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Bernd W. Wirtz

Business Model Management

Design - Process - Instruments

Second Edition

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Preface

Due to increasing globalization, the growing intensity of competition and the shortening of innovation cycles, management decisions have become ever more complex and difficult. In recent years, the business model concept has become a popular tool in business practice because it can help to successfully analyze and handle these complexities.

Despite the great practical importance of business model management, the conceptual basis in the literature is not very comprehensive. Thus, it seems necessary to develop a stronger conceptual foundation in order to deduce helpful insights and practical guidance for managers. This book aims to fill this gap and provide a detailed overview of the business model concept and a comprehensive guide to business model management.

In preparing this book in its second edition, I received various kinds of support from the former and current employees and doctoral students of the Chair of Information and Communication Management at the German University of Administrative Science Speyer. I would like to particularly thank Paul F. Langer (M.Sc.), Isabell Falke (M.A.), and Mr. Jan C. Weyerer (M.Sc.) for their outstanding commitment and team spirit.

The scientific development of a subject area thrives through the critical analysis and discussion of concepts and content. Given this fact and the currently inchoate state of knowledge regarding business model management, I am grateful for every comment or suggestion for improvement. Furthermore, lecturers who are interested in using graphics and lecture with materials from this book are welcome to contact the author.

Speyer, Germany
July 2020

Bernd W. Wirtz

Reviews

"How are business models purposefully designed and structured? How can the models be implemented professionally and managed successfully and sustainably? In what ways can existing business models be adapted to the constantly changing conditions? In this clearly structured reference work, Bernd W. Wirtz gives an answer to all these issues and provides the reader with helpful guidance. Although *Business Model Management* is first and foremost a scientific reference book, which comprehensively addresses the theory of business models, with his book Bernd W. Wirtz also turns to practitioners. Not least, the many clearly analyzed case studies of companies in different industries contribute to this practical relevance. My conclusion: *Business Model Management* is an informative and worthwhile read, both for students of business administration as a textbook and for experienced strategists and decision makers in the company as a fact-rich, practical compendium."

Matthias Müller, Chief Executive Officer Porsche AG (2010–2015), Chief Executive Officer Volkswagen AG (2015–2018)

"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 business models in the German-speaking world."

Hermann-Josef Lamberti, Member of the Board Deutsche Bank AG 1999–2012/ Member of the Board of Directors, Airbus Group

"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 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 adaption 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, Henkel AG 2007–2012/Supervisory Board, ThyssenKrupp AG

Contents

About the Author

Bernd W. Wirtz studied business administration in Cologne, London, and Dortmund, culminating in an MBA (Master of Business Administration). He later served as a lecturer for media management at the Universities of Düsseldorf (Germany) and Zurich (Switzerland). In 1994, he was awarded a doctorate in the field of new media and competition strategies (Doctorate in Business Administration).

After finishing his studies, Prof. Wirtz worked as a consultant with Roland Berger and Partners as well as Andersen Consulting/Accenture (Manager in the field of new media/electronic commerce) and as a Lecturer at the University of Zurich. From 1999 to 2004, he was a Full Professor (Deutsche Bank Chair for Strategic Management) at the University of Witten/Herdecke (Germany). Since 2004, he has been a Full Professor (Chair for Information and Communication Management) at the German University of Administrative Sciences Speyer (Germany).

Prof. Wirtz is an editorial board member of the journal *Long Range Planning*, the *Journal of Media Business Studies*, the *International Journal on Media Management*, the *International Journal of Business Environment*, the *International Journal of Public Administration*, the *International Review on Public and Nonprofit Marketing*, and the *Public Organization Review*. He has several years of experience in consulting on strategy projects for leading media and telecommunication enterprises and the European Commission. His publications focus on media management, business model management, marketing, e-government, and

electronic business (approximately 300 publications). In total, Prof. Wirtz has published 20 books (e.g., 10th edition of *Media and Internet Management* in German, 7th edition of *Electronic Business* in German, 4th edition of *Direct Marketing* in German, and 5th edition of *Business Model Management* in German).

