



Contents lists available at ScienceDirect

## Long Range Planning

journal homepage: <http://www.elsevier.com/locate/lrp>

## Business Models: Origin, Development and Future Research Perspectives

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The concept of business models has reached global impact, both for company's competitive success and in management science. Its application by authors from diverse areas has led to a previously very heterogeneous comprehension of the concept. Yet, by means of investigating its origin and theoretical development, we state a recently converging business model view. Further, based on analyzing business model definitions, perspectives and components in the literature, we newly define the concept and portray its essential components in an integrated framework. Finally, the compilation of the current state of business model research yields the article's main findings. In this regard, via database search we quantitatively identify 681 peer-reviewed articles. Further, we qualitatively analyze them according to individual research areas that we adopt from an appropriate heuristic frame of reference. In this way, we identify four essential research foci: innovation, change & evolution, performance & controlling and design. In triangulation with assessing future research perspectives through a survey of twenty-one international experts, they also consider the areas of innovation, change & evolution, and design to be significant for the future development of the business model research field.

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### Introduction

Business models in practice have grown in significance in the last few years, in particular as they are associated with securing and expanding competitive advantage (Johnson et al., 2008). Business models can be understood here as structured management tools, which are considered especially relevant for success (Magretta, 2002). A large portion of 765 managing directors who have taken part in a global IBM study share this evaluation. The results reveal that financially successful companies attach around twice as much importance to consequential and sustainable business model management as less financially successful companies (IBM, 2007).

Accordingly, there is a high significance attached to the business model concept, not only in practice but also in scientific research. Scientists from various fields of research participate in the scientific discourse about the topic of business models (e.g., information management, strategy, organization theory). In the past, this has led to a heterogeneous understanding of term and concept. In addition, the term "business model" is not always consistently applied. Instead, alternative and similar terms are also used; e.g., the most frequent synonyms are "business idea", "business concept", "revenue model", as well as "economic model" (Magretta, 2002).

Against this background, it is no wonder that "... business models are still relatively poorly understood, particularly as a research area" (Osterwalder et al., 2005). In this context, Teece (2010) states that: "The concept of a business model lacks theoretical grounding in economics or in business studies." In a call for paper on business models in the well-known journal Long Range Planning (2010, No. 2/3), the editor states: "Yet, there exists no clear body of literature in the academic or practitioner journals that explains how a business model works, what are its important dimensions and features and how a good business model can be created."

These quotations make it clear that many fundamental questions in the context of business models still remain unanswered, in spite of high relevance. In particular, a basic clarification of the business model concept seems to be necessary. This manuscript should serve just that purpose, and make a contribution by answering the following research questions: 1) Where did the business model concept come from and how has it developed; 2) What is a business model anyway and what does it consist of; and 3) What is the focus of current research and what are the implications for future research?

In answering these questions, our article is divided into several sections. Following the introduction, the second section provides an overview of the origin and development of the term business model. Building on this, in the third and fourth section, a business model definition as well as the basic components of a business model are developed by means of a

<http://dx.doi.org/10.1016/j.lrp.2015.04.001>

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Please cite this article in press as: Wirtz, B.W., et al., Business Models: Origin, Development and Future Research Perspectives, Long Range Planning (2015), <http://dx.doi.org/10.1016/j.lrp.2015.04.001>

synoptic literature analysis. Following the clarification of the business model concept's development and contents, the current state of research is shown in the fifth section. For that reason, a comprehensive quantitative and qualitative literature analysis is carried out, based on a secondary statistical enquiry via the EBSCO database. In triangulation with this database analysis, a focus for future research is suggested in the sixth section. For this purpose, a primary statistical survey has been conducted with twenty-one scientists assessing the future focus of research about business models. The paper concludes with a conclusion and implications for academics and practitioners.

### Origin and Development of the Business Model Concept

The term business model has been present in scientific discussions for over fifty years now. The temporal development of the business model concept begins with the conceptualization, the first use of the term being found with [Bellman et al. \(1957\)](#) ([Osterwalder et al., 2005](#)). Afterwards, the term can be found in literature time and again; initially being used however in a very unspecific manner ([Jones, 1960](#); [McGuire, 1965](#)). After that, the business model has been picked up regularly in the context of information technology, and mainly used in the sense of business modeling (process models). Only [Konczal \(1975\)](#) has already referred to a possible further use of business modeling in terms of applying business models as management tools. In the following years, however, business modeling continues to be mainly understood as an operative activity for system modelling, and as strongly characterized by functional aspects. The business model first gained greater significance with advancing technological development over time and the creation of electronic business. At that time, the business model is no longer seen as only an operative plan for creating a suitable information system, but has developed into an integrated presentation of the company organization, in order to contribute to the success of management in the decision-making process.

Several articles follow with a view strongly marked by theoretical organization. Here, the business model is increasingly seen as an approach to the abstract representation of a company's structure or architecture ([Al-Debei et al., 2008a](#)). At the same time, the business model is perceived as a theoretical concept, which is defined and broken down into its components.

Within the further scientific discourse, aspects of strategy influence the business model understanding more and more. Since the year 2000, an increase in research dealing with the strategic perspective of business models has been found in the literature. By using the business model approach the competitive structure can be better analysed, and strategic innovation-decisions can be made ([Hamel, 2000](#)). Through the increasing differentiation of the business model within a strategic understanding, considerations of the strategic components of business models have increasingly gained importance ([Chesbrough and Rosenbloom, 2002](#); [Wirtz, 2000](#)).

During the boom of the new economy, the use of the term business model has been frequent and near-inflationary. Especially in business newspapers, there has been a significant increase in use of the term. Parallel to these developments, more and more critics of the business model concept voice their opinions. The most famous of them is Michael E. Porter, who states in 2001: "The definition of a business model is murky at best. Most often, it seems to refer to a loose conception of how a company does business and generates revenue. Yet simply having a business model is an exceedingly low bar set for building a company. [ ... ] The business model approach to management becomes an invitation for faulty thinking and self-delusion" ([Porter, 2001](#)).

This criticism is taken up in the literature and the attempt is made to develop a clear business model concept. In 2002, some classification work, meta-articles, as well as attempts at literature syntheses begin to appear. Such synthesis of partly very heterogeneous business model approaches is sophisticated due to different basic theories from information technology, strategy, organization theory and the lack of a uniform theoretical foundation ([Pateli and Giaglis, 2004](#); [Teece, 2010](#)). Yet, literature tries to portray the business model as an independent concept, clearly separating it from established concepts such as strategy, organization theory or business planning ([Al-Debei et al., 2008a](#); [Casadesus-Masanell and Ricart, 2010](#); [Mansfield and Fourie, 2004](#); [Seddon et al., 2004](#)).

Since 2004, there has been an increase in publications of practice-oriented and scientific books ([Afuah, 2004](#); [Debelak, 2006](#); [Osterwalder and Pigneur, 2010](#); [Wirtz, 2011](#)). This demonstrates the sustained interest in research also made clear, for example, by special editions of the scientific journals *Management* and *Long Range Planning* in 2010; and, the numerous calls for paper at this time (e.g., in the *International Journal of Product Development* (IJPD), *International Studies of Management & Organization*, or the *Strategic Entrepreneurship Journal*).

Even though the topic has enjoyed great attention in recent times, the field of research is in fact at a very early stage and many basic questions remain. There is still no complete clarity in the literature, in particular about the purpose or the right of the business model approach to exist, or even the contrast to established concepts. The reason for the difficulty in answering these central questions is that the literature is very fragmented, due to its historical development and the varying perspectives of the authors. [Figure 1](#) shows selected publications of business model research assigned to the three basic perspectives of technology, organization and strategy in the course of time.

Some authors state that the different basic perspectives or the "research silos" still exist today, and thus the term business model is used synonymously for three different concepts in scientific discourse ([Zott et al., 2011](#)). On closer inspection of the temporal development, and of the newer publications in this research field in particular, one must relativize this statement.

