

## **Textbook Business Model Management:**

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Bernd W. Wirtz

Business Model Management

### **Comments on the book:**

"In dynamic and complex markets a well thought out business model can be a critical factor for the success of a company. Bernd Wirtz vividly conveys how business models can be employed for strategic competition and success analysis. He structures and explains the major theoretical approaches in the literature and practical solutions in an easy and understandable way. Numerous examples from business practice highlight the importance of business models in the context of strategic management. The book has the potential to become a benchmark on the topic of business models in the German-speaking world."  
*Hermann-Josef Lamberti, Member of the Board and COO, Deutsche Bank AG*

"The business environment has become increasingly complex. Due to changing conditions, the executive board of a company is confronted with growing challenges and increasing uncertainty. Thus, a holistic understanding of the corporate production and performance systems is becoming more and more important. At this point, Bernd W. Wirtz introduces and presents the concept of the structured discussion of the own business model. Business models present operational service processes in aggregated form. This holistic approach channels the attention of management, supports a sound understanding of relationships and facilitates the adaptation of the business to changing conditions. The management of business models is thus an integrated management concept. Through the conceptual presentation of complex issues the author makes a valuable contribution to the current literature. In particular, the referenced case studies from various industries make the book clear and very applicable to practice."  
*Dr. Lothar Steinebach, Member of the Board and CFO, Henkel AG*

Bernd W. Wirtz

# **Business Model Management**

Design – Instruments –  
Success Factors



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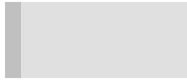
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Part A

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Business models as a

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management concept

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# 1 Introduction

In recent years, the development and design of business models have become increasingly important.<sup>1</sup> Especially in business practices and in the economic press, the flashy but ambiguous term *business model* is often used. Here, business models are mainly connected to the creation of competitive advantages. Occasionally, the success of corporate activities is largely related to the management of business models.

The increase in importance of the business model approach is particularly connected to the considerable changes in conditions of competition in the last two decades. Increasing globalization, fundamental deregulation of the entire market range, faster innovation cycles or a high degree of economic integration have made the markets more dynamic, more competitive and above all, more complex. Companies that want to be global competitors must strive to adapt to the steadily changing market conditions at the optimal rate. Strategies, organizations and products are thus subject to great pressures to change in order to the market in a successful way.

How do companies manage to successfully navigate this high dynamic and complexity of competition? When answering this question, business models become of vital importance. The management of business models supports companies in producing new business ideas, examining business activities and modifying existing strategies and structures through a systematic simplification of complexities and dynamics which are often difficult to conceptualize. Thus, business models represent the essence of corporate activities. They support management in systematic analysis of the factors of success and the adaptation of business activities.

In other words, a business model depicts the operational production and service systems of a company and illustrates in a simplified and aggregate form which resources are used by a company and how they are transformed into marketable information, products and/or services via the internal process of creating goods and services. Therefore, a business model contains information about which combination of production factors the business strategy of a company should implement and the corresponding functions of the actors involved. From this perspective, the business model approach can

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<sup>1</sup> Wirtz (2000), p. 81; Johnson/Christensen/Kagermann (2008), p. 51; Chesbrough (2010)

*Structure and  
content of the  
book*

be understood as a management instrument that enhances corporate success by means of systematic and accurate application.

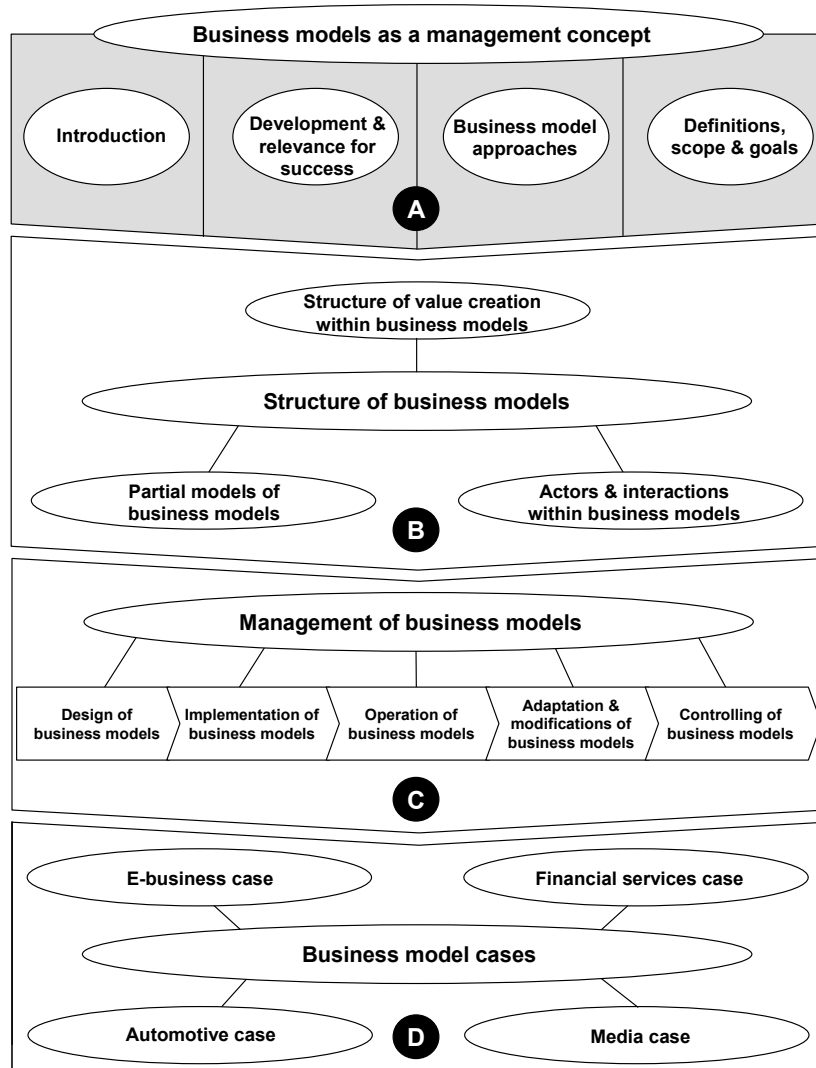
Against the background of an increasing significance of business management, the book is divided into four parts. In part A, the development of the concept is addressed. Subsequently, different approaches to business model concepts are presented. On this basis, definitions, areas of application and goals of the business model management are discussed.

Part B of the book deals with the structure of business models. First, the business model is classified within the entrepreneurial value system. Building upon this, the fundamental structure of business models is discussed. Here, partial models and components in particular are presented in detail. After a clarification of the basic structures of business models, the actors and interactions of business model management are explained.

Business model management is the focus of part C, in which – based on the different types of business model management – the design and implementation of business models is illustrated. Relevant aspects of operation, change and performance management of business models are then addressed. The book finishes with part D, where several business model cases are discussed.

Structure and content of the book

Figure 1-1



## 2 Origin and relevance for success of the concept of the business model

### Conceptual Development

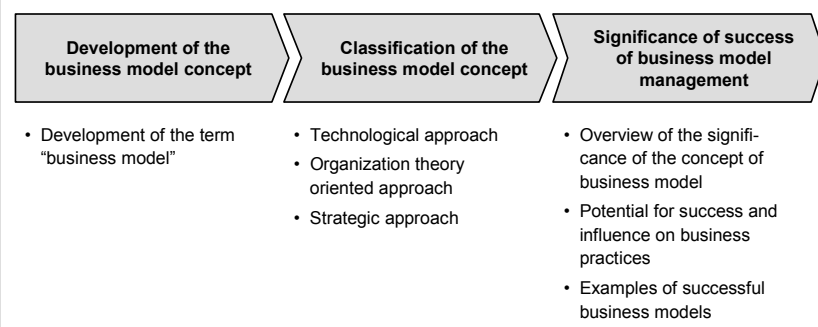
Business models as a term have a long tradition in management theory, although a long period of conceptualization preceded the idea of an independent business model. Hence, analyzing business models as a management concept requires knowledge of the theoretical origin of the term *business model*, because particularly in early academic publications, a wide variety of interpretations of business models can be found.

Section 2.1 shows at what time the term was used in various streams of research and how both its meaning and usage have changed over time. Thereby, the development of the term gives information about the origin and evolution of business models as a management concept. Section 2.2 is dedicated to the scientific basis of the business model concept. The three basic theoretical approaches on which the concept of the business model is based – information technology, organization theory and strategy – are presented and important aspects of each approach are mentioned.

Finally, section 2.3 takes a look at the overall significance of the success of business model management. Examples of successful business models highlight the importance of the concept of the business model and its influence on business practices. Figure 2-1 shows the structure of the chapter.

Figure 2-1

Structure of the chapter



## 2.1 Development of the business model concept

The concept of the business model and its development is primarily associated with the New Economy from 1998 to 2001. The origin of the term business model, however, came about significantly earlier. Osterwalder/Pigneur/Tucci (2005) found that the term *business model* was first used in an article by Bellman and Clark from 1957.<sup>1</sup> The first use in the title and abstract of an article was found in a piece by Jones from 1960.

Other early examples of usage can be found in McGuire (1965), the Manson Research Corporation (1966) and Walton (1966). In all these articles, however, a non-specific use of the concept business model is perceptible. The various authors use it in different contexts and with different meanings. Neither a common understanding nor a consistent research focus existed at that time.

The concept's actual origin can be traced back to the beginnings of business informatics in the mid-1970s. At that time, the term was used mostly in connection with business modeling.<sup>2</sup> Accordingly, it can be observed that the term was used primarily in journals of Information Technology, such as the Journal of Systems Management, and in specialist magazines such as the Small Business Computer Magazine.<sup>3</sup> Until the beginning of the 1990s, the term *business model* chiefly appeared in connection with terms from the field of computer and system modeling in scientific literature (e.g. *Computerized Models*, *Computer Assisted Modeling* and *Information System*).<sup>4</sup> Hence, business models have conceptually emerged from information modeling and information production.<sup>5</sup>

Between 1990 and 1995, the increasing practical significance of information technology led to a heightened interest in business models. Although the main focal point was still the field of computer and system modeling, other themes increasingly began to influence the understanding of the term. The business model term was used more and more in a strategic context and alongside terms such as *revenue model* or *relationship management*.<sup>6</sup>

With the establishment of the Internet, the concept of business model became a focus of interest for companies. In parallel with the rise of e-commerce, the usage of the term in publications also increased considerably. While up to that point the business model concept had mainly been used in specialist literature, an increasing corporate and media interest in business models arose.

<sup>1</sup> Osterwalder/Pigneur/Tucci (2005), p. 4

<sup>2</sup> Zollenkop (2006), p. 27

<sup>3</sup> Lehmann-Ortega/Schoettl (2005), p. 5

<sup>4</sup> Ghaziani/Ventresca (2005), p. 536

<sup>5</sup> Deelmann (2007), p. 40

<sup>6</sup> Ghaziani/Ventresca (2005), p. 543

*Early usage of the term*

*System modeling*

*New Economy*

**Business model  
as a universal  
term**

For firms of the so-called New Economy and their investors, the business model often became the central aspect of a company.

The term *business model* evolved into a buzzword that was not used consistently or precisely in either practice or academia. Although the first definitions of business models came into being at the end of the 1990s, the terms *business model*, *business idea*, *business concept*, *revenue model*, or *economic model* were frequently used as synonyms.<sup>1</sup> Thus, business models became a universal term for various business ideas.

**Strategy**

The prevailing understanding of the business model as a modeling tool retreated more and more into the background, and the strategic components of the term became increasingly important. Although the separation of the strategy and business model concepts became apparent with further development, they remain difficult to differentiate even today. In practice, a distinction between the concepts is often not made. Seddon et al. (2004) speculate that people with an information technology background prefer the term *business model*, while people with a management background use the term *strategy* instead.<sup>2</sup> Owing to the commonalities of the concepts, the origin of business models as a management concept can be found within the field of business strategy rather than within systems modeling.<sup>3</sup>

**Value Creation**

In addition, the development of the concept of the business model is increasingly influenced by the field of *value creation*.<sup>4</sup> This term developed into one of the most important aspects of the concept of the business model, a trend that is mainly based on the new possibilities for value creation and for the restructuring of value chains which resulted from the Internet.

**Table 2-1**

Frequency of the term "business model" arranged according to context<sup>5</sup>

Context of usage	1975-1989	1990-1994	1995-2000	Total	%
■ Value creation	1	7	81	<b>89</b>	17.6
■ Tacit conception	4	25	55	<b>84</b>	16.6
■ Revenue model	0	13	58	<b>71</b>	14.0
■ Electronic commerce	0	7	57	<b>64</b>	12.6
■ Computer/system modeling	28	19	13	<b>60</b>	11.8

<sup>1</sup> Magretta (2002a), p. 6; Rentmeister/Klein (2003), p. 18

<sup>2</sup> Seddon et al. (2004), p. 428

<sup>3</sup> Chesbrough/Rosenbloom (2002), p. 2

<sup>4</sup> Schoegel (2001), p. 10

<sup>5</sup> Ghaziani/Ventresca (2005), p. 543

■ Relationship management	0	17	35	<b>52</b>	10.3
■ Business strategy	0	11	14	<b>25</b>	4.9
■ Varied other	3	12	5	<b>20</b>	3.9
■ Business plan	2	3	13	<b>18</b>	3.6
■ Organization design	0	5	9	<b>14</b>	2.8
■ Globalization	0	9	1	<b>10</b>	2.0
<b>Time block totals</b>	<b>38</b>	<b>128</b>	<b>341</b>	<b>507</b>	100
<b>Percentage</b>	8	25	67	100	-

In 2005, Ghaziani and Ventresca published an article about the change of the context in which the business model term was used. On the basis of an investigation of the abstracts of 1,726 articles, the relevant context of research literature on business models was examined. Table 2-1 gives an overview of the most important periods of development for the business model term depending on the context of usage.

The decline of the euphoria surrounding the New Economy since the end of 2000 has led to a change in the understanding of business models. The business model term changed from a promising universal term to an expression quite often associated with the decline of the New Economy.<sup>1</sup> Ill-conceived or inconsistently planned business models were often one of the reasons why New Economy companies failed. In addition, insufficient differentiability of business models led to competitive crowding out, which few start-ups could survive.

In spite of its occasionally negative connotation, the interest in the concept of the business model remained and was increasingly adopted by companies of the Old Economy. This happened, however, much later than in the New Economy. Even businesses that had not exhibited any Internet affinity until then started to expand their business models by adding E-business components. Terms like *business model change* or *business model innovation* show how the understanding of the concept has broadened.

The resulting wide basis of interest in the concept of the business model in business practices also created the foundation for a new quality of scientific discussion. Different authors have attempted to formulate a definition of the term *business model*, and this definitional period is still going on today, although few definitions are universal. They refer mostly to certain sectors (such as E-business) or components of business models. So far, no generally

*Decline of the  
New Economy*

*Effect on  
Old Economy*

*Complexity of  
the business  
model concept*

<sup>1</sup> Zollenkop (2006), p. 30

accepted definition of the term has been determined. This is due to the complexity of the concept which originates in particular from the different theoretical approaches. Thus, in order to be able to comprehensively describe the concept of the business model, not only the history of its development but also the knowledge of its theoretical bases is necessary.

## 2.2 Classification of the concept of the business model

*Three basic theoretical approaches*

The business model has developed conceptually over a long period of time. During its development, the concept was repeatedly characterized by different streams of research and associated with different schools of thought. Hence, in academia, there are different theoretical approaches as to the derivation of the business model. The concept of the business model in this context can be explained by three basic approaches: information technology, strategy and organizational theory.

### ■ Technological approach

*Business modeling*

In technological discourse, business models emerged from the research area of management information systems.<sup>1</sup> In this context, information technology is the first basic approach that was established in business model literature. The main consideration in the information technology approach is business modeling, from which the business model results.

*Business model as a management tool*

As early as 1975, Konczal described the procedure and the benefits of business modeling and predicted that the computerized business model would continue to gain importance.<sup>2</sup> Konczal clearly directed his work towards management and identified the business model as a management tool very early. As well as the creation of a business compliant architecture, the aim of business modeling is to reduce the costs of hard- and software implementation.

In the course of the development of information technology business modeling, methods and tools were developed which are suitable for process documentation, process analysis and conceptualization. Some methods that should be mentioned in this context are ARIS and PROMET. Since the mid-1990s, UML, a standardized object-oriented modeling language, has been at the disposal of system

<sup>1</sup> Stähler (2002), p. 37

<sup>2</sup> Konczal (1975), p. 12

developers as a development tool. Business modeling is thereby carried out in a three-step process:<sup>1</sup>

1. Determination of business objectives and available resources by the strategic management or the departmental administration.
2. Drafting of structure and business processes as well as allocation of available resources by the system developer. The result is the business model as a simplified representation of the business processes.
3. Construction of an information system based on the business model by the system developer.

*Process of business modeling*

In the sense of early information technology, the business model chiefly describes an operational activity for systems modeling and is characterized by strongly functional aspects.<sup>2</sup>

*E-business*

Within the scope of the technological revolution through the Internet and the advent of E-business, the significance of the information-technological view on business models has expanded. Due to changed competition and market conditions, often it was not possible to directly transfer traditional business concepts to the Internet.<sup>3</sup>

Hence, the task of the business model changed. Instead of only describing existing processes and structures for the technical systems development, the business model itself became the first step in the modeling process. An Internet-based information system no longer refers to a real structure but is designed directly according to the business model.

Therefore, the business model is still to be seen as a preliminary conceptual stage but has become substantially more important in the overall modeling process. Apart from the classical information-technological view, business models had already increasingly gained an independent meaning detached from systemic considerations before the New Economy. The business model changed from the plan of producing a suitable information system to an integrated depiction of the business organization in support of the management.<sup>4</sup>

#### ■ Organization-theoretical approach

At the beginning of the 1990s, the concept of business model lost its implicit connection to information systems. Business models were viewed with a new focus and two other basic approaches evolved. One of these basic approaches was organizational theory.

<sup>1</sup> Eriksson/Penker (2000a), p. 3; Deelmann (2007), p. 40

<sup>2</sup> Zollenkop (2006), p. 29

<sup>3</sup> Wirtz/Becker (2002), p. 85

<sup>4</sup> Schoegel (2001), p. 10

*Changes of the approaches*

Since business models were no longer restricted to the preliminary conceptual stage of systems development, they developed into an independent instrument of analysis.<sup>1</sup> Hence, the direction of the concept's effect changed as well. In its early information-technological view, the business model was mainly considered as a tool to transpose instructions from decision makers, but in its organization-theoretical function, it can be used to support management decisions. In this function, the business model serves as an instrument or a plan to understand how companies work.

According to the organization-theoretical approach, the business model is seen as an abstract representation of the company's structure or architecture.<sup>2</sup> Eriksson and Penker (2000) define the following functions of the business model characterized by organization-theoretical theory:

- "To better understand the key mechanics of an existing business.
- To act as a basis for improving the current business structure and operations.
- To show the structure of an innovated business.
- To experiment with a new business concept or to copy or study a concept used by competitive company (e.g. benchmarking on the model level).
- To identify outsourcing opportunities."<sup>3</sup>

*History of organization*

While information technology and the concept of the business model have developed largely in parallel to one another, the origins of organizational theory as an economic framework have to be placed markedly earlier in management theory. Organization as a construct of analysis is already to be found in the pre-industrial age.<sup>4</sup> With the industrial revolution in the middle of the 19<sup>th</sup> century, it became increasingly relevant for companies and can be seen as a preliminary stage of modern management theory. This is also the time when the first plans for corporate structure originated. However, a scientific examination of the subject did not take place until the beginning of the 20<sup>th</sup> century. The most important works of this period are from Taylor (1911), Gilbreth (1911) and Fayol (1916). Early definitions of organization can be found in Barnard (1938) or March/Simon (1958), among others. To this day, the further development of organizational theory has produced many different schools and theories, many of which can be classified in the area of sociology. A list of the theories that are relevant in the context of business models can be found in Hedman/Kalling (2002).<sup>5</sup>

<sup>1</sup> Deelmann (2007), p. 39

<sup>2</sup> Al-Debei/El-Haddadeh/Avison (2008), p. 8

<sup>3</sup> Eriksson/Penker (2000a), p. 3

<sup>4</sup> Frese (1992), p. 7

<sup>5</sup> Hedman/Kalling (2002), p. 19

Nowadays, in the context of business management, organizational theory concentrates on achieving efficient results by means of organizational regulations. For this purpose, it becomes necessary to decide on the results one aims for. These objectives are formulated through a strategy toward which the organization is oriented. Hedman/Kalling (2002) emphasize the close connection between organizational theory and strategy. They found that strategy has its roots in organizational theory and listed both constructs as basic theoretical approaches for the concept of the business model.

■ Strategic approach

With the functional change of the business model to a management tool in the context of organizational business planning, strategy as a further basic theoretical approach gained in importance. The business model became the comprehensive description of entrepreneurial activity in aggregated form.<sup>1</sup>

Since 2000, many papers can be found that closely relate strategy and business models. Wirtz/Kleineicken (2000) discern the close connection of the concept of the business model to business strategy.<sup>2</sup> Here, the business model provides information about the production factors for the implementation of a company's business strategy. For Hamel (2000), innovations in business models constitute competitive advantages over competitors. Due to this aspect, the business model includes not only an internal corporate view but also a competitive-strategic component.

In the course of the differentiation of the concept, the strategic approach became increasingly important in academia, which is why the business model was extended especially by strategic components.<sup>3</sup> Compared to the organization-theoretical approach, the strategic approach is a relatively new discipline in the study of business management. However, strategic and organizational theories have not developed linearly; different schools of thought have developed simultaneously and affect the contemporary view of the business model concept in various ways.

Chandler (1962) did fundamental work in this field, not only decisively coining the term *strategy*, but also describing its relationship with the administrative structure of a company. In his work, Chandler describes how strategic considerations are reflected in the structure of the company and also connects the basic strategic and organizational approaches. Many authors consider Chandler's *Strategy and Structure* (1962) to be the first pivotal work for the business model characterized by the strategic approach. A further develop-

<sup>1</sup> Zollenkop (2006), p. 29

<sup>2</sup> Wirtz/Kleineicken (2000), p. 629; Wirtz (2001), p. 227

<sup>3</sup> Wirtz/Kleineicken (2000), p. 629; Chesbrough/Rosenbloom (2002), p. 2; Magretta (2002b), p. 3

ment of Chandler's approach regarding market orientation of strategy can be found in Ansoff (1965).

Andrews published 1971 another early strategic work closely related to the concept of today's business model. Andrews was the first to distinguish between a corporate strategy and a strategy of individual business segments. Chesbrough/Rosenbloom (2002) found that a lot of business model definitions hardly differ from Andrew's definition of the strategy of individual business segments.

In addition, a multitude of different streams of strategic research which influence the business model concept can be found. One of these streams was shaped by Penrose (1951): the view of the management's influence on the resource allocation of the company.<sup>1</sup> Thus, Penrose laid the foundation for the resource-based-view, which, in addition to the market-based-view, became the prevailing strategic tendency. Furthermore, both schools of thought, the market-based-view and the resource-based-view, are of special significance for the concept of the business model.

