470 practitioners were involved in its creation. It is also supported by a community via the Business Model Innovation Hub (www.businessmodelhub.com).

The Business Model Canvas presents a shared language for describing, visualizing, assessing and changing business models. It consists of nine building blocks:

1. An organization serves one or several **Customer Segments**.
2. It seeks to solve customer problems and satisfy customer needs with **Value Propositions**.
3. Value Propositions are delivered to customers through communication, distribution, and sales **Channels**.
4. **Customer Relationships** are established and maintained with each Customer Segment.

¹ A graphical overview of evolution of different business model representations is presented by Anders Sundelin on his Business Model Database blog, via the following link (<http://tbmdb.blogspot.com/2010/09/evolution-of-business-model-concept.html>) (last accessed 30 September 2010).

5. **Revenue Streams** result from Value Propositions successfully offered to Customer Segments.
6. **Key Resources** are the assets required to offer and deliver the previously described elements...
7. ...by performing a number of **Key Activities**.
8. Some activities are outsourced and some resources are acquired outside the enterprise via **Key Partnerships**.
9. The business model elements result in the **Cost Structure**.

In his earlier work, Osterwalder (2004) has the nine building blocks grouped into four pillars: customer interface (the ‘who’ covered by building blocks 1, 3 and 4), product (the ‘what’ covered by building block 2), infrastructure management (the ‘how’ covered by building blocks 6, 7 and 8) and financial aspects (the ‘how much’ covered by building blocks 5 and 9). Osterwalder’s four pillars were influenced by the Balanced Scorecard of Kaplan and Norton (Kaplan & Norton, 1992). In this earlier work he also shows how the nine building blocks synthesize most of the other models at that time (covering, amongst others, Afuah & Tucci, 2001; Hamel, 2000; Magretta, 2002).

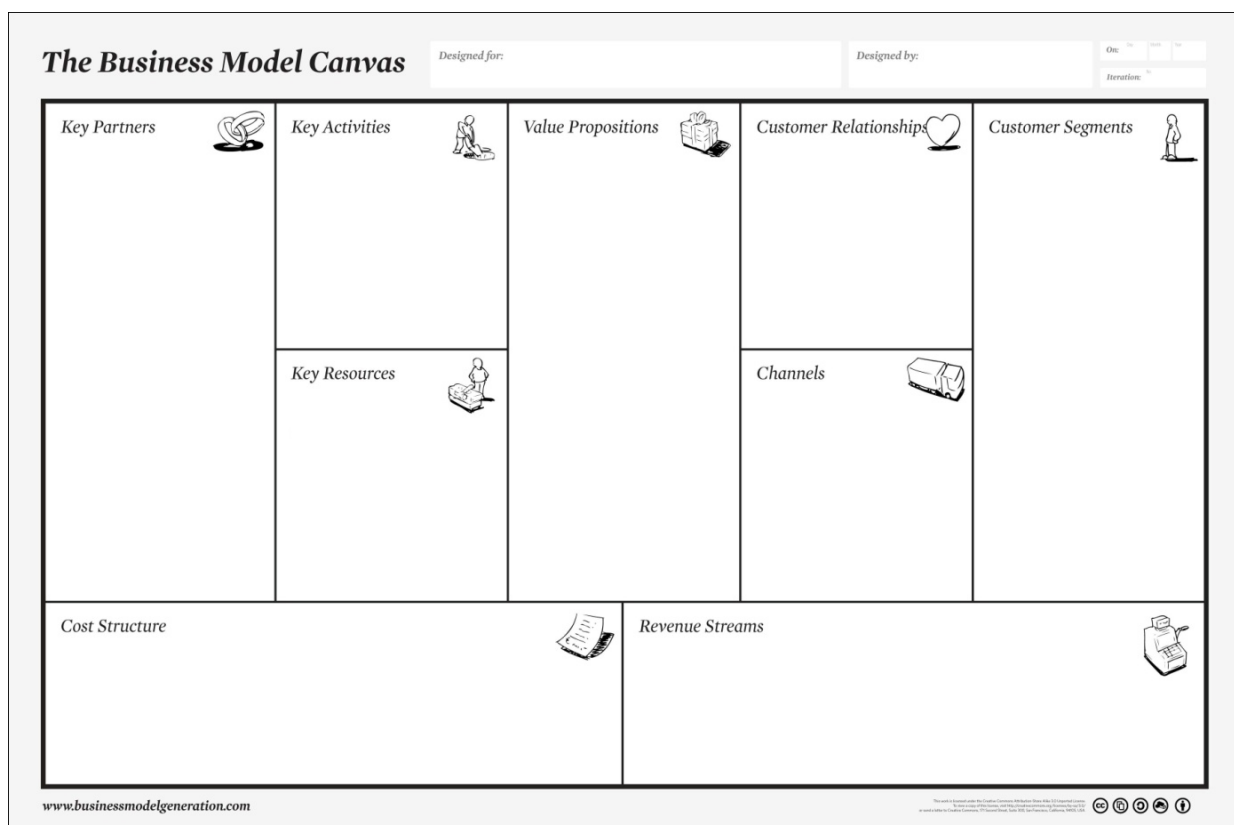


Figure 2. The Business Model Canvas template (Osterwalder & Pigneur, 2010).

The Business Model Canvas is design- and innovation-oriented. Osterwalder and Pigneur stress the role of design in business to imagine ‘that which does not exist’ and want to offer support in the form of design tools and techniques. They address a number of design techniques and tools: customer insights, ideation, visual thinking, prototyping, storytelling and scenarios. One of the most prominent techniques for the Business Model Canvas is visual thinking, which means ‘using visual tools such as pictures, sketches, diagrams, and Post-it[™] notes to construct and discuss meaning.’ Figure 2 shows how the Business Model Canvas makes use of a powerful and easy to understand visualisation via a provided template. In their opinion this visualisation enables capturing the business model as a whole. This is important because a business is a system where everything is connected. It also supports telling a story, for example, from right to left going from the customers to the organization and from the organization to the partners or from top to bottom going from the customer to the revenues. Visualisation also allows for clearer discussions and changes because the model becomes more concrete and tangible.

Johnson: The Four-Box Business Model

Quite recently, Johnson (2010) presented the Four-Box Business Model in his book ‘Seizing the White Space’ (presented in Figure 3), with an earlier version discussed in a Harvard Business Review (HBR) article (Johnson, Christensen, & Kagermann, 2008). Noteworthy about the HBR article is that Johnson’s co-authors are Clayton Christensen, who is the author of ‘The Innovator’s Dilemma,’ and Henning Kagermann, who is the co-CEO of SAP AG.

Johnson approach to business model innovation focuses on companies entering the ‘white space’ where there is a poor fit with the current organization and where new customers or existing customers served in fundamentally different ways are targeted. The Four-Box Business Model should provide a structure to reveal and categorize all of the issues that must be must be addressed in the white space where, relatively speaking, assumptions are high and knowledge is low (as opposed to the company’s core space).

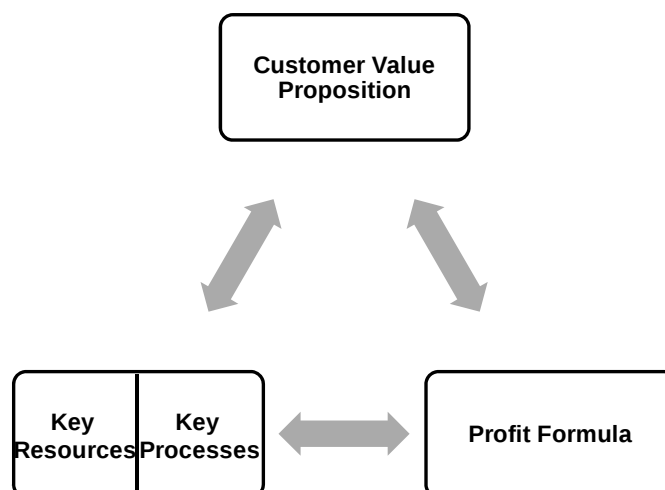


Figure 3. The Four-Box Business Model (Johnson, 2010).