Between the years 2000 and 2002, the technologically oriented business model articles have been very dominant in the context of electronic business but from 2002 on, more and more strategy-oriented articles have been published. There are also some organization-oriented articles, but in comparison with the other two currents in scientific discourse, they play a

	1975	1997	1999	2000	2001	2002	2003	2005	2007	2009	2011	2013	
Technology-oriented	<ul style="list-style-type: none"><li>• Konczal</li><li>• Dottore</li></ul>	<ul style="list-style-type: none"><li>• Shaw</li><li>• Timmers</li></ul>	<ul style="list-style-type: none"><li>• Bambury</li></ul>	<ul style="list-style-type: none"><li>• Amit/Zott</li><li>• Eriksson/ Penker</li><li>• Wirtz</li></ul>	<ul style="list-style-type: none"><li>• Amit/Zott</li><li>• Applegate</li><li>• Gordijn/ Ackermans</li></ul>	<ul style="list-style-type: none"><li>• Bientstock et al.</li><li>• Dubosson-Torbay et al.</li><li>• Eisenmann</li><li>• Papakiris-Iapoulos et al.</li><li>• Hawkins</li><li>• Petrovic et al.</li><li>• Rappa</li><li>• Rayport/ Jaworski</li><li>• Weill/Vitale</li></ul>	<ul style="list-style-type: none"><li>• Blundstock et al.</li><li>• Dubosson-Torbay et al.</li><li>• Eisenmann</li><li>• Lyttinen</li><li>• Osterwalder/ Pigneur</li><li>• Wirtz/ Lihotzky</li></ul>	<ul style="list-style-type: none"><li>• Afuah/ Tucci</li><li>• Pateli/ Gigalis</li><li>• Wang/ Chang</li><li>• Hedman/ Kalling</li><li>• Wirtz/ Lihotzky</li></ul>	<ul style="list-style-type: none"><li>• Rajala/ Westerlund</li><li>• Haaker et al.</li><li>• Kallio et al.</li><li>• Rappa</li></ul>	<ul style="list-style-type: none"><li>• Eriksson et al.</li></ul>	<ul style="list-style-type: none"><li>• Andersson/ Johannesson/ Zdravkovic</li><li>• Björkdahl</li><li>• Clemens</li><li>• Tankhwalde</li></ul>	<ul style="list-style-type: none"><li>• Gambardella/ McGahan</li><li>• Sosna/Trevinyo-Rodriguez/Velamuri</li><li>• Wirtz/Schilke/ Ulrich</li></ul>	<ul style="list-style-type: none"><li>• Huang</li></ul>
Organisation theory-oriented		<ul style="list-style-type: none"><li>• Treacy/ Wiersema</li></ul>		<ul style="list-style-type: none"><li>• Linder/ Cantrell</li></ul>				<ul style="list-style-type: none"><li>• Keen/ Qureshi</li><li>• Tikkanen et al.</li></ul>	<ul style="list-style-type: none"><li>• Zott/ Amit</li><li>• Al-Debei et al.</li><li>• Hurt</li></ul>	<ul style="list-style-type: none"><li>• Osterwalder/ Pigneur</li></ul>	<ul style="list-style-type: none"><li>• Baden-Fuller/ Morgan</li></ul>		
Strategy-oriented				<ul style="list-style-type: none"><li>• Hamel</li><li>• Wirtz</li><li>• Mahadevan</li><li>• Afuah/Tucci</li></ul>	<ul style="list-style-type: none"><li>• Hamel</li></ul>	<ul style="list-style-type: none"><li>• Betz</li><li>• Chesbrough/ Rosenbloom</li><li>• Magretta</li></ul>	<ul style="list-style-type: none"><li>• Winter</li><li>• Mansfield</li></ul>	<ul style="list-style-type: none"><li>• Afuah</li><li>• Lehman/ Ortega</li><li>• Schaefer</li><li>• Morris</li><li>• Schweizer</li></ul>	<ul style="list-style-type: none"><li>• Chesbrough</li><li>• Debelak</li><li>• Lai/Weill</li><li>• Merlo</li><li>• Richardson</li><li>• Zott/Amit</li></ul>	<ul style="list-style-type: none"><li>• Johnson et al.</li><li>• McPhillips/ Merlo</li><li>• Kind/ Nissen/ Sergard</li></ul>	<ul style="list-style-type: none"><li>• Casadesus-Masanell/ Ricart</li><li>• Smith/Binns/ Tushman</li><li>• Teece</li><li>• Casadesus-Masanell/ Ricart</li><li>• Demil/Lecocq</li></ul>	<ul style="list-style-type: none"><li>• Desyllas/Sako</li><li>• Keen/Williams</li></ul>	
	Early phase	Formation phase of first overall concepts					Differentiation phase						

Figure 1. Literature overview of the business model research field

subordinate role. While the allocation of business model articles to the three basic perspectives has been clear and easy up to the year 2000, it has become increasingly difficult to do the same with publications of the last few years. Considering the concepts used and referenced in each article, it is easy to recognize that the boundaries between basic theories become blurred. In articles of the recent past, the authors mostly refer to the fundamental works and aspects of all three basic perspectives (e.g., Afuah and Tucci, 2003; Amit and Zott, 2001; Chesbrough, 2006; Chesbrough and Rosenbloom, 2002; Johnson et al., 2008; Magretta, 2002; Tikkanen et al., 2005; Wirtz et al., 2010; Zott and Amit, 2010).

Accordingly, in recent years an increasingly uniform business model understanding seems to be developing. An aspect that also shows this development is the abstraction level of the business model view used. The focus of a business model in the literature ranges from a very detailed product level, the business level and the company level to the much aggregated industry level. Authors of very early technological orientation have a very detailed viewpoint in considering the business model to be a small part of a company. This profound point of view is no longer found among the authors of modern technological orientation (in the context of the new economy). In fact, these authors are much more abstract and see the business model increasingly as a representation of a company (Amit and Zott, 2001; Eriksson and Penker, 2000).

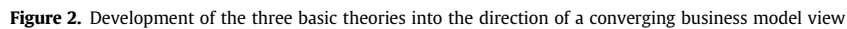
The authors of organization orientation also see the business model as a tool for the abstraction of an entire company. It is a different case, however, with the authors of strategy orientation. Here, and also in early works, the business model is seen as a strongly abstract tool to provide a picture of a company's competitive situation (Hamel, 2000).

Altogether, in initial developments there have been great differences in the various approaches regarding the level of consideration. Yet, meanwhile a broader company perspective has become the main focus. Here, a competitive as well as a company-internal view is included in a company's actual focus (Osterwalder and Pigneur, 2010).

There is also an increasing consensus among authors about the purpose of the business model concept and the role within already-existent business concepts (from strongly operational process management to future-oriented strategy). Especially with the increasing involvement of authors with a strategy-oriented view, the question soon arises about the difference between a business model and strategy. Although it has been found over time that both concepts intersect, they are not the same (Al-Debei et al., 2008a; Amit and Zott, 2001; Casadesus-Masanell and Ricart, 2010; Osterwalder, 2004; Rajala and Westerlund, 2005; Tikkanen et al., 2005). Casadesus-Masanell and Ricart (2010) emphasize: "In our formulation, strategy and business model, though related, are different concepts: a business model is the direct result of strategy but is not, itself, strategy."

Strategy involves a vision, the positioning to the environment or competitors—simply put, an idea of which direction it will go in the future (Andrews, 1971; Ansoff, 1965; Chandler, 1962; Porter, 1998). Fundamental decisions are made about medium and long-term objectives and activities of a company. At this point, the business model takes on concept and depicts the value creation logic of a company with a holistic description of company activities in an aggregated form (Osterwalder et al., 2005). The business model presents a means for the coherent implementation of a strategy (Dahan et al., 2010). Based on a business model, the operative implementation can take place in the course of an organizational design or business process model. The business model can thus be understood as a link between future planning (strategy), and the operative implementation (process management). Figure 2 shows the change or development of a converging business model view.

In summary, it can be stated that an increasingly converging view or a similar conceptual understanding in the literature has been established up to now. This can be exemplarily demonstrated with the aggregation levels used, as well as the classification of business models in the areas of processes and strategy. This converging business model understanding is not so evident in all areas. Due to the inconsistent use of the term business model in the literature, there is still no generally accepted definition of the concept. Some authors quote definitions from the early business model phase that do not reflect a



Please cite this article in press as: Wirtz, B.W., et al., Business Models: Origin, Development and Future Research Perspectives, Long Range Planning (2015), <http://dx.doi.org/10.1016/j.lrp.2015.04.001>

relevant activities and interactions. Eriksson and Penker (2000) understand business models, for example, as the possibility to present complex and multi-layered interrelations of a company in a clear and compressed manner. Treacy and Wiersema (1996) see business models in a similar fashion in which the priority however is attached to processes that focus more on the actions and interactions of various company parameters. Linder and Cantrell (2000) and Magretta (2002) have a similar understanding. Those authors emphasize that business models explain relevant activities of a company and, if possible, all relevant questions should be answered with regard to the financial success of the company.

When finally regarding the purpose of a business model's contents, there is in turn a heterogeneous picture within the definitions. Purpose or broader goals are usually only implied, and many definitions forego mentioning them at all. However, on the whole, it shows that besides promoting understanding throughout the company—as well as the core logics of providing service, also realizing the promise of service, satisfying consumer needs—the general success plus the continuing and new development of the business model can be identified as main purposes of a business model (Amit and Zott, 2001; Linder and Catrell, 2000; Magretta, 2002; Osterwalder et al., 2005; Rayport and Jaworski, 2000; Teece, 2010; Treacy and Wiersema, 1996).