*Market-based-view and resource-based-view*

In the context of the market-based-view, the company is viewed as part of an industry. Special emphasis is placed on the competitive orientation and the external view of the company. One of the most important representatives of the market-based-view is Porter. Porter's five forces analysis and his value chain model in particular should be emphasized in this context. In contrast to this, the individual company and its sustainable handling of resources are the focal point in the resource-based-view.

The resource-based-view is also used in academia to explain the origin of the business model concept.<sup>2</sup> Today, the two originally divergent approaches are often considered complementary. Accordingly, many authors see both schools of strategy as basic theoretical approaches of the business model concept and combine them in their descriptions.

*Innovation*

The concept of innovation is another approach often used in the context of strategy. Within the scope of the business model, different authors trace this approach back to Schumpeter's theory of creative destruction (1942).<sup>3</sup> In doing so, two different approaches are mainly observed. At the time of the New Economy when strategic considerations first gained influence on business model literature, the creation of a new company – entrepreneurship – came into the foreground.

With the loss of importance of the New Economy and a renewed focus on established companies, the possibility to innovate a company with a new

<sup>1</sup> Kor/Mahoney (2004), p. 183

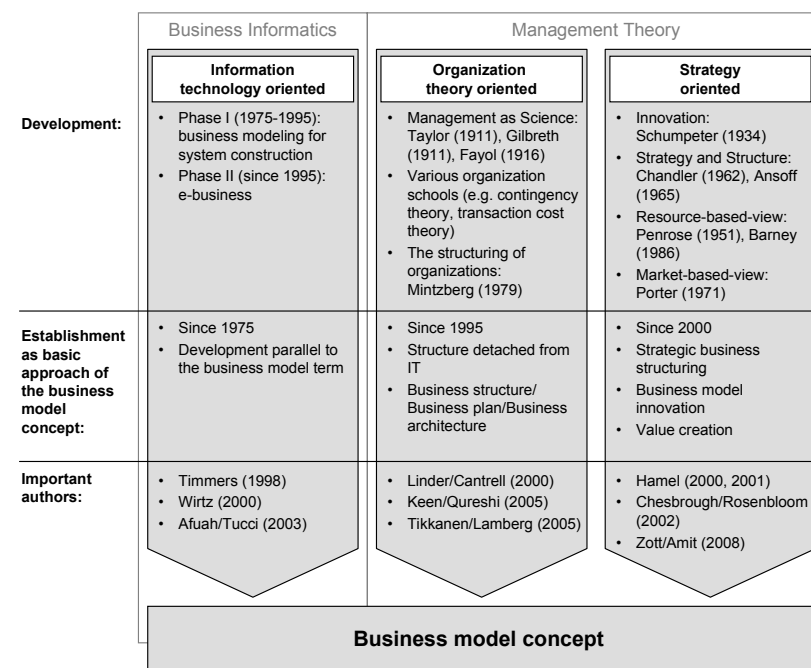
<sup>2</sup> Schweizer (2005), p. 41; Seppänen/Mäkinen (2006), p. 1066

<sup>3</sup> Hedman/Kalling (2002), p. 110; Schweizer (2005), p. 37

business model and to achieve a restructuring of the company in the strategic sense (in most cases Internet-supported) became more important. Hence, the orientation of business models toward innovation is associated with the strategic approach. Figure 2-2 shows the three basic theoretical approaches of the business model concept and the phases that the literature assigns to the development of the concept in the business model context.

Basic theoretical approaches for the business model context

Figure 2-2



## 2.3 Significance of success of business model management

Today, business models have become an integrated management concept. The successful implementation is directly reflected in the success of a business. In the preceding sections, the origin and the development of the business model concept as well as the basic theoretical approaches were de-

*General significance of success*

scribed; next, the general relevance and in particular the significance of success of the business model concept will be discussed.

In addition to increasing general use of the business model term in academic discussions, significant success of the business model concept can be noted, especially within the management practice. This shows that all relevant issues of a business can be addressed abstractly by a business model. Hence, a business model is a structured management tool that helps a company achieve its aims.<sup>1</sup>

This is confirmed by, among others, an IBM study in which 765 CEOs worldwide were surveyed regarding factors of business success. The study reveals that financially successful companies emphasize the consistent and sustainable management of business models twice as much as less financially successful companies.<sup>2</sup> Furthermore, it is shown that business models particularly contribute to success when companies want to differentiate their range of products, make a change or implement innovative ideas.

*Focus and sustainability*

Business models enable a manager to focus on the essential aspects of his responsibility. Due to the reduction of complexity and the resulting focus on relevant information, the quality of decision-making can be enhanced, which allows for more well-founded strategic and operating decisions. A sound and well-conceived business model thereby increases the sustainability of competitive advantages and consequently long-term business success.

*Differentiation*

Furthermore, a business model constitutes a conceptual and comprehensive management tool for companies to differentiate themselves from competitors in all sectors over the long run.<sup>3</sup> By consistently analyzing the different partial models of the business model, a company can better assess the relevant competitors and in particular their value proposition to customers. If this analysis reveals, for example, a competitor's weaknesses within individual partial models, a company can decide to become particularly involved in these partial models and in this way attract new customers. Due to this type of new market positioning or production of goods and services, whole industries can be changed and great competitive advantages can be generated.<sup>4</sup>

*Changes in management*

Changes in existing business models are considered an essential component of business model management to survive in the market over the long run and adapt to changing conditions.<sup>5</sup> It can be said that almost every company

<sup>1</sup> Magretta (2002a), p. 4

<sup>2</sup> IBM Institute for Business Value (2007), p. 3

<sup>3</sup> McKinsey (2008), p. 3

<sup>4</sup> Magretta (2002), p. 7

<sup>5</sup> Linder/Cantrell (2000), p. 3

makes adjustments to existing business models in order to deal with new technologies or customer needs. In this context, approximately 70% of companies state that in many cases, the business model has to be radically changed in order to remain competitive.<sup>1</sup>

An example that is repeatedly used to confirm the significance of success of business model management is the Dell Company. Dell was founded in 1984 by Michael Dell and began solely with direct sales of computer systems in 1993. Dell developed into one of the leading manufacturers of computer systems worldwide and became the most dynamic company in the computer business. IBM, Compaq and others, however, hesitated to adapt their business models accordingly. With the business model of direct sales, Dell shortened the value chain and, due to improved customer proximity, to respond to customer needs in a better way. The modification or the reorganization of value creation – in particular of the value chain – is one of the central aspects of business model management and an essential factor for the significance of success.<sup>2</sup>

Business model innovations form another important element of business model management and are relevant in the context of changes in business models. With the help of the concept of business model management, innovative business models can be identified and successfully implemented. In this context, Johnson/Christensen/Kagermann (2008) note: "Fully 11 of 27 companies born in the last quarter century that grew their way into the Fortune 500 in the past 10 years did so through business model innovation"<sup>3</sup>.

An example for a successfully implemented business model innovation through business model management can be found in Apple's iPod and iTunes store. With the combination of a portable media player with an appealing design and the digital music business, Apple has not only achieved a transformation of the whole company, but also created a completely new market.<sup>4</sup> The innovation of the Apple Company was mainly achieved in the area of the established business model. "Apple did something far smarter than take a good technology and wrap it in a snazzy design. It took a good technology and wrapped it in a great business model."<sup>5</sup> Today, Apple receives nearly 50% of its revenue from the iPod/iTunes combination and has increased its market capitalization from one billion US dollars to more than 150 billion US dollars.

All in all, it can be said that the concept of the business model has gained significance and today is considered to be relevant for success in both aca-

*Dell and the change process*

*Potential of success of business model innovations*

*Apple and the business model success through innovation*

<sup>1</sup> IBM Institute for Business Value (2007), p. 48

<sup>2</sup> Tikkanen et al. (2005), p. 789

<sup>3</sup> Johnson/Christensen/Kagermann (2008), p. 52

<sup>4</sup> Johnson/Christensen/Kagermann (2008), p. 51

<sup>5</sup> Johnson/Christensen/Kagermann (2008), p. 52

demic circles and in management practice. With the help of business model management, a company can differentiate itself from the competition in order to build and ensure competitive advantages in the long run. Business model management affects all divisions and functions of a company and its influence can also operate across sectors.<sup>1</sup>

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<sup>1</sup> Zollenkop (2006), p. 33

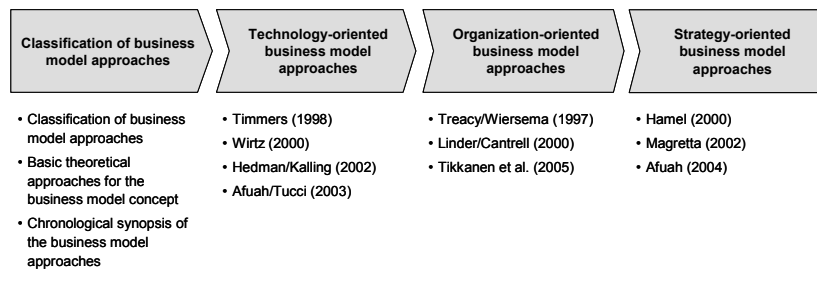
## 3 Business model concepts in the literature

A variety of business model concepts can be distinguished in the literature. In the following chapter, the three basic theoretical approaches for the business model concept are presented along with the different business model concepts associated with them. In addition, a chronological synopsis of the different developments is provided.

Section 3.2 presents selected technology-oriented business model approaches and section 3.3 presents organization-oriented ones. Finally, in section 3.4, approaches of the strategy-oriented business model approach are discussed. Thereby, each approach is analyzed in detail and assessed on the basis of selected criteria. The discussion presented in these sections is an exemplary selection of relevant contributions to the respective basic approaches. Figure 3-1 depicts the structure of the chapter.

*Theoretical approaches for the business model concept*

*Structure of the chapter*



*Figure 3-1*

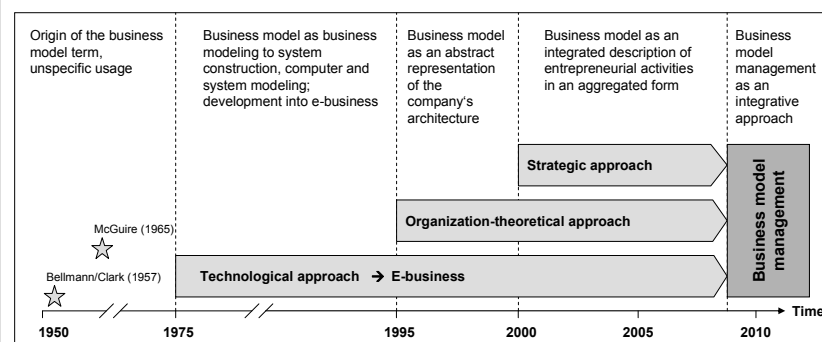
### 3.1 Classification of business model concepts

At the beginning of the scientific analysis of the business model concept, rather rudimentary models were used that were specialized for individual

application scenarios, whereas today, a wide range of approaches exist. Authors from different research areas have fostered the development of business models and dealt with the term from different scientific disciplines. Overall, it can be observed that over the course of time, different opinions have been condensed into an integrated understanding of the business model. Figure 3-2 illustrates this process.

Figure 3-2

Development of the business model concept



However, this led to a pluralism of perspectives and, in the early concept-forming phases, to a heterogeneous understanding of the concept, which is reflected in the very fragmented approaches. For this reason, multiple attempts were made in the literature to develop a synopsis of the existing definition.<sup>1</sup> It is noticeable that the authors use very different criteria for their systematization and that they associate different content with the term *business model*. In this context:

- components of business models are listed,<sup>2</sup>
- the context of the business model definition is taken into account,<sup>3</sup>
- different categories of business models are formed,<sup>4</sup>
- existing business models from practice are grouped into categories<sup>1</sup> or attempt to establish a taxonomy.

<sup>1</sup> MacInnes/Hwang (2003) p. 48; Pateli/Giaglis (2004), p. 300; Al-Debei/El-Haddadeh/Avison (2008), p. 4

<sup>2</sup> Stähler (2002) p. 42; Afuah/Tucci (2003) p. 51; Osterwalder (2004), p. 30

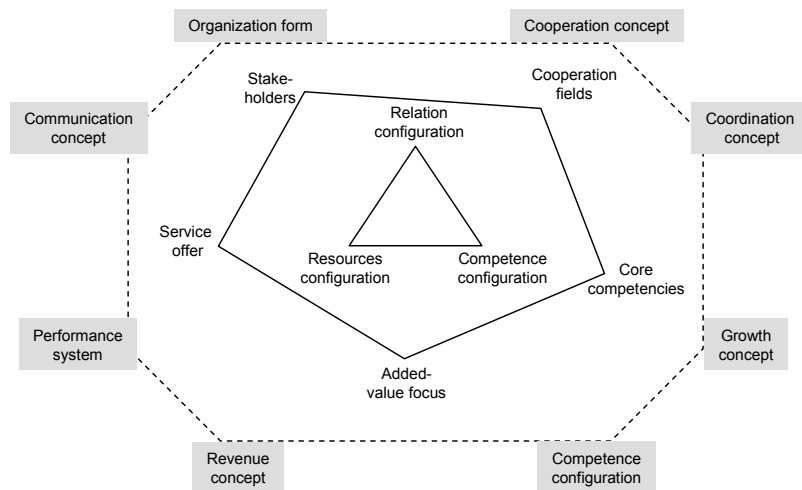
<sup>3</sup> Pateli/Giaglis (2004), p. 303

<sup>4</sup> Al-Debei/El-Haddadeh/Avison (2008), p. 4

For instance, Bieger/Rüegg-Stürm/von Rohr's (2002) analysis compares eight selected contributions from business model literature and shortly outlines each publication. Eight core elements are extracted from the different approaches and prove that the contents overlap. The difficulty in clearly distinguishing these categories harbors the danger of varying interpretations. Especially when implementing the model in practice, this might lead to misunderstandings. Moreover, the authors found great discrepancies regarding the scope of the descriptions. However, similarities exist with regard to the structure of business models. Based on this analysis, they suggest an eight-stage business model which is depicted in Figure 3-3.

*Classification according to Bieger, Rüegg-Stürm and von Rohr*

*Eight dimensions of a business model<sup>2</sup>*



*Figure 3-3*

An analysis by MacInnes/Hwang (2003) deals with seven different approaches to the subject of business models. In contrast to Bieger et al., MacInnes and Hwang found that literature on business models can be divided into two categories: firstly, types and characteristics of business models, and secondly, components of business models. In the authors' opinion, the components of business models are vital for the success of a company. They, therefore, extract the relevant components from the seven contribu-

*Classification according to MacInnes and Hwang*

<sup>1</sup> Krüger/Swatman/Beek (2003), p. 18  
<sup>2</sup> Bieger/Rüegg-Stürm/von Rohr (2002), p. 47

*Classification according to Krüger, Swatman and van der Beek*

tions and on the basis of these components, a classification of the approaches is made.

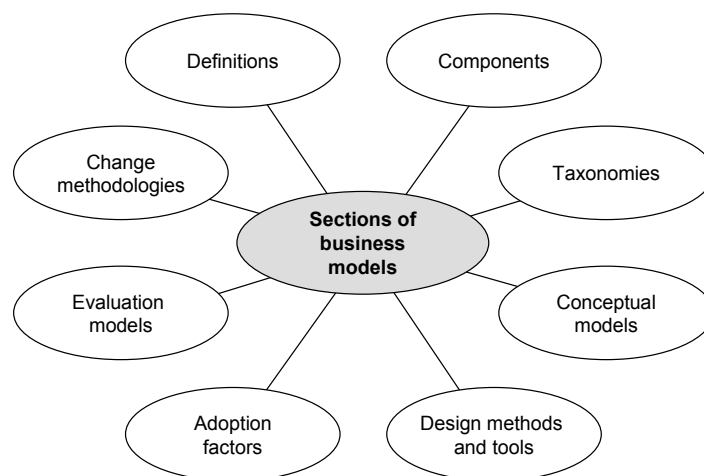
Like MacInnes/Hwang (2003), Krüger/Swatman/Beek (2003) focus on types and characteristics as well as components of business models. They analyze three selected approaches with regard to the taxonomy of Internet business models and subsequently the components of business models are derived from three further approaches. Krüger, Swatman and van der Beek argue that components can be linked to the corresponding taxonomies and present this by a generic linking approach. In conclusion, the results gained from the analysis so far are transferred to the special context of the online news market.

*Classification according to Pateli and Giaglis*

The classification by Pateli/Giaglis (2004) is much more comprehensive than the previous approaches. They note that the existing literature is characterized by a confusing diversity. In this context, heterogeneity in general and the different angles with which to view existing approaches in particular are emphasized. Based on their analysis, the authors came to the conclusion that, so far, there is no consistent framework for the analysis and research of business models in academia. Although all of the examined research approaches can be assigned to one or several sections of business models, these approaches have not yet been connected interdisciplinarily. Figure 3-4 depicts the eight principal sections identified by the authors.

**Figure 3-4**

*Sections and research approaches of business models<sup>1</sup>*



<sup>1</sup> Pateli/Giaglis (2004), p. 306

The categories are validated by five experts who assigned the different approaches to the above-mentioned categories. All classifications could be checked for their suitability and affirmed as statistically significant.

Osterwalder/Pigneur/Tucci (2005) also note that technology- and business-oriented authors have a different understanding of the business model concept. In their opinion, every publication in business model literature can be assigned to one of these three categories: *overarching business model concept*, *taxonomies* or *instance level*.

With this, the authors initially establish a rough classification and subsequently examine the structure, differentiation and development of the business model concept. On the basis of this framework, the *nine business model building blocks* are derived and a synthesis of the literature is established. Table 3-1 shows the business model building blocks.

*Classification according to Osterwalder, Pigneur and Tucci*

*Nine business model building blocks<sup>1</sup>*

Pillar	Business model building block
■ Product	Value proposition
■ Customer interface	Target customer
	Distribution channel
	Relationship
■ Infrastructure management	Value configuration
	Core competency
	Partner network
■ Financial aspects	Cost structure
	Revenue model

*Table 3-1*

Lambert (2006) also attempts to classify selected contributions of existing literature. In contrast to the classification approaches already presented, the author adopts a perspective characterized by electronic business. Lambert identifies four criteria for differentiating the literature and displays selected approaches determined in this way.

The author argues that it is possible to create a universal approach from the existing approaches, but that this would be of less significance because of the

*Classification according to Lambert*

<sup>1</sup> Referring to Osterwalder/Pigneur/Tucci (2005), p. 10

loss of specific criteria. In summary, it can be said that particular overlaps are apparent in the classification criteria of the different authors, but a basic homogeneity is not discernible. Table 3-2 summarizes the presented criteria.

Table 3-2

Criteria for the classification of business models

Authors	Classification criteria
<b>Bieger, Rüegg-Stürm and von Rohr (2002)</b>	<ul style="list-style-type: none"> <li>■ Incentive system,</li> <li>■ Concept of communication,</li> <li>■ Concept of revenue,</li> <li>■ Concept of growth,</li> <li>■ Configuration of competence,</li> <li>■ Form of organization,</li> <li>■ Concept of cooperation,</li> <li>■ Concentration of coordination/control</li> </ul>
<b>MacInnes and Hwang (2003)</b>	<ul style="list-style-type: none"> <li>■ Types and characteristics of business models,</li> <li>■ Components of business models</li> </ul>
<b>Krüger, Swatman and van der Beek (2003)</b>	<ul style="list-style-type: none"> <li>■ Types of business models,</li> <li>■ Components,</li> <li>■ Taxonomies</li> </ul>
<b>Pateli and Giaglis (2004)</b>	<ul style="list-style-type: none"> <li>■ Definitions,</li> <li>■ Components,</li> <li>■ Taxonomies,</li> <li>■ Conceptual models,</li> <li>■ Design methods and tools,</li> <li>■ Adoption factors,</li> <li>■ Evaluation models,</li> <li>■ Change methodologies</li> </ul>
<b>Osterwalder, Pigneur and Tucci (2005)</b>	<ul style="list-style-type: none"> <li>■ Value proposition,</li> <li>■ Target customer,</li> </ul>

	<ul style="list-style-type: none"> <li>■ Distribution channel,</li> <li>■ Relationship,</li> <li>■ Value configuration,</li> <li>■ Core competency,</li> <li>■ Partner network,</li> <li>■ Cost structure,</li> <li>■ Revenue model</li> </ul>
<b>Lambert (2006)</b>	<ul style="list-style-type: none"> <li>■ Referred to by the author(s) as,</li> <li>■ Criteria for differentiation,</li> <li>■ Number of categories and sub-categories,</li> <li>■ Business model categories</li> </ul>

These briefly outlined attempts at systematization are exemplary of present literature. The classifications observed here are only suitable to a limited extent for a generalized classification of business model approaches. For instance, often only certain sections of the business model concept are observed, and the relations or implications are not sufficiently considered. For the most part, only selected approaches of the literature are examined.

Many authors present specific basic approaches, but only implicitly deal with their significance for business models. The different authors do not use the same nomenclature, but it becomes apparent that they have a common understanding. Osterwalder (2004) explains that different points of view on business models can exist within a company and that a business model can be the link between these views. Here, a difference can be distinguished between business strategy, business organization and ICT (Information and Communication Technology).<sup>1</sup>

Bieger/Bickhoff/zu Knyphausen-Aufseß (2002) presented a very similar point of view. They access the topic of business models through three analytic categories of network effects and strategic network theory, strategy theory and value chain configuration. Pateli/Giaglis (2004) also draw on three basic approaches and emphasize that it is necessary to consider them not separately, but as a whole.<sup>2</sup>

<sup>1</sup> Osterwalder (2004), p. 16  
<sup>2</sup> Pateli/Giaglis (2004), p. 313

*Critical valuation*

*Theoretical approaches*

*Necessity of the approaches*

*Theoretical approaches as a means of classification*

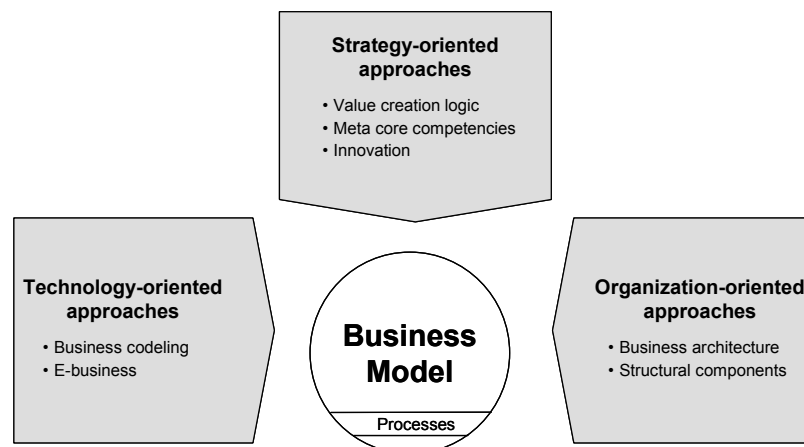
The approaches of various authors will now be assigned to the three basic approaches, followed by an illustration of the specific relevance of the three approaches for the business model concept:

- technology-oriented approaches,
- organization-oriented approaches,
- strategy-oriented approaches.