The Four-Box Business Model consists of:

1. **Customer Value Proposition:** An offering that helps customers more effectively, reliably, conveniently, or affordably solve an important problem (or satisfy a job-to-be-done) at a given price.
 - **Job-to-be-done:** To solve an important problem for a customer.
 - **Offering:** Satisfies the problem or job. Defined not only by what is sold but also by how it's sold.
2. **Profit Formula:** The economic blueprint that defines how the company will create value for itself and its shareholders. It specifies the assets and fixed cost structure, as well as the margins and velocity required to cover them.
 - **Revenue Model:** How much money can be made: price x quantity. Quantity can be thought of in terms of market share, purchase frequency, ancillary sales, etc.
 - **Cost Structure:** Includes direct costs, overhead costs, and economies of scale.
 - **Target Unit Margin:** How much each transaction should net to cover overhead and achieve desired profit levels.
 - **Resource Velocity:** How quickly resources need to be used to support target volume. Includes lead times, throughput, inventory turns, asset utilization, etc.
3. **Key Resources:** The unique people, technology, products, facilities, equipment, funding, and brand required to deliver the value proposition to the customer.
 - Might include people; technology, products; equipment; information; channels; partnerships, alliances; funding; brand
4. **Key Processes:** The means by which a company delivers on the customer value proposition in a sustainable, repeatable, scalable, and manageable way.
 - **Processes:** Design, product development, sourcing, manufacturing, marketing, hiring & training, IT
 - **Business Rules and Success Metrics:** Margin requirements for investment, credit terms, lead times, supplier terms.
 - **Behavioural Norms:** Opportunity size needed for investment, approach to customers and channels.

While Johnson separates key processes from key resources, he mostly approaches them as in tandem. In his opinion, the success of a business model depends on how processes and resources fit together and he positions that the synergy between processes and resources is as critical as the processes and resources themselves. 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.

Johnson positions business rules, behavioural norms and success metrics as part of the key processes and also sees them as connecting the boxes of the business model and keeping it in proper balance. They ensure that the customer value proposition can be delivered in a repeatable and predictable way while fulfilling the profit formula. This links the business model to the day-to-day operations.

A preliminary comparison of the Four-Box Business Model with the elements of the Business Model Canvas shows that they overlap substantially. The main difference seems to be that the Four-Box Business Model does not have a separate customer box as the Business Model Canvas has a customer pillar, but includes this to some extent in the value proposition box, where customer segments are identified based on the job-to-be-done and the offering also includes the access, which relates to the channels. Note also that an earlier version of the model (Johnson et al., 2008) mentions target customer as explicit part of the customer value proposition box. The value proposition box also includes a financial aspect in terms of the payment scheme, which is in the revenue stream building block of the canvas. The profit formula box is more extensive than the financial pillar of the canvas including two key metrics: target unit margin and resource velocity. Whether or not this should be positioned in the business model or in the financial analysis of a more elaborated and detailed business plan following the business model, will depend upon the purpose and situation when using the models. The same can be said about the business rules, behavioural norms and success metrics, which Johnson discusses as part of the processes box and also as connection to the day-to-day operations. While the Business Model Canvas has key partnerships as one of its nine building blocks, the Four-Box Business Model puts it under key resources and does not distinguish it as an explicit business model element.

Another noteworthy difference between the Business model Canvas and the Four-Box Business Model is that the Business Model Canvas makes the use of a visualisation template which is not the case for the Four-Box Business Model. This visualisation is a major strength when it comes to designing and communicating business models.

Finally, it is surprising that Johnson in developing and presenting the Four-Box Business Model does not make the connection with earlier business model frameworks, in particular the Business Model Canvas with its four pillars and nine building blocks, which was already widely published in Osterwalder's earlier work.

Bouwman, De Vos and Haaker: The STOF model

Bouwman, De Vos and Haaker (2008) and their co-authors describe the STOF business model: Service, Technology, Organization and Finance (Figure 3). This model is the result of research on business models for new electronic services, in particular in the mobile area. The STOF model is positioned as an approach for (mobile) service innovation (Bouwman & Fielt, 2008). In addition to the framework, it also offers a step-wise approach, the STOF method. The book also includes numerous applications of the model in relation to, for example, mobile payment, IPTV, service bundling, context-aware communication, digital music vending, police services, and health services. In addition other applications, for example mobile ticketing, multi-media, and insurance, have been published widely as research reports and papers.

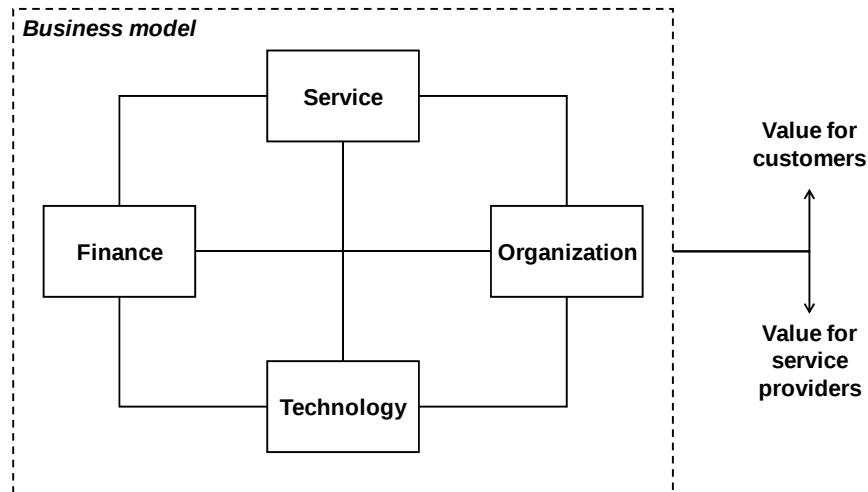


Figure 4. The STOF Model (Bouwman, De Vos et al., 2008).

The STOF model consists of the following domains (Bouwman, Faber, Haaker, Kijl, & De Reuver, 2008):

1. **Service domain:** The central issue in designing a service is ‘value’: a provider intends to deliver a certain value proposition and customers or end-users expect and perceive a certain customer value. This is addressed by four inter-related concepts: intended and delivered value on the part of the provider, and expected and perceived value on the part of the customer or end-user.
2. **Technology domain:** For mobile services, technological considerations relate to technological architecture, technological functionality, backbone infrastructure, access networks, service platforms, devices, applications, and data.
3. **Organization domain:** The organizational issues revolve around the resources and capabilities, mainly related to technology, marketing and finance that have to be made available to enable the service. For mobile services, this often requires organizations to collaborate in a business network.
4. **Finance domain:** Financial resources are one of the most important resources to be required. Finance also defines the bottom line of most of the services to be designed. With regard to financial arrangements, there are two main issues: investment decisions and revenue models.

The STOF model describes each domain in great detail via a descriptive model. Figure 5 present the descriptive model for the service domain. We see that the service domain is described by the customer/end-user (who are part of a market segment) and four inter-related customer value concepts. It also describes a number of service concepts that influence or co-determine the customer value, for example, the previous experience. In addition, it also explicitly describes concepts of the other domains that impact the concepts of the service domain, for example, the previous experience is impacted by previous versions (from the technology domain). Moreover, it also shows how concepts from the service domain put requirements on concepts from the other domains, for example, the intended value puts requirements on the technical architecture (from the technology domain) and the value network (from the organization domain).

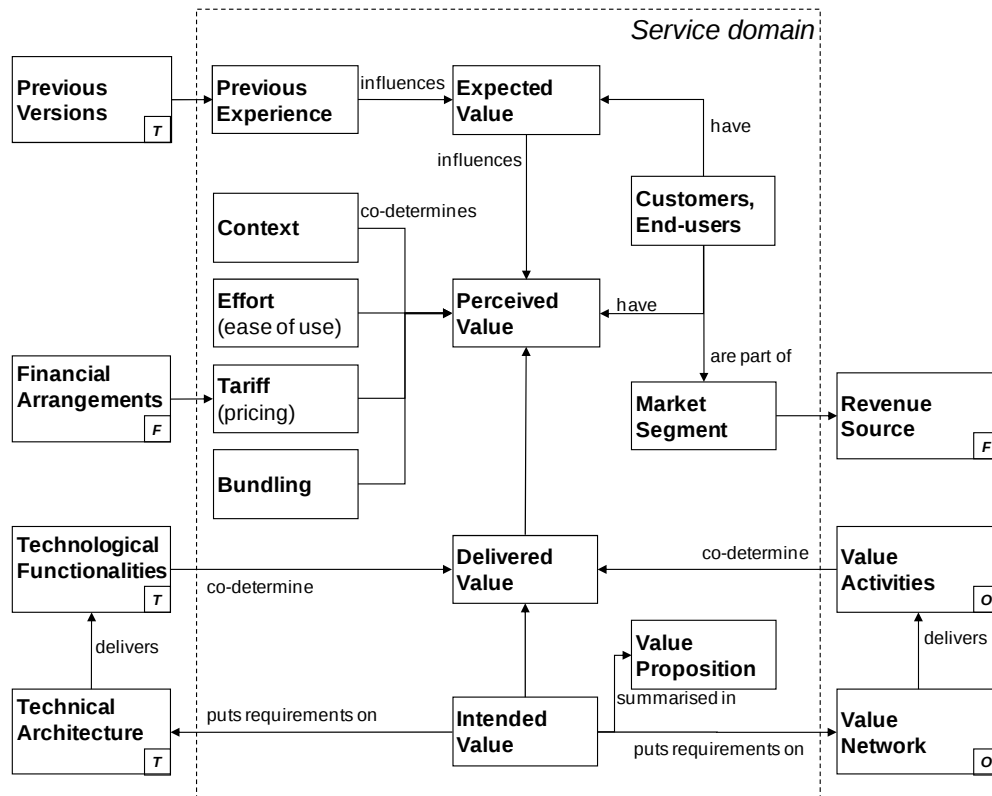


Figure 5. The STOF Service domain (Bouwman, Faber, Haaker et al., 2008).