In summary, it can be stated that a business model's definition focusing on structural aspects regarding its contents should clearly emphasize the component point of view, while not neglecting the notion of business frames of reference, the depiction of specific company processes and the architecture of the company. In terms of the task of a business model's contents—and in more detail what exactly a business model should fulfill or render—the definitions focus on the aggregated and simplified explanation of relevant company activities. Ultimately, according to the previous definitions, when regarding the purpose of a business model's contents, those should lead to keeping the promise of service, the satisfaction of needs, and profitability, which can be subsumed under the assurance of a long-term competitive advantage.

Additionally, after having referred to content-related aspects regarding structure, task and purpose of a business model, it is also important to add a dynamic view to the picture. To this effect, Voelpel et al. (2004) consider a business model's dynamic nature and initially make a clear distinction between business model change and what they call business model reinvention. In this regard, they state that “... new sources of sustainable competitive advantage can often only be attained from business model reinvention that is based on disruptive innovation and not on incremental change or continuous improvement.” While it arises from this citation that the authors advocate for a disruptive or radical business model reinvention or innovation, they offer a corresponding framework that includes the critical dimensions or levels of customers, technology, business infrastructure and profitability.

Furthermore, the dynamic enhancement in perspective stands to reason when, for example, referring to Demil and Lecocq (2010), who claim that a business model includes ongoing dynamics through “... interactions between and within the core model components”. Regarding those components, the authors state business model dynamics at the level of related resources and competences, the organization, and the value proposition as well as exemplify the involved relations by means of the case Arsenal FC. By including this practical example, it shows how a business model can also remain successful over a long time period through consistently revising the mentioned components. Moreover, the authors indicate structural revision in revenues or costs as antecedents to business model evolution and define the two main types of voluntary and emerging business model change—i.e., change based on deliberate decisions and change which is externally induced and thus outside of the manager's control.

While Casadesus-Masanell and Ricart (2010) take on the perception of dynamic interrelations between elements or components in business models through referring to the case of Ryanair, they further list globalization, deregulation and especially advancement in information and communication technology as drivers of business model innovation. Yet, not only do they consider relevant such technology-driven types of business model innovation, but also mention socially oriented enterprises that focus on the bottom of the pyramid segment as generating a notable kind of business model innovation (Casadesus-Masanell and Ricart, 2010).

Cavalcante et al. (2011) again go a step further by elaborating on the previously missing links between business model dynamics and innovation. In this regard, they first conceptualize business models from a process-oriented viewpoint and emphasize the important role of the involved actors' individual agency in the dynamics of a business model. Further, they differentiate between four types of business model change—namely business model creation, extension, revision and termination—and establish a direct connection between those types of business model change and the corresponding innovation degree (Cavalcante et al., 2011).

In a similar vein, van Putten and Schief (2012) regard business model dynamics in conjunction with business model innovation and change but additionally include the dynamics of a related business case—i.e., of a particular “... recommendation to decision makers to take a particular course of action for the organization, supported by an analysis of benefits, costs and risks ...”. In more detail, in the highly practical relevant context of mergers and acquisitions the authors illustrate the similarities, differences and change-related interrelations of business models and business cases. To this effect, they acknowledge potential business model change on nine levels, namely value proposition, target customer, distribution channel, relationship, value configuration, core competency, partner network, cost structure and revenue model.

Overall, while reviewing all existing articles about the dynamic aspect of business models in detail exceeds the scope of this article, taken the previously consulted literature together, the following can be noticed. Both an evolutionary business model change (e.g., Demil and Lecocq, 2010) and a more radical business model innovation (e.g., Voelpel et al., 2004) have their place in the literature about business model dynamics. Also, there is a discussion concerning the different relevant types



as well as the dimensions or levels for both approaches (e.g., [Casadesus-Masanell and Ricart, 2010](#), [Cavalcante et al., 2011](#), [van Putten and Schief, 2012](#)).

In this regard, against the background of the introduced definition analysis as well as the more recent but still notable developments in the literature about a dynamic perspective, we define a business model as follows:

A business model is a simplified and aggregated representation of the relevant activities of a company. It describes how marketable information, products and/or services are generated by means of a company's value-added component. In addition to the architecture of value creation, strategic as well as customer and market components are taken into consideration, in order to achieve the superordinate goal of generating, or rather, securing the competitive advantage. To fulfill this latter purpose, a current business model should always be critically regarded from a dynamic perspective, thus within the consciousness that there may be the need for business model evolution or business model innovation, due to internal or external changes over time.

### Components of Business Models

Within the previous section, the extent of definitions and perspectives regarding the term “business model” has been clarified. Thus, the contents of the concept have been roughly outlined. From this view, it becomes evident that a basic component-oriented view is present in many understandings of terminology. The contents of a business model are frequently expressed by subordinate components.

To develop a clear understanding of the business model concept, besides the clarification of its definition, the extraction of relevant components is therefore considered relevant in literature. In the following, the central approaches are shown within a literature analysis and the essential components of a business model are derived ([Flick, 2009](#)). Afterwards, these components are used to examine further need for research.

As already outlined, the historical creation of the concept shows that strategy has an essential influence on the development of a business model, and can be understood as a kind of guide. This is also reflected in the various approaches and/or components. [Hamel \(2000\)](#), for example, identifies the “Core Strategy” as a central component of a business model. Furthermore, there are references to strategy or the representation as independent interface components in the works of [Hedman and Kalling \(2002\)](#), [Afuah \(2004\)](#), [Yip \(2004\)](#), and [Tikkanen et al. \(2005\)](#). All of the authors show in this regard a similar understanding and consider the implications of corporate strategy through a strategy model within the business model, in which the mission or vision of a company specified by this strategy as well as possible strategic development paths are included.

In addition to strategy, material and immaterial resources are frequently seen as important components in the literature ([Afuah, 2004](#); [Demil and Lecocq, 2010](#); [Hedman and Kalling, 2002](#); [Osterwalder et al., 2005](#); [Osterwalder and Pigneur, 2010](#)). In this regard, company-internal as well as external resources and competencies/capabilities are considered. Thus, in the resource model the core competencies needed for a company and the core assets of the business model are specified. It represents a summary of all the important tangible and intangible input factors of the business model ([Currie, 2004](#); [Petrovic et al., 2001](#)).

Moreover, a network-oriented view can be identified in literature. Networks and partnerships can have a great influence on the value creation of a company and must therefore be taken into consideration as part of a business model ([Al-Debei et al., 2008a](#); [Hamel, 2000](#); [Voelpel et al., 2004](#)). The network model thus includes the various, mostly external interactions of a business model. In this context, it represents a management tool to check and control the value distribution with a joint value creation ([Barney, 2004](#); [Wu and Zhang, 2009](#)).

In addition, the special importance of customers is frequently referred to in the literature. Half of the viewed approaches take into consideration the role of the customer or also the design of customer interface explicitly ([Bouwman, 2003](#); [Hamel, 2000](#); [Hedman and Kalling, 2002](#); [Mahadevan, 2004](#); [Yip, 2004](#)). On the whole, the customer model portrays all relevant offers—i.e., products and services for specific customer segments of the business model, whereupon here a classical offer in one's own channel, or a co-creation of various offers via different channels, can be assumed ([Magretta, 2002](#); [Prahalad and Ramaswamy, 2004](#)).

Another component often referred to in the literature is the market offering model. Included here can be the frequently mentioned value proposition, hence the benefit/value a customer receives through the business model ([Demil and Lecocq, 2010](#); [Johnson, 2010](#); [Lehmann-Ortega and Schoettl, 2005](#); [Mahadevan, 2004](#)). In addition to the central aspect of the promise of benefit, some authors point out that the focus on one's own company is not sufficient, and competitors also have to be taken into account in this context ([Afuah, 2004](#); [Hedman and Kalling, 2002](#)). Thus, the market offering model also focuses on the competitors and the entire market structure, to which the offer is transferred ([Kallio et al., 2006](#)).

Next to the market offering model, the revenue model also represents a central and frequently mentioned component ([Osterwalder et al., 2005](#); [Osterwalder and Pigneur, 2010](#)). Today, many forms of revenue generation are possible, thus the spectrum ranges from transaction-dependent and independent direct revenue, to indirect forms of revenue. Depending on the remaining components of the business model, the revenue structure and revenue streams have to be designed so as to maximize revenues. It is determined within the revenue model from which revenue streams the entire business model is supported ([Kaplan and Norton, 2004](#)).

The frequent use of terms for service provision is also reflected in the components. In this context, “activities”, “implementation and configuration of value creation activities” and “processes” are frequently spoken of ([Afuah, 2004](#); [Johnson,](#)

2010). The model for service provision depicts accordingly the value creation of the business model. It defines central parameters, and depicts in summary how goods of lower order are converted to goods of higher order by internal company processes.

The aspect of procurement is reflected only three times in the business model components of the examined approaches. In this regard, an input-based understanding of procurement is found in the literature (Hedman and Kalling, 2002; Yip, 2004). Modern procurement management is especially characterized by the change of globalization, decreasing production cycles as well as the change from producer to buyer markets. The consideration of procurement in a business model is therefore mandatory, since neglecting this aspect can have far-reaching consequences for other components. It is clarified in the procurement model which input factors are relevant for the service provision model and how these can be procured cost-effectively.