In this context, the individual basic approaches and their interdependencies are briefly outlined. Subsequently, in sections 3.2 - 3.4, relevant publications of the individual basic approaches are presented in detail. Figure 3-5 shows an aggregate overview of the basic approaches.

Figure 3-5

Theoretical approaches for the concept of the business model



*Technological orientation*

The technology-oriented approach is principally characterized by the concepts of business modeling and electronic business. On the one hand, the early approaches of business modeling, which aim at both creating a flow of information compliant with the company (for instance, with the aid of the structured methods ARIS or UML) and reducing the cost of information systems, can be classified as belonging to this field.<sup>1</sup> On the other hand, concepts relating to electronic business are explained with this basic approach. Due to the advancement of the Internet, the emphasis of the dis-

<sup>1</sup> Stähler (2002), p. 37; Zollenkop (2006), p. 27

course shifted from technological aspects to the description of Internet-based business concepts.<sup>1</sup>

Organization-oriented business model approaches focus on the structure of a company. They describe the company's architecture and comprise crucial elements such as overriding corporate design, centralization of decision-making, job planning and linkage structures.<sup>2</sup> The overriding corporate design determines both the size and the type of different units, whereas with centralized decision-making, a horizontal as well as a vertical shift of responsibility is examined.

In job planning, job requirement profiles for the individual roles within a company are defined and an integrated corporate culture and general understanding of learning is determined. Finally, in linkage structures, interaction paths as well as planning and control systems are fixed. In this context, the business model is interpreted both as an instrument of analysis and a framework for organizational structures and is therefore derived from organizational theories.<sup>3</sup>

The most recent stream of research in business model literature ascertains a close connection between business models and strategy. Beyond the company's internal view, strategy-oriented business model approaches take into account elements of competition. In this context, subject area innovation is increasingly discussed, which can also be assigned to this basic approach.<sup>4</sup> Other substantial factors of this basic approach within the scope of a company's dynamic capabilities are value creation logic, the generation of value through various actors and meta core competencies.<sup>5</sup>

In all three basic approaches, business model processes play an important role. In technological orientation, this is manifested as process modeling, in organization-orientation as process optimization and as a medium of operationalization in strategy-orientation. Processes are therefore implicitly or explicitly part of a business model and are observed with varying emphasis in the different approaches. For this reason, it is not useful to classify processes as belonging to one individual research approach, as they constitute a cross-departmental function. In related literature, for example, so-called *business layers* with three different levels are mentioned:<sup>6</sup>

*Organizational orientation*

*Strategy orientation*

*Processes as a cross-departmental function*

<sup>1</sup> Wirtz/Becker (2002), p. 1

<sup>2</sup> Mintzberg (1979), p. 67; Al-Debei/El-Haddadeh/Avison (2008), p. 8

<sup>3</sup> Deelmann (2007), p. 39

<sup>4</sup> Hamel (2000), p. 59

<sup>5</sup> Normann/Ramirez (1993), p. 66

<sup>6</sup> Osterwalder (2004), p. 14

- strategic layer,
- business model layer and
- process layer.

The single layers build on each other hierarchically. The process layer is at the lowest level, which is why it is included in all higher levels. From now on, processes as an instrument of analysis are no longer considered separately but are viewed as having an integrated cross-departmental function in the context of a comprehensive business model approach.

*Chronological  
synopsis of the  
business model  
approaches*

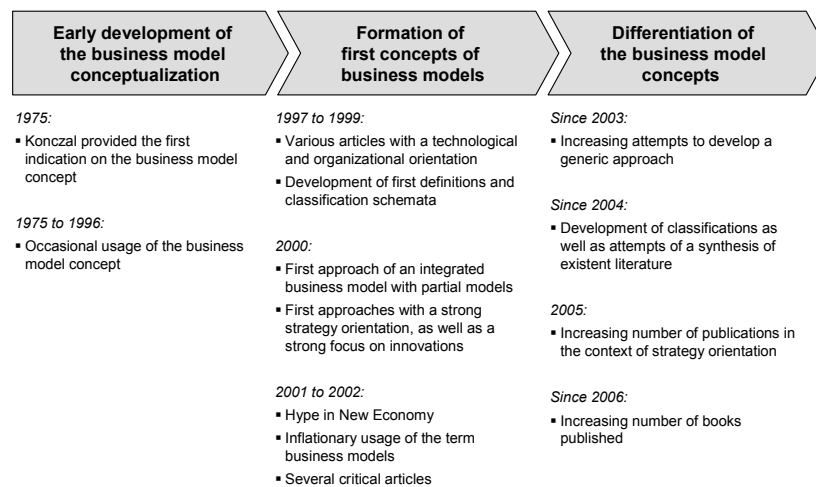
Essential authors of the different business model approaches will now be presented in a chronological synopsis. The development of the concept is divided into three phases and the authors are classified respectively. The characteristics of the various approaches are briefly outlined as well.



While Figure 3-6 shows how the contributions are arranged within the three basic approaches, Figure 3-7 conveys the most essential points of the development of the business model concept within the individual development phases.

Figure 3-7

## Course of the development phases of the business model



#### ■ Early phase in the conceptualization of the business model term

#### Unspecific usage

The chronological development of the business model concept begins with the concept-forming phase. From 1975 to 1996, scientific papers containing the term business model were few and far between. The term was used non-specifically with the objective of combining various issues; neither a coherent concept nor uniform semantics were discernible. Articles by Konczal (1975) as well as Dottore (1977) need to be pointed out. Due to their thematic proximity to today's understanding of the term, they can be referred to as pioneers of the business model concept.

Both works have to be assigned to the technology-oriented approach, which deals with process modeling or computer business models. Business models are thereby regarded as a tool for structuring that helps to master the increasing complexity of business activities and the associated information systems or architectures.<sup>1</sup> Konczal (1975) implicitly hints at the other ap-

<sup>1</sup> Konczal (1975), p. 217

proaches by stating: “Models are for managers, not mathematicians”<sup>1</sup>. This clarifies the scope of application of business models as management tools.

■ Formation phase of the first business model concepts

In the second phase of development, business model concepts were developed and attempts were then made to systematize them. Between 1997 and 2002, the number of publications in this field increased, a phenomenon which can primarily be traced back to the growing significance of electronic business. Especially during the Internet hype, in practice the term was used almost inflationarily.

In 1997, Treacy/Wiersema (1997b) defined the first organization-oriented approach. The strategic pillars of this approach are the components of cost leadership, product leadership and customer partnership, but the authors also point out that a good operating business model is indispensable on the ‘way to the top’. This model consists of operating processes, business structures, the management system and the corporate culture. However, Shaw/Gardner/Thomas (1997) strongly focus on the topic of electronic commerce and, in this context, examine business models in more detail for the first time.

From 1998 to 1999, three further papers were published which can be classified as technology- and organization-oriented. Timmers (1998) article is especially worth mentioning: it describes business models for electronic markets and therefore suggests a first general definition. Due to this interdisciplinary approach, further literature often refers to Timmers’ first definition.<sup>2</sup>

In 2000, with the 4C net business model (content – context – commerce – connection), Wirtz (2000) presents a new integrated typology of business models in electronic business. Fritz (2004) comments: “In German literature, Bernd Wirtz’ 4C net business model approach attracted the biggest interest for the B2C area”.<sup>3</sup> Apart from the general typology, several partial models of a business model are depicted which include elements of the technological, organizational as well as the strategic orientation and which enable a holistic consideration of the business model.

At the same time, Hamel (2000) was one of the first authors to introduce a purely strategy-oriented business model approach. He focused on business model innovation and developed a systematic framework by means of which the value-added potentials of a business model can be assigned to

*Different articles*

*First definitions*

*First approach to a holistic business model consideration*

*Beginning of the strategic orientation*

<sup>1</sup> Konczal (1975), p. 211

<sup>2</sup> Rentmeister/Klein (2003), p. 19

<sup>3</sup> Fritz (2004), p. 160

*Criticism of the business model concept*

several factors of innovation.<sup>1</sup> In subsequent years, the development not only of definitions but also the concept of ontologies and the components of business models moved into the focus of scholarship. In this period, several publications appeared which could be assigned to the strategy orientation (e.g. Chesbrough/Rosenbloom (2002), zu Knyphausen-Aufseß/Meinhardt (2002), Magretta (2002a)).

After the concept of the business model was taken up both in business practice and in academia in 2001 and 2002, the first critical papers also appeared. The most influential critic is likely Porter, who remarked 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 to set for building a company. [...] The business model approach to management becomes an invitation for faulty thinking and self-delusion."<sup>2</sup>

■ Differentiation phase of business model concepts

Since 2003, the classification of the different concepts as well as the development of a generic approach have been increasingly sought. This can be referred to as the differentiation phase of the business model concept. Hedman/Kalling (2003) as well as Rentmeister/Klein (2003) present a business model approach that contains elements of all three theoretical approaches.

*Meta articles and works on classification*

In addition to the search for a comprehensive business model, some authors also examine the current situation of business model research. Pateli/Giaglis (2004), for instance, present the most important findings of business model research. At the same time, the perspective of some authors has changed and both strategy and organizational theories have gained in importance. While the article by Afuah/Tucci (2003) is still strongly technology-oriented, the book *A strategic management approach* by Afuah (2004b) is characterized by an expanded and strategic point of view.

*A business model is not a corporate strategy*

The authors Lehmann-Ortega/Schoettl (2005), Morris/Schindehutte/Allen (2005), Schweizer (2005) and Shafer/Smith/Linder (2005) also deal thoroughly with business models in the context of strategy. In order to develop their approaches, they used established theories of business economics, for instance the resource-based-view. All the authors agree that a business model does not constitute a corporate strategy per se and that it should only be considered in relation to a superior strategy.<sup>3</sup>

<sup>1</sup> Hamel (2000), p. 115

<sup>2</sup> Porter (2001), p. 73

<sup>3</sup> Shafer/Smith/Linder (2005), p. 203

The tendencies described above are also perpetuated in new articles. Since the new approaches show only minor nuances in terms of new orientations, another detailed illustration will not be given hereafter. The latest trend worth mentioning is the increasing number of book publications. In 2006 alone, three books were published – Chesbrough (2006), Debelak (2006) and Zollenkop (2006) – which dealt comprehensively with business models.

Now that various approaches for classification suggested by the literature have been introduced, sections 3.2 – 3.4 will present important publications. Due to the differing perspectives of the authors, the classification attempts so far are heterogeneous and lack uniform criteria. On the basis of the existing approaches of classification, the functional-oriented approaches seem to be highly suitable. Hence, five criteria for the development of a generic business model approach will now be presented:<sup>1</sup>

- Definitions which reflect the extent and the understanding of the respective author.<sup>2</sup>
- Aims which depict the intention and the use of the business model concept.<sup>3</sup>
- Level/applications which indicate the degree of abstraction, for example, industry, company or strategic business unit.<sup>4</sup>
- Components by means of which business models can be divided and complexity is reduced.<sup>5</sup>
- Interactions which explain the correlation between the components of a business model.<sup>6</sup>

## 3.2 Technology-oriented business model approaches

The technology-oriented approach is the earliest theme in business model literature. Thereby, business processes are mapped using structured methods such as ARIS or UML with the aim of increasing efficiency and effec-

*Increase in book publications*

*Criteria for the classification of business model approaches*

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1 Lambert (2006), p. 9  
 2 Timmers (1998), p. 4; Linder/Cantrell (2000), p. 2; Magretta (2002a), p. 4  
 3 Magretta (2002b), p. 3  
 4 Lei/Weill/Malone (2006), p. 28; Al-Debei/El-Haddadeh/Avison (2008), p. 4  
 5 Hamel (2000), p. 115; Osterwalder/Pigneur (2002), p. 3  
 6 Afuah (2004a), p. 131

tiveness. Business process modeling and the business model term evolved during the course of the increasing importance of the Internet.

Hence, in more recent literature, the term business model or Internet business model is often used in connection with electronic business. Especially because of the hype surrounding Web 2.0 applications, the business model term became very popular again in recent years. With the aid of business plans or business models, start-up companies attempted to present Internet-specific competitive advantages and therefore demonstrate their future viability. Through such evidence, venture capital companies were to be convinced of the merits of financing these start-ups. Five important publications illustrating the various specifics of technology-oriented business model approaches are presented here as examples.

■ Business model approach of Timmers (1998)

In 1998, one of the first approaches in the field of electronic business was introduced by Timmers. His considerations are based on Porter's value chain approach. According to Timmers, by reconfiguring the value chain, new business models can be created. In this way, the traditional value chain can be adapted to the challenges of modern value-added activities and can therefore offer the necessary flexibility in a highly competitive environment. In Timmers' examination, this aspect plays a central role. Due to the Internet, for example, disintermediation – the dissolution of intermediary trade stages – became increasingly possible. One of the first definitions of the term *business model* can be traced back to Timmers (1998):

Table 3-3

*Business model definition by Timmers*

"Definition of a business model

- An architecture for the product, service and information flows, including a description of the various business actors and their roles; and
- A description of the potential benefits for the various business actors; and
- A description of the sources of revenues."<sup>1</sup>

*Business model is a component of the marketing model*

This definition takes a general approach and is detached from the author's original electronic business perspective. According to Timmers, however, a business model definition alone is not sufficient to describe the aims of a company and external actors. For this reason, he introduced a marketing model that comprises a marketing strategy in addition to the business

<sup>1</sup> Timmers (1998), p. 4

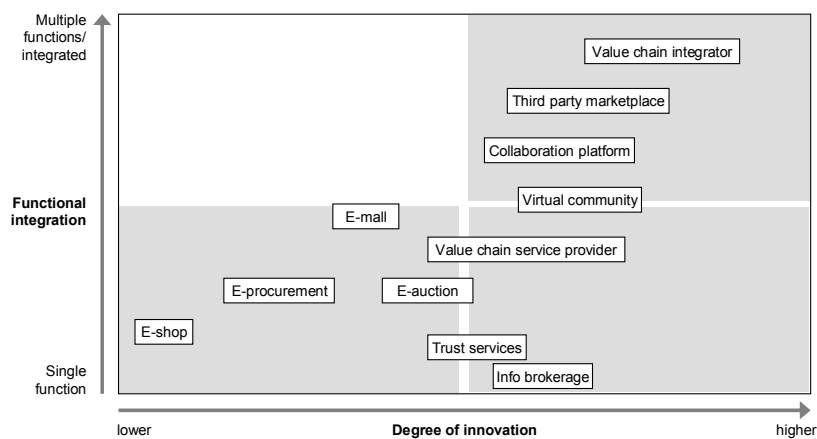
model.<sup>1</sup> Timmers' approach aims at designing a classification framework for Internet business models. Primarily, the different types of business model and their changeability when reconfiguring the value chain are presented.

With regard to the level or application of this business model approach, it should be noted that a precise positioning is not intended. The adoption of a business-related perspective is, however, a recognizable priority. The forms of business models found in industry and business units are not specified.

In his business model approach, Timmers does not present classifications or definitions of business model components but does posit a classification of business models into categories. These categories can be distinguished by two dimensions: degree of innovation and functional integration. The 11 categories in Figure 3-8 are business models or generalizations of business models which Timmers identified by means of case study research. The author argues that these categories can be applied both in the business-to-consumer and the business-to-business spheres.

*Eleven categories for Internet business models*

*Classification of Internet business models<sup>2</sup>*



*Figure 3-8*

Since no specific components of a business model are considered, no interactions between the different elements of a business model are addressed by this approach.

<sup>1</sup> Timmers (1998), p. 4

<sup>2</sup> Timmers (1998), p. 7

■ Business model approach of Wirtz (2000)

The approach by Wirtz presents a different definition – a typology of the business model adjusted to electronic business, and for the first time, a description of an integrated business model divided into various partial models.

Like Timmers (1998), Wirtz's definition takes a generally observational approach and is also detached from the electronic business perspective. On the one hand, this definition deals with the process of creating goods and services within a company, and on the other hand, it refers to the connection between the concept of business models and strategy.

**Table 3-4**

*Business model definition by Wirtz*

"Here, the term business model refers to the depiction of a company's internal production and incentive system. A business model shows in a highly simplified and aggregate form which resources play a role in the company and how the internal process of creating goods and services transforms these resources into marketable information, products and/or services. Therefore a business model therefore reveals the combination of production factors which should be used to implement the corporate strategy and the functions of the actors involved."<sup>1</sup>

*Business models  
as an aggregate  
conceptual form*

This business model approach should not be a substitute for individual partial economic analyses, but rather guarantees an aggregate form of description and conception.<sup>2</sup> At the same time, this approach intends to create a special typology for business models in the context of electronic business. Figure 3-9 shows the 4C net business model typology. On the basis of this typology, business models can be assigned to the four basic business model typologies: content, commerce, context and connection according to services offered.

<sup>1</sup> Wirtz (2000), p. 81

<sup>2</sup> Wirtz (2000), p. 82

Characteristics of the business model typologies<sup>1</sup>

Figure 3-9

	Content	Commerce	Context	Connection
Definition	<ul style="list-style-type: none"> <li>Collection, selection, systematization, compilation and provision of contents</li> </ul>	<ul style="list-style-type: none"> <li>Initiation, negotiation and/or settlement of corporate transactions</li> </ul>	<ul style="list-style-type: none"> <li>Classification and systematization of information available on the Internet</li> </ul>	<ul style="list-style-type: none"> <li>Creation of the possibility to exchange information in networks</li> </ul>
Goal	<ul style="list-style-type: none"> <li>Online provision of consumer-centered, personalized contents</li> </ul>	<ul style="list-style-type: none"> <li>Supplement and substitution of traditional transaction phases by the Internet</li> </ul>	<ul style="list-style-type: none"> <li>Complexity reduction</li> <li>Navigation</li> </ul>	<ul style="list-style-type: none"> <li>Creation of technological, commercial or purely communicative connections in networks</li> </ul>
Revenue model	<ul style="list-style-type: none"> <li>Indirect revenue models</li> </ul>	<ul style="list-style-type: none"> <li>Transaction-dependent direct and indirect revenue models</li> </ul>	<ul style="list-style-type: none"> <li>Indirect revenue models</li> </ul>	<ul style="list-style-type: none"> <li>Direct and indirect revenue models</li> </ul>
Examples	<ul style="list-style-type: none"> <li>Financial Times</li> <li>BBC Mobile</li> <li>MP3.com</li> </ul>	<ul style="list-style-type: none"> <li>Amazon</li> <li>Dell</li> <li>eBay</li> </ul>	<ul style="list-style-type: none"> <li>Yahool</li> <li>Lycos</li> <li>MySimon</li> </ul>	<ul style="list-style-type: none"> <li>AOL</li> <li>Outpost.com</li> <li>GMX</li> </ul>

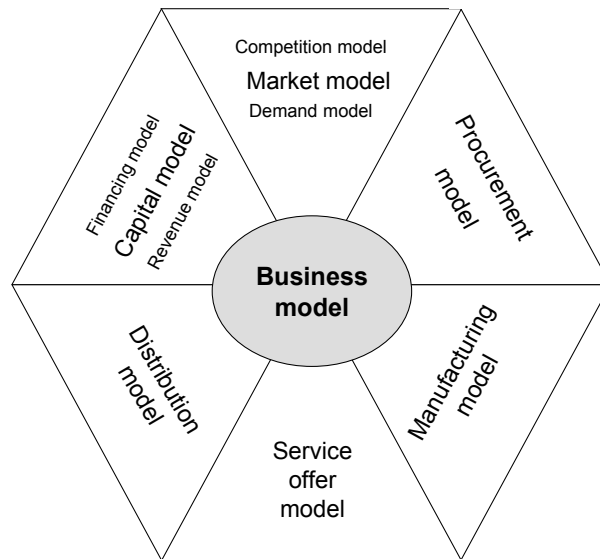
Similar to Timmers, Wirtz does not present a clear classification in terms of the level or application of business models. The existence of an industrial as well as a corporate view, however, is implicitly discernable.

With the capital model, procurement model, manufacturing model, market offer model, service offer model and distribution model, partial models and components are differentially presented in an integrated business model for the first time. Through division into six functional components, the essential cornerstone of a company's value creation can be illustrated. Figure 3-10 shows the correlation of these partial models.

*Six functional components of a business model*

<sup>1</sup> Wirtz (2000), p. 95

Figure 3-10

Partial models of an integrated business model<sup>1</sup>

#### *Subdivision of the market model*

The market model can be subdivided into a demand and a competition model. It depicts the actors as well as their interactions and clarifies which actors the respective company will be confronted with in the different markets. In the case of the demand model, the total market is partitioned into homogeneous submarkets based on certain characteristics of customer groups. Heterogeneous needs of the different market segments can be met through differentiated market services. In contrast, the competition model provides information about the competitive environment of a company.

#### *Procurement model and manufacturing model*

The procurement model determines which supplier is chosen for the respective production factors. In this context, both the power of the suppliers and the demanders must be taken into consideration. The conversion and combination of these input factors into new goods and services is described by the manufacturing model. This model focuses on the economic relationships between the production factors rather than on technological aspects.<sup>2</sup>

<sup>1</sup> Wirtz (2000), p. 83

<sup>2</sup> Günther/Tempelmeier (2007), p. 44

The service offer model defines which range of services is provided to the respective groups of customers. With the aid of the distribution model, the manner in which products and services are distributed is described. In principle, a distinction can be made between tangible and intangible goods. While for the distribution of intangible (mostly information-based) goods online channels of distribution can be utilized, tangible goods are limited to offline distribution. Especially with regard to the service offer model, different modes of distribution are suitable for different groups of customers. These modes should be matched to the segment-specific needs of demanders and should be taken into consideration in the distribution mix.

*Service offer model and distribution model*

The capital model can be perceived as a superior model for two partial models which correspond with the financial structure of a company: the financing and the revenue model. The financing model shows the sources from which the capital used for the financing of business activities comes. The revenue model in contrast serves to fundamentally systematize the different forms of revenue. In this context, four dimensions can be identified and differentiated: the direct and indirect generation of revenue as well as the transaction-dependent and transaction-independent generation of revenue.

*Capital model*

The different components are presented in detail and differentiated from each other. The interaction between the different components, however, remains unclear. The correlations which exist between these components or in what way a modification of components influences the whole model is not explicitly explained.

*Interaction of components*

#### ■ Business model approach of Hedman/Kalling (2002)

The business model approach taken by Hedman/Kalling (2002) reveals some strategic components but is dominated by a technology-oriented focus. The authors deduce the concept from several business theories: the resource-based-view, organization theories and the theory of creative destruction. In doing so, they point out the significance of the business model approach in the electronic business context.

In contrast to the preceding publications, they increasingly define the business model term by means of the components. In doing so, they go into the further development of business models and the interaction of different components.

*Definition with a dynamic perspective*

Pages 40 to 58 are not part of this extract.

## 4 Classification and aims of business models

The term *business model* has been used in various disciplines and, over the course of time, different basic approaches for a clarification of the concept have been developed. This heterogeneity of subjects is particularly reflected in existing definitions which in most cases only cover sub-areas such as the components of the business model or are very context-specific.<sup>1</sup>

When looking at possible business model definitions, two perspectives can generally be distinguished. On the one hand, a simplified point of view can be adopted, deriving the business model definitions from the partial definitions of the two terminologies. This method, however, leads to very general concepts which give little information about the specificity of the business model term and leave out relevant features.<sup>2</sup> On the other hand, there is the possibility of an integrated business model definition that in addition to the pure intersection of the simplified perspectives also includes the various basic approaches and range of themes. Thereby, an attempt is made to combine the different schools of thought and the numerous specific perceptions of business model research in order to deduce a comprehensive and specific business model definition.