The STOF model sees the service definition in terms of the customer value proposition as the starting point for any business model. The service definition serves as a reference for the other domains. Technology is seen as playing a central role because it is an important enabler of customer value from a customer perspective. While it is recognized that technology may be the driver of new innovative services and business models, it is seen in the business model as enabler because this is driven by customer value. There is also a direct link between technology and organization; technological choices determine the organizations required for supplying and operating these technologies.

A viable business model should create value for both the customer and the business network. Moreover, the business network consists of multiple, self-interested actors. This requires balancing the, often conflicting, strategic interests and requirements over the different STOF domains. Therefore, in addition to a descriptive model, STOF also offers a causal model to understand critical design issues and success factors that play a role in a viable, balanced business model (Bouwman, Faber, Felt, Haaker, & De Reuver, 2008). These critical design issues and success factors were derived from the different applications and case studies of the STOF, in particular in the mobile area. Figure 6 and Figure 7 show the Critical Design Issues and Critical Success Factors relating to creating customer value and network value, with both of them determining the viability of the business model.

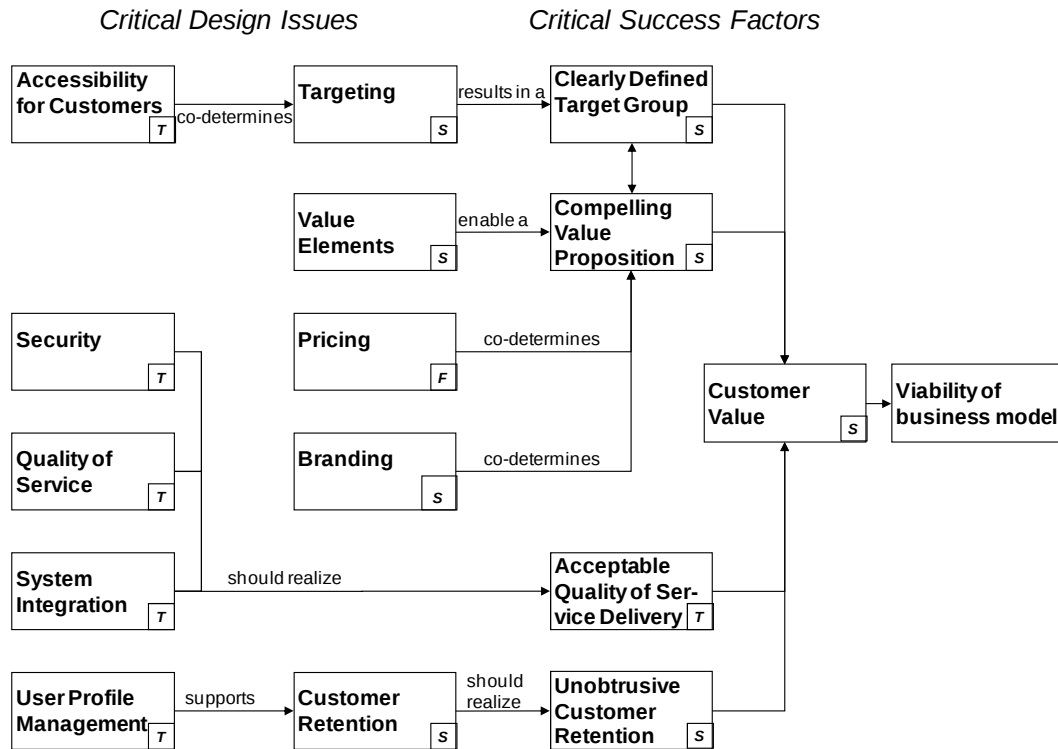


Figure 6. Customer Value model (Bouwman, Faber, Fiel et al., 2008; Bouwman, Faber, Haaker et al., 2008).

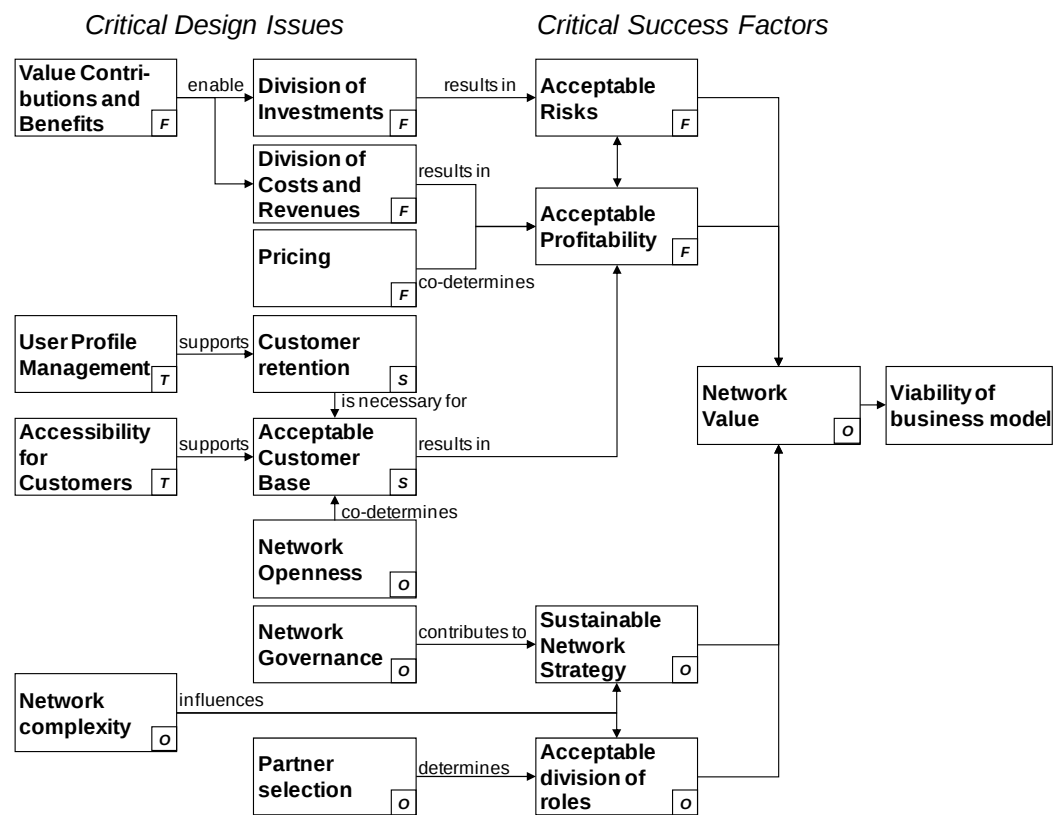


Figure 7. Network Value model (Bouwman, Faber, Fiel et al., 2008; Bouwman, Faber, Haaker et al., 2008).

There is a great overlap between the frameworks discussed so far: the Business Model Canvas, the For-Box Business Model and the STOF model. What distinguishes the STOF model is that it is more focussed on business models for electronic services, in particular in the mobile area. This means that the value proposition or offering is referred to as ‘service’ and that the organization is more focussed on a business network perspective than a single organization. In addition the role of technology, and its relation with the other domains, is made much more prominent and explicit. Because of this focus the STOF model can also offer more detailed descriptive models and causal models. This means it provides more support for designing and evaluating a business model than the other models. Moreover, the descriptive models and causal models show how the different domains relate to each other. While these relations are also stressed in the other models, they are not as explicit and specific as in the STOF model.

Weill and Vitale: Business Model Schematics

In their book ‘Place to Space,’ Weill and Vitale (2001) address the growing importance of e-business and its impact on new and established business models. Peter Weill is particularly known as Senior Research Scientist at and Chairman of Center for Information Systems Research (CISR) of the MIT Sloan of Management and his well-known and best-selling books on IT Savvy, IT governance, and Enterprise Architecture.