Finally, the financial model can be identified as part of the literature analysis as the last component of a business model (Afuah, 2004; Demil and Lecocq, 2010; Osterwalder et al., 2005). The financial model assumes the function of control and financial planning. This happens firstly through detailed financial planning, to guarantee a frictionless flow of capital, and secondly through the analysis of the cost structure.

Figure 3 summarizes the previously presented analysis of relevant business model components (cf. Afuah, 2004; Al-Debei et al., 2008b; Bouwman, 2003; Demil and Lecocq, 2010; Hamel, 2000; Hedman and Kalling, 2002; Johnson, 2010; Lehmann-Ortega and Schoettl, 2005; Mahadevan, 2000, 2004; Osterwalder et al., 2005; Osterwalder and Pigneur, 2010; Tikkanen et al., 2005; Voelpel et al., 2004; Wirtz, 2000; Yip, 2004).

The analysis of the business model components of various approaches within the literature shows a rather heterogeneous understanding. Especially with regard to the degree of abstraction, there are in part some great differences. While some authors such as Hamel (2000), Bouwman (2003), Voelpel et al. (2004), and Lehmann-Ortega and Schoettl (2005) take only a few components into consideration and therefore greatly focus their understanding on a minimum of aspects, other authors such as Wirtz (2000), Hedman and Kalling (2002), Yip (2004), Osterwalder et al. (2005), and Osterwalder and Pigneur (2010) clearly demonstrate a more comprehensive point of view. The authors with a comprehensive and broad point of view are however in the minority, and make up only about 30 % of the examined approaches.

The most agreement among the authors regarding the components is found with market offerings and resources. There seems to be a strong consensus about the importance of those components. There is little or no agreement with regards to the areas of strategy, revenue and procurement. With strategy, the explanation can be that some authors usually integrate the implications of corporate strategy in their business model approach. Regarding revenue and procurement, the infrequent consideration of the authors is rather surprising. On the one hand, this is the case because the creation of revenue is an important determinant in corporate positioning. On the other hand, the procurement aspect should also be taken into account as part of the input-output view when providing service.

In light of the previous concept and definition analysis, it makes sense to follow an integrated and comprehensive approach regarding the completeness of business model components. The business model represents a conceptual framework, to organize the value creation of a company and to guarantee profitability. As noted above, internal as well as external factors must be considered to present a holistic picture. In addition to general implications of corporate strategy, customers and the market (external factors) on the one hand, and the conditions of service provision/value creation (internal factors) on the other hand, must be taken into account.

These considerations result in a business model consisting of strategic, customer & market as well as value creation components. The strategic components are divided into the strategy model, the resource model and the network model. Customer and market components can in turn be differentiated into the partial-models customer model, market model and revenue model. Finally, the manufacturing model, the procurement model and the financial model are subsumed among the value creation components. Figure 4 shows the outlined business model with components (Wirtz, 2011). Here, we would like to add that we only present the “Strategic components” separately from the “Customer & market components” and “Value creation components” for reasons of an abstract presentation. We agree, of course, that in practice such a strict separation is not always feasible. Therefore, the single components and partial models in Figure 4 should be understood as interrelated. Especially the “Strategic components” can be seen as providing a linkage between the “Customer & market components” and the “Value creation components”.

By presenting the development history, the development of an overall research definition and the explication of the components, clarity has been created in the previous sections about a fundamental understanding with regard to the business model concept. In light of this understanding, the following section shows the current research landscape and state of knowledge in the various areas of business model research. In this regard, an overview of the research is accomplished with a quantitative and qualitative database analysis.

### State of Research: Quantitative and Qualitative Database Analysis

While the term “business model” had hardly been used before 2000, the Dot-com boom has caused it to become highly relevant and widespread in practice. Moreover, in scientific research the concept receives continuously increasing attention. In order to reflect on this development, a literature investigation was carried out making use of the meta-science database, EBSCO (“Business Source Complete”, as well as “Academic Search Complete”). As the term “business model” has often been used non-specifically in various contexts, the research initially considers only those articles by authors who have used the

Component Author	Strategy	Resources	Network	Customers	Market offering (value proposition)	Revenues	Service provision	Procure- ment	Finances	Spectrum of the Components
Hamel (2000)	Core Strategy, Strategic Resources		Value Network	Customer Interface						
Mahadevan (2000)			Logistic Stream		Value Stream	Revenue Stream				
Wirtz (2000)	Combination of production factors for strategy implementation	Core competencies & Core assets		Market & customer segmentation	Service offer & Value proposition	Systematization of revenue forms	Combination & transformation of goods & services	Production factors & Suppliers	Financing & Refinancing	
Hedman/Kalling (2002)	Managerial and organizational, longitudinal process component	Resources		Customers	Competitors, Offering		Activities & Organization	Factor & Production Input Suppliers		
Bouwman (2003)		Technical architecture		Customer Value of Service					Financial arrangements	
Atuah (2004)	Positions	Resources			Industry Factors		Activities		Costs	
Mahadevan (2004)				Target Customers	Value Proposition	Revenue Model	Value Delivery			
Voelpel/Leibold/ Tekie (2004)		Leadership capabilities	Value Network (Re)Configuration for the Value Creation		Customer Value Proposition					
Yip (2004)	Scope, Differentiation	Organization		Nature of Customers, Channels	Value Proposition, Nature of Outputs		How to transform inputs (including technology?)	Nature of inputs		
Lehmann- Ortega/Schoettl (2005)					Value Proposition, Value Architecture	Revenue Model				
Osterwalder/ Pigneur/Tucci (2005)		Core Competency	Partner Network	Target Customer, Distribution Channel, Relationship	Value Proposition	Revenue Model	Value Configuration		Cost Structure	
Tikkanen et al. (2005)	Strategy & Structure		Network				Operations		Finance & Accounting	
Al-Debel/EI- Haddaden/Avison (2009a)			Value Network		Value Proposition, Value Architecture				Value Finance	
Demili/Lecocq (2010)		Resources & Competences, Organization			Value Proposition	Volume & Structure of Revenue Streams			Volume & Structure of Revenue costs	
Johnson (2010)		Key Resources			Customer Value Proposition	Profit Formula	Key Processes			
Osterwalder/ Pigneur (2010)		Key Resources	Key Partners	Customer Relationships, Channels, Customers Segments	Value Proposition	Revenue Streams	Key Activities		Cost Structure	
Intensity of use										

○ Very low ○ Low ○ Moderate ○ High ● Very high

Figure 3. Overview of selected business model components



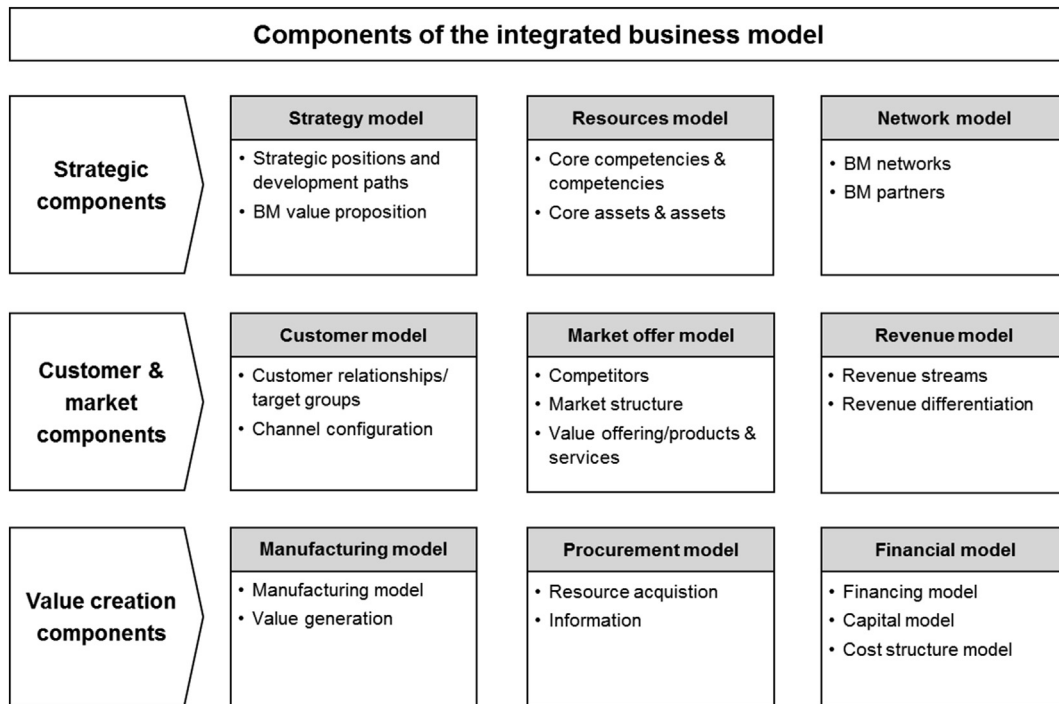


Figure 4. Components and partial models of an integrated business model

term either in their abstract or the title. Thus, it can be reasonably assumed that the business model concept plays a leading role in the respective articles.