For this purpose, subject-related, functional and teleological aspects are systematically considered in the following sections of analysis of the definition in order to derive an integrated business model definition. Thereby, subject-related aspects refer to the subject and structure of the connotations, whereas the functional aspects refer to their function or mode of operation. When discussing teleological aspects, the setting of goals and the determination of purposes are important.

In this chapter, the functions and targets of the business model concept and business model management are of particular importance. First, the various levels of a business model are presented along with a description as to the importance of these different levels for the functioning of a business model. In addition, the varying goals of business model concepts are explained in detail in order to integrate the definitions into an overriding framework. Figure 4-1 shows the structure of the chapter.

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<sup>1</sup> Zollenkop (2006), p. 40

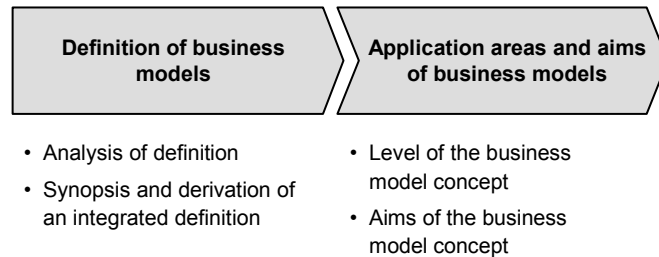
<sup>2</sup> zu Knyphausen-Aufseß/Meinhardt (2002), p. 65

*Business model definitions*

*Subject-related, functional and teleological aspects*

Figure 4-1

Structure of the chapter



## 4.1 Analysis of definition and synopsis

The goal of a specific, integrated business model definition can only be attained by means of a comprehensive analysis of the term. For this purpose, the most frequently used as well as the most up to date definitions of a business model concept were identified which, in total, provide a comprehensive picture of the definitional approaches to the greatest possible extent (Table 4-1).

Table 4-1

Business model definitions

Author	Definition
Treacy/Wiersema (1997a), p. 10 et seq.	The second concept – the operating business model oriented to customer value – describes the interaction of operating processes, management systems, organizational structures and corporate culture, which enables a company to keep its promise of service. These are the systems, infrastructures and the environment that help realizing the customer benefit. The promise of service is the corporate objective, whereas the operative business model oriented to the customer value is the method with which this objective is achieved.
Timmers (1998), p. 4.	An architecture for products, services and information flows, including a description of various business actors and their roles; A description of the potential benefits for the various business actors; and a description of sources of revenues.

Wirtz (2000), p. 81 et seq.	Here, the term business model refers to the depiction of a company's internal production and incentive system. A business model shows in a highly simplified and aggregate form which resources play a role in the company and how the internal process of creating goods and services transforms these resources into marketable information, products and/or services. A business model therefore reveals the combination of production factors which should be used to implement the corporate strategy and the functions of the actors involved.
Hamel (2000), p. 83.	A business model is simply a business model that has been put into practice. A business concept comprises four major components: Core Strategy, Strategic Ressources, Customer Interface, Value Network.
Linder/Cantrell (2000), p. 5.	Operating business models are the real thing. An operating business model is the organization's core logic for creating value. The business model of a profit oriented enterprise explains how it makes money. Since organisations compete for customers and resources, a good business model highlights the distinctive activities and approaches that enable the firm to succeed – to attract customers, employees, and investors, and to deliver products and services profitably.
Eriksson/Penker (2000b), p. 2 et seq.	A <i>business model</i> is an abstraction of how a business functions. [...] What the business model will do is provide a simplified view of the business structure that will act as the basis for communication, improvements, or innovations, and define for the information system requirements that are necessary to support the business. It isn't necessary for a business model to capture an absolute picture of the business or to describe every business detail. [...] The evolving models also help the developers structure and focus their thinking. Working with the models increases their understanding of the business and, hopefully, their awareness of new opportunities for improving business.
Amit/Zott (2001), p. 493.	A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities.
Rayport/Jaworski (2001), p. 109.	A business model is comprised of four parts: a value proposition or "cluster" of value propositions, a marketspace offering, a unique and defendable resource system, and a financial model. The value proposition defines the choice of target segment, the choice of focal customer benefits, and a rationale for why the firm can deliver the benefit package significantly better than competitors. The offering entails a precise articulation of the products, services, and information that is provided by the firm. The resource system supports the specific set of capabilities and resources that will be engaged in by the firm to uniquely deliver the offering. The financial model is the various ways that the firm is proposing to generate revenue, enhance value, and grow.

Hedman/Kalling (2002), p. 113.	Based on the review of existing literature, we would define a business model as consisting of the following causally related components, starting at the product market level: 1) customers, 2) competitors, 3) offering, 4) activities and organization, 5) resources and 6) factor and production input suppliers. The components are all cross-sectional and can be studied at a given point in time. To make this model complete, we also include 7) the managerial and organizational, longitudinal process component, which covers the dynamics of the business model and highlights the cognitive, cultural, learning and political constraints on purely rational changes of the model.
Magretta (2002a), p. 3 et seq.	A good business model remains essential to every successful organization, whether it's a new venture or an established player. [...] Business models, though, are anything but arcane. They are, at heart, stories – stories that explain how enterprises work. A good business model answers Peter Ducker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?
Rentmeister/Klein (2003), p. 19.	A business model is a model on a high abstraction level which illustrates the essential, relevant aspects of the company in an aggregate, clear form. Ideas and concepts for businesses can be identified, discussed and/or evaluated.
Afuah/Tucci (2003), p. 3 et seq.	A business model is a framework for making money. It is the set of activities which a firm performs, how it performs them, and when it performs them so as to offer its customers benefits they want to earn a profit.
Afuah (2004b), p. 9.	A business model is the set of <i>which</i> activities a firm performs, <i>how</i> it performs them, and <i>when</i> it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value.
Osterwalder/Pigneur/Tucci (2005), p. 3.	A business model is a conceptual tool containing a set of objects, concepts and their relationships with the objective to express the business logic of a specific firm. Therefore we must consider which concepts and relationships allow a simplified description and representation of what value is provided to customers, how this is done and with which financial consequences.
Zollenkop (2006), p. 48.	The business model serves as a strategic instrument for a comprehensive, cross-company description, analysis and constitution of the business activity.

Al-Debei/EI-Haddadeh/Avison (2008), p. 7.	The business model is an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, and financial arrangements designed and developed by an organization presently and in future, as well as all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its strategic goals and objectives.
Johnson/-Christensen/-Kagermann (2008), p. 52.	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 first. Customer value proposition, profit formula, key resources and key processes.

The definitions show a variety of differences concerning the subject and the structure of a business model. The overwhelming majorities of these authors consolidate the general structure of business models in their definitions and thereby subdivide business models into several partial models. Hamel (2000), Rayport/Jaworski (2001), Hedman/Kalling (2002) and Johnson/-Christensen/Kagermann (2008) in particular provide a clear overview and suggestions for a business model definition characterized by components. Apart from this conceptual understanding of business models, an illustration of the frames of reference, architecture, and tools can also be identified in the definitions from a subject-related point of view.

Wirtz (2000), for instance, explicitly describes business models as a representation of the production and performance systems of a company. Eriksson/Penker (2000b) share this perspective. In principle, but with a much higher level of abstraction, Afuah/Tucci (2003) and Rentmeister/Klein (2003) also understand business models as a representation and as an abstract, corporate frame of reference. Similarly, the architecture can be seen as an interpretation of the business model concept. In this context, Timmers (1998) speaks of the architecture of the most important services of a company, including the relevant information flows. Linder/Cantrell (2000), on the other hand, synthesize the entire architecture of a company together as the quintessential logic.

Ultimately, it becomes evident that apart from these more illustrative conceptualizations of the business model, some authors also adopt an instrumental view. Osterwalder/Pigneur/Tucci (2005), for instance, understand business models as a conceptual tool that can be used not only for illustrating but also for managing a company's core logic. Zollenkop's (2006) description of a business model is similar, although here, the strategic aspect of business model management is at the center of attention. This perception is closely associated with the functional aspects of the concept.

*Subject-related aspects*

*Functional aspects*

Altogether, the functional aspects of the different business model definitions form a homogenous picture. It becomes apparent that the posited functions or modes of operation of business models are strongly determined by subject-related aspects and that the functions of the simplified and aggregated representation of the relevant activities and interactions of a company are at the center of attention. Only the detail of the functional description can be distinguished.

Eriksson/Penker (2000b) and Wirtz (2000) use business models to present the complex relationships within a company in a clear and aggregate way. In doing so, both explicitly state a number of necessary processes and activities which should be presented by the business model in a conceptually simplified way. Additional concrete processes and activities are taken up by Treacy/Wiersema (1997a) who concentrate on the interactions of different corporate parameters. In contrast, Timmers (1998) focuses on the actors in a business model and the relevant interactions that should be explained.

Linder/Cantrell (2000) and Magretta (2002) adopt a higher level of abstraction in the context of business model functions. The authors realize that a business model must show and describe the relevant and characteristic activities of a company, preferably answering all relevant questions regarding the production of goods and services as well as financial success. This abstract, functional view is also taken up by Rentmeister/Klein (2003) and Osterwalder/Pigneur/Tucci (2005), although without a more specific elaboration on the relevant aspects.

*Teleological aspects*

Regarding teleological aspects, in other words, the goal oriented and purpose driven nature of business models, the definitions present diverse perspectives. Goals are typically only implicitly mentioned, and many definitions do not give any at all. All in all, it is apparent that in addition to the goal of a general increase in understanding the company as a whole and the core logic of the production of goods and services,<sup>1</sup> realization of the promise of service, the satisfaction of consumer needs, the general success of the company and the further existence or development of the business model can also be identified as essential goals of the concept.

Treacy/Wiersema (1997a) distinguish between the conceptual level of a company's promise of service and the operational realization, that is to say the creation of customer benefit in the business model. Rayport/Jaworski (2001) have a similar opinion regarding the purposes of a business model, though the authors make a distinction of competition in the satisfaction of needs. By means of definitions, Afuah/Tucci (2003) establish the connection between service realization, need satisfaction and the company's profitability.

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<sup>1</sup> Magretta (2002a), p. 3; Osterwalder/Pigneur/Tucci (2005), p. 3

Linder/Cantrell (2000) focus on corporate success as an essential objective of the business model whereby the services and satisfaction of consumer needs are included.

In addition to these increasingly interdependent objectives, some definitions take new objectives into account, such as further development or redevelopment of business ideas. Rentmeister/Klein (2003), for instance, suggest that business models serve to find, verify and evaluate business ideas. Eriksson/Penker (2000b) and Amit/Zott (2001) show a similar understanding, although they put priority on the identification of new corporate ideas and new possibilities.

In summary, an integrated and comprehensive business model definition can be established which, within the scope of the subject-related aspects, focuses on the illustrative, graphical depiction and the architecture of the company. From the functional view, the aggregated and simplified explanation of the relevant corporate activities remains the focus. The teleological aspects show that a business model can be used as a guarantee of the realization of the service promise, satisfaction of needs, long term profitability, and further development of business ideas. This can be summarized as the generation and preservation of competitive advantages. The synopsis of this analysis in form of an integrated business model definition can be seen in Table 4-2.

### *Synthesis*

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#### *Business model definition*

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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 considered in order to realize the overriding objective of generating and preserving a competitive advantage.

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*Table 4-2*

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Furthermore, an instrumental view of the business model can also be identified on the basis of the analyzed definitions.<sup>1</sup> In this context, the entire management in terms of description, analysis and structure of a company with the aid of business models is discussed in order to secure and foster the long-term business activities. Here, the management process that conforms to the different phases of a business model can be put into focus.<sup>2</sup> The business model management definition derived from this can be seen in Table 4-3.

### *Instrumental view*

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<sup>1</sup> Osterwalder/Pigneur/Tucci (2005), p. 3; Zollenkop (2006), p. 48

<sup>2</sup> Debelak (2006), p. 64; Bridgeland/Zahavi (2009), p. 183

Table 4-3

*Business model management definition*

Business model management constitutes an instrument for controlling a company and comprises all target-oriented activities in the scope of design, implementation, modification and adaptation as well as the control of a business model in order to realize the overriding objective of generating and securing competitive advantages.

## 4.2 Levels and goals of business models

In many fields, a concrete application of the business model concept is important. Thus, the basis of a business model is to present the relevant value creation and the promise of service. Here, the concept shows an aggregate framework of the most important partial models and illustrates their structure.<sup>1</sup> In this context, several levels of a business model can be distinguished. The relevant levels can be divided into industry, company, business units and product levels. These different levels build upon one another and can consequently explain the structure of industries or companies as a whole.<sup>2</sup> Figure 4-2 illustrates this notion.

<sup>1</sup> Wirtz (2001), p. 210

<sup>2</sup> Afuah (2004b), p. 4

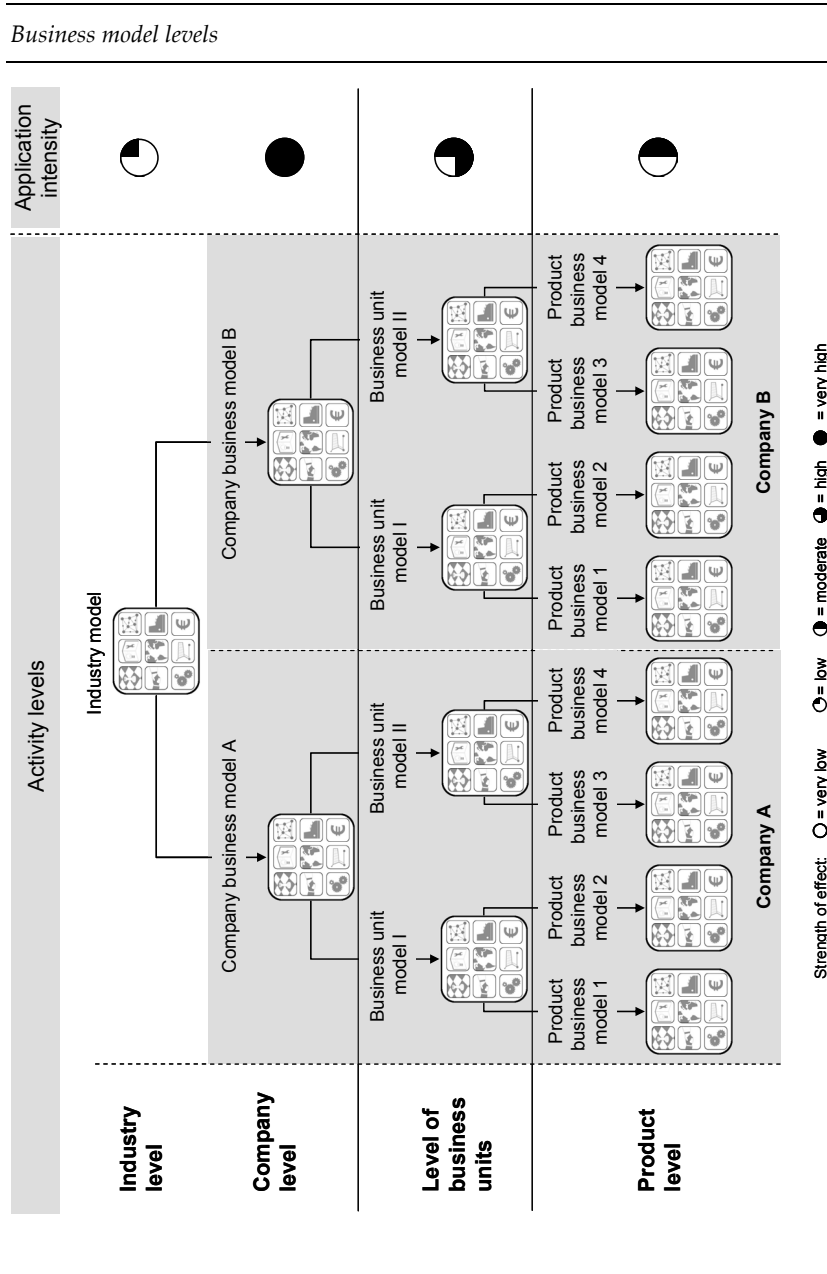


Figure 4-2

<i>Industry level</i>	In the case of the industry level, environmental conditions as well as external factors are incorporated into the profitability consideration. This is done in line with the familiar concepts of strategic management, such as Porter's aspects of rivalry within an industry, supplier and customer power, potential market entrance and substitutes. <sup>1</sup> This industry model focuses not only on a comprehensive environmental analysis, but also on an analysis of the production of goods and services of different companies within an industry.
<i>Company level</i>	The company can be identified as another possible degree of abstraction in the business model concept. Whereas in the case of the industry level, the focus is placed on the corporate environment, here, intra-corporate factors and their magnitude of influence are considered. The three relevant factors of resources, activities and the positioning of a company should be emphasized in the context of business models. <sup>2</sup> Along with the core competencies, resources form the foundation of a business model. They significantly influence the configuration of the system of creating goods and services and have a considerable effect on success. The positioning of a company determines not only its resources and activities but also its success and provides information about which consumers or markets are served and how revenue can be generated through this.
<i>Level of business units</i>	In the case of smaller enterprises, a comprehensive overview of all activities can be achieved through the corporate view. However, in the case of large and diversified corporations, this degree of abstraction is too undifferentiated to ensure management of the production of goods and services. <sup>3</sup> For this reason, an even more detailed degree of abstraction is introduced with the level of the strategic business unit. A strategic business unit is the segment of a company which is responsible for the functioning of one or more business units or products. Within a corporation, many different business models can exist, and while single partial models of structures or the business model may be consistent with one another, the consumer's perception may nevertheless differ.
<i>Product level</i>	The product level constitutes the lowest possible level of consideration of a business model. Here, different segments of the creation of goods and services can be summarized in an integrated view, and all relevant partial models and processes for a product can be illustrated. The mobile phone I-Phone by Apple can serve as an example since both the hardware and software development/production is performed by different departments.

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<sup>1</sup> Müller-Stewens/Lechner (2005), p. 189

<sup>2</sup> Afuah (2004b), p. 6

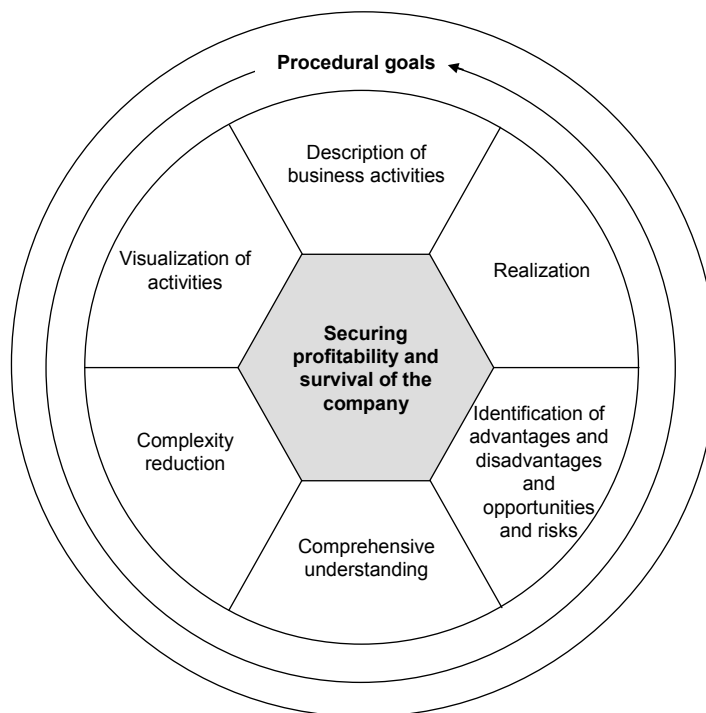
<sup>3</sup> Deelmann (2008), p. 50

Depending on the application context and the size of the company, the appropriate level for the observation of the business model must be chosen. In doing so, the levels are not mutually exclusive and in some cases, it is sensible to consider a company on several or all business model levels mentioned here. Due to these different degrees of abstraction, the value creation and profitability of a company can be holistically and fully comprehended. This is the foundation for sustainable management and the generation of a long-run competitive advantage of business models.

Apart from securing competitive advantages as an overriding objective of business models, especially for business model management, further objectives can be deduced from the functional aspects of the business model concept. By means of the instrumental character of business model management, six procedural objectives can be identified which in turn serve the prevailing business model objective. Figure 4-3 illustrates the procedural sub-goals of business model management with the overriding business model goal as a core.

Objectives of the business model and business model management

Figure 4-3



*Describing and visualizing business activities*

The first objective is to assist the companies in describing their business activity. By means of a business model or the individual partial models, the existing business concept can be explained. Thereby, the theoretical business operations are graphically depicted in order to simplify the management of interactions, processes, etc. With this graphical form of representation, a higher level of abstraction is reached for all business activities. This aids the management of a company in developing a better basis for decision-making. Furthermore, graphical depictions can also serve as a basis for considerations within the scope of further development or the adaptation of business models.<sup>1</sup>

*Reduction of complexity*

Another procedural goal is the reduction of complexity.<sup>2</sup> For the management of a company, relevant and aggregate information from the fields of processes, resources, competencies, finances and competition must be available in order to develop appropriate strategies to ensure competitive advantage. Through the simplified depiction of a business model, information on the company as a whole is clearly presented. Within the scope of business model management, this in turn leads to better bases for decision-making in order to successfully operate the company.

*Producing a holistic understanding*

In the context of information processing, an increasing quantity of information and key figures is generated and provided to the corporate management. Business model management should not only support the management in daily decision-making but also allow for a long-term, profit-based orientation. In the case of this long-term orientation, it is important for the manager to fully understand the relationships within the company as well as the processes and the links to the environment. For this reason, building a holistic understanding is another goal of business model management, with the purpose of better identifying potential and more precisely evaluating risks.<sup>3</sup>

*Identifying advantages and disadvantages & chances and risks*

The internal and external potential and risks have a considerable impact on the decisions of a company. Therefore, the identification of opportunities and risks constitutes an important procedural goal of business model management for the company.<sup>4</sup> In this context, the individual partial models are continuously examined to assess whether further efficiency advantages or synergy effects can be used to better serve customers or to optimize the production of goods and services. In addition to these internal perspectives, the business model simplifies the analysis of relevant competitors as well as the identification of possible external value creation partners for the respon-

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<sup>1</sup> Osterwalder (2004), p. 2

<sup>2</sup> Bridgeland/Zahavi (2009), p. 26

<sup>3</sup> Eriksson/Penker (2000b), p. 2

<sup>4</sup> Debelak (2006), p. 86

sible business model managers. Apart from focusing on partial models, business model management also helps to consistently evaluate the whole business model in order to identify the advantages and disadvantages of its strategic orientation.