Part I

Business Models as a Management Concept

Introduction

1

In recent years, the development and design of business models have received increased attention (Wirtz 2000; Chesbrough 2010), especially in the economic press. Here, business models are often linked to competitive advantages. Occasionally, the success of corporate activities is largely attributed to the management of business models.[1]

The increased importance of the business model approach is primarily due to the considerable changes in competitive conditions during the last two decades. Increasing globalization, deregulation of entire market sectors, faster innovation cycles, and accelerating economic integration have made the markets more dynamic, more competitive, and, above all, more complex. Companies striving to be global competitors have to continuously adapt to the changing market conditions. Strategies, organizations, and products are subject to a growing pressure for change in order to be successful in this market environment.

How do companies manage to successfully navigate this highly dynamic and complex competition scenario? Business models are important for answering this question. Business model management helps companies to develop new business ideas, examine existing business activities, and modify their strategies and structures by simplifying the complexities and dynamics of the modern business environment. Thus, business models represent the essence of corporate activities. They support the management in systematically analyzing success factors and adapting their business activities.

Simply put, a business model depicts the operational production and service systems of a company. It illustrates in a simplified and aggregated form which resources are used in the company and how they are transformed into marketable information, products, and/or services via the internal process workflow. The business model contains information about which combination of production factors the

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_1

business strategy of a company should implement and the corresponding functions of the actors involved. In this sense, the business model approach can be understood as a management instrument whose systematic and accurate application enhances corporate success.

To be able to do justice to all aspects of the subject, this book is divided into four parts (see Fig. 1.1). Part I first gives an historic overview of the development of the concept of business models and business model management. Subsequently, different approaches and concepts will be presented, and the most important definitions, applications, and goals of business model management will be discussed.

Part II of the book deals with the structure of business models. After placing business models within the wider context of the entrepreneurial value system, we will discuss their fundamental structure with a detailed presentation of their components (partial models). Next, the actors and interactions of business model management will be explained, and the innovation process of business models will be discussed.

Part III focuses on business model management. Based on the different types of business model management, the design and implementation of business models will be illustrated. Relevant aspects of the operation, change, and performance management of business models will be addressed. In Part IV several case studies will be discussed.