For the period between 1965 and 2013, a total of 16,950 articles are identified with the help of the database analysis. In the 1990s, the term had seldom been used, but, since 2000, a sharp increase has been evident. From this point in time, there is also a steady increase in the number of publications. Based on the selection criteria provided by EBSCO, the publications can be differentiated by peer-reviewed and non-peer-reviewed. Of the initial 16,950 identified articles, 2,823 are published in peer-reviewed journals. By virtue of the peer review process' assured quality, these 2,823 articles are used as a basis for further analysis. Figure 5 presents the frequency of use regarding the term "business model" over time.

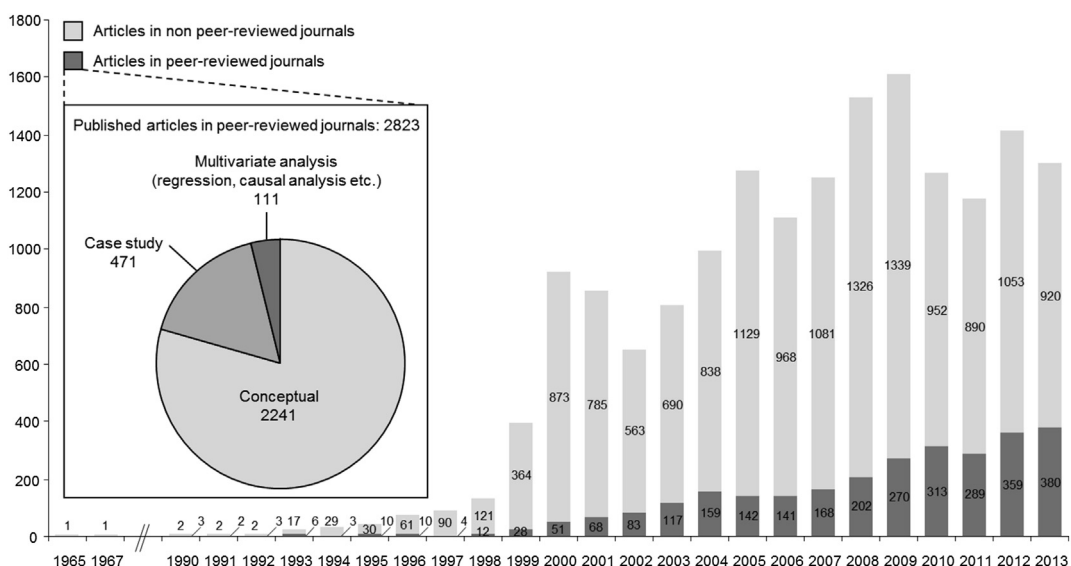


Figure 5. Frequency of use of the term 'business model' in title or abstract (Ebsco database analysis)

In addition to the quantitative development of the research papers, a differentiated, research field-oriented qualitative analysis is also of interest. Here, initially the framework of [Wirtz \(2011\)](#) is used as a heuristic reference for investigating the existing business model literature. Principally, the concept (definitions & scope), structure (forms & components, value system, actors & interaction, innovation) and management process (design, implementation, operation, change & evolution, performance & controlling) of business models can be observed ([Wirtz, 2011](#)). Accordingly, in the course of the qualitative literature review, we allocate the reviewed articles to these research area categories also underpinned by further references in the following.

Regarding “Definitions & scope” of the business model concept, on the one hand, it is to be fundamentally defined, and, on the other hand, differentiated from existing concepts. This procedure, as well as the formation of an according research area category, stands to reason, since usually for every emerging research field there are authors who engage in defining the relevant concepts as well as differentiating them from present ones. In this regard, for the business model field see, for example, [Hedman and Kalling \(2002\)](#), [Stewart and Zhao \(2004\)](#), [Casadesus-Masanell and Ricart \(2010\)](#), [Zott et al. \(2011\)](#), and [Baden-Fuller and Haefliger \(2013\)](#).

Further, within the category “Forms & components”, various characteristics of business models are presented and categorized. This research area has a comparably long tradition in the business model literature, and relates to the prevailing component-oriented view of business models. This view deals with the decomposition of the business model concept into partial models and components, as well as the categorization of concrete business model parameters. Just to mention one of many examples for the category’s relevance at this point, regarding the more recent field of e-business, [Hedman and Kalling \(2002\)](#) state: “Components of the business model could be found in the emerging e-business research, an area where the concept of business models has been used more extensively.” Further perspectives about business model components are included in, for example, [Hedman and Kalling \(2003\)](#), [Patel and Giaglis \(2004\)](#), [Osterwalder et al. \(2005\)](#), [Shin and Park \(2009\)](#), and [Demil and Lecocq \(2010\)](#). Thus, the eligibility for the research area “Forms & components” should be given.

The value system area about business models is concerned with the general structure of value creation and a useful topology of the value creation partner. Referring to this, a more recent article of [Keen and Williams \(2013\)](#), for example, emphasizes the significance of value architectures regarding digital business models. Yet, when also thinking of business models in general, current articles even discuss “... the idea behind a ‘model’ of value creation” ([Arend, 2013](#)) as an alternative business model understanding. Accordingly, since those aspects have also found their place as important points of discussion in the business model literature, we form the according research area “Value system” in our categorization. Further related references include [Chesbrough and Rosenbloom \(2002\)](#), [Wigand and Tan \(2005\)](#), [McNamara et al. \(2013\)](#), and [Benson-Rea et al. \(2013\)](#), for instance.

“Actors & interactions” as a further research area considered by us covers another important part of the existing business model literature. For example, [Palo and Tähtinen \(2013\)](#) elaborate on the networked business model in terms of “... the interface of interactions between actors” ([Storbacka and Nenonen, 2011](#)) of organizations. To give only one of many further examples, [Frankenberger et al. \(2013\)](#) again discuss the concept of open business models and the effect of the according configuration of partner networks on performance. In their perception of open business models, “... multiple actors co-create value for the same customer ([Storbacka et al., 2012](#))”. Overall, the kind of inclusion of the earlier-mentioned value-creation partners or, rather, the corresponding interaction within the business model is investigated in the area of actors & interactions. Similar literature relating to this research area involves, for example, [Koo et al. \(2004\)](#), [Hunter \(2006\)](#), [Ng et al. \(2013\)](#) and [Seshadri \(2013\)](#).

In addition, given its particular significance, the area “Innovation” is to be offered in a comprehensive literature review about business models. Initially, business model innovation is seen as an independent self-contained concept in the literature. In this regard, [Johnson et al. \(2008\)](#) understand business model innovation as the complete reinvention of the current business model, which is “... new or game-changing to your industry or market”. In this conceptualization of business model innovation, reinventing the business model can be equalized with the development or creation of entirely new business models ([Voelpel et al., 2004](#)) as opposed to only revising particular parts in the course of time. Thus, on the one hand, these newly created business models can be connected to developing entirely new companies, or even industries, due to the emergence of a new technology. On the other hand, it can also relate to already existing organizations, which completely reinvent themselves and their business models ([Voelpel et al., 2004](#)). Concerning the latter case, “... business-model innovation occurs when a firm adopts a novel approach to commercializing its underlying assets” ([Gambardella and McGahan, 2010](#)). Overall, business model innovation includes a more comprehensive approach and more revolutionary implications than the long-term evolutionary change of business models. To conclude, [Voelpel et al. \(2004\)](#) confirm this delimitation as follows: “In today’s rapidly changing business landscape, new sources of sustainable competitive advantage can often only be attained from business model reinvention that is based on disruptive innovation and not on incremental change or continuous improvement.” For further references regarding business model innovation, see also, for example, [Fiet and Patel \(2008\)](#), [Chesbrough \(2010\)](#), [Sorescu et al. \(2011\)](#), [Casadesus-Masanell and Zhu \(2013\)](#), [Desyllas and Sako \(2013\)](#).

Within the scope of business model design it is generally investigated how business models can be represented—for example, through ontologies—or how they are principally created. In this regard, business model design is again a self-contained concept that has been largely discussed in the literature—e.g., [Weiss and Amyot \(2005\)](#), [Keen and Qureshi \(2006\)](#), [Zott and Amit \(2007\)](#), [Pigneur and Werthner \(2009\)](#), [Zott and Amit \(2010\)](#). Also, with specific regard to the redesign of business models [Zott and Amit \(2007\)](#), for example, elaborate on the modification or stability of business model designs over time. Thus, the research area “Design” represents a further category for our literature review.