The last procedural goal is to support companies in the application of business models.<sup>1</sup> In the course of restructuring or a change in business model, business model management can help to present a general view of the relevant aspects of the company's process of change. Furthermore, when implementing a new business model, business model management can ensure that all relevant aspects and partial models have been considered, which increases the probability of success. In conclusion, Figure 4-4 summarizes the complete chapter on *definitions, areas of application and aims of business models*.

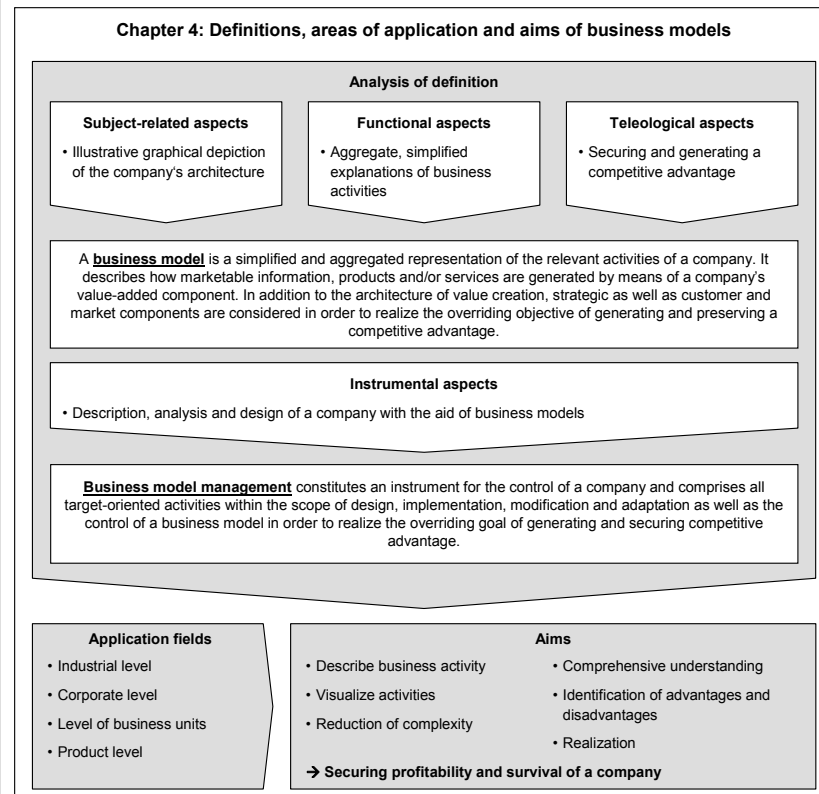
**Realization**

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<sup>1</sup> Kagermann/Österle (2007), p. 27

Figure 4-4

Summary of the chapter on definitions, areas of application and aims of business models



Pages 73 to 109 are not part of this extract.

## 3 Partial models of business models

Business models can be observed on different levels. While in the previous discussions of business models, the concept was generally classified as belonging to a company's value creation logic; this chapter focuses on the different partial models of business models and their contribution to value creation. In section 3.1, an integrated business model approach is introduced. Furthermore, it is clarified why this detailed observation of value creation in companies offers the greatest advantages for sustainable success. In particular, the different partial models of an integrated business model are illustrated as well as how they contribute to value creation.

### *Strategy component*

Section 3.2 indicates the characteristics of the strategic partial models of a business model. Furthermore, the respective strategies, competencies and networks, that are relevant for the business model concept are illustrated. It is shown how these three partial models of a business model can be understood as a strategic component of a business model and how they influence all other partial models.

### *Customer and market component*

In section 3.3 customer and market components are presented as the next step within business model logic. The focus of observation is on the partial models which are connected to the practical applicability and realization of market strategies. In this context, it will be shown which customer groups are dealt with by a company and how they contribute to the total revenue.

### *Value creation component*

By elaborating on the manufacturing model and the resources model, section 3.4 shows how value is eventually created in a company. Clarification of the way in which resources are embedded in a company and how they are transferred to marketable products and services is also presented. The partial model of financing is another important partial model to be discussed in this context.

In order to show the necessary interactions between single partial models for the total value creation in detail, the final section (section 3.5) will summarize the previously discussed partial models via a process model. A rather general process flow has been chosen to allow for transferability and thus easy applicability to concrete business models. Figure 3-1 gives an overview of the chapter.

Structure of the chapter

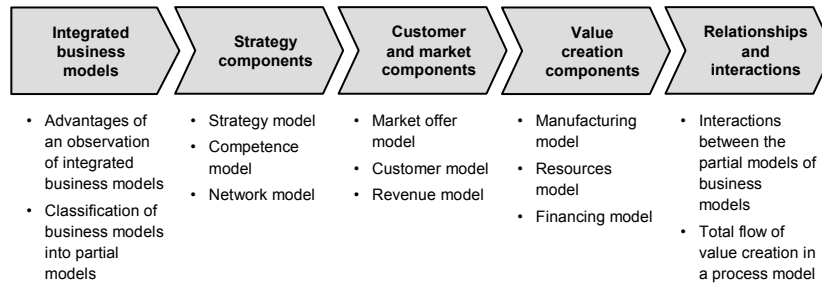


Figure 3-1

### 3.1 Integrated business model

Concrete applications of the business model concept can be found in various fields. The scope of application contains, among other things, the rough modeling of a business idea in the early stages of a start-up as well as a change management process for established companies rich in tradition in order to withstand changing basic conditions.<sup>1</sup> However, a primary intention is always connected to the application of the business model concept: the development, implementation and protection of a lasting, successful and profitable corporate strategy.<sup>2</sup>

A certain precision is, however, necessary for a detailed analysis of a company's activities and the resulting effects on lasting success. This ensures that relevant aspects of a business model are anticipated and integrated during the processes of formation and change. Furthermore, it prevents unnecessary sunk costs. The integrated business model concept cannot and should not replace necessary economic analyses during the individual processes, but rather should reveal a conceptual and aggregated framework of the most important components.<sup>3</sup>

This conceptual framework is important in order to show how value is created in a company and thus how the profitability of the company can be ensured. When looking at discussions of strategic management, both inter-

*Application possibilities of business models*

*Accuracy of the analysis*

*Internal and external factors*

<sup>1</sup> Wirtz (2001a), p. 211; Afuah (2004b), p. 2; Osterwalder/Pigneur/Tucci (2005), p. 8  
<sup>2</sup> Wirtz/Becker (2002)  
<sup>3</sup> Wirtz (2001a), p. 210

*Industry-specific factors*

nal aspects as well as environmental conditions of a company should be observed in order to derive the relevant components of a business model.<sup>1</sup>

Industry-specific factors in particular are counted among the environmental conditions and external factors of profitability consideration. In order to get a comprehensive picture of the partial models of business models, one can refer to the aspects introduced by Porter: rivalry within the industry, supplier and customer power, potential new suppliers and substitute goods. However, possible cooperation between different companies plays a role in the analysis of industry-specific factors in order to equitably deal with particular developments related to the value constellation. Some types of cooperation can generally lead to lower costs and consequently be suitable for the business model of a single company and the overall product.<sup>2</sup>

*Internal factors*

Concerning internal factors, a variety of influential variables can be identified. However, three comprehensive aspects have emerged: the positioning, activities and resources of a company.<sup>3</sup> The positioning of a company provides information about which market and customers are to be served and how revenues will be generated. In this context, it is important to decide which possible strategies are suitable, what value is provided to the customers and in which segment a company wants to position itself as compared with its competitors. This is closely connected to the activities of the company which are described in the business model. The critical questions in this context are: which activities shall be performed, and in what way and when, in order to achieve, hold and strengthen a profitable position in comparison to the main competitors. In turn the activities of the company are strongly influenced by the resources of the actors involved. Here, the core competencies and assets of a company must be taken into account in order to analyze the long-term success of the company.

*Significance of strategic business areas*

Especially in strongly diversified companies, a further observation of business models on the level of strategic business areas is useful.<sup>4</sup> Within a conglomerate, such as Siemens, a variety of relevant business models exist to which partial models may partially correspond but which are not comparable in their entirety. In the case of Siemens, examples include the strategic business units of Industry Solutions and OSRAM. While Industry Solutions focuses exclusively on business clients as a system and solution integrator in the industrial plant business, OSRAM also focuses on private end-users when developing and producing light sources. The business models must be adapted to these different conditions.

<sup>1</sup> Afuah (2004b), p. 4

<sup>2</sup> Dyer/Singh (1998), p. 664; Dyer/Nobeoka (2000), p. 345

<sup>3</sup> Afuah (2004b), p. 6

<sup>4</sup> Deelmann (2008), p. 50

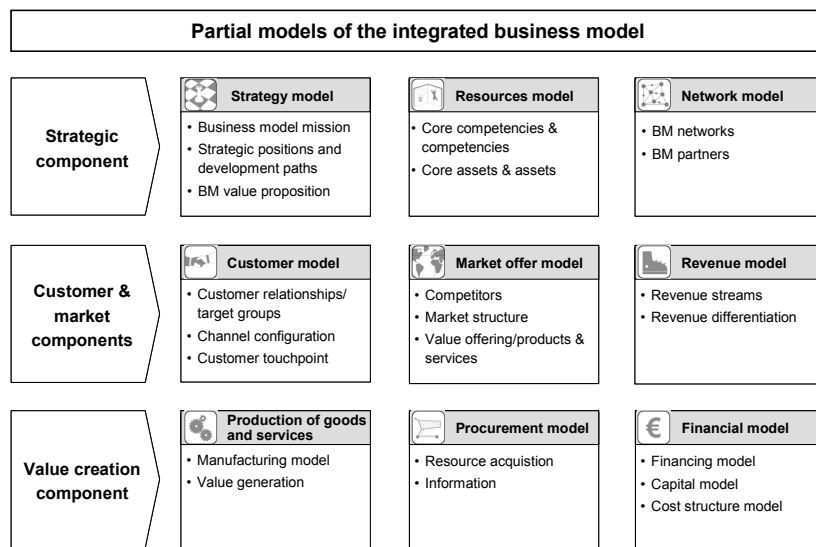
The basis for the use of strategic business units is thus the adoption of different tasks within a company's sales market.<sup>1</sup> A (sub-)market with certain basic conditions and a specific competitive situation is more successfully modified by a specifically oriented organizational unit than by an undifferentiated general strategy. In this context, the central problem when dealing with business areas is that segmentation of market activities should preferably take place so that the resulting business portfolios are heterogeneously designed, but internally they should exhibit a high level of homogeneity.<sup>2</sup> Thus, the business areas formed must adapt their business models to the particular requirements of the market in various dimensions and establish appropriate partial models.

When summarizing the single aspects of the internal and external factors of influence, a comprehensive picture of the single partial models of business models can be derived. Figure 3-2 illustrates the single partial models of the integrated business model.

*Deriving the integrated business model*

Partial models of the integrated business model<sup>3</sup>

Figure 3-2



1 Hungenberg (2004), p. 416  
 2 Meffert/Burmann/Kirchgeorg (2008), p. 255  
 3 Wirtz (2001a), p. 211

**Relevance of the strategic component**

The strategy, networks and resources of a company play a central, interdependent and superior role within the integrated business model approach since these partial models are increasingly concerned with one another as well as all other partial models. In the following sections, the partial models of the integrated business model are described and analyzed in detail.

## 3.2 Strategic component

Strategy, internal resources and networks build an upper unit of the integrated business model concept and are therefore of particular significance when analyzing value creation in business models.<sup>1</sup> These strategic partial models generate an operational scope for the other partial models and define which types of value creation are generally possible.

**Functions of the strategy model**

### 3.2.1 Strategy model

In the strategy model, the top management defines medium and long-term goals and activities of a company in order to persist on the market. In this context, it is generally postulated that these strategies unite the business vision, mission and goals. The determination of the positioning and definition of strategic business areas is connected to this. A strategic situational analysis that comprises changes in framework conditions, scope of action and strengths and weaknesses of the company serves as a basis.<sup>2</sup>

**Strategy levels in companies**

In the context of business models and strategy, four different levels can be described on which strategically relevant decisions must be made: the corporate level, business level, functional level and relationship level.<sup>3</sup> Figure 3-3 illustrates the different decision levels and the various tasks of business model management. In the following section, the individual levels of a company will be specified in the business model context by means of strategic starting points, vision, mission, goals, etc. Furthermore, their effects on other partial models of business models will be described.

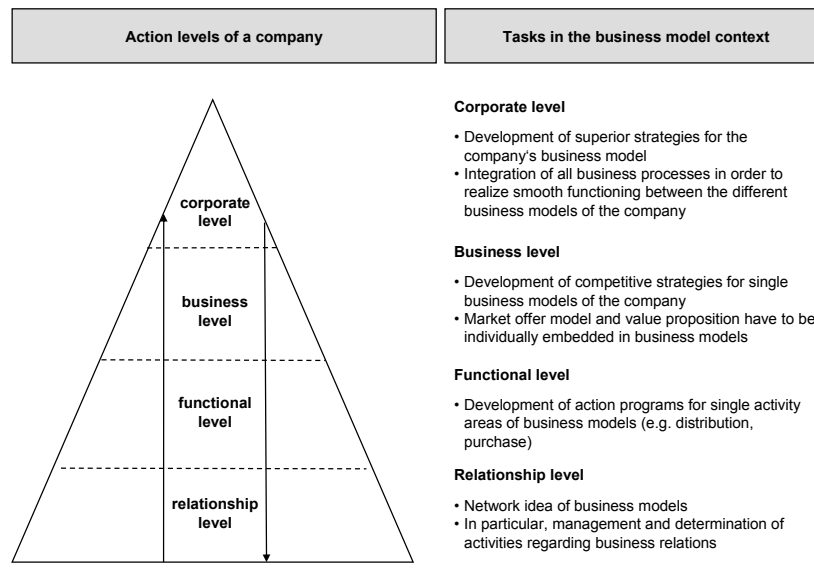
<sup>1</sup> Lambert (2008), p. 285

<sup>2</sup> Wirtz (2008), p. 124

<sup>3</sup> Wirtz (1999), p. 21; Chesbrough/Rosenbloom (2002a), p. 3; Afuah (2004b), p. 12

Strategy levels and tasks of the business model management<sup>1</sup>

Figure 3-3



On the level of the business as a whole, it must be defined how the entire company appears on the market - in other words, how the business model of the whole company presents itself. In this context, the positioning of the company is of particular significance. On the corporate level, a business model can appear as a clearly positioned company with a single corporate brand, such as Siemens. In this way, a strong connection to the corporate brand with respect to the vision and mission of the whole company's business model can be established.

*BM on the business level*

On the other hand, it is possible for a company not to have a comprehensive corporate brand, and consequently, no comprehensive corporate business model, such as the case of Procter & Gamble. Here, it is not the business model of the company as a whole that is featured but a number of specific business models with different product brands.

However, in order to secure a comprehensive company business model which is profitable in the long-run, as is the case with Procter & Gamble, the internal aspects, processes and production of goods and services must be coordinated so that the total value creation is greater than the sum of the

<sup>1</sup> Wirtz (1999), p. 12

*BM on the level  
of the business  
area*

single business models.<sup>1</sup> Here it is important that the single business models are subordinate and connected to the overriding business goals and corporate visions in order to achieve adequate value creation in all areas.

Strategic decisions on the level of individual business areas depend on the appearance of the company on the market, which is decided on the business level. If only one brand is used on the total market, the business model of the single business units can be internally managed and optimized without the customers necessarily knowing about strategic changes. If a strategy uses a variety of brands with a number of corresponding business units, management of the single business models is indeed more transparent to the relevant stakeholders.

When, for example, a single brand is to be transferred to a higher quality division, a number of internal and external actors must be involved. In the case of a change in the channels of distribution, intermediaries, suppliers and perhaps producers are affected. Customers, of course, are also significantly affected by such a strategic decision, which is why the price – which will be higher due to an increase in quality – must be clearly communicated to them. For this purpose, a clear and comprehensible value proposition is necessary for a business model.

*Significance of  
the value  
proposition*

The value proposition of a business model describes the satisfaction of customer needs by generating benefit through the value creation process.<sup>2</sup> It thereby comprises aspects of both the benefit and the value of a company's offer. By measuring results, an examination of the ways in which the value proposition is communicated to the customers through the respective action programs – along with the associated profit potential – can take place. In this context, the value proposition can also be used for the development of new service offers of the business units.<sup>3</sup>

*BM on the  
functional level*

Within individual areas of activity, the strategic orientation of the value proposition is transformed into concrete action programs. The strategic guidelines for the business model are therefore implemented from the upper levels. Within this frame, concrete action patterns are consequently created for research and development, sales, production and purchase, marketing, human resource management, as well as investment and financing. The single functional units of the company are thereby modified with different instruments. As a tool for decision-making, the portfolio technique is often used, which in the literature is often associated with tactical and operational strategies.

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<sup>1</sup> Afuah (2004b), p. 12

<sup>2</sup> Stähler (2002), p. 43

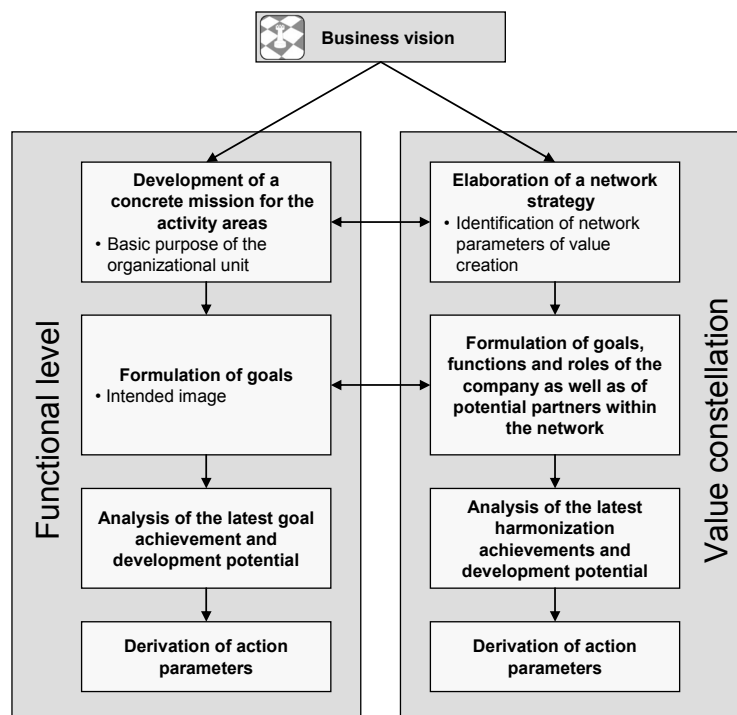
<sup>3</sup> Anderson/Narus/van Rossum (2006), p. 3

The typical management process on this level of planning can be arranged as follows. First, a concrete mission for all areas of activity is derived from the business vision of the company. This mission describes the basic purpose of the organizational unit and possesses a sense of entitlement over the area of activity, which is oriented toward the customers. In order to achieve the intended image that the customers should be linked to the areas of activity and the company, appropriate goals are formulated.

Afterwards, an analysis of the current degree of goal attainment and development potential is made. From these results, action parameters are deduced which shape the customer image according to the business mission. A similar procedure can also be found on the level of the value constellation, although there, additional relationships to external partners are also taken into account.<sup>1</sup> Figure 3-4 illustrates the management process both on the level of the area of activity as well as on that of the value constellation.

Management process within the strategy model

Figure 3-4



<sup>1</sup> Part C, Chapter 3.2.3

In the example of the company Deutsche Bahn, this typical management process can be demonstrated. The vision of the company is to be “the world’s leading mobility and logistics company”.<sup>1</sup> This particular demand is communicated to the customers by the claim “Die Bahn macht mobil”, which can therefore be identified as a mission. From these general guidelines, goals such as customer orientation, economic success, continual improvement, cooperation within the company and a sense of responsibility are derived.<sup>2</sup> From those goals, concrete action programs are developed on the business and functional levels. In the business unit DB Fernverkehr of the Deutsche Bahn, the activity area of distribution can improve customer orientation by, for instance, implementing and evaluating alternative systems for ticket purchases via mobile phone or Internet.

### 3.2.2 Resources model

#### *Functions of the resources model*

In the resources model, the core assets and core competencies are depicted as well as their subordinate elements relevant to value creation. It is thus a summary of all relevant tangible and intangible input factors of the business model.<sup>3</sup> In this process, both internal and external resources and competencies are presented. It must be considered, however, that only relevant processes are included in the model.<sup>4</sup> Figure 3-5 shows the composition of a resources model using Apple iTunes as an example.

#### *Overview of the relevant input factors*

In the iTunes resources model, all relevant input factors are illustrated. In doing so, both internal and external actors which provide resources or competencies for value creation of the platform are taken into account. Internally, various divisions of the company are involved in the provision of resources. In this way, the departments of software engineering, devices hardware engineering and worldwide product marketing serve as a pool of resources or competencies for the iTunes platform.

Access to external resources is simplified and advanced by electronic networking.<sup>5</sup> Thus, iTunes is a company that profits from virtual markets which facilitate the outsourcing of resources. The billing of contents purchased online is affected, for example, by the external supplier Click&Buy. The service is so well integrated within the offer that, apart from the separate registration process, the end-consumer scarcely perceives the outsourcing.

<sup>1</sup> Deutsche Bahn AG (2008)

<sup>2</sup> Deutsche Bahn AG (2007)

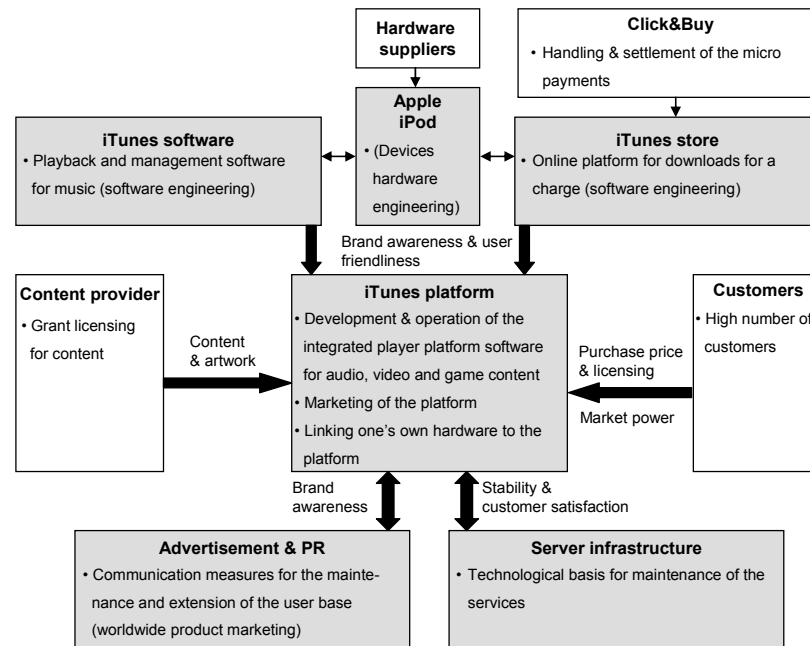
<sup>3</sup> Petrovic/Kittl/Teksten (2001), p. 3; Currie (2004), p. 82

<sup>4</sup> Wirtz (2009), p. 76

<sup>5</sup> Amit/Zott (2001), p. 495

Composition of a resources model using the example of iTunes<sup>1</sup>

Figure 3-5



For the modeling process, resources which are valuable, intangible and difficult for competitors to imitate are of particular importance in the business model context. Specific management knowledge, technical know-how, corporate image and learning aptitude are included among these resources. These resources can be the basis for a lasting competitive advantage if their status in the business model can be correspondingly utilized.