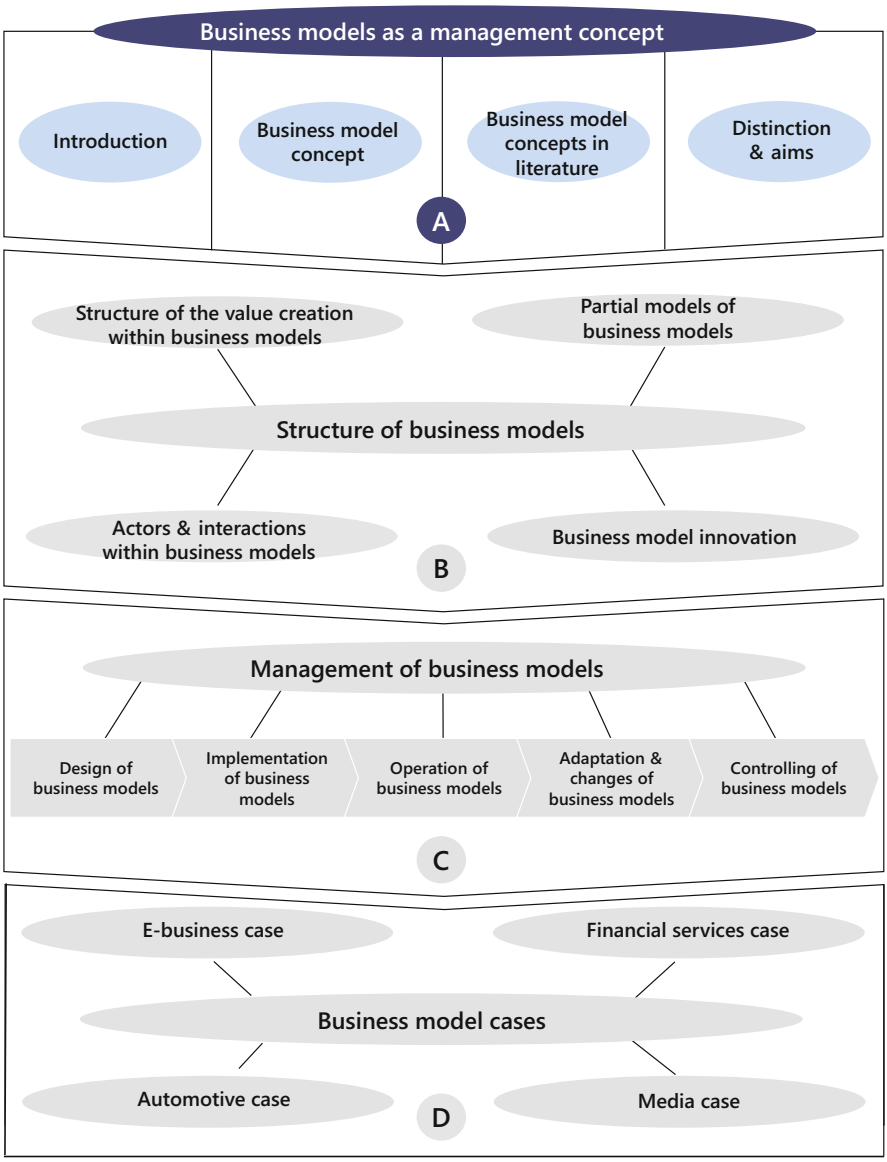

Fig. 1.1 Structure and content of the book

The Business Model Concept

2

The term "business model" has a long tradition in management theory, although the modern business model concept took a long time to develop. Hence, before analyzing business models as a management concept, we need to investigate the origin of the term business model because in early academic publications a wide variety of interpretations can be found.[1]

Section 2.1 shows how the term was used in various streams of research and how both its meaning and usage have changed over time. At the same time, the development of the term provides insight into the origin and evolution of business models as a management concept. Section 2.2 is dedicated to the scientific foundations of the business model concept. The three basic theoretical approaches on which the concept of the business model is based—information technology, organizational theory, and strategy—are presented, and important representatives of each approach are mentioned.

Finally, Sect. 2.3 takes a look at the overall significance of business model management. Examples of successful business models illustrate the importance of the business model concept and its influence on business practice. Figure 2.1 gives an outline of the chapter.

2.1 Development of the Business Model Concept

The business model concept and its development are often associated with the rise of the New Economy from 1998 to 2001. However, the term business model predates this era. Osterwalder et al. (2005) found that the term was first used in an article by Bellman and Clark in 1957 (Osterwalder et al. 2005). The first use in the title and the abstract of a paper was found in an article by Jones in 1960. Other examples of early

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

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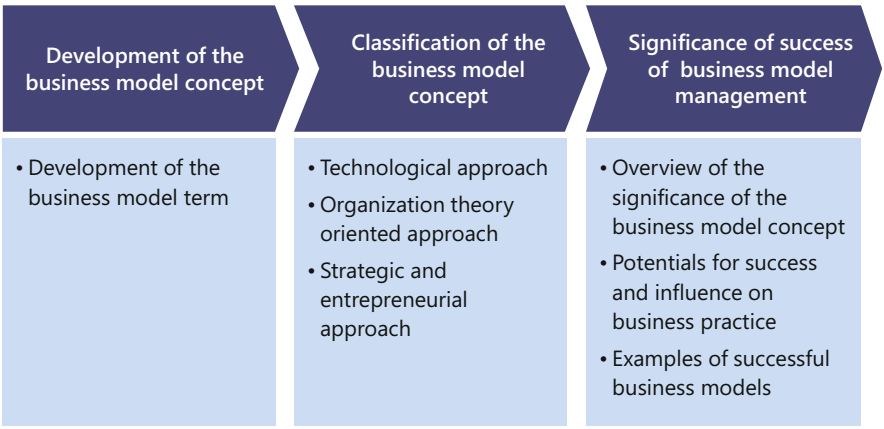

Fig. 2.1 Structure of the chapter

usage can be found in publications of McGuire (1965), the Manson Research Corporation (1966), and Walton (1966).

However, in all these articles, the term was still used non-specifically. The various authors used them in different contexts and with different meanings. At that time, there existed neither a common research focus nor a common understanding. 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 mostly used in connection with business modeling (Osterwalder et al. 2005). Accordingly, the term primarily showed up in journals of information technology such as the Journal of Systems Management and in specialist magazines such as the Small Business Computer Magazine (Lehmann-Ortega and Schoettl 2005). 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) (Ghaziani and Ventresca 2005). Hence, it may be concluded that business models conceptually emerged from information modeling and information production (Teece 2010).