According to Weill and Vitale, e-business models are more complex compositions based on a finite number of atomic e-business models. An atomic e-business model describes the essence of the way e-business is conducted. Each atomic e-business model is described by four characteristics: (a) strategic objectives and value proposition, (b) sources of revenue, (c) critical success factors, and (d) core competencies required. The atomic e-business models are presented and discussed in the next chapter about business model archetypes (see Table 2 for an overview).

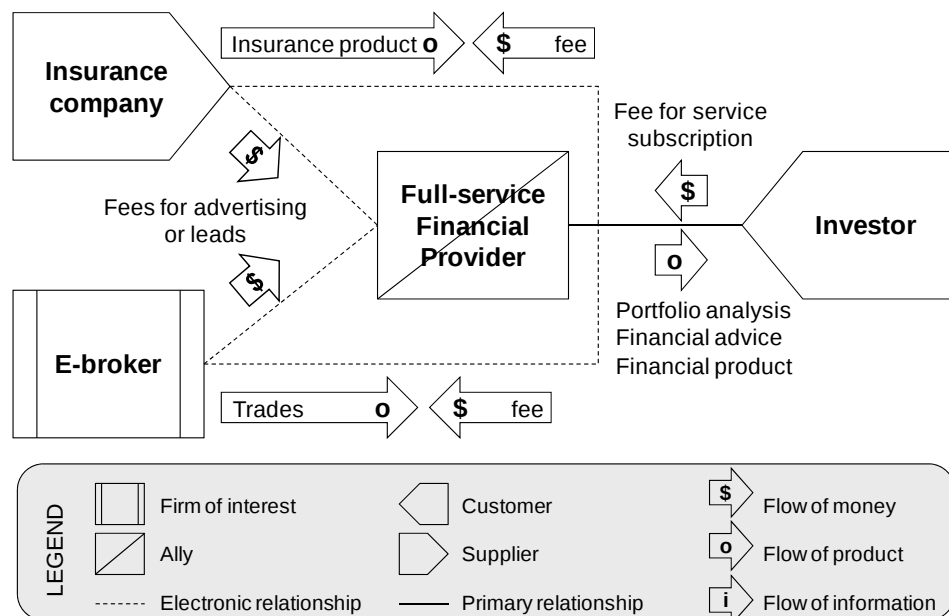


Figure 8. Example of an e-business model with e-business schematics: E-brokering with full-service financial provider (Weill & Vitale, 2001).

An e-business model is a description of the roles and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants. E-business model schematics is a pictorial representation (an example is presented in Figure 8), like a map, aiming to highlight the e-business models important elements:

1. The **roles and relationships** (electronic and primary) of the major entities in the e-business model, including the firm of interest and its customers, suppliers and allies.
2. The **major flows of product, information, and money**.
3. The **revenues and other benefits** each participant receives.

The schematics highlight three critical aspects of the e-business model: participants, relationships, and flows. In addition, Weill and Vitale describe the important issues that need to be considered when summarizing and analysing e-business models:

- Sources of revenue
- Ownership of customer relationship
- Intimacy of customer relationship
- Ownership of the customer transaction
- Ownership of the customer data
- Type of information needed to succeed

An e-business model, which is a combination of atomic e-business models, is the basis of the e-business initiative. The critical issues in an e-business initiative are:

- The combination of atomic e-business models: explain the business objectives, the relationships, and the flows of the initiative,
- The **targeted customer segments**: identify the target audience and the value proposition delivered,
- The **channels to the customer**: describe how each customer segment is reached and the richness of the information transfer to the customer,
- **IT infrastructure capability**: specify the IT capabilities required, both internally and externally, to enable the e-business initiative

As both the STOF model and Weill and Vitale's approach to e-business models have a strong link with electronic services, they both more explicitly recognize the business model at the network level, with e-business model schematics to represent it, and the role of IT than the Business Model Canvas and the Four-Box Business Model. Whether or not it is relevant for a business model to include a technology element will depend on the kind of business models, such as e-business models here, and the relation with (technical) implementation. Both the STOF model and Weill and Vitale also discuss critical success factors, STOF for mobile business models and Weill and Vitale for atomic e-business models. In addition, just like the Business Model Canvas, the schematics have a visual appeal.

Chesbrough and Rosenbloom: Technology/market mediation

Chesbrough and Rosenbloom (2002) discuss business models in relation to technological innovation. This is later extended by Chesbrough in his work on open innovation (Chesbrough, 2003) and open business models (Chesbrough, 2006).

Chesbrough and Rosenbloom position the business model as a heuristic logic and focusing device that mediates between technology development and economic value creation. They 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.’ The business models guides the selection and filtering of technologies and the way they are packaged into particular offerings for a chosen target market.

The functions of a business model are to (Chesbrough & Rosenbloom, 2002):

1. Articulate the **value proposition**, i.e., the value created for users by the offering based on the technology;
2. Identify a **market segment**, i.e., the users to whom the technology is useful and for what purpose, and specify the revenue generation mechanism(s) for the firm;
3. Define the structure of the **value chain** within the firm required to create and distribute the offering, and determine the complementary assets needed to support the firm's position in this chain;
4. Estimate the **cost structure** and **profit potential** of producing the offering, given the value proposition and value chain structure chosen;
5. Describe the position of the firm within the **value network** linking suppliers and customers, including identification of potential complementors and competitors;
6. Formulate the **competitive strategy** by which the innovating firm will gain and hold advantage over rivals.

Chesbrough and Rosenbloom’s business model functions do not substantially differ from the elements in the previously discussed frameworks. However, the context in which they discuss their framework is much more related to technology-driven innovation and targeting established, mature firms. In addition, looking at the list of element, they do include ‘competitive strategy’ compared to the Business Model Canvas, the Four-Box Business Model and STOF.

While Chesbrough and Rosenbloom include competitive strategy, they also explicitly argue that there are differences between the business model and strategy. In their opinion there are at least three main differences: (a) the business model emphasizes value creation while the strategy emphasizes value capture, (b) the business model focuses on the creation of value for the business while the strategy focuses on the creation of value for the shareholder, and (c) the business model construct consciously assumes that knowledge is cognitively limited and biased while the strategy assumes that any cognitive limitations on the part of the firm are of limited importance.

Morris, Schindehutte and Allen: Entrepreneur's business model

Morris, Schindehutte and Allen (2005) approach the business model from an entrepreneurship perspective and address the areas of venture strategy, architecture, and economics. They make use of an analysis of existing frameworks and theories to construct their business framework. Their theoretical discussion builds on the work of Amit and Zott (2001) who discuss different theoretical perspectives from strategic management and entrepreneurship: value chain analysis, Schumpeterian innovation, the resource-based view of the firm, strategic network theory, and transaction costs economics. In addition they add theoretical perspectives related to the nature and scope of the venture, in particular self-efficacy theory and the theory of effectuation.

Morris et al.(2005) introduce 3 levels for their framework based on the different managerial purposes of a model:

1. **Foundation level:** At this level, the managerial purpose of the framework is to make generic decisions regarding what the business is and is not and ensure such decisions are internally consistent. The framework addresses basic decisions that all entrepreneurs must make (as listed above), it permits general comparisons across ventures and the identification of universal models.
2. **Proprietary level:** At this level, the managerial purpose of the framework is to enable the development of unique combinations among decision variables that result in marketplace advantage. The framework becomes a customizable tool that encourages the entrepreneur to focus on how value can be created in each of the six decision areas.
3. **Rules level:** The usefulness of any model is limited, however, unless it provides specific guidance and discipline to business operations, necessitating a third level in the model. The rules level delineates guiding principles governing execution of decisions made at levels one and two.

For the foundation level, Morris et al.(2005) a well-formulated business model must address **six key questions**:

Component 1 (factors related to the offering): How do we create value? (select from each set)

- offering: primarily products/primarily services/heavy mix
- offering: standardized/some customization/high customization
- offering: broad line/medium breadth/narrow line
- offering: deep lines/medium depth/shallow lines
- offering: access to product/ product itself/ product bundled with other firm's product
- offering: internal manufacturing or service delivery/ outsourcing/licensing/ reselling/ value added reselling
- offering: direct distribution/indirect distribution (if indirect: single or multichannel)

Component 2 (market factors): Who do we create value for? (select from each set)

- type of organization: b-to-b/b-to-c/ both
- local/regional/national/international
- where customer is in value chain: upstream supplier/ downstream
- supplier/ government/ institutional/ wholesaler/ retailer/ service provider/
- final consumer
- broad or general market/multiple segment/niche market
- transactional/relational

Component 3 (internal capability factors): What is our source of competence? (select one or more)

- production/operating systems
- selling/marketing
- information management/mining/packaging
- technology/R&D/creative or innovative capability/intellectual
- financial transactions/arbitrage
- supply chain management
- networking/resource leveraging

Component 4 (competitive strategy factors): How do we competitively position ourselves? (select one or more)

- image of operational excellence/consistency/dependability/speed
- product or service quality/selection/features/availability
- innovation leadership
- low cost/efficiency
- intimate customer relationship/experience

Component 5 (economic factors): How we make money? (select from each set)

- pricing and revenue sources: fixed/mixed/flexible
- operating leverage: high/medium/low
- volumes: high/medium/low
- margins: high/medium/low

Component 6 (personal/investor factors): What are our time, scope, and size ambitions? (select one)

- subsistence model
- income model
- growth model
- speculative model

With respect to the elements, Morris et al. also include a strategic element (component 4) like some of the other approaches. The unique element of Morris et al. is the one addressing the entrepreneur's personal/investor factors (component 6), also termed '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.