The analysis and mapping of resources and competencies which are relevant for value creation are mainly the tasks of top management. Thereby, various strategies can be used in order to guarantee a lasting competitive advantage by means of the existing resources in the business model.<sup>2</sup> Through its influence on key resources, for example, a company can try to keep possible competitors out of the market by pursuing a defensive blockade strategy and creating high entry barriers. This can be achieved by exclusive contracts with important suppliers or patents, among other things. However, this harbors

*Valuable resources*

*Competitive strategies in the resources model*

<sup>1</sup> On the basis of own analyses and estimates of the resources model

<sup>2</sup> Afuah/Tucci (2003), p. 70

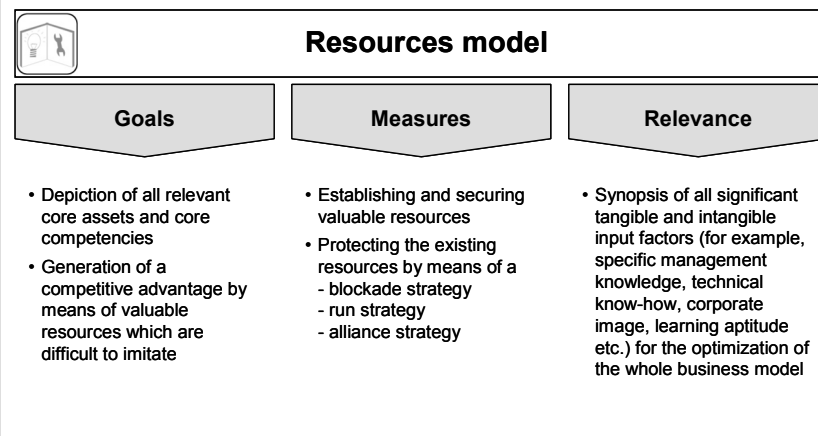
the risk that a competitor may break through the barrier or reshape the market via a major innovation.

In contrast, an offensive strategy does not rely on single blockades but on continuous advancement and improvement which maintains or widens the advantage over competitors. The company thereby tries to make usable new resources for the business model by utilizing first-mover advantages. Furthermore, an alliance strategy can also be adopted. This may come in the form of a strategic alliance, a joint venture or business development.

The advantage of cooperating with competitors is the expanded access to resources. The disadvantage, however, is that internal knowledge can be irreversibly shared and competitive advantages therefore abandoned. In business practice, a combination of strategies is often used in order to achieve lasting competitive advantages. Figure 3-6 illustrates the strategies as well as the core aspects of the resources model.

Figure 3-6

Core aspects of the resources model



### 3.2.3 Network model

#### Functions of the network model

The network model gives an overview of the value constellation partners in value creation and the connections between different business models. In this context, the network model is an instrument of the top management to control and manage value distribution within a collaborative value creation. Different tangible and intangible streams of information and goods are ana-

lyzed in this process.<sup>1</sup> In this way, particular stakes in value creation may be determined and classified to a network of connections and relations.

Apart from this, the network of a value constellation can also be classified to a superior, larger network.<sup>2</sup> This is significant for small and medium-sized enterprises since they have specialized in a specific market niche. All in all, this network model serves as a structural extension of the strategy model and the resources model. External relationships that are of significant importance for the business model are comprehensively illustrated in the partial model.

Partner-based value creation first requires a mutual vision of the management of all companies involved and the formulation of a mutual market goal. Through the interorganizational coordination of strategic procedures, this vision is then specified into collective business model strategies, which means that the strategy regarding market cultivation is designed through the value constellation.<sup>3</sup> In this context, it is very important for the management of a company to correctly assess the network of the value constellation regarding its own action parameters. In the case of an analysis of the corresponding network models, various levels can be examined. Figure 3-7 gives an overview of this matter.

*Development process of the network model*

Levels of the business model network model<sup>4</sup>

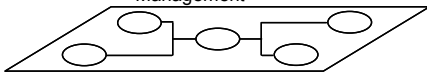
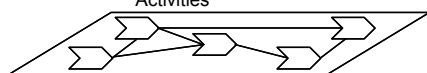
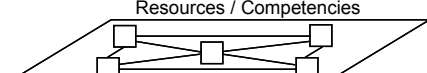
Elements	Network levels	Network processes
Management units & relationships	 <p>Management</p>	<ul style="list-style-type: none"> <li>• Goal setting</li> <li>• Planning/management</li> <li>• Monitoring</li> </ul>
Value creation elements & transaction relations	 <p>Activities</p>	<ul style="list-style-type: none"> <li>• Production of goods and services</li> </ul>
Pools and linkages of resources	 <p>Resources / Competencies</p>	<ul style="list-style-type: none"> <li>• Learning process</li> </ul>

Figure 3-7

1 Wu/Zhang (2009), p. 3  
 2 Barney (2004), p. 86  
 3 Krystek/Redel/Reppegather (1997), p. 302  
 4 Mack (2003), p. 136

<i>Management focus</i>	The relevant management units and their relationships to each other are depicted on the management level. The network process thus illustrated comprises strategic goal setting, planning, management and control. This form of presentation serves to depict organizational responsibilities and balances of power within the value constellation. In this context, the relations between the individual stakeholders of the management process also show possible interdependencies between the different entities.
<i>Focus on activities</i>	When observing the activities within a network, the single elements of value creation as well as the corresponding transaction relationships are modeled. The goal is to convey an understanding of the collective production of goods and services by showing how the individual companies in a partnership add value to the final product. The basic structure of the value constellation also characterized by a configuration of various value-adding activities is described accordingly. <sup>1</sup> The distribution of power between the actors within the value constellation, however, is not taken into account on this level of the network model.
<i>Integration of network effects</i>	Value creation by the customer plays a particular role within this scope. In the case of specific goods and services, additional network effects must be considered. These network effects are created when the benefit of an offer is directly linked to the number of users. <sup>2</sup> An example of this is the provision of broadband Internet access. The more connections used, the more companies benefit from the usage of applications connected to this kind of access, such as video chat or Internet telephone service. When companies recognize activities which contribute to an increase of the user base and service life, they can support this form of application in their offers. For this reason, most Internet providers offer e-mail access at no charge.
<i>Focus on resources</i>	When focusing on the resources and competencies of the network model, pools of the available core assets are mainly located within the value constellation. The connections between the single resources and competencies are also shown, and the transaction costs for access to external resources are considered. With a resource based network model, important partner companies can be evaluated by the management and potential dependencies can be identified in the business model context. Figure 3-8 illustrates the most important core aspects of the network model.

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<sup>1</sup> Kippenberger (1997), p. 31

<sup>2</sup> Weitzel/Wendt/Westarp (2000), p. 1

## Core aspects of the network model

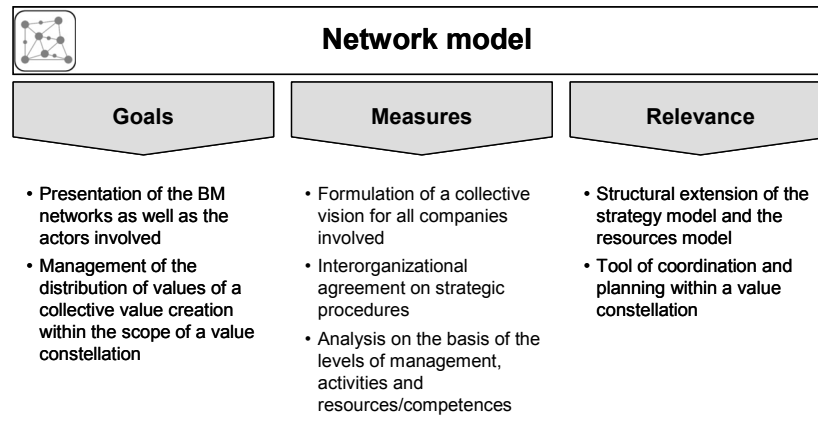


Figure 3-8

Upon summarizing these observations, the complex and multi-dimensional relations between the various partial models become obvious. Based on a conceptual depiction of the different contexts, a checklist is usually very helpful for a successful implementation. Therefore, Figure 3-9 presents an explicatory checklist with the most important questions regarding implementation in this subject area.




*Check list of the strategic component*


Figure 3-9

Check list of the strategic component

?


**Core issues regarding the strategic component**




**Strategy model**

- What are the central core aspects of the business model mission?
- Does an adequate alignment exist between the business model mission and the corporate strategy?
- What essential contents can be deduced from the corporate strategy for the strategy model?



**Resources model**

- Which competencies and resources of a business model are most critical to success?
- Are some of these competencies and resources already available? Which ones can be provided and how?
- Can competencies and resources be established and protected from imitation?
- Which competencies and resources ensure the competitiveness and sustainability of the business model?



**Network model**

- Which potential network partners can be identified?
- What role does the company play in its own network? Which internal services should be outsourced to partners?
- Which services make the company more valuable to partners?

**Pages 125 to 191 are not part of this extract.**

### 3 Design of business models

*Focus on entrepreneurs*

The design of business models has a substantial effect on the development and the success of a company.<sup>1</sup> In this context, different management processes can be identified in literature and two fundamental tendencies of design can be distinguished. On the one hand, the design of business models is observed in the context of the formation of a company, where the focus is on the planning process in particular. On the other hand, the (re-)design of an existing business model is examined in the context of an existing company. The (re-)design of existing business models is explained in detail in section 6 (adaption and modification of business models). Therefore, this section focuses on the design of new business models.

*Intuition vs. planning*

In entrepreneurship literature, the start-up process of a company has been extensively examined and it has also been determined that the pace of the process constitutes an important determinant for the successful establishment of a company.<sup>2</sup> As a result, many authors argue for a more unplanned formation process and agree that a firm business plan requires too much time and can therefore be a hindrance. Instead they advocate formation characterized by intuition. This implies risks, when, for instance, too much optimism or an insufficiently objective data basis leads to failure.

By contrast, in the context of business planning, the literature explicitly demands a structured planning process when establishing companies and emphasizes its particular significance.<sup>3</sup> This provides the entrepreneur with structural support in the long-run and increases the probability that the company will be able to survive later on. In addition, a framework for planning makes it easier to comprehensively observe economic interrelationships and reduce complexity.<sup>4</sup>

*Design of business models*

In this context, the business model concept provides the opportunity to describe the relevant activities of a company in a highly simplified and aggregate way. It therefore constitutes the link between the two schools of thought and serves as a structured management tool for the entrepreneur. On the one hand, the high degree of abstraction allows quick specification of the relevant aspects and saves substantial time in the course of the start-up

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<sup>1</sup> Zott/Amit (2009), p. 1

<sup>2</sup> Capelleras/Greene (2008), p. 337

<sup>3</sup> Delmar/Shane (2003), p. 1181

<sup>4</sup> Gavetti/Levinthal/Rivkin (2005), p. 710; Baron (2007), p. 178

phase. On the other hand, the partial models of business models create a comprehensive understanding so that the entrepreneur gets an aggregate overview of the corporate structure and corporate processes. Hence, all important factors can be thought through on a conceptual level, and the performance of the future company can be significantly increased by considering all partial models.<sup>1</sup>

In section 3.1, the individual phases of the business model design process are described. The partial models presented in part B are assigned to the individual phases in order to more effectively carry out development in business practice. The design process, however, does not always need to be completed because the structured course of action allows potential weaknesses and the probability of failure to be pointed out. In this case, the entrepreneur should consider appropriate exit strategies if the crucial weaknesses of the business model idea in the context of the process cannot be eliminated. In conclusion, section 3.2 presents an ideal-type example of a business model design process. Figure 3-1 gives an overview of the structure of the chapter.

*The design process*

Structure of the chapter

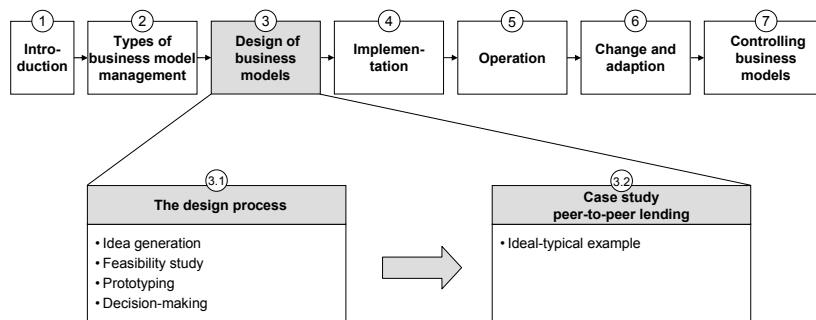


Figure 3-1

### 3.1 The design process

The business model design process can be divided into four phases: idea generation, feasibility analysis, prototyping and decision-making. A generic

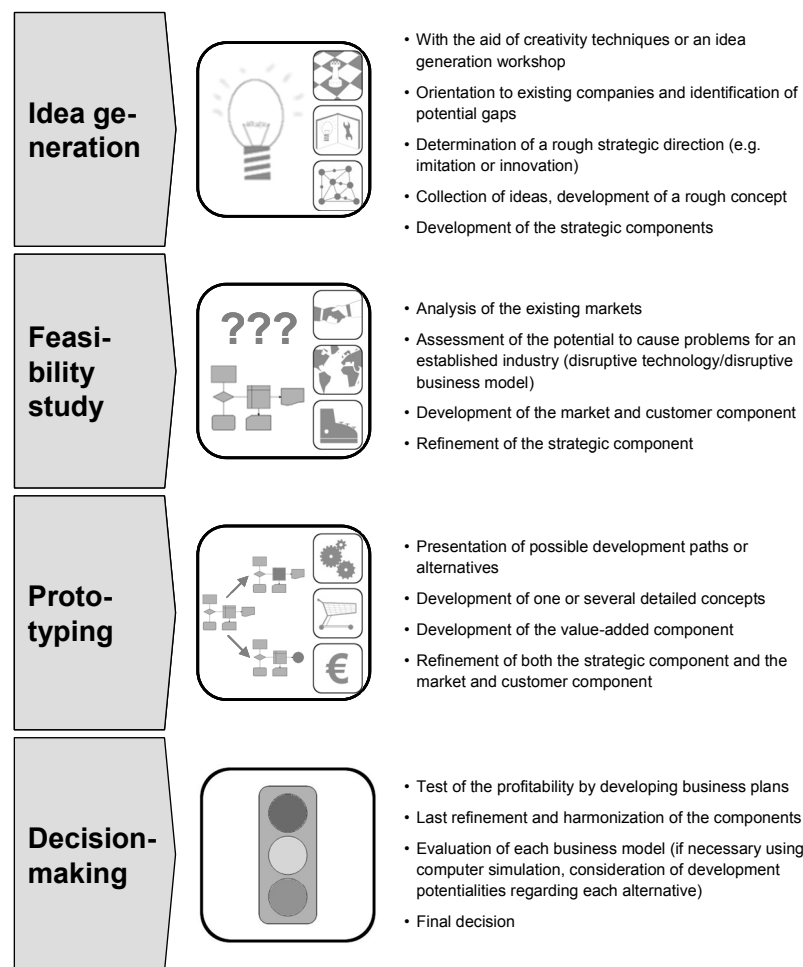
*Four phases*

<sup>1</sup> Zott/Amit (2007), p. 194

business model must pass through each stage of development in order to increase the probability of the company's future success. Figure 3-2 displays the individual phases of the business model design process.

Figure 3-2

Business model design process

**Idea generation**

In the idea generation phase, creativity techniques are used to generate a multitude of proposals in order to create a basis for the business model that is to be developed. These do not necessarily have to be new ideas; weaknesses can be analyzed with regard to existing companies and, building

upon this, a new business model can be developed.<sup>1</sup> In general, the rough features of the business model's orientation should be determined. In this way, it can be decided if the business model is characterized more by innovation or imitation. In this context, a first draft of the strategic components and a first rough concept is developed.

In the phase of feasibility analysis, the environment and existing industries are analyzed.<sup>2</sup> On the one hand, in the context of disruptive technology, for instance, the new business model can be established outside of an existing industry and might even create a new industry. On the other hand, a business model can be explicitly developed for an existing industry in order to compete with existing companies. Based on these findings, a rough concept of the customer and market component is developed and the strategy model is aligned with it.

In the third phase – the prototyping phase – the entrepreneur attends to creating potential development paths. The pending value-added components are developed and aligned with the already existing partial models. As a result, all new partial models of the business model are roughly outlined. In this stage of development, the entrepreneur is presented with a variety of options and must weigh them to identify a dominant alternative.<sup>3</sup> The entrepreneur therefore formalizes the development paths in various models. During this stage of the process, several detailed concepts are created by which the partial models are refined and a comprehensive alternative is further developed.

When prototyping is completed, the decision-making phase begins. For each development path or prototype that has been previously created, a business plan is developed. The business plan is used to test the profitability of each business model and can reveal weaknesses in detail. During this stage of the process, the partial models of a business model are refined and harmonized one last time.

When the business model and suitable business plans have been developed, the actual evaluation of the alternatives follows. This can take place using, for instance, an application-oriented checklist to guarantee objective comparability. After finally choosing a business model, its usage must be decided. On the one hand, the business model can be sold; on the other hand, it can be implemented by the founder of the company himself.

### *Feasibility analysis*

### *Prototyping*

### *Decision-making*

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<sup>1</sup> Markides (2008), p. 23

<sup>2</sup> Afuah (2004), p. 195

<sup>3</sup> Osterwalder/Pigneur (2009), p. 165

*Creativity techniques***3.1.1 Idea generation**

Many different creativity techniques can be taken into consideration when generating business model ideas, the broad range of which is reflected in literature. Schlicksupp (1977) alone mentions 44 different methods and Gryskiewicz (1988) estimates the number of creativity techniques at more than 100.<sup>1</sup> In business practice, however, very few of them are applied. The rest are either completely unknown or have been deemed unsuccessful.

Table 3-1 gives an overview of the different creativity techniques that can be used in order to generate business model ideas. The techniques are divided into different categories depending on the promotion of creativity (strengthening of intuition or systematic-analytical procedure) and the idea-prompting principle (association, modification or confrontation).

**Table 3-1***Selected creativity techniques for idea generation<sup>2</sup>*

Procedure	Idea-prompting principle		
	Association/modification	Confrontation	
Strengthening through intuition	Brainstorming	<ul style="list-style-type: none"> <li>■ Classic brainstorming</li> <li>■ Weakness brainstorming</li> <li>■ Parallel brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>■ Stimulus analysis</li> <li>■ Synectics</li> <li>■ Visual confrontation within the group</li> <li>■ Semantic intuition</li> </ul>
	Brainwriting	<ul style="list-style-type: none"> <li>■ Method 635</li> <li>■ Brainwriting pool</li> <li>■ Gallery method</li> <li>■ Delphi technique</li> </ul>	
Systematic-analytical procedure	<ul style="list-style-type: none"> <li>■ Morphological box</li> <li>■ Sequential morphology</li> <li>■ Attribute listing</li> <li>■ Progressive abstraction</li> </ul>	<ul style="list-style-type: none"> <li>■ Morphological matrix</li> <li>■ TILMAG</li> </ul>	

*Techniques for a workshop*

In the context of idea generation for business models, the creativity techniques of classic brainstorming, morphologic box, method 635 and synectics seem to be most suitable for usage in business practice. Figure 3-3 displays the goals pursued by these creativity techniques including the typical duration and size of the group. The different methods for the idea generation of business models can be combined with one another and hence serve as a

<sup>1</sup> Schlicksupp (1977), p. 18; Gryskiewicz (1988), p. 226

<sup>2</sup> Geschka/Yildiz (1990), p. 37

framework for workshops. Employing different creativity techniques increases the variety of ideas and better meets the requirement to create as many business model ideas as possible.

#### Summary of the creativity techniques

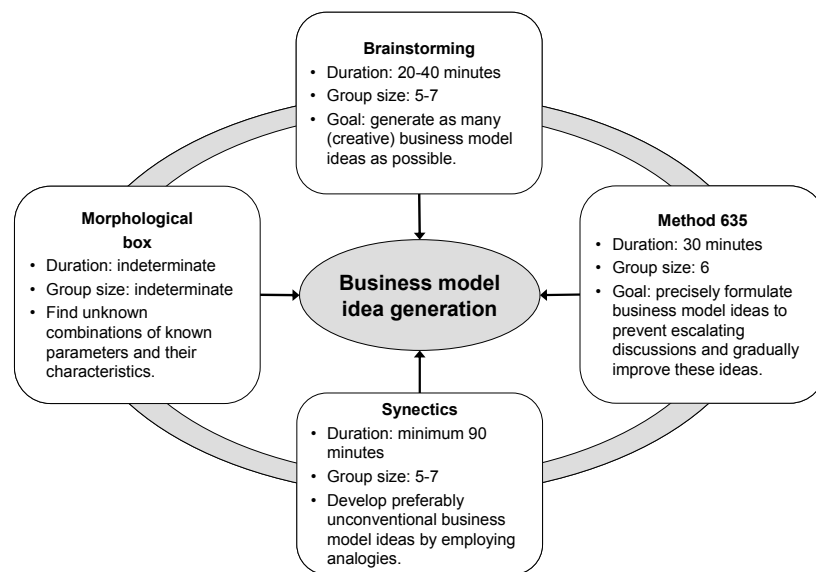


Figure 3-3

In general, two directions can be pursued when generating business model ideas. On the one hand, the focus can be put on innovation as the basic design feature. This means that the central element of the business model that is to be developed should be a novelty.<sup>1</sup> An example that can be cited in this context is the Dell corporation which revolutionized the computer industry by introducing the purely direct distribution and reorganizing the classic value chain. On the other hand, a strategy of imitation can be pursued. In this case, a business model is developed that is similar to those already implemented on the market and that copies the key elements of competitors. For instance, the German network StudiVZ is a copy of the facebook business model; the business model was merely adapted to the regional requirements of the German market.

#### Basic design features

<sup>1</sup> Zollenkop (2006), p. 108

# 3

## Design of business models

### First rough concept

When the entrepreneur has weighed the potential design features and has made a decision for his particular context, the next step is to develop a first rough concept. In the context of this first draft, the strategic components are considered more closely and first ideas are presented through their partial models. Since decisions concerning the design of strategic partial models considerably affect the other partial models of an integrated business model, they must first be developed in a mental model.

Figure 3-4

Development of partial models during the design process

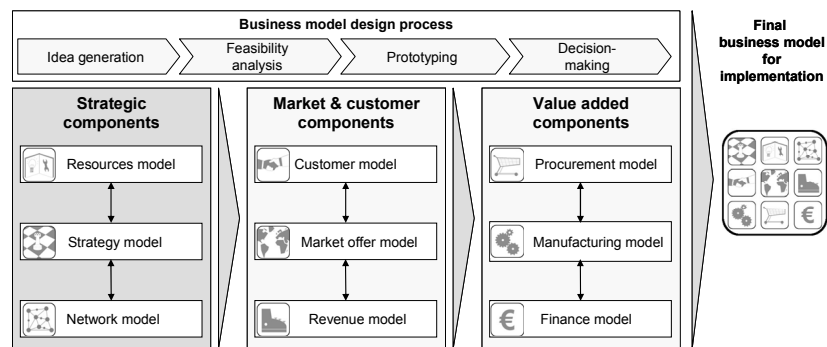


Figure 3-4 displays the development path of each partial model in the current design phase. In this first phase the strategy model, the resources model and the network model are fairly clearly explained. The other partial models, however, are implicitly considered by the mental model of a company's founder but are not concretely developed and coordinated until the subsequent phases.