Continuing then with the research areas “Implementation” and “Operation”—even though both categories have been investigated with a comparably low frequency so far—they still experience a separate treatment in the business model

literature. Regarding the implementation of business models, the arrangement of the respective processes is observed in detail in the business model literature. In this regard, [Hienerth et al. \(2011\)](#), for example, explore the specific implementation process connected with user-centric business models. Here, the focus is on how to incorporate users and their creativity into core business processes when facing challenges like “organizational inertia” ([Hienerth et al., 2011](#)) and the internal resistance of employees. For further reference about business model implementation, see [Kshetri \(2007\)](#), [Moingeon and Lehmann-Ortega \(2010\)](#), [Hacklin-Wallnöfer \(2012\)](#), and [Barquet et al. \(2013\)](#).

Concerning the arrangement of the operation process within the available parameters of a business model, using stock exchange as an example [Serifsoy \(2007\)](#) again shows how the operative success of business models can differ based on the diversification or integration of operations—i.e., the extension or consolidation of business activities and services. Further examples dealing with operations of business models may be found, for instance, in [Cebrowski and Raymond \(2005\)](#), [Delaere and Ballon \(2007\)](#), and [Stacey \(2011\)](#).

Moreover, the category “Change & evolution” deals with the chronological change of business models. In this research area, the respective authors try to identify fundamental determinants of an evolutionary adjustment of business models across time. The according perception also considers that business model change or evolution is long-term oriented and of partial character. Thus, it includes the modification of a business model, or only certain parts, elements or components via continuous interactions of the respective firms’ key actors over a sustained period. In this way, a persistent solving of occurring problems among those actors can lead to changes of particular routines, structures, practices and finally the underlying business model over time. From this point of view, the terms change and evolution with regard to business models are often used interchangeably in the literature or at least compared and associated with each other. Just to give one example, the above-mentioned inter-firm knowledge transfer within the continuous change of business models has also been compared to the knowledge evolution cycle and knowledge evolution theory ([Mason and Leek, 2008](#)). Further perspectives about a long-term oriented “Change & evolution” of business models are included in, for example, [Enders and Jelassi \(2000\)](#), [Bonaccorsi et al. \(2006\)](#), [Pauwels and Weiss \(2008\)](#), [Wirtz et al. \(2010\)](#), and [Aspara et al. \(2013\)](#).

The final research issue is represented through the category “Performance & controlling”, in which methods for testing the feasibility, capacity and profitability of business models are to be developed. This research area has likewise strongly developed in the business model literature, specifically with regard to empirical and also multivariate work. Just to mention a few examples [Zott and Amit \(2008\)](#) develop a “... formal model in order to analyze the contingent effects of product market strategy and business model choices on firm performance”. [Clark \(2013\)](#)—again by means of private equity business models—illustrates how the latter “... promotes tighter financial control in firms that is predicated on generating improved investment returns ...”. These examples show how the connection between business models, the performance of the corresponding firms as well as their consistent financial controlling find notable consideration in the existing literature. Further related references include, for example, [Patzelt et al. 2008](#), [Froud et al. 2009](#), [Susarla et al. \(2009\)](#), [Kind et al. \(2009\)](#), and [Lazonick and Tulum \(2011\)](#). While, therefore, “Performance & controlling” constitutes the last research area in our literature overview, [Figure 6](#) once again summarizes the different research areas concerned with business models.

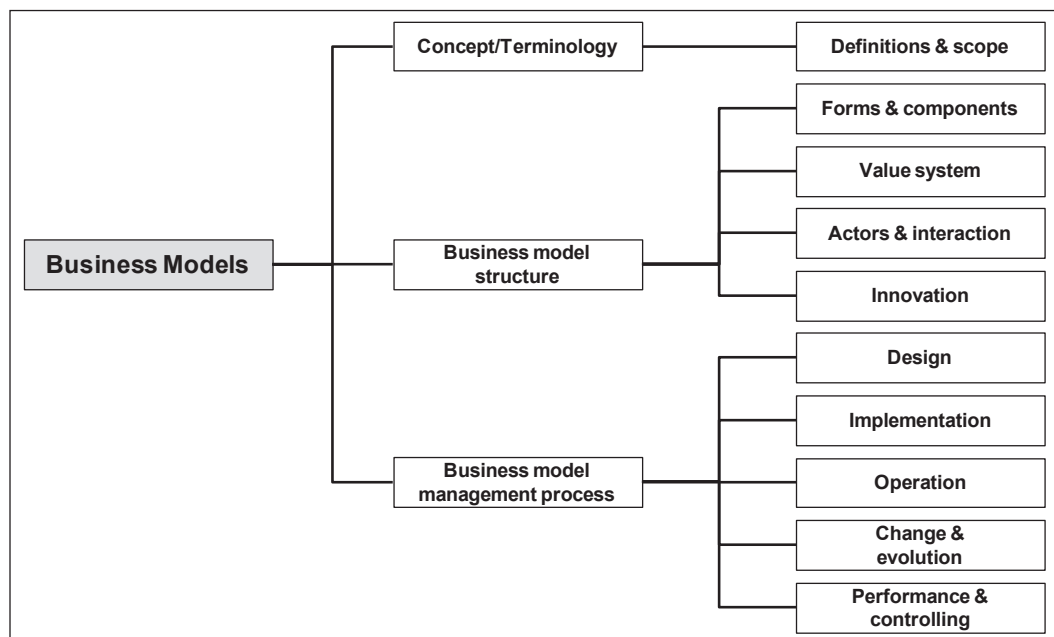


Figure 6. Important areas of research on business models

Regarding these research areas, a qualitative evaluation has been carried out in order to expand the formerly introduced quantitative analysis. In doing so, to guarantee an even stronger reference to the business model concept, the focus has been narrowed down to only those articles that include the term “business model” in their title. On this basis, 681 articles can be identified which strongly deal with the concept as such and/or the research area.

These articles have been manually assigned to the individual research areas, in order to provide a differentiated overview of the state of research. Due to the high number of articles a matrix approach has been used, in which the concept is paramount, and not the respective author: “An effective and quality literature review is one that is based upon a concept-centric approach rather than chronological or author-centric approach” (Levy and Ellis, 2006; Webster and Watson, 2002). In more detail, by means of a careful content analysis, in this approach the individual papers are assigned within the scope of a concept matrix, according to the individual research areas and different research methods (Klopper et al., 2007). The latter include the categories of conceptual articles, articles with case studies or basic empirical methods like interviews, surveys and descriptive statistics as well as articles with multivariate analyses (e.g., multiple regressions, causal analyses or structural equation modeling). The stages of development of the various research areas are then evaluated (Levy and Ellis, 2006).

In the course of this qualitative literature analysis, four essential foci with special research intensity have been identified out of the 681 articles: innovation (26%), change & evolution (18%), performance & controlling (16%) as well as design (10%) (see Figure 7).

This distribution initially makes sense when thinking about how important it is nowadays for companies to understand how to become and remain innovative and thus successful with their business models against the background of globalization trends and the accordingly growing competitiveness in the marketplace. Related to this finding is also the significance of the research area change & evolution when considering how business models of various industries have especially changed or been adapted in the context of new information and communication technologies over time. Also, the research interest in performance & controlling of business models stands to reason since developing methods for testing the feasibility, profitability, and moreover sustainability of business models seems essential in times of companies' increasingly challenging quest for competitive advantage, as well as ongoing discussions about companies' impact on and responsibility for society, environment, and multiple stakeholders. Finally, the design of business models as again closely connected to their innovation seems to be scientifically investigated a lot, because a thorough arrangement of the design process as well as well-structured

Res. Method Res. Area	Key content	Research status conceptual	Research status case study/ empirical	Research status multivariate/ empirical	Total
<b>Definitions &amp; scope</b>	<ul style="list-style-type: none"> <li>Basic definition of the concept</li> <li>Differentiation from existing concepts</li> </ul>	27 (100%)	-	-	<b>27 (4%)</b>
<b>Forms &amp; components</b>	<ul style="list-style-type: none"> <li>Decomposition of the business model concept regarding partial models</li> <li>Categorization of concrete parameters</li> </ul>	25 (45%)	31 (55%)	-	<b>56 (8%)</b>
<b>Value system</b>	<ul style="list-style-type: none"> <li>Structure of value creation</li> <li>Topology of value chain partners</li> </ul>	22 (47%)	22 (47%)	3 (6%)	<b>47 (7%)</b>
<b>Actors &amp; interactions</b>	<ul style="list-style-type: none"> <li>Analysis of the interactions and relationships of the different business model actors</li> </ul>	14 (37%)	20 (53%)	4 (10%)	<b>38 (5%)</b>
<b>Innovation</b>	<ul style="list-style-type: none"> <li>Entrepreneurship, socio-economic implications of business model innovations</li> </ul>	87 (49%)	84 (48%)	5 (3%)	<b>176 (26%)</b>
<b>Design</b>	<ul style="list-style-type: none"> <li>Arrangement of the design process</li> <li>Graphical visualizations (ontologies)</li> </ul>	38 (54%)	29 (41%)	4 (5%)	<b>71 (10%)</b>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>Arrangement of the implementation process</li> </ul>	7 (37%)	12 (63%)	-	<b>19 (3%)</b>
<b>Operation</b>	<ul style="list-style-type: none"> <li>Arrangement of the operational process</li> </ul>	7 (39%)	11 (61%)	-	<b>18 (3%)</b>
<b>Change &amp; evolution</b>	<ul style="list-style-type: none"> <li>Change of business models over time (evolution)</li> <li>Factors to adapt a business model</li> </ul>	59 (49%)	56 (47%)	5 (4%)	<b>120 (18%)</b>
<b>Performance &amp; controlling</b>	<ul style="list-style-type: none"> <li>Development of methods for testing the feasibility, sustainability and profitability</li> </ul>	29 (27%)	65 (59%)	15 (14%)	<b>109 (16%)</b>
<b>Total</b>		<b>315 (46%)</b>	<b>330 (49%)</b>	<b>36 (5%)</b>	<b>681</b>

Figure 7. Allocation of the analysed articles or the business model state of research

graphical visualizations, ontologies and their communication within the company are essential for a well-rounded decision-making.