With respect to the levels, the foundation level and the proprietary level links a more generic business model approach focussing on the essence of the business with a more specific, strategic approach focussing differentiation and sustainable advantage. The rules level links the higher levels to the implementation and operation of the business model. The only other framework that has a somewhat similar approach is the e3-value business model (discussed next) where value models can be linked to business process models. Morris et al. also relate the levels to the emergence and evolution of business models where a firm's model may develop from the foundation level towards a more complete and articulated model at the proprietary and rules levels.

Gordijn and Akkermans: e3-value

Gordijn (2002) developed the e3-value ontology for e-business models in his PhD research. Over time this evolved into the e3-family of business ontologies, which is a set of ontological approaches for modelling networked value constellations². Gordijn and Akkermans (2001) emphasize the role of e-business models as the first step in requirements analysis for e-business information systems. E3-value is an e-business modelling approach that combines an economic value perspective from business science with the rigorous approach of IT systems analysis from computer science.

E3-value is an e-business model ontology that centres around the core concept of economic value, and expresses how economic value is created, interpreted and exchanged within a multi-party stakeholder network of (extended) enterprises and customers (Gordijn, Akkermans, & Van Vliet, 2000). Gordijn et al. state that 'it is exactly this notion of value which is currently lacking in information modelling and analysis approaches, including various business-oriented ontologies that have been developed recently.' E3-value specifies what an e-business model is made of, in particular, defining, deriving, and analysing multi-enterprise relationships, e-business scenarios, and operations requirements in both qualitative and quantitative ways (Gordijn & Akkermans, 2001).

² For more information about the e3-family of business ontologies see the e3-value website (<http://www.e3value.com>).

The e3-value modelling constructs are (Gordijn, Yu, & Van der Raadt, 2006) (referring to Gordijn & Akkermans, 2001; Gordijn & Akkermans, 2003):

- **Actor:** An actor is perceived by his or her environment as an economically independent entity.
- **Value Object:** Actors exchange value objects. A value object is a service, good, money, or experience, which is of economic value to at least one actor.
- **Value Port:** An actor uses a value port to provide or request value objects to or from other actors.
- **Value Interface:** Actors have one or more value interfaces, grouping value ports and showing economic reciprocity. Actors will only offer objects to someone else if they receive adequate compensation in return. Either each port in a value interface precisely exchanges one value object or none do.
- **Value Exchange:** A value exchange connects two value ports. It represents one or more potential trades of value objects.
- **Market Segment:** A market segment breaks actors into segments of actors that assign economic value to objects equally. Designers often use this construct to model a large group of end consumers who value objects equally.
- **Value Activity:** An actor performs one or more value activities, which are assumed to yield a profit.
- **Dependency Path:** Designers use a dependency path to reason about the number of value exchanges in an e3value model. A path consists of consumer needs, connections, dependency elements, and dependency boundaries. You satisfy a consumer need by exchanging value objects (via one or more interfaces). A connection relates a consumer need to an interface or relates an actor's various interfaces. A path can take complex forms, using AND/OR dependency elements taken from use case map scenarios. A dependency boundary denotes the end of value exchanges on the path.

E3-value uses a semi-formal, conceptual modelling approach for e-commerce ideas because this, according to Gordijn & Akkermans (2003), enhances the common understanding of different stakeholders, enables a more rigorous assessment of the potential profitability and provides a bridge to more conventional requirements engineering and systems development. They use a lightweight approach and a language with a graphical syntax (see also the example in Figure 9) because of the short development time of e-commerce initiatives and the need for easy communication.

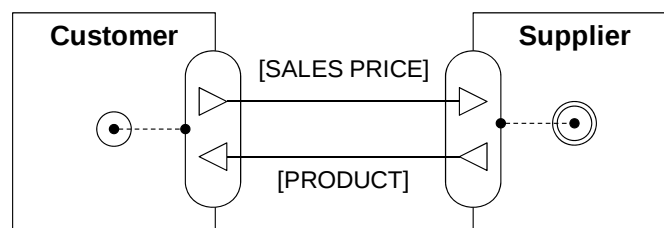


Figure 9. Example of an e3-value model.

In addition to articulating an e-commerce idea via developing one or more value models, e3-value also support the evaluation of the value model via creating profitability sheets for each actor to present revenues and expenses, assigning economic value to the value object that are exchanged to calculate profitability numbers, and the opportunity to perform sensitivity analysis.

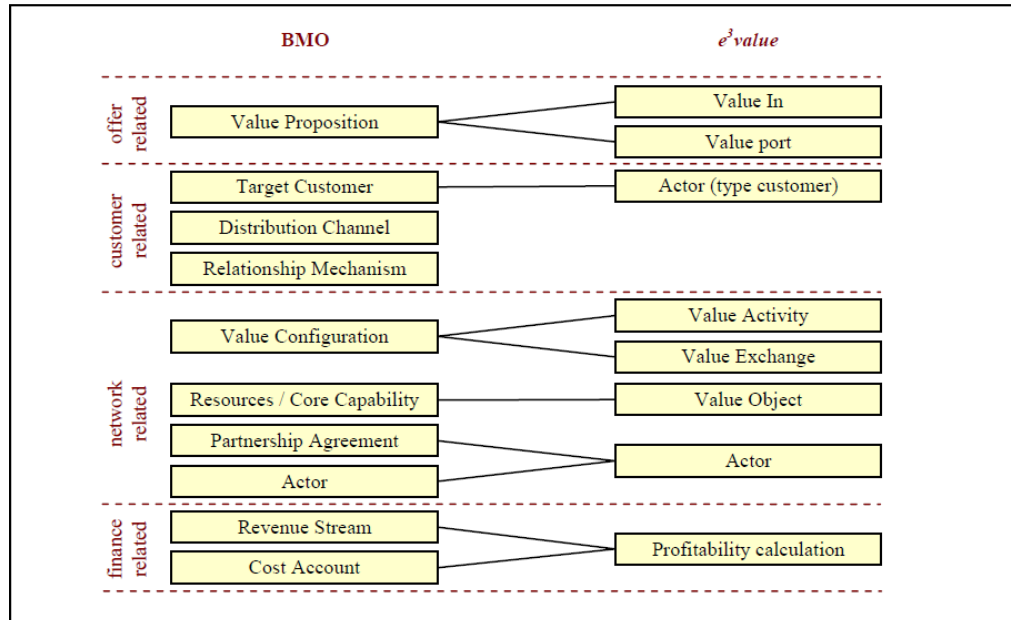


Figure 10. A mapping between similar, but not identical elements of an earlier version of the Business Model Canvas (BMO) and e3-value (Gordijn et al., 2005)³.

A comparison between e3-value and the earlier version of the Business Model Canvas (Gordijn et al., 2005) highlights the differences between these two approaches. There are differences between the elements as shown in Figure 10 below. Moreover, e3-value differs in its more specific focus and detailed elaboration of economic value exchanges and its wider organizational perspective by addressing the level of value constellations. Also e3-value offers support for evaluation and the relation between e3-value and systems development is stronger. In its newer version the Business Model Canvas is emphasizing more its use as a design tool for innovation and less its use for semi-formal conceptualizations.

³ BMO stands for Business Model Ontology, a named used for Osterwalder's earlier version of the Business Model Canvas. BMO has slightly different names and elements the Canvas, in particular with respect to the infrastructure management pillar (referred to as 'network related' in the figure).

Concluding remarks about frameworks and elements

In this chapter, we addressed the frameworks and elements describing what a business model is made-off. According to Gordijn et al. (2005) 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. We described and discussed seven well-known business model frameworks: Business Model Canvas, Four-Box Business Model, the STOF model, Business Model Schematics, Technology/market mediation, Entrepreneur’s business model and e3-value.