### 3.1.2 Feasibility analysis

After successfully completing the idea generation phase, the environment is examined, and in this context, implications for the existing rough concept are derived in the feasibility analysis. On the basis of this examination, the customer and market component can be further specified and the potential advantages and disadvantages can be assessed. The feasibility analysis can

# 3.1

be divided into environmental analysis, industry and market analysis and competitive analysis. This is summarized in Figure 3-5.<sup>1</sup>

Phases of the feasibility analysis

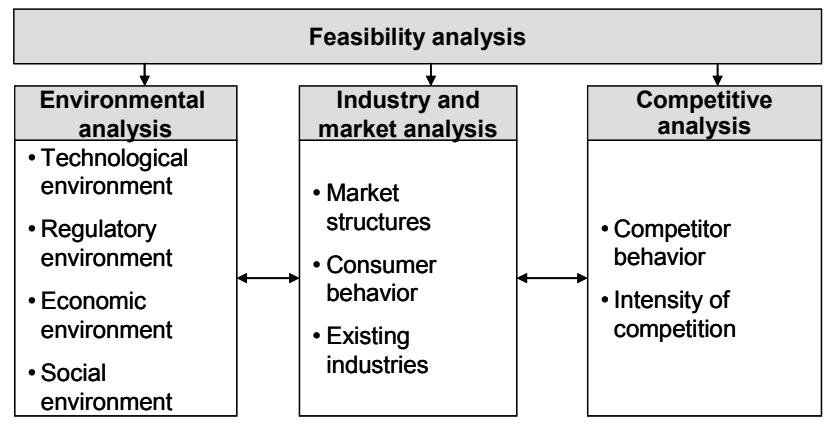


Figure 3-5

In the context of the environmental analysis, the basic conditions of the environment are determined and combined into an overall picture. An important determinant of the environment is the technological context. In general, possibilities for innovation through technological inventions seem to be infinite, but different industries vary with respect to the relevance of research activities. While business models in the tobacco industry are stable, those in high-tech industries, such as the computer industry, are highly affected by technological innovations. This is also reflected in the research activities of the individual companies and hence provides the entrepreneur with an important indicator for assessing technological influence.<sup>2</sup>

*Environmental analysis*

Both the regulatory and economic environment substantially determine the basic conditions for the development of a business model. On the one hand, country-specific laws must be taken into consideration; on the other hand, the particular national economy's stage of development should also be included. While the business model of a financial institution that is common in Europe has also been established in some places in Africa, many Africans do not have an account of their own. Instead, telecommunication providers offer an alternative business model by carrying out bank transfers via a prepaid phone.

*Regulatory and economic environment*

<sup>1</sup> Wirtz (2009), p. 90  
<sup>2</sup> Chesbrough/Rosenbloom (2002), p. 529

*Industry and market analysis*

This service enjoys increasing popularity and shows that the probability of the success of a business model is dependent on the economic environment. Furthermore, the social environment can also be an important determinant for success, because different religions and related norms or moral concepts can considerably affect acceptance and success of a business model.

When the environment analysis is complete, the relevant industries are examined more closely with regard to the industry and market analysis.<sup>1</sup> Here, the focus is on the existing market structures and key features such as market volume, market potential and saturation points. With the aid of these quantitative features, the market to be examined can be holistically analyzed. This allows for an assessment of whether implementing the business model idea in a particular market has the potential for success or not.<sup>2</sup> This analytical step not only provides important information about existing markets, but also offers findings on the potential to create a new market.

*Blurring of boundaries between industries*

In order to correctly assess this potential, however, the customer perspective must be taken into consideration in addition to the market structure and companies involved. The behavior of customers constitutes an essential determinant for creating a new market by successfully blurring the boundaries between industries via disruptive technologies or business model innovations. The sports apparel manufacturer Adidas, for instance, used to only make products for professional athletes, but then changed its goods and services and customer models and launched sporty lifestyle fashion. While tennis shoes were only worn when doing sports during the middle of the 20<sup>th</sup> century, they have now become socially acceptable in everyday life. The classic shoe industry that had existed until then was facing a new competitive situation; the boundaries between shoes, sports apparel and lifestyle fashion industries increasingly shifted and finally dissolved.

*Competitive analysis*

A business model idea does not necessarily have to be used to create a new industry to secure the long-term success of a company. In the context of business model design, an entrepreneur can also explicitly choose an existing industry and compete with established companies. Therefore, it is necessary to first determine the behavior of competitors and intensity of competition. This should be considered during the development process in order to successfully position oneself in the market.

The classic market analysis can, for example, be carried out using Porter's (1980) competitive forces model. The focus of this model is on the intensity of competition in a market. The following five forces affect the intensity of competition: threat of new entry, threat of substitutes, bargaining power of

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<sup>1</sup> Afuah (2004), p. 195

<sup>2</sup> Meffert/Burmann/Kirchgeorg (2008), p. 53

buyers, bargaining power of suppliers and rivalry between existing competitors. Figure 3-6 shows Porter's competitive forces model.

Porter's competitive forces model<sup>1</sup>

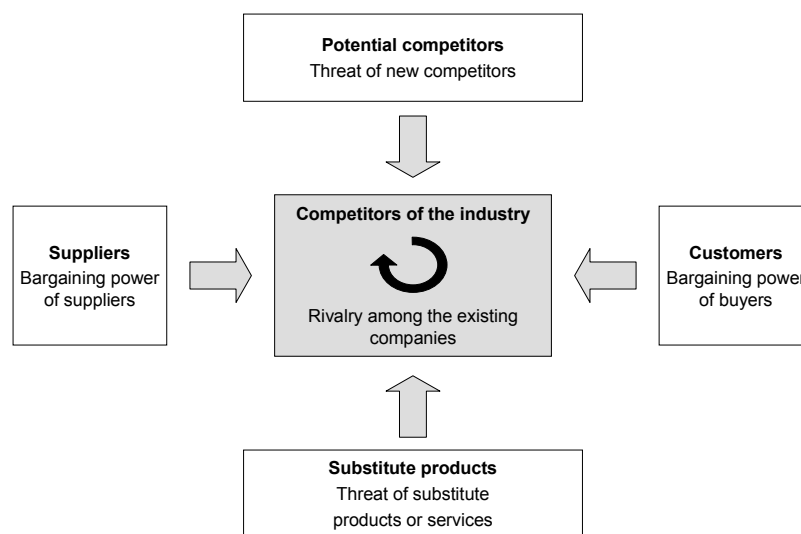


Figure 3-6

The more intense the effect of these forces, the higher the intensity of competition. High intensity of competition makes it difficult to achieve sustainable competitive advantages. The five competitive forces, however, should always be examined in the overall context to get an aggregate overview of the market.

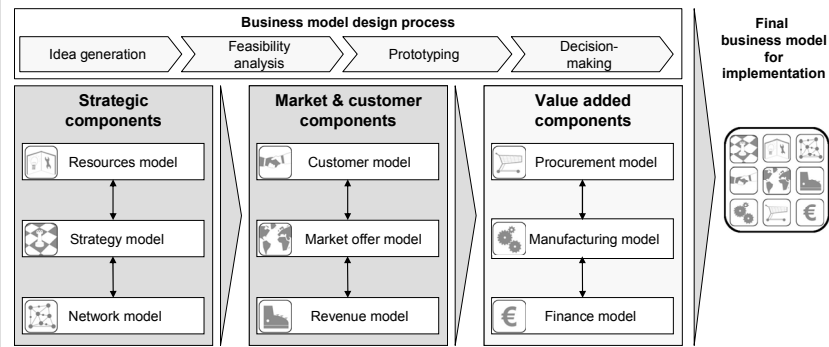
Having developed a first rough concept in the idea generation phase, this concept is further refined by the end of the feasibility analysis. The findings from the environmental analysis, the industry and market analysis and the competitive analysis are used for the detailed development of the customer and market component. When the customer model, the market offer model and the revenue model are further concretized, the strategic model that has been formulated might need to be modified. These are then adjusted so that the strategic components as well as the customer and market component form a coherent first draft of a business model. Figure 3-7 presents the stages of the development of partial models at the end of the feasibility analysis.

*Customer and market component*

<sup>1</sup> Porter (1980), p. 26

Figure 3-7

Development of partial models during the design process



### 3.1.3 Prototyping

After testing the business model ideas for viability during the feasibility analysis, the ideas with the greatest potential of success are taken up again in the prototyping phase. Several development paths for the same idea are then created in order to compare the different implementation possibilities and choose the best alternative at a later point in time. The prototype concept was originally established in the engineering and design industry but is now used in many other areas as well.<sup>1</sup>

#### *Completeness and focus areas*

When creating a business model prototype, two essential aspects – completeness and choice of the right main focus – are used to gain considerable insight at this stage of the design process. When the entrepreneur consistently observes the nine partial models of the business model, completeness can be guaranteed and all important aspects can be taken into consideration. This is an essential requirement to obtain objective standards of comparison for the various alternatives at the end of the business model design process.

#### *Time advantages*

Through the prototype phase, the entrepreneur can choose the most promising alternative of the business model from the beginning and hence save time and money, unlike the founder of a company driven by intuition. If an entrepreneur follows his intuition and implements the system he subjectively considers the most promising, later corrections will likely be necessary. In a trial-and-error procedure, the founder of a company gradually approaches optimal implementation; every change requires a certain amount

<sup>1</sup> Bruhn (2006), p. 236; Osterwalder/Pigneur (2009), p. 162

# 3.1

of time for implementation. Contrary to this, prototyping requires that the various conceptual models only be thought once and only for a limited period time. After the model is implemented, a large amount of time and money can be saved.

An essential part of this design phase is developing and concretizing the value-added component in order to present different development paths. The strategy models as well as the customer and market component, which have already been developed, form a framework by means of which the different prototypes are designed. The prototypes allow the entrepreneur to understand comprehensive connections in order to identify weaknesses and develop alternative configurations of the production of goods and services.<sup>1</sup>

Having developed rough concepts in the preceding design phases, the prototypes constitute the first detailed concepts. The strategic, customer and market and value-added components are considered and harmonized. Figure 3-8 illustrates that the development of partial models can be considered complete by the end of this phase.

*Value-added component*

*Detailed concept*

Development of partial models during the design process

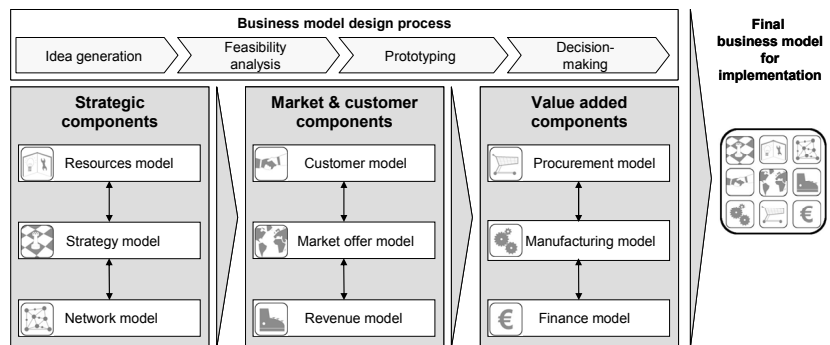


Figure 3-8

### 3.1.4 Decision-making



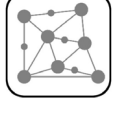


In the final phase of the business model design process, the decision-making phase, the previously developed detailed concepts are evaluated and compared in order to choose the most promising alternative. In this context, the





<sup>1</sup> Osterwalder/Pigneur (2009), p. 161

entrepreneur must first become aware of the strengths and weaknesses of each alternative. With the questions listed in Table 3-2, the founder of a company can work with the key aspects of business models to examine the concepts for completeness.

Table 3-2

Checklist for the key aspects of the design of a business model

Partial model	Questions
 <p><b>Strategy model</b></p>	<ul style="list-style-type: none"> <li>■ Which value proposition is relevant for the market?</li> <li>■ What are the key aspects of the business model mission?</li> <li>■ Which goals can be derived from the corporate strategy?</li> </ul>
 <p><b>Resources model</b></p>	<ul style="list-style-type: none"> <li>■ Which competencies and resources are required for the business model?</li> <li>■ What are the critical competencies and resources of the business model?</li> <li>■ Are some of these competencies and resources already available? Which can be obtained?</li> </ul>
 <p><b>Network model</b></p>	<ul style="list-style-type: none"> <li>■ Which fields of value creation can be covered by networks?</li> <li>■ Which potential partners can be identified?</li> <li>■ Which role does one's own company play in this network?</li> </ul>
 <p><b>Customer model</b></p>	<ul style="list-style-type: none"> <li>■ Which groups of customers/market segments can be identified?</li> <li>■ Which channels can be used for interacting with customers?</li> <li>■ To what extent can parts of the value proposition be individualized for customer groups?</li> </ul>
 <p><b>Market offer model</b></p>	<ul style="list-style-type: none"> <li>■ What characterizes the market structure?</li> <li>■ Which competitors (across industries) are relevant for the business model?</li> <li>■ What is the fit between the value proposition and existing market potential?</li> </ul>

	<ul style="list-style-type: none"> <li>■ Which revenue strategies are aimed for in the context of the business model?</li> <li>■ Which forms of revenue can be employed?</li> <li>■ To what extent can a revenue differentiation be used to reduce the economic risk?</li> </ul>
	<ul style="list-style-type: none"> <li>■ Which system forms the basis of value creation?</li> <li>■ Which basic principle of value generation is employed in the business model?</li> <li>■ Which internal and external drivers affect value creation?</li> </ul>
	<ul style="list-style-type: none"> <li>■ What do relationships to procurement partners have to be like to guarantee optimal procurement?</li> <li>■ Which forms of procurement can be employed in the context of the business model?</li> <li>■ How can procurement measures be designed profitably?</li> </ul>
	<ul style="list-style-type: none"> <li>■ Which capital structure serves as a basis for the business model?</li> <li>■ Which forms of financing can be employed?</li> <li>■ Which are essential parameters of the cost structure model?</li> </ul>

With the help of the identified key aspects of each concept, the entrepreneur can narrow down the selection so that only about three concepts remain in the business model portfolio in the end. In the next step, these mental models are formalized in the context of business plans and a business case is calculated for each one to objectively evaluate the profitability of the concepts. In this context, the business plan constitutes a reflection of the business model and aims at describing the essential elements of value adding activities of a company in a structured and detailed way.<sup>1</sup>

When the entrepreneur has successfully passed through all phases of the design process, he has several business model alternatives, corresponding mental models or detailed concepts, corresponding business plans as well as business cases that can be used in order to help choosing a business model

*Business plan*

*Choosing from the selection*

<sup>1</sup> Afuah (2004), p. 238

concept.<sup>1</sup> Hence, the entrepreneur is presented with a broad data base that encourages him to choose the most coherent concept. The entrepreneur chooses the business model that is most likely to generate competitive advantages so that the profitability of the company can be guaranteed.

*Further usage*

When the entrepreneur has identified the most profitable business model, there are basically four possibilities regarding the usage of the concept:<sup>2</sup> he can implement the business model himself, or he can sell, revise or temporarily reject it. If the business model meets the expectations of the founder of the company, he can either try to sell the concept as profitably as possible or start implementing it himself to quickly enter the market. However, if this is not the case, an adaptation takes place; the relevant phase of the business model design process and its ensuing phases are repeated.

*Rejection*

The last possibility is to reject the business model or the prototypes, in which case they may be archived for later usage.<sup>3</sup> Although the business model design process ensures a structured procedure and should therefore establish a usable concept as a result, it can be necessary to reject a business model in practice. External factors can be identified as the main cause of this. For instance, a competitor might have preempted the entrepreneur by already implementing a similar concept, or perhaps funding cannot be guaranteed. External incidents such as the financial crisis in 2008 can result in guaranteed financing and credit being called off. Consequently, it is possible that concepts can no longer be realized.<sup>4</sup>

### 3.2 Case study: peer-to-peer lending

The general business model design process that has been described will now be illustrated through an example to clarify the general application of the concept. For this purpose, the perspective of an entrepreneur who wants to establish a peer-to-peer platform for bank lending is taken. Lending shall thereby be possible between private persons in order to create a win-win situation for the credit lenders and borrowers and to allow for higher yields or lower interest payments in the course of a disintermediation of the banks.

*Idea generation*

With peer-to-peer loans such as *zopa* in Great Britain and *prosper* in the USA, a new type of intermediary platform established itself as an alternative for

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<sup>1</sup> Osterwalder (2004), p. 13

<sup>2</sup> Laux (2005), p. 3

<sup>3</sup> Herrmann/Huber (2009), p. 128

<sup>4</sup> Wirtz (2010)

**Pages 207 to 213 are not part of this extract.**


These remarks reveal the complex steps and decisions concerning the design of business models. Based on the conceptual description of the various contents, a checklist is particularly helpful for successful implementation. Figure 3-13 presents an exemplary checklist with the most important questions regarding implementation in this subject area.

Figure 3-13

Checklist for business model design

?

**Central issues regarding the  
design of business models**



- Is the design geared towards the value proposition and the business model mission?
- Is the focus of the business model design on the important and value-adding design parameters?
- When designing the business model, were diverse and creative approaches taken into account? Does the new design have great potential of innovation?
- Can the business model design be easily imitated by the competition or does it allow for a long-term competitive advantage?
- Does the developed business model design allow for high yield and sustainable success in the long run?
- Were all relevant facts examined and considered within the scope of the environmental analysis (environment analysis, industry and market analysis and competition analysis)?
- Were all components considered in the business model and, as a result, is completeness guaranteed?
- Was the business model design quick enough or are the results already obsolete by the end of the process?
- Were all business model alternatives carefully weighed up and all advantages and disadvantages clearly determined?
- Was the business model set out in writing?
- Has the business model been successfully transformed into a business plan and does this contain the key points of the business model?
- Were all risks of the business model identified and are adequate countermeasures planned?

Pages 215 to 240 are not part of this extract.

## 6 Adaptation and modification of business models

Business modification is an essential part of the classical organization and strategy theory for long-term success. Since it is also important in the business model context this chapter deals with business model change. In the following section, three superordinate drivers which could initiate a change in the business model will be described. Additionally, the question of what specific processes need to be implemented by a business in order to guarantee the success of business model change will be dealt with.

The required specific business model change process is presented in single stages and five business model change models are identified. They show the modification possibilities of a business model. Finally, how the sustainability of a business model can be secured will be discussed. In this context, three generic strategies will be presented. Figure 6-1 shows the structure of the chapter.

*Change process, models and sustainability*

Structure of the chapter

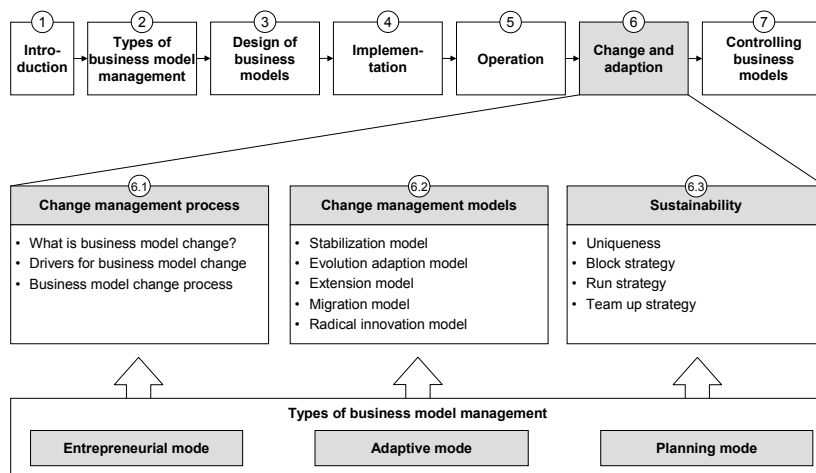


Figure 6-1

## 6.1 Change management process

### *Business model change*

Nowadays, we live in a world that is characterized by growing globalization and networking which increases the competitive pressure for businesses. If they want to survive in an environment with extremely high competition, businesses must adapt to the constantly changing environmental conditions. A change process can be initiated due to both external and internal influences.

### *Opportunities and risks of a change process*

A change can be small or radical. Furthermore, it can affect only parts of the components concerning strategy, customers, market and value creation or all partial models at the same time. Business model change could be a danger or an opportunity for a business.<sup>1</sup> On the one hand, change can diminish existing competitive advantage; on the other hand it can be a possibility to generate new competitive advantages.

### *High importance in business practice*

Business model change is of high importance in business practice. A survey questioning CEOs showed that 83% said that their business could anticipate a change process within the coming three years.<sup>2</sup> The increasing importance of this issue for the daily business of management is also due to the increasingly competitive dynamic. In general, the drivers of *market*, *technology* and *regulation* can be identified for business model change.<sup>3</sup> Figure 6-2 shows the drivers for change and their influence on business models.

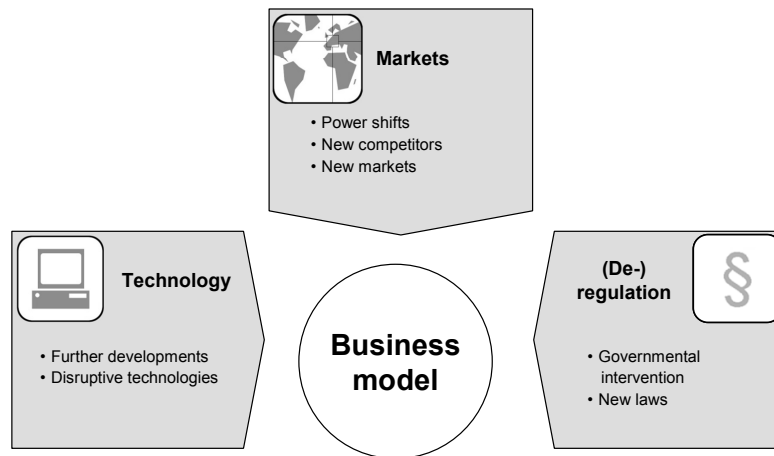
<sup>1</sup> Afuah (2004), p. 162

<sup>2</sup> IBM Global CEO Study (2008), p. 14

<sup>3</sup> Bouwman/MacInnes (2006), p. 3

## Drivers for business model change

Figure 6-2



Technology is one of the essential drivers, since continuous technological advancements force market players to adapt their business models. If this driver is not considered to a great enough extent, dramatic competitive disadvantages can occur. However, in business models, not only do evolutionary developments need to be taken into consideration, but so do so-called *disruptive technologies*.