Overall, the above-presented state of research has of course to be seen as valid only for the present point in time. In the past—starting with the already mentioned sharp increase in publications in 2000 (see Figure 5)—initially, articles about the research areas definitions & scope as well as forms & components have been predominant. Only in more recent years the publications about the four above-presented research areas have significantly increased, together with the total number of articles about business models in peer-reviewed academic journals.

While in comparison the remaining research areas have been less strongly occupied up to now, even for those areas where the research is the most advanced it can be stated that many questions have not yet been investigated. Thus, business model research is still at an early stage. Further, considering the research area as a whole with respect to the applied methodologies, the distribution between conceptual papers (46%) and case study based research or other basic empirical work (49%) is almost balanced, while in the case of multivariate analyses (5%), there is a clear deficit—or rather, potential for research (Figure 7).

This can again be explained through the fact that the scientific investigation of business models represents a relatively new research field (see Figure 5), and that accordingly—as common for young research fields with a low degree of so-far generated knowledge—an initially theoretical or conceptual approach is taken. This is followed, for instance, by a more explorative empirical research design applying case studies or interviews. Only if in this way a sufficient knowledge base for the respective research field is settled, more complex, confirmatory empirical work, including multivariate analyses, can follow to further investigate and test the so-far derived knowledge appropriately.

When regarding in more detail the individual research areas about business models, it can initially be stated that the area of definitions & scope features only conceptual research (27 articles). This is understandable, since basically defining the business model concept as well as differentiating it from other concepts lends itself to conceptual work rather than to confirmatory studies. While the same applies to forms & components, here also a solid basis of 25 conceptual articles exists. Thirty-one articles apply case studies or other basic empirical methods, thereby respectively representing 45% and 55% of the particular research area in which multivariate analyses are completely lacking.

The status of the research area value system is balanced with twenty-two articles (47%) for both conceptual as well as case study based research respectively while here for the first time also three multivariate studies (6%) exist. Furthermore, research progress about actors & interactions is moderate, with fourteen conceptual articles (37%), twenty articles including case studies and the like (53%), as well as four multivariate studies (10%).

Innovation and design are two closely related research areas that show a better status quo in research, whereby business model innovation again is investigated much more frequently and in greater depth. In more detail, while the distribution of research about innovation is almost balanced between 87 conceptual articles (49%), and 84 case studies or similar articles (48%), here also only five studies (3%) apply multivariate methods. In the case of design—while including fewer articles than innovation in total—the research distribution is similar with 38 conceptual articles (54%), 29 case studies, etc. (41%), and four multivariate analyses (5%).

In contrast to these observations stand the areas of implementation and operation, which are seldom or superficially, but never comprehensively considered. While both areas entirely lack multivariate studies, the distribution between conceptual articles and case studies, etc., is similar. In the case of implementation seven articles use a conceptual approach (37%) and twelve articles apply case studies (63%), while regarding operation seven articles work conceptually (39%) and eleven articles include case studies, etc. (61%).

With regard to the area of change & evolution, it can be stated that, here, there is an approximately high status quo in research as with innovation. In addition to a notable amount of 59 conceptual papers (49%), the modification of a business model is also often analyzed in 56 case studies, etc. (47%). However, again only five multivariate analyses (4%) are existent. Finally, 29 conceptual papers (27%), and 65 case studies, etc. (59%), can be assigned to the area of performance & controlling, while here also the biggest progress of all research areas regarding multivariate research is made with fifteen relevant articles (14%). However, there are also still many open questions in this area. Hence, an underdeveloped research level must be stated.

### Future Research: Expert Survey

Since the current state of research still finds itself in an early stage, the question now arises about what are the most important future research priorities. Therefore, a survey is conducted among scientists to determine the future need of research. A selection of scientists who are involved with business models or do research in this area have been contacted directly by letter or e-mail. To identify and address suitable experts, the results of the literature analysis as well as the international platform “businessmodelcommunity.com” have been used. The invitation to participate in the survey has been accepted by twenty-one international scientists renowned in the area of business models, who have been interviewed semi-structured. The number and composition of participants corresponds to the requirements of the exploratory research design for qualitative research (McCracken, 1988).

The questionnaire contains four sections. In the first section, open questions on business models and the most important research areas and efforts are asked. In the second section, a five-point scale (1 = very unimportant to 5 = very important) is used in order to evaluate the respective research areas extracted in the literature appraisal as well as assess the relevance of the different components from the integrated business model. In this context, a question concerning the relevance is included for all nine components. In terms of the research areas, the criteria are expanded to include a procedural view. In this way, the



research areas of design, implementation, operation, change and evolution, innovation as well as performance & controlling, are included, too.

Finally, the experts have been questioned on methodological aspects to clarify whether more empirical or conceptual papers are necessary and which research methodology is to be favored. Thus, in two questions an assessment has been ascertained of whether more exploratory or confirmatory approaches are required or whether the papers must be more theoretical or empirical. The scale for research methodology again follows the five-point scale (1 = very unimportant to 5 = very important). Mean values and standard deviation are applied for the analysis of the results from the closed blocks of questions, in order to construct a ranking of the individual research areas. Coding is used for the open questions to allow clear identification of recurring aspects (Flint et al., 2002).

As a whole the expert survey shows that, in accordance with the synoptic inventory, the interactions within business models in particular require more research. For this there is a mean value of 4.05 from those questioned. This is closely followed by the area of forms & components, which are in second place with a mean value of 3.94 (see Table 1). To a great extent, this can be explained in that the variety of different components and partial models exhibit a high degree of complexity of the subject area, which needs to be reduced in future research efforts. This has been summarized by one of the experts as follows: “We need scientifically rigorous modeling (nested hierarchy and business model's elements and their interrelationships) of different business models [ ... ]”.

In third place with regard to research efforts are the definitions of business models. The investigation has resulted in a mean value of 3.69 for definitions. In terms of the answers to the open questions in this context, the terminological aspects of business model research are given particular emphasis: “Overall, it is necessary to achieve a standardization of terminology, a consolidation of morphology (dimensions and attributes) into a commonly accepted model.”

The procedural view of the development and management has earned increasing importance (Pateli and Giaglis, 2004). Here, the process areas of design, implementation, operation, change & evolution, innovation as well as performance & controlling have been surveyed. Table 2 provides an overview of the denotation of the individual subject areas for business model research.

As a whole, the results show that the scientists questioned deem change & evolution as well as the innovation of business models particularly relevant. This is further supported by the fact that one in two of the participants identify either change & evolution or innovation as an important issue in the open questions part on future research needs of business model research. With a mean value of 4.02, the design of business models has great significance for future research. In response to the open question of which area of business model research should be more significantly applied to management practice, one expert states: “Communication of design choices is mandatory! For example, checklists to see if all is addressed as a means to enforce one to explicitly make choices [ ... ]”.

Moreover, it appears that implementation as well as performance & controlling of business models have obtained similar mean values, however, on the whole, implementation is more consistently highlighted as a more important research area by the respondents. With regard to implementation, one expert comments: “During implementation contextual differences between different business models need to be acknowledged. Today, we're incapable to explain why certain models will function in particular environments and the others are not.”

If the results are compared with the ranking in Table 1, it is clear that the operative, procedural business model areas are awarded greater significance for future research by the experts. Thus, first implications can be drawn, that research areas focusing strongly on application-oriented research are preferred.

These results again also largely comply with the findings of our quantitative and qualitative database analysis in which the procedural business model areas innovation, change & evolution, design, and performance & controlling especially show the highest frequencies of publications until 2013, but still display a high future-research potential, particularly concerning multivariate analyses.