Next to describing and discussing each business model framework individually, we also paid attention to their similarities and differences. Summarizing one could say that there are significant similarities between the frameworks, enough in our opinion to see them all relating to the same underlying definition of business model concept. However, there are also noteworthy differences, both in terms of the elements of the frameworks as well as in their approaches and theoretical underpinning.

We do not see the development and use of different business model frameworks and elements as problematic because, next to their substantial overlap, the differences can mostly be seen as contextualisations and complementarities. One framework may suit better than another, depending upon the purpose (e.g. communication, brainstorming, business plan, system development), the setting (e.g. start-up or established company, organization or network, social or technical) and the type of support required (e.g. modelling language, visualisation, templates, tool support, etc.). It is advised to have a thorough understanding of the origin and foundations of the different frameworks and to make use of the particular focus and strengths while being aware of assumptions and limitations. This means that one should select and use a specific business model framework (and elements) carefully.

To address some of the challenges of having a loose and flexible approach to business model frameworks, we suggest making use of the fact that most business model frameworks are multi-level structures specifying a (limited) number of higher-order elements (or boxes, pillars, etc.) and elaborating these in more detail as lower-level elements (or building blocks, components, etc.). 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.’ Al-Debei and Avison (2010) suggest a unified business model conceptual model 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 higher-order elements should at least cover the following dimensions:

1. **Value Proposition:** The value proposition addresses the customer problem that the business initiative is trying to solve, often in relation to target customers, and the solution that is offered to deal with that problem.
2. **Value Architecture:** The value architecture describes how the value proposition can be effectuated by the different actors and their capabilities, in particular the focal organization, but also other organizations (e.g. partners, suppliers, distributors, complementors, etc.) and customers (within an organizational network).
3. **Value Economics:** The value economics addresses the economic considerations (possibly including non-financial ones) related to the value proposition and architecture and is often focussed on how the focal organization can make money.

Figure 11 presents our business model conceptualization based on the definition and dimensions. The value dimensions address the basic questions in relation to the business model definition with value creation being primarily addressed by the value proposition (focussing on an integrated who-why-what question) and architecture (focussing on an integrated who-what-how question) and value capture being primarily addressed by the value economics (focussing on an integrated who-for what-how much question).

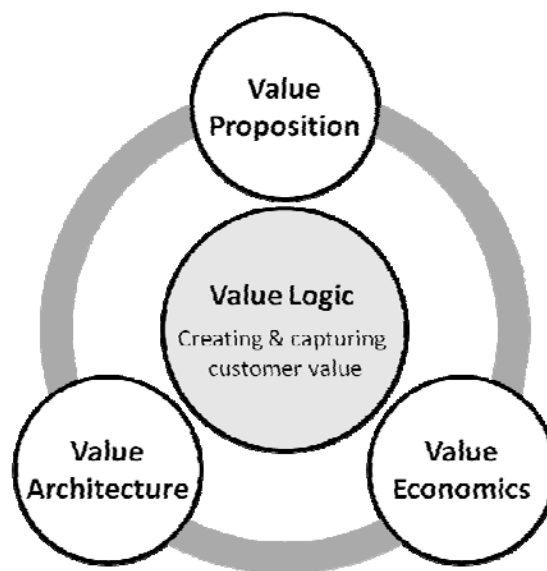


Figure 11. Conceptualization of a business model: Definition and dimensions.

The value logic is articulated by these three dimensions and, most importantly, how they relate to each other and fit together. ‘More than the sum of its parts, the model captures the essence of how the business system will be focused’ (Morris et al., 2005). This is in line with suggestions that the business model is a system (Afuah & Tucci, 2001) with complex interdependencies between its elements (Johnson, 2010) and that there should be a blend (Mahadevan, 2000) or balance (Bouwman, De Vos et al., 2008) between the different dimensions. Taking this one step further, more than a consistency or fit between the value viewpoints, 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.

Finally, we noticed that the literature on frameworks and elements has three major limitations. Firstly, while the different frameworks address the elements in considerable detail, the relationships between the elements is often far less discussed. In addition, the dynamics of the business model in terms of changes of the components and their relationships over time (Afuah & Tucci, 2001) are identified as relevant but mostly not further discussed in great detail. A notable exception is the work on business models in relation to change models (Linder & Cantrell, 2000) and technological innovation (De Reuver, Bouwman, & MacInnes, 2009; MacInnes, 2005). Finally, most frameworks are not developed or tested via systematic and evidence-based approach nor has their successful application been verified. Moreover, most cases and examples used to illustrate the frameworks are relatively straightforward and limited in scope. Whether or not the current frameworks are also suited for representing the value logic of more complex ecosystems (e.g. Facebook) has to be tested.

Business Model Archetypes and Classifications

Business model research has also been addressing the identification and ordering of existing types of business models and the invention of new types of business models. These business model archetypes⁴ are discussed individually or collectively as part of a classification (Hedman & Kalling, 2003; Osterwalder et al., 2005; Pateli & Giaglis, 2004). Moreover, an archetype can be a full business model, often an exemplar based on a specific company such as the ‘low-cost carrier model’ of SouthWest Airlines, a more simplified, elementary model, such as the ‘full service provider’ atomic business model (Weill & Vitale, 2001), or only a specific aspect or element of a business model, for example, the ‘free’ business model pattern (Osterwalder & Pigneur, 2010). In this section we will address 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 representative or comprehensive with respect to the full range of archetypes.

Specific archetypes

Authors in academic literature as well as popular press identify and discuss abstract presentations of specific types of business models and/or concrete instantiations of these specific types at a well-known company (such as the companies presented in Figure 12). An example of such abstract presentation is the razor-and-blades model and the concrete instantiation is the model as it was introduced by Gillette. Other examples are the by, power-by-the-hour by Rolls Royce, low-cost carrier by SouthWest Airlines and direct sales with build-to-order by Dell.

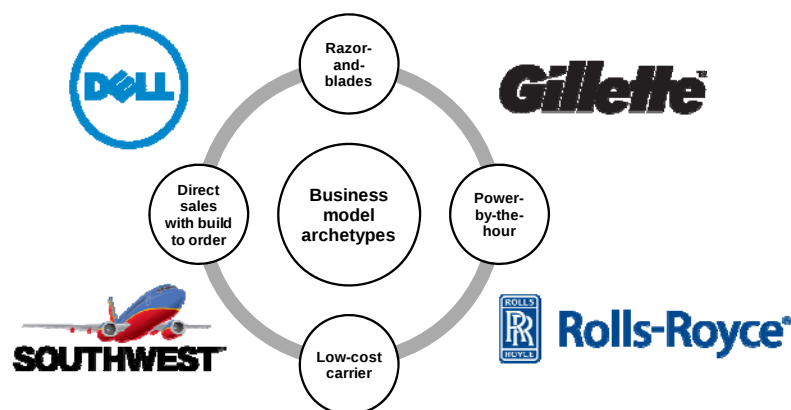


Figure 12. Companies with well-known business models.

The more in-depth descriptions of business model archetypes often address an innovative, upcoming business model or delve into the history of a business model. For example, with the rise of e-business, there was a lot of attention for e-business models or Internet business models, which later on got refined to pure-play and clicks-and-mortars models (for example, 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. A notable example of a study on the history of a business model is Picker (2010). He discusses the origin of Gillette's razor-and-blades model and discusses some detailed aspects that are often left out in the popular story about the model.

⁴ 'something that serves as a model or a basis for making copies' (WordNet 3.0)

The power of business model archetypes in relation to the conceptualization of business models is that they provide a simple and intuitive understanding what a business model is and makes it easy to communicate and discuss business models. However, as an area of research the identification and description of business model archetypes is less developed. While numerous well-documented case studies are available, systematic or scientific research in this area is very limited and the available studies mostly do not make use of a well-developed business model framework like the ones discussed earlier. For example, Davies, Brady and Hobday (2006) address ‘integrated solutions’ which combine technology, products and services as high-valued unified responses to customer needs, such as Rolls Royce’s power-by-the-hour model for its aircraft engines. Figure 13 presents the ‘integrated solutions’ approach in a Business Model Canvas. A Business Model Canvas representation of their ‘integrated solutions’ approach makes it more systematic and holistic and easier to understand and communicate as a business model.