Disruptive technology describes a technology that, in the beginning, is characterized by worse performance features than an established technology.<sup>1</sup> It is, however, characterized by new performance features and continuous development which help eliminate initial performance deficits. Thus, established technology can be made obsolete. Digital photography and its destructive effect on the classic business models of manufacturers of analog camera systems and films are a good example of this. A central factor was the possibility to save and select pictures digitally before transferring them to physical media.

Another driver for business model change is markets and competition. Power shifts within a market or a new competitor can have an enormous influence on the business model of a company. Amazon, the online sales company, serves as an example. Its online bookstore puts extreme pressure on traditional booksellers. After a while, Amazon extended its product offer and posed a competition to classic mail order companies like the mail order

*Markets and competition*

<sup>1</sup> Christensen/Overdorf (2000), p. 67

and online warehouse Otto. These companies had to react to the new competitive situation. Both the market offer model and the customer model needed to be changed, which forced the mail order company to extend its services to an online distribution channel.

*Regulation*

(De)regulation is another driver that leads to change. Governmental intervention and regulation can influence the competitive environment and change existing basic legal conditions. This means that a business model can lose its entire foundation. At the same time, the basis for new business models can also be created. The deregulation of telephone networks in Europe, for instance, led to the former state-owned monopolies having to adjust their business models to the competition that had been created through this process. Within the domain of internet service providers for B2C clients, new markets were established which in turn induced new adjustments of the business model. At the outset, costs were mainly determined depending on the time spent online. Later, flat rates were established.

*The business model change process*

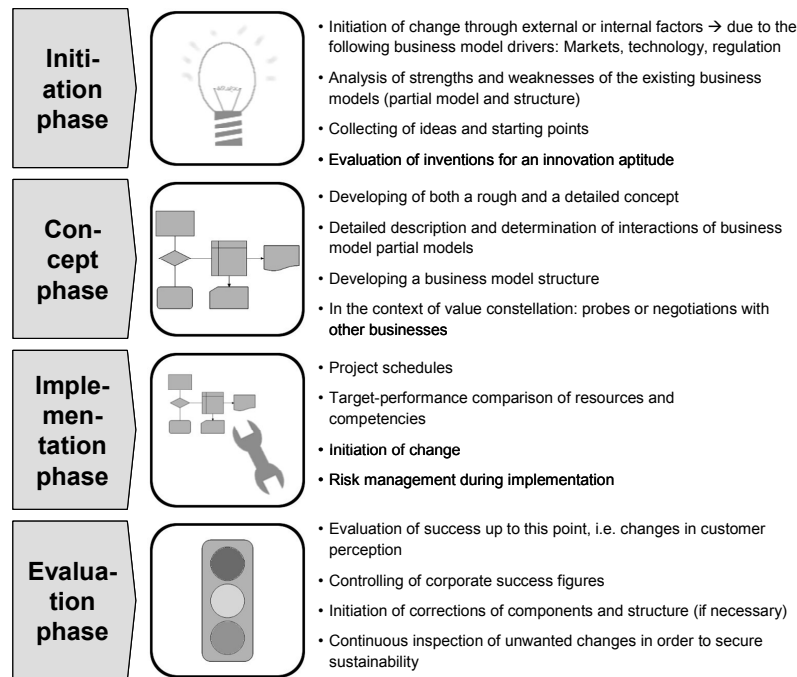
The influence of these drivers led to businesses having to increasingly initiate business model changes. However, such a change involves the risk of hindering a competitive stance. Thus, professional change management is crucial to strategically carry out a change process and increase the probability of successful business model change. The course of a change process is based on the concept of the typical course of a project and includes activities such as initiation or analysis, concept, implementation and controlling. These activities are the essential and basic elements. However, in the business model context, there are various particularities that should be considered.<sup>1</sup> Figure 6-3 shows a specific change process for business models.

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<sup>1</sup> Lindinger/Goller (2004), p. 46

Business model change process<sup>1</sup>

Figure 6-3



During the initiation phase, changes resulting from drivers or internal influences are initiated. Firstly, the current business model is analyzed and its strengths and weaknesses identified. Once the current business model partial models and structures are completely depicted, they can be used as the basis for future work. Building on this, ideas and starting points for the target business model need to be collected and defined. If the changes were initiated due to one or several internal inventions, it is possible to assess the aptitude for business model innovation and the prospects of success in this context.

*Initiation phase*

During the concept phase, initial ideas are elaborated into a rough concept. This implies a detailed description of both the new business model partial models and the possibilities for interaction which to a great extent define a new business model's structure. Within a company, both the top-down and bottom-up process can be used.<sup>2</sup> If modification of the value constellation

*Concept phase*

<sup>1</sup> Lindinger/Goller (2004), p. 46

<sup>2</sup> Smeds/Haho/Alvesalo (2003), p. 887

during the change process is planned, a first investigation must be made or negotiations with potential partner companies must be conducted. The feasibility of the concept that was developed can thus be guaranteed.

*Implementation phase*

Once the concept has been developed and decided on, the implementation phase for business model change can be initiated. In order to do so, the first things that need to be done are the construction of a project schedule that defines single milestones and the establishment of risk management that guarantees the successful development of the changes. These measures are absolutely necessary, since, depending on the business model change and the reconstruction of the partial model, profound changes to the existing organizations can be made. After the definition of the structural cornerstones, the process of changing the organization can be initiated.

*Evaluation phase*

Finally, during the evaluation phase, both the implementation of the business model and the goal achievement up to this point are evaluated. Based on these analyses, it is possible to identify room for improvement, and if necessary, to initiate corrections. With the help of indicators for success of a business, change controlling is established, making the effect of the change continually measurable. This is a way of guaranteeing sustainability and detecting undesired changes at an early stage.

*Entrepreneurial and adaptive mode*

When examining business model change, the three types of management discussed earlier need to be taken into consideration. The drivers of business model change in particular have some special characteristics. In the entrepreneurial mode, drivers of change are of little relevance. By using new technologies or market shifts, businesses in the entrepreneurial mode can cause change in established enterprises. The adaptive model achieves the greatest influence of drivers on companies, as these businesses display reactive behavior and therefore must increasingly include all drivers in their business models. This is characteristic for this type of management. Businesses usually have a short-term decision horizon, as they act in a dynamic environment and are thus often forced to adapt.<sup>1</sup>

*Planning mode*

In the planning mode, drivers are relevant, but not as heavily as in the adaptive mode. This mode is characterized by a long-term decision horizon and can be found in established and usually market-dominant businesses like Microsoft, who dominates the global software market. This position enables the business to introduce market entry barriers or lock-in effects, making the market lose relevance.<sup>2</sup>

The Microsoft example shows that in contrast to this, the drivers of technology and regulation can have a significant influence on the business model of

<sup>1</sup> Afuah (2004), p. 233

<sup>2</sup> Varian (2003), p. 21

an enterprise in the planning mode. The market-dominant position of the Windows operating systems, for instance, led to the close observation of European competition regulation. In the past, bundling the operating system and the media player or browser (Internet Explorer) resulted in several conflicts, ending with Microsoft having to pay penalties.

## 6.2 Change management models

The extent to which business model change is carried out can vary. During this process, it is only possible to focus either on one part of the business model, i.e. a partial model, which should be changed, or to change the business model as a whole. In management practice, the following questions arise: which type of change is the right one? Which implications are connected with the level of change? In the following section, five change models will be presented which illustrate the different levels of business model change, thus creating a structural context.<sup>1</sup> Figure 6-4 shows those five change models and the corresponding development paths and contexts.

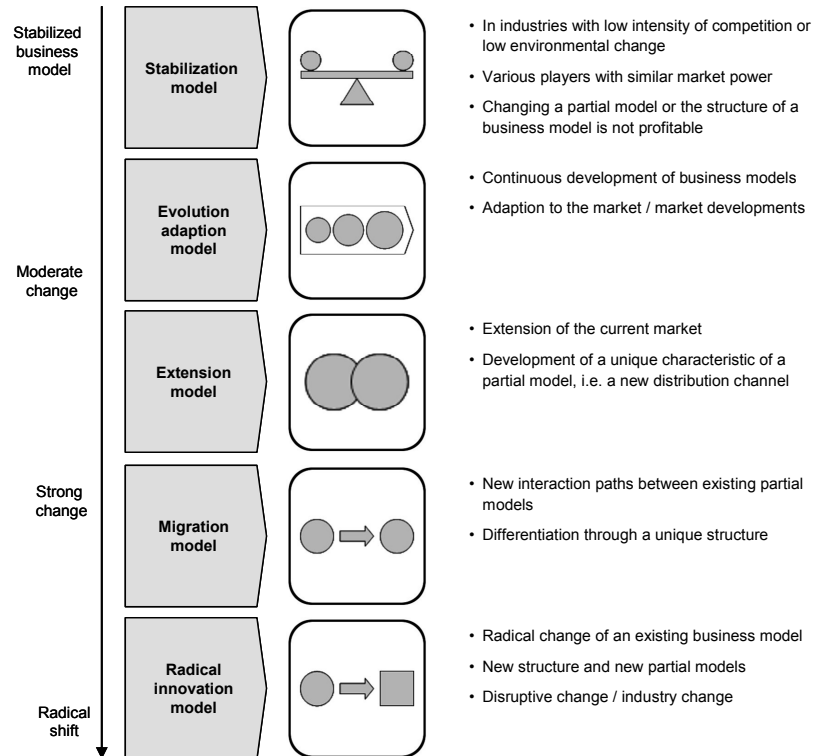
*Change models*

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<sup>1</sup> Linder/Cantrell (2000), p. 10

Figure 6-4

## Change models as development paths for business models

**Stabilization model**

The stabilization model exists mainly in businesses operating in industries that are characterized by a low intensity of competition. Further characteristics of these industries include a stable environment and slow change where competitors have similar market power. There are no great changes to the structure or the business model partial models, which is due to the low rates of success. The use of stabilization models can be found in the tobacco industry. In the past, the business models of big tobacco companies were subject to very little change, and the basic structure remained unmodified. The customer model is the only model where differences (due to various marketing strategies) are discernable.

**Evolution adaption model**

The evolution adaption model is characterized by continuous change of existing business models. The basic structure and the partial models, however, are not subject to radical change. Rather, detailed improvements are implemented and in most cases, an adjustment to the market is made.

An example for this kind of change model is the business model development of Intel. The American company continuously develops innovative products in the domain of central processing units in order to keep up with competition. In the market offer model, the company tries to offer a more advantageous value offer than its competition. Intel was the first company to introduce large-scale production of efficient dual-core processors for private users into the market.

*Intel: an example of business model change*

The extension model, as its name implies, extends the business model and is characterized by a high degree of partial model change. However, the degree of change in the model as a whole is minor. A characterization of this change model is the new development of or significant change in one or more business model partial models. This can be initiated by disruptive technology. In doing so, the basic structure of the business models usually remains intact; only a partial model or functionality like a new distribution channel (online distribution) is added.

*Extension model*

An example for an extension model can be found in the airline industry, where various heterogeneous business models exist.<sup>1</sup> In 1971, Southwest Airlines faced a huge crisis which paved the way for many of these business models. What they did was to completely rework their strategy model, inventing the system of a low cost carrier. In contrast to other airlines, Southwest became an airline that doesn't offer any extras, which enables them to offer low price flights. Today, Ryan Air and Germanwings are famous European examples for this model.

*Southwest Airlines: another example of business model change*

In a migration model, the interactions between business model partial models are redefined. Due to a unique structure or new interactions between structural components, a business distinguishes itself positively from its competitors and can even gain advantages in competition.<sup>2</sup> This change model features a high degree of business model modification, but only small partial model change.

*Migration model*

A well-known example for a business using a migration model is IKEA. By involving clients in putting furniture together, designing widely popular furniture and offering low prices, the multinational home products retailer has overcome classic value creation in its domain.<sup>3</sup> Due to systematic redefinition of roles, relationships and processes within the organization, IKEA keeps both its costs and its prices at a low level.

*Business model-change: IKEA*

<sup>1</sup> Zollenkop (2006), p. 124

<sup>2</sup> Zott/Amit (2007), p. 184

<sup>3</sup> Normann/Ramirez (1993), p. 66

**Radical  
innovation  
model**

The radical innovation model is characterized by a complete upheaval of the existing business model which also includes the creation of a new structure and of a new and unique form of the partial models.<sup>1</sup> In this context, the extent to which the model and the partial models were changed should be classified as very high. This explains why this change model implies the biggest change of a business model.

**Business model  
change in the  
case of Nokia**

The best known example for the radical innovation model is probably Nokia, the Finnish communications corporation. After being on the brink of bankruptcy in 1999, the conglomerate has become one of the most innovative and successful corporations in Europe. Until 1991, Nokia was involved in pulp processing and in the production of cable and rubber. In the early 1980s, it became involved in the telecommunications industry. However, this branch was initially of only minor importance. It was not until 1992 that Nokia decided to fully focus on telecommunication networks and cell phones. Their radical business model change helped them become the world's largest manufacturer of mobile devices, holding by far the biggest market share.

**Checklist**

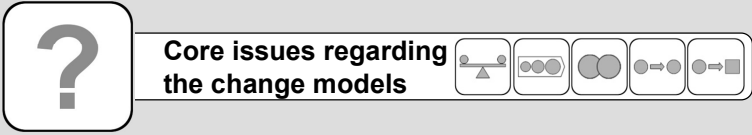
Based on these remarks, the diverse possibilities concerning the different types of business model change are clear. Based on the conceptual presentation of the different change models, a checklist for successful identification and implementation is usually very helpful. Figure 6-5 shows an example checklist with the most important questions for implementation.

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<sup>1</sup> Zollenkop (2006), p. 128

## Checklist for a change model

Figure 6-5



**Core issues regarding the change models**

- Has a lot been changed within the business model and which change model is relevant for the company (stabilization model, evolution adaption model, extension model, migration model or radical innovation model)?
- How intense are the competition and the environmental changes within the company's industry?
- Does the business model has to be continuously adapted to the market in order to guarantee profitability?
- Can the recent business model be extended in order to generate a competitive advantage in this way?
- Is an entire change of the existing business model necessary in order to persist on the market in the long run?
- In the case of a business model change, should single partial models be modified or rather the structure, or both? Which type of change promises a higher probability of success for the company?

## 6.3 Sustainability strategies for business models

Business model change can help achieve a dominant competitive position. This leads to the question of how this position or edge in comparison with the competition can be held or extended. In management practice, sustainability is of great importance.<sup>1</sup> If a business model is unique, a differentiation compared to the market can create higher customer value. However, since the market is constantly observed by the competition, a new business model does not remain classified for very long, leading to corresponding market reactions.

<sup>1</sup> Jonda (2007), p. 116

# 6

## Adaptation and modification of business models

### Three generic strategies

Consequently, a company needs to apply a certain strategy in order to secure the sustainability of its business model. Depending on its capabilities, technology and the environment of the company, three generic strategies for sustainability are possible: the block strategy, the run strategy and the team-up strategy.<sup>1</sup> Figure 6-6 gives an overview of these.

Figure 6-6

Sustainability strategies for business models

	Block strategy	Run strategy	Team-up strategy
Content	<ul style="list-style-type: none"> <li>• Creation of barriers</li> <li>• Securing of patents</li> <li>• Generation of unique capabilities</li> <li>• Establishing a copyright</li> </ul>	<ul style="list-style-type: none"> <li>• Adoption of the role as an innovator (flight forward)</li> <li>• Possible cooperative development due to limited resources</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusion of strategic alliances</li> <li>• Exchange of competences and resources</li> <li>• Creation of a business model network</li> </ul>
Advantages	<ul style="list-style-type: none"> <li>• Imitations are made difficult</li> <li>• Existing competitive advantages can be defended</li> </ul>	<ul style="list-style-type: none"> <li>• High brand image as an innovator</li> <li>• Competitive advantages over other competitors</li> </ul>	<ul style="list-style-type: none"> <li>• Economies of scale and scope</li> <li>• Protection against smaller companies</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Created barriers can be made obsolete by new technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Numerous resources are necessary for the constant development of innovations</li> <li>• Success of the innovations is not guaranteed</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of bigger companies&amp;networks</li> <li>• Increased demand of coordination</li> <li>• Low flexibility</li> </ul>

### Block strategy

When an enterprise uses the block strategy, it attempts to create barriers in order to prohibit the competition from imitating its business model. Mediums of blocking are, for instance, patents, unique capabilities or copyright.<sup>2</sup> However, this strategy can be problematic as artificially created barriers can become obsolete due to technological advancements. By using the run strategy, on the other hand, permanent barriers and long-term protection of a business model are considered to be impossible.

### Run strategy

Rather than hiding behind barriers and making it possible for the competition to equalize competitive advantages, an enterprise attempts to assume the role of an innovator and to consistently introduce innovations into the

<sup>1</sup> Afuah/Tucci (2003), p. 69

<sup>2</sup> Keen/Qureshi (2005), p. 6










business model. Due to restricted resources, however, implementation is limited. For this reason, an enterprise should consider joining a network of affiliated companies.






Another possibility is the team-up strategy. It pursues the formation of strategic alliances. This enables an enterprise to access the resources of its partner and strengthen its own business model. Business model network structures resulting from this allow both intense interactions and the mutual exchange of expertise. Such a commercial partnership can account for a win-win situation for all parties involved. Figure 6-7 shows the connection between the strategies for sustainability as well as the different types of business model management.

*Team-up strategy*

*Relevance of sustainability strategies depending on the type of business model management*

*Figure 6-7*

Sustainability strategies	Entrepreneurial mode	Adaptive mode	Planning mode
Block strategy			
Run strategy			
Team-up strategy			

 no relevance   
  low relevance   
  average relevance   
  high relevance   
  very high relevance

During the entrepreneurial mode, the focus is not on sustainability strategies. Since the entrepreneurial mode is characterized by proactive behavior, it corresponds with the highly innovative run strategy. In this case, the team-up strategy is also an option: smaller enterprises are particularly interested in a partnership which enables them to offer added value to their customers. They could, for instance, offer mash-ups generated by an internet company. Even though there is no special emphasis placed on the block strategy during the entrepreneurial mode, an enterprise will still try to protect its innovation by using patents.

*Entrepreneurial mode*

Due to the reactive behavior that occurs in an undertaking during the adaptive mode, the run strategy, which can be described as aggressive, does not play an important role. For this reason, both the block strategy and the team-up strategy are the only available alternatives. Nonetheless,

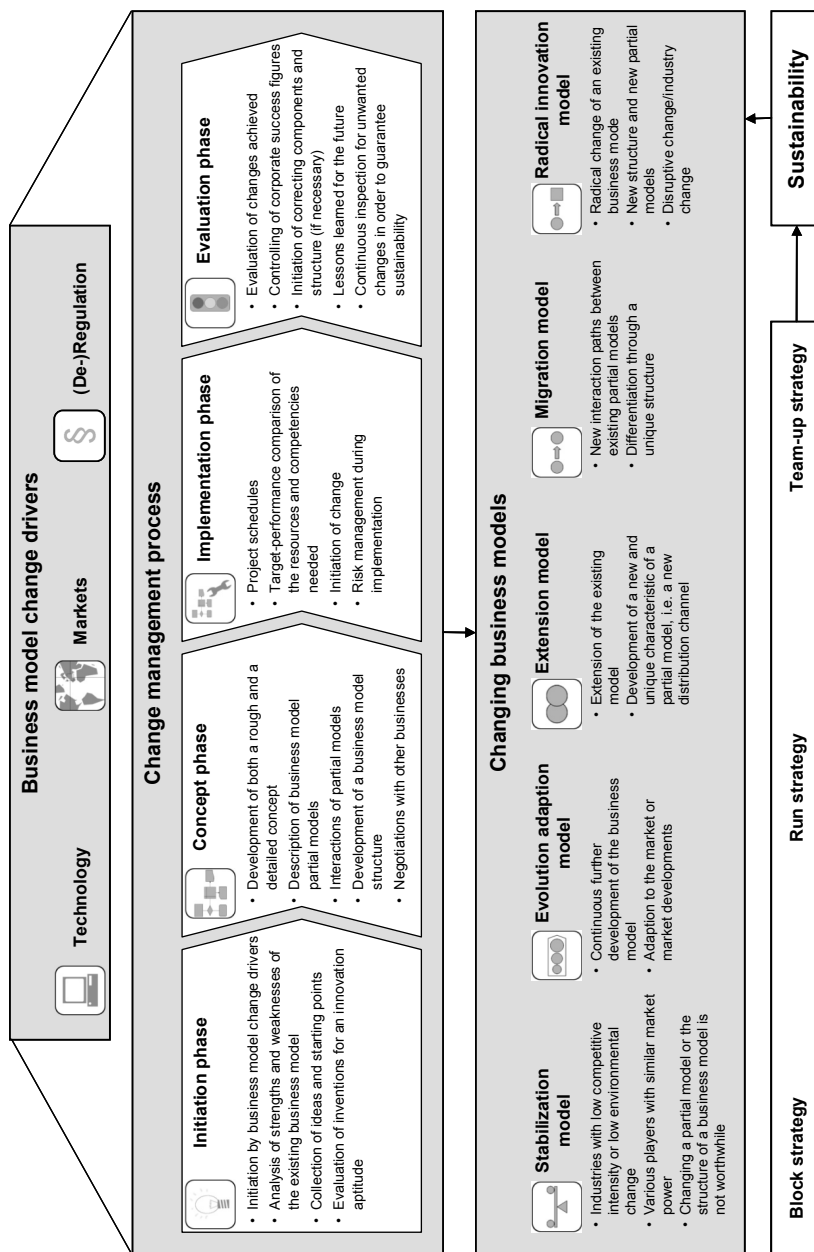
*Adaptive mode and planning mode*

there are no advantages of one over the other. During the planning mode, however, the situation is quite different.

For an established enterprise showing both proactive and reactive behavior and pursuing long-term decision horizons, a block strategy might be the best alternative during the adaptive mode. However, since large, established companies also have the option of reinforcing their business model with the help of commercial partnerships, the team-up strategy must be taken into consideration as well. Even the run strategy is promising, especially in dynamic industries. Figure 6-8 shows a conclusive overview of the chapter *Adaption and modification of business models*.

Conclusion of the chapter Adaption and modification of business models

Figure 6-8



## 6

### *Adaptation and modification of business models*

#### *Checklist*

The complex steps and possibilities for modification of a business model have become clear. Based on the conceptual depiction of the various contents, a checklist can be used for successful implementation. Figure 6-9 shows an example checklist, including the most important questions concerning implementation in this subject area.

**Figure 6-9**

#### *Checklist for business model change*



#### **Core issues regarding the adaption and modification of business models**



- Which change drivers (technology, markets, (de-)regulation) influence the business model of the company?
- Does the company itself realize the demand for business model change in a timely manner and does it react more quickly to changed market conditions than its competitors?
- When is the last time the necessity of a business model change was examined? Is this done often enough?
- How experienced is the company in making changes? Are the modification risks analyzed and considered sufficiently?
- How many changes (change models) are necessary for the business model in order to guarantee long-lasting success for the company?
- Is the business model flexible enough to quickly and specifically implement changes?
- How extendable and developable is the business model?
- Is the staff willing to support a transformation of the company? How can this willingness be developed?
- Which sustainable strategies (block strategy, run strategy, team-up strategy) should be chosen for the business model, and are the necessary competencies available within the company?

Pages 257 to 342 are not part of this extract.