Also, the fact that the experts have only ranked performance & controlling on place 5 for future important research areas is represented through our database analysis, since for this area also the most multivariate studies have already been conducted up to now. Additionally, the experts' call for future research about the implementation and operation of business models can also be validated and emphasized when regarding the results of our analysis, and the fact that these two research areas show by far the lowest number of publications so far, while entirely lacking confirmatory studies with multivariate analyses.

Furthermore, regarding the experts' assessment of the remaining research areas like actors & interactions, as well as forms & components of business models, the highly ranked need for future research is further confirmed by our database analysis and the circumstance that in both areas the research progress is only moderate in general and no or merely a few multivariate studies exist. While the same goes for the area of business models' value systems, regarding the field of definitions & scope, the experts point to a need for further conceptual clarification. This is also comprehensible when considering that, despite a

**Table 1**  
Relevance of research in individual business model research fields

Rank	Research area	Mean value	Standard deviation
1	Interactions	4,05	0,78
2	Components	3,94	0,97
3	Definition	3,69	1,24

**Table 2**  
Relevance of research on individual elements of the business model process

Rank	Research area	Mean value	Standard deviation
1	Change & evolution	4,68	0,58
2	Innovation	4,21	0,92
3	Design	4,02	1,08
4	Implementation	3,73	0,87
5	Controlling	3,71	1,04
6	Operation	3,26	1,10

knowledge base of conceptual articles, according to our database analysis there is still quite a heterogeneous, albeit recently converging, understanding of the term business model in theory and practice.

Overall, the above-introduced recurring trends, about the need for more complex, multivariate studies in almost every investigated research area, are supported by the fact that more than 62% of the questioned experts consider empirical research as necessary in order to achieve a major advance in the business model field of research. Only 14% indicate that theoretical papers on business models would help to anchor the approach in the scientific context, while 24% placed equal relevance on empirical and theoretical research approaches. The question of explorative vs. confirmatory research methodology sketches a very homogeneous picture, in which experts consider both approaches to be of roughly equal importance. However, the expert assessment is more heterogeneous in terms of the application of different research methodologies. The results are presented in Table 3.

While, admittedly, here the theoretical deduction leads the list of methodology, a focus on large quantitative surveys has received only marginally less emphasis. Case studies have been left in only third place. The research field of intensive, longitudinal-oriented interviews and smaller empirical surveys are identified by the experts as being less useful in the field of business model research for achieving an advance in current knowledge. Finally, the scientists have been asked about their estimation of the research efforts with regard to components and partial models. Table 4 summarizes the results.

If considering the results with respect to the individual components, it appears that the network model has the highest value as a strategic component. Here, the network model (4.53), strategy model (4.35) and resources model (4.18) are particularly important areas of research. The low standard deviation of the determined values further indicates there is a high degree of homogeneity with regard to the significance of strategic components among those questioned. Following in second place, on the basis of the expert survey, is the customer/market component with the partial models customer model (4.41) and revenue model (4.30). Finally, the scientists classify the value creation component as being less relevant to research. In particular, the actual manufacturing model (4.00); thus, the value creation process and the source of financial resources (3.53) seem to play only a subordinate role in business model research in the estimation of the participants.

## Conclusion and Implications

The initial point of this paper is the high relevance of business models in management practice, and a steadily increasing focus on the scientific subject area in recent years. Despite the numerous research efforts within the context of business models, it is evident that many problems have not yet been solved. Consequently, in many areas there is limited research advance, whereby the variety of perspectives on business model research appears to be rather counterproductive.

Initially in this article, the historical development is dealt with, showing that the heterogeneous understanding of authors from various scientific disciplines is gradually uniting into a converging business model understanding. In particular, a view of comprehensive perspectives can be identified in journal articles of the last two years. While this development has been shown in the course of the article, on this basis the business model concept has been comprehensively defined, as well as the components of a business model identified. This conceptual progress concerning definition and components initially brings greater clarity to the existing work about business models. It makes it more visible, transparent, comprehensible and thus feasible or manageable for both scientists and practitioners. Thereby, it constitutes the first part of this article's value added.

Admittedly, these findings of the article represent only a first step. There is further need for research, especially regarding the interfaces of the business model concept with established concepts of business management. For example, even though literature agrees that a business model is not identical with corporate strategy or intersects with the latter, commonalities of business models with other concepts have been rather neglected.

**Table 3**  
Research methodology in future business model research

Rank	Methodology	Mean value	Standard deviation
1	Theoretical deduction	3,78	1,04
2	Large scale survey (N > 100)	3,73	1,32
3	Case studies	3,56	1,24
4	In-depth interviews	3,11	1,20
5	Small scale survey (N < 100)	3,11	0,99

**Table 4**

Relevance of research on individual partial models

Rank	Research area	Mean value	Standard deviation
1	Network model	4,53	0,80
2	Customer model	4,41	0,79
3	Strategy model	4,35	0,70
4	Revenue model	4,30	0,76
5	Resources model	4,18	0,92
6	Manufacturing model	4,00	1,22
6	Market offer model	4,00	1,00
8	Procurement model	3,94	0,66
9	Financial model	3,53	1,12

For example, the question arises about the development of a new business model—to what extent do business model approaches and methodology differ from established entrepreneurship or organizational design literature? Or, can change concepts of classic business management be applied to the change of an existing business model? What are the similarities and differences of the various currents of literature? Although the management-process-oriented areas of design, change and innovation within business model research show a highly advanced state of development, and are assessed by experts as the most important fields for future research, the contrast to established concepts is neglected too much by authors. Future research should therefore not only make concrete recommendations for action in these areas, but also further broach the issue of interfaces between them and other concepts.

In more detail, regarding the current state of research recorded in this article, according to the database analysis it can be stated that the areas of innovation, change & evolution, performance & controlling and design are the most advanced. Comparing this with expert assessments regarding future research, it becomes clear that they also consider the areas of innovation, design and change to be very important. However, they see a lower-ranking need with performance & controlling; most likely because at least a foundation exists here also in the field of multivariate analyses.

These expert observations have substantially helped to improve our analysis, and, in triangulation with our own empirical assessment of the literature, clarify the usage of business models in academic research, as well as the single research areas' and methods' importance. In this way, due to a cutting-edge and timely overview, the article contributes to a better understanding of the existent research field, and thus provides additional value for both academia and practice, not least since also recommendations for future research priorities are derived.

In this regard, the research area about business models' forms & components should be empirically validated in the future since a certain heterogeneity regarding this research area's focus has been determined. Another area of research that has so far been neglected concerns actors & interactions in the context of business models. Interactions between the individual business model components, the key players as well as various business models themselves are here subsumed. Up to now, the interfaces and the interaction between the different business model components have not been researched much, partly because no generally accepted components have been established yet in literature. The key players and their interactions, like the coexistence of different business models on a corporate level, are seldom taken into account. While the state of research in the area of interaction can therefore be described as very low, the experts put a lot of importance on it. Here, as a further insight regarding promising areas, seem to lie some possibilities for future research.

In addition to the aforementioned areas of research, there remain a few basic questions to be clarified. In particular about the essential success factors of a business model, there is so far only rudimentary knowledge. In literature it is frequently emphasized that successful companies need a flexible and “good” business model. What determines in this context the goodness/quality as well as the flexibility of a business model—and/or what the essential success factors in this context are—is usually not expounded. This results in the central question: how can the goodness/quality of a business model be determined at all? So far, approaches for the measurement and explication of the quality of a business model have nearly failed completely, and might represent one of the biggest research gaps with regard to the practical applicability of the business model in management practice.

In closing, it can be stated that the field of research for the business model is at the moment in a consolidation phase, which on the whole still contains many research gaps and thus offers many possibilities for future research. Concerning this matter, the present article includes the illustration of the business model concept's origin and development; the analysis of hitherto existing perspectives and definitions; their constituents' integration into one of our own; the presentation of relevant components of a business model; the quantitative and qualitative database analysis; and the results of the conducted expert survey. All these elements taken together, the analysis provides a solid base for tackling the recommended research efforts in the future.

Also, the analysis offers guidance for practitioners who, due to the lack of previous conceptual clarity about business models in the wealth of literature, have so far had difficulties in sufficiently receiving relevant valuable information, and thus grasping an unambiguous meaning of the term and concept “business model”.

Especially when considering the literature analysis regarding business model components—as well as the corresponding development of an integrated business model, including all crucial components—companies can use this knowledge in terms of a checklist when creating or innovating their business models. This is important, since through the mentioned integrated

business model framework, it can be concisely understood which components a business model has to comprehend, as well as which ones are particularly important for a company's sustainable competitive advantage. Since in this way both in theory and practice, the concerned actors are now better prepared in researching, applying and using business models, our analysis provides significant additional value for various parties.

## Acknowledgements

We thank the Editor-in-Chief and two anonymous reviewers for their valuable guidance and encouragement, since January 2011.

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