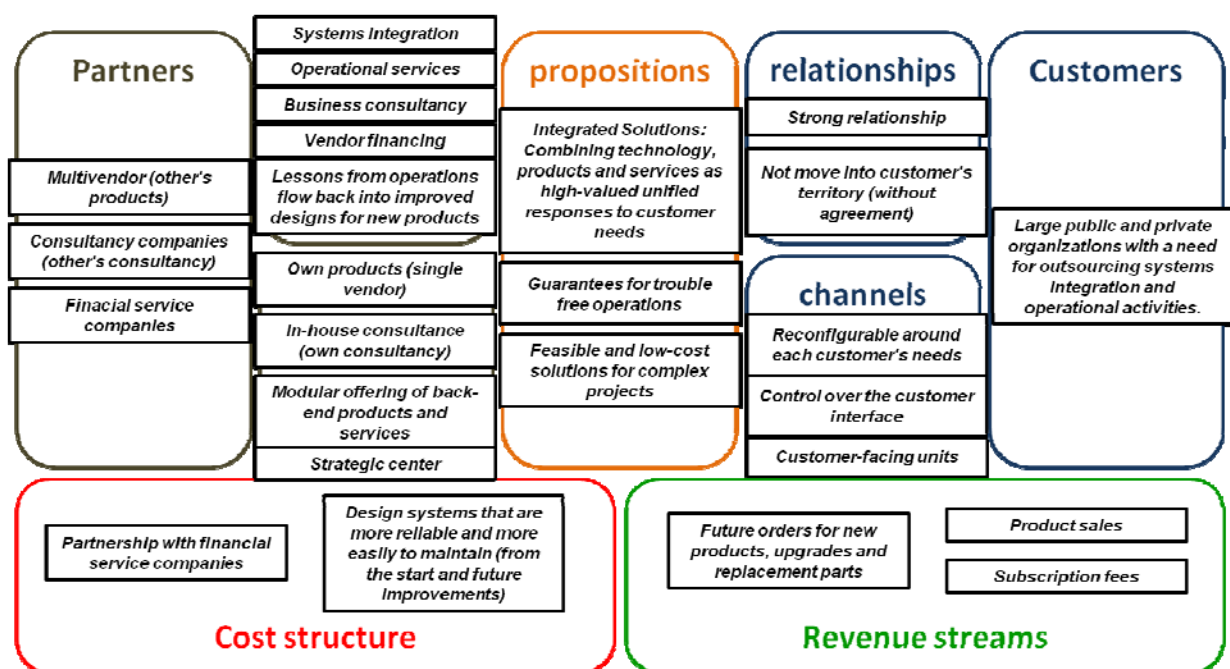


Figure 13. Integrated solutions as business model (based on Davies et al., 2006).

Classifications

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 (see also Table 2). The rise of the Internet and e-business 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 & Vitale (2001). Later the specific focus on e-business models lessened, although many of the newer models are still associated with the Internet as driver or enabler. Osterwalder & Pigneur (2010) and Johnson (2010) are examples of newer lists that are not e-business focussed.

Table 2. An overview of business model classifications.

Author(s)	Classification
Timmers (1998)	Internet business models: - e-shop - e-procurement - e-auction 3rd party marketplace - e-mail - Virtual communities - Value chain integrator - Information brokers - Value chain service provider - Collaboration platforms
Rappa (2000)	Business models on the web: ⁵ - Brokerage model - Advertising Model - Infomediary Model - Merchant Model - Manufacturer Model - Affiliate Model - Community Model - Subscription Model - Utility Model
Weill and Vitale (2001)	Atomic (e-)business models: - Content Provider - Direct to Consumer - Full Service Provider - Intermediary - Shared Infrastructure - Value net integrator - Virtual Community - Whole of Enterprise/Government
Afuah and Tucci (2003)	(Internet) Business models (based on dominant revenue models): - Commission - Advertising - Mark-up - Production - Referral - Subscription - Fee-for-service
Chesbrough (2006)	Six 6 types of business models: - Undifferentiated - Differentiated - Segmented - Externally aware - Integrated - Adaptive
Osterwalder and Pigneur (2010)	Business model patterns: - Unbundling - Long tail - Multi-sided platforms - Free (Freemium, Bait & Hook) - Open
Johnson (2010)	Business model analogies: - Affinity club - Brokerage - Bundling - Cell phone - Crowdsourcing - Disintermediation - Fractionalization - Freemium - Leasing - Low touch - Negative operating cycle - Pay-as-you-go - Razors-and-blades - Reverse auction - Reverse razors-and-blades - Product-to-service - Standardization - Subscription club - User community

⁵ Note that Rappa next to these 9 categories also describes 41 subcategories.

Some of these classifications are of authors who also provide business model frameworks (see also the previous chapter). This makes it possible to systematically describe each business model archetype, as abstract presentation or exemplary instantiation, with the help of the business model framework. This is, for example, done by Osterwalder and Pigneur (2010). Figure 14 shows how Osterwalder and Pigneur represent the freemium model via Skype in the Business model Canvas. However, mostly this kind of systematic and holistic description of the archetypes in a classification is lacking.

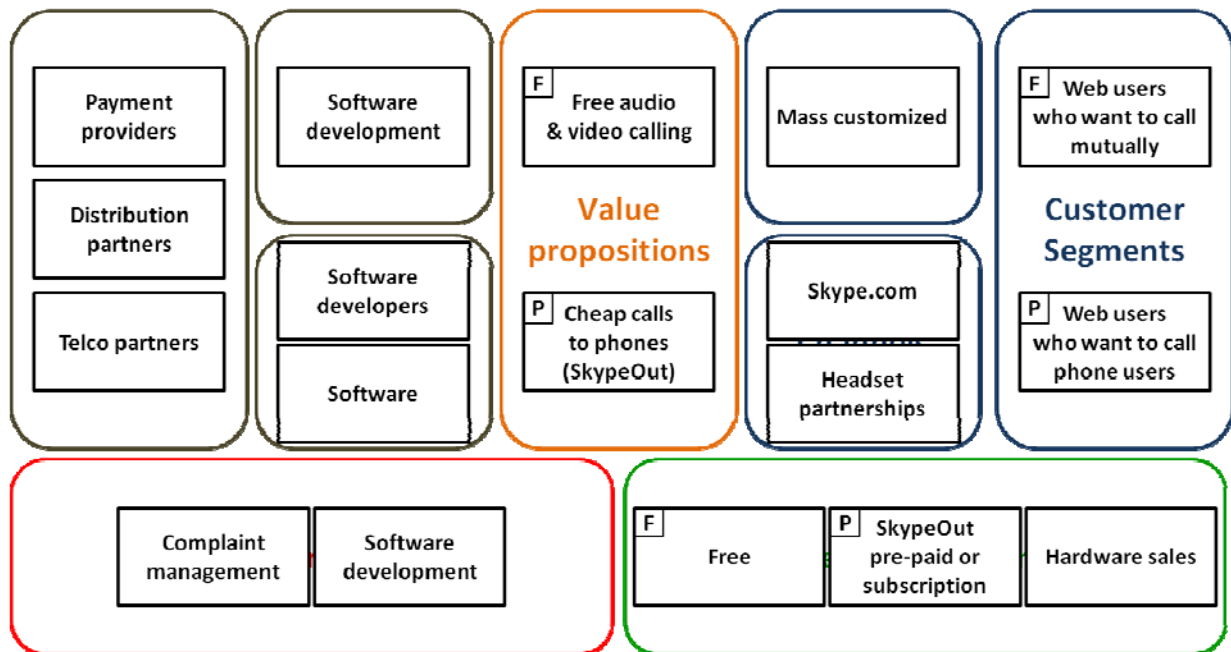


Figure 14. Skype's Freemium model (F: Free, P: Premium) (adapted from Osterwalder & Pigneur, 2010).

Classification criteria

While lists present an unordered set of business model archetypes, typologies position archetypes relative to each other based on underlying criteria. Some examples of the criteria used are presented below:

- Timmers (1998) uses 2 criteria for classifying his Internet business models: (1) functional integration (single function ↔ multiple functions/integrated) and (2) degree of innovation (lower ↔ higher).
- Weill and Vitale (2001) summarize their atomic business models by means of four variables: (1) strategic objective and value proposition, (2) sources of revenue, (3) critical success factors, (4) core competences and (5) customer ownership (relationship, data, and/or transaction).
- Chen (2003) discusses four criteria for e-business models: (1) supply chain model (direct sales, e-tail, portal or marketplace), (2) revenue model (free or pay), (3) market type (B2C or B2B) and (4) corporate structure (pure internet or click-and-mortar).
- Afuah and Tucci (2003) use four dimensions to characterise business models: (1) profit site (role in value network), (2) revenue model, (3) commerce strategy and (4) pricing model.

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. 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). The use of and the relation between the framework elements and classification criteria is an area where further research is needed for further development and integration of business model research.

In addition, there is no holistic and exhaustive 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).

Application of archetypes and classifications

Next to presenting different lists or typologies and their underlying criteria, some authors also address the application of business model archetypes for management and innovation via, for example, business model composition (Weill & Vitale, 2001), business model decision-making (Morris et al., 2005) and business model maturity (Chesbrough, 2006).