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 term business model was increasingly used in a strategic context and alongside terms such as revenue model or relationship management (Ghaziani and Ventresca 2005). With the establishment of the Internet, the business model concept became a focus of interest for companies. In parallel with the rise of e-commerce, the usage of the term in publications increased considerably. While up to that point the business model concept had mainly appeared in specialist literature, now corporations and media became increasingly interested. For firms of the so-called New Economy and their investors, the business model was often seen as central for the success of a company.

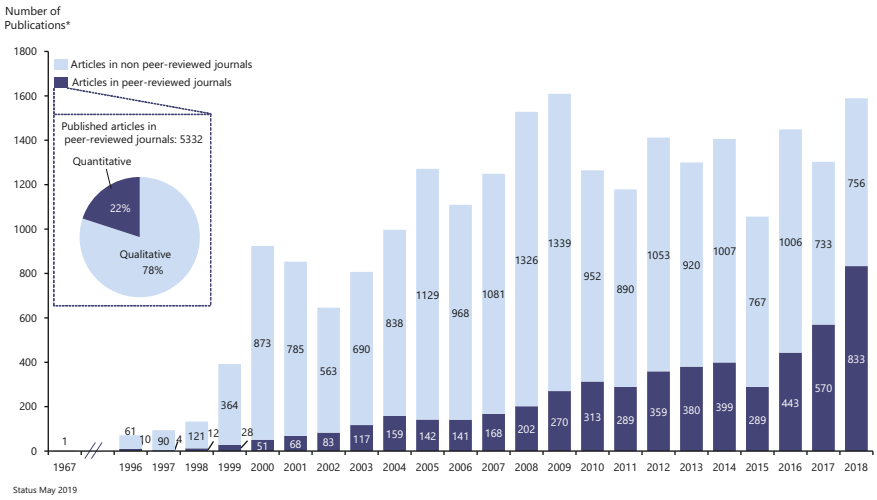

Fig. 2.2 Frequency of use of the term "business model" in title or abstract (EBSCO database analysis). Source: Wirtz et al. (2016b), including updates

At the same time, the scientific literature also started to pay more attention to the business model concept. This development can be shown by an analysis of the EBSCO database. For the period of 1965 to 2018, 23,533 articles could be identified, with 5332 articles being published in peer-reviewed journals. While the majority of these articles were conceptual studies and case studies, multivariate analyses were only rarely used. During the last 15 years, the frequency of use of the term business model has increased considerably in the scientific literature. Figure 2.2 gives an overview regarding the frequency of the term business model in peer-reviewed and non-peer-reviewed journals during the last 50 years.

The decline of the New Economy since the end of 2000 led to a change in the understanding of business models. The term business model term changed from a promising catch phrase to an expression that was quite often associated with the bursting of the New Economy bubble (Lazonick 2005). In many cases, ill-conceived or inconsistent business models led to the failure of companies of the New Economy. In addition, insufficient differentiability of their business models resulted in a cut-throat competition, which only few start-ups survived.

But in spite of its occasionally negative connotation, the interest in the concept of the business model remained. Much later than in the New Economy, it was increasingly adopted by companies of the Old Economy. Even enterprises that had not been interested in the Internet so far suddenly started to expand their business models by adding E-business components. Terms such as business model change or business model innovation show the broadened understanding of the concept.

The resulting interest in the concept of the business model in the practical world of business created the foundation for a new scientific discussion. Different authors have attempted to formulate a definition of the term business model, but only few

definitions are universal. Most frequently they only refer to certain sectors (such as E-business) or components of business models. Due to the complexity of the concept, caused by the various theoretical approaches, no generally accepted definition of the term could be established so far. Thus, to be able to comprehensively describe the concept of the business model, it requires knowledge not only of the historical development but also regarding the theoretical foundations.

2.2 Classification of the Business Model Concept

The business model concept has a long history. During its development, the concept was taken up by different streams of research and associated with different schools of thought. In the literature, there are different theoretical approaches to the business model concept: information technology, organizational theory, and strategy. These three basic approaches will be explained in the following.