Weill & Vitale (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 (see also the previous chapter). 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 (see also the previous chapter).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.

The business models archetypes of Chesbrough (2006) are 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 drives the innovation activities of a company and forms a platform for leading its industry.

Concluding remarks about archetypes and classifications

In this chapter, we addressed introduced the third area of business model literature, the research into business model archetypes and classifications. This research focuses, on the one hand, on the identification and description of specific, existing and new archetypes and, on the other hand, on identifying and categorizing a comprehensive set of business model archetypes in classifications as lists or typologies. The business model archetypes and classifications can be applied as design models (pure types or building blocks), generic decision models and maturity levels.

The business model archetypes are important for the business model conceptualization because they make it easier to understand and communicate the meaning and relevance of the business model concept than the business model definitions and frameworks as they are more concrete and specific. It

is easier to understand that business models matter by referring to, for example, Gillette's razor-and-blades model than by discussing the need for addressing customer value and value creation more holistically. Moreover, the archetypes and classifications play an important part in the learning about business models in terms of identifying and describing new and existing types, the generalisation and application of knowledge about business models, and supporting the design and innovation of business models and organizations.

One of the challenges for identifying and describing business model archetypes is determining when a model is indeed an archetype, specifying it as the right level of abstraction and deciding whether it is a full (atomic) or partial business model. The business model definition and dimensions can help deciding whether a specific model should indeed be seen as a (full) business model archetype, or at least make us aware of a specific emphasis of the archetype. For example, the 'full service provider' mostly addresses the value proposition, 'disintermediation' and 'marketplace' mostly address the value architecture while 'razors-and-blade' and the 'free' mostly address the value economics.

The current literature about business model archetypes and classification is, however, not well-developed, it lacks a systematic and integrative approach. Integration is lacking within the business model archetype and classification research area, and with the other business model research areas, in particular the business model frameworks.

Final remarks

Before one can study or use business models, one first needs to understand, and to some extent agree upon, what business models are. This is not straight-forward as business models are still not well comprehended and the knowledge about business models is fragmented over different disciplines, such as information systems, strategy, innovation, and entrepreneurship. We contribute to enhancing the understanding of business models and integrating knowledge from different areas. We focussed on exploring the conceptualisation of business models by discussing business model definitions, frameworks and archetypes. Here we offer some summarizing and overall remarks; we refer to the concluding remarks of each previous chapter for more specific and in-depth conclusions about each of these topics.

The business model concept addresses a need for articulating, thinking about, communicating, designing, and innovating the essence of the business. We proposed the following working definition: ***a business model describes the value logic of an organization in terms of how it creates and captures customer value.*** This definition is in line with most of more recent definitions across different disciplines and domains. The business model defines the value logic or rationale of doing business. It is a holistic approach integrating different value concepts (use value, exchange value, added value), perspectives (customer value, business value) and approaches (creating value, capturing value). There is, however, a focus on customer value and value creation.

The business model can be specified by the following dimensions: (1) Value Proposition, (2) Value Architecture, and (3) Value Economics. The value logic is articulated by these three dimensions and, most importantly, how they relate to each other and fit together. The value dimensions address the basic questions in relation to the business model definition with value creation being primarily addressed by the value proposition and architecture and value capture being primarily addressed by the value economics. The elements of a business model framework should cover these dimensions, as is the case with the more well-known and developed frameworks described and discussed in this paper. While most business model frameworks are to some extent similar (in particular when it comes to the three dimensions), they also have some major differences, e.g. addressing organization or network level, including technology or covering strategy. We see this mostly as an advantage, the frameworks are similar enough with respect to the underlying business model definition and dimensions, while the differences makes it possible to choose a framework that suits the purpose, context and type of support needed.

The conceptualization of a business model in terms of a generic working definition with three core dimensions in combination the use of different business model frameworks provides variety and richness. This loose and flexible approach does come with substantive challenges for advancing the pool of knowledge and providing normative guidelines. For example, it leaves to some extent open what constitutes a good model (Morris et al., 2005). Demil & Lecocq (2010) quote Siggelkow who notes that ‘the advantage of an ex ante specification of core elements is that changes in these elements can be measured consistently across firms. The disadvantage of this approach is that it assumes that the same elements are equally central or core in all the firms.’

While ‘normative definitions may offer valuable guidance as to what managers should be thinking about when designing their business models, we suggest such approaches implicitly impose bounds on what a complete business model ‘is’ (Casadesus-Masanell & Ricart, 2010). This creates the danger that only a (small) subset of elements are considered and this is mistakenly referring to as a business model (Shafer et al., 2005).

Next to business model definitions and frameworks, we also discussed business model archetypes and classifications as part of our exploration of the conceptualization of business models in literature. The business model archetypes are important for the business model conceptualization because they make it easier to understand and communicate the meaning and relevance of the business model concept as they are concrete and specific. Moreover, the archetypes and classifications play an important part in advancing our understanding of business models in terms of identifying and describing new and existing types, the generalisation and application of knowledge about business models, and supporting the design and innovation of business models and organizations.

The business model definitions, frameworks and archetypes together can help move the business model research forwards by exploring and testing each other. For example, the business model definition should cover all archetypes and it should be possible to describe each archetype via a business model framework. In addition, the business model frameworks can help in relating archetypes to each other and discover new (missing) archetypes.

The description, discussion and integration of literature on business model definitions, frameworks and archetypes as presented contributed to the objective of our study: enhancing our understanding of business models, in particular its conceptualisation. The literature provided us richness and variety and was a source of valuable insights. In addition, we added to a more in-depth discussion by using literature on (customer) value, as this is a closely related, yet underdeveloped area in business model literature. However, we also noticed that overall the knowledge on the conceptualisation of business models is still not well-developed, it is fragmented and ambiguous, and there is a lack of systematic and scientific research. In particular, there is a great opportunity to enhance the understanding of business model and contribute to scientific knowledge and practical applications in the area of business model archetypes and classifications.

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Appendix

An overview of business model definitions

Source	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):
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.
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)
Gordijn and Akkermans (2001)	E-business models [...] a conceptual modeling approach to e-business—called e3-value—that is designed to help define how economic value is created and exchanged within a network of actors. Our e3-value method is based on an economic value-oriented ontology that specifies what an e-business model is made of. In particular, it entails defining, deriving, and analyzing multi-enterprise relationships, e-business scenarios, and operations requirements in both qualitative and quantitative ways. (p. 11)
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)
Weill and Vitale ((2001)	An e-business model is a description of the roles and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants. (p. 34)
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) A revenue model refers to the specific modes in which a business model enables revenue generation. (p. 515)
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)
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)
Dubosson-Torbay, Osterwalder and Pigneur (2002)	A business model is nothing else than the architecture of a firm and its network of partners for creating, marketing and delivering value and relationship capital to one or several segments of customers in order to generate profitable and sustainable revenue streams. (p. 7)
Osterwalder (2004)	A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams. (p. 15)
Morris, Schindehutte and Allen (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)

Source	Definition
Osterwalder, Pigneur and Tucci (2005)	A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams. (p. 17-18)
Shafer, Smith and Linder (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)
Bouwman, De Vos and Haaker (2008)	A business model is a blueprint for a service to be delivered, describing the service definition and the intended value for the target group, the sources of revenue, and providing an architecture for the service delivery, including a description of the resources required, and the organizational and financial arrangements between the involved business actors, including a description of their roles and the division of costs and revenues over the business actors. (p. 33)
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)
Mullins and Komisar (2009)	By business model, we mean the pattern of economic activity—cash flowing into and out of your business for various purposes and the timing thereof—that dictates whether or not you run out of cash and whether or not you deliver attractive returns to your investors. In short, your business model is the economic underpinning of your business, in all of its facets. (p. 4-5)
Osterwalder and Pigneur (2010)	A business model describes the rationale of how an organization creates, delivers, and captures value. (p. 14)
Amit and Zott (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)
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)
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)

About the Author

Dr. Erwin Fielt (e.fielt@qut.edu.au) is currently a Postdoctoral Research Fellow in the Business Service Management project of the Smart Services CRC and a member of the Information Systems Discipline of the Faculty of Science and Technology of the Queensland University of Technology, Brisbane, Australia. His research interest is in the intersection between business and IT, where information systems have to create value for individuals and organizations. He focuses on topics like business models, strategy, innovation, sourcing, service-orientation and architecture. Erwin Fielt is a co-author of the book 'Mobile Service Innovation and Business Models' edited by Bouwman, De Vos and Haaker (2008) and a contributor to the book 'Business Model Generation' authored by Osterwalder and Pigneur (2010). He has a PhD from the Delft University of Technology and a MSc from the University of Twente, both in the Netherlands.

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