Information Technology
In the technological context, business models emerged from the research area of management information systems (Teece 2010). Thus, 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.

As early as 1975, Konczal described the procedure and benefits of business modeling and predicted that computerized business models would continue to gain importance (Konczal 1975). Early on, Konczal directed his work towards management and identified the business model as a management tool. The declared goals of business modeling were to create a business compliant architecture and to reduce the costs of hardware and software implementation.

Gradually the methods and tools such as ARIS and PROMET were developed, which were suitable for process documentation, process analysis, and conceptualization. Since the mid-1990s, system developers have been using UML, a standardized object-oriented modeling language. Business modeling occurs as a three-step process (Eriksson and Penker 2000):

1. The business objectives and available resources are determined by the CEO or the responsible unit managers.
2. The system developer drafts the structure and the business processes as well as the allocation of available resources, resulting in the business model as a simplified representation of the business processes.
3. The system developer creates an information system based on the business model.

In the sense of early information technology, the business model chiefly describes the activity of system modeling and is characterized by strongly functional aspects (Zott et al. 2011). During the course of the technological revolution caused by the

Internet and the advent of E-business, the significance of the information technological view on business models expanded. Due to changed competition and market conditions, it was often not possible to directly transfer traditional business concepts to the Internet (Wirtz and Becker 2002a).

Hence, the task of the business model changed. Instead of only describing existing processes and structures for the technical system 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 (Schoegel 2001).

Organizational Theory

At the beginning of the 1990s, the business model concept lost its implicit connection to information systems. The focus changed and two new basic approaches evolved. One of these basic approaches was organizational theory.

Since business models were no longer restricted to the preliminary conceptual stage of system development, they evolved into an independent instrument of analysis (Zott et al. 2011). Hence, the direction of the concept's effect changed as well. In its early information technological view, the business model was mainly regarded as a tool to transpose instructions from decision-makers, but in its organization function, it can be used to support management decisions. The business model now helps to understand how companies work.

According to the organizational theory, the business model is seen as an abstract representation of the company's structure or architecture (Al-Debei et al. 2008). Eriksson and Penker (2000) define the following functions of the business model characterized by organizational theory:

Definition by Eriksson and Penker (2000)

- 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 a competitive company (e.g. benchmarking on the model level).
- To identify outsourcing opportunities. (Eriksson and Penker 2000)

While information technology and the business model concept developed largely in parallel, the origins of organizational theory as an economic framework have to be placed much earlier in management theory. Organizational theory as an analytical concept is already to be found in the pre-industrial age (Frese 1992). With the industrial revolution in the middle of the nineteenth century, this concept became increasingly relevant for companies and may be regarded as a preliminary stage of modern management theory. During this period the first charts of corporate structures were drawn. However, a scientific examination of the subject did not take place until the beginning of the twentieth 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 and Kalling (2002).

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 to achieve. These objectives are defined by a strategy that the organization follows. Hedman and 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 of the business model concept.

Strategic Management

With the functional change of the business model to a management tool in the sense of organizational business planning, strategy as a further basic theoretical approach gained importance. The business model became the comprehensive description of entrepreneurial activity in an aggregated form (Zollenkop 2006).

Since 2000, many papers closely relate strategy and business models. Wirtz and Kleineicken (2000) emphasize the close connection between the business model concept and business strategy. Here, the business model provides information about the production factors for implementing a company's business strategy. For Hamel (2000), innovations in business models constitute competitive advantages. Thus, the business model includes an internal corporate view with 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 (Wirtz and Kleineicken 2000; Chesbrough and Rosenbloom 2002; Magretta 2002). Compared to organizational theory, the strategic approach is a relatively new discipline in the business management research. 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. Chandler describes how strategic considerations are reflected in the structure of the company and also connects the basic strategic and organizational approach. 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 development of Chandler's approach regarding the market orientation of strategy can be found in (Ansoff 1965).

In 1971, Andrews published 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 and 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 can be found that influence the business model concept. One of these streams was shaped by Penrose (1951): the view of the management's influence on the resource allocation of the company (Kor and Mahoney 2004). 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 particularly important for the concept of the business model.

In the context of the market-based view, the company is considered 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. Particularly Porter's five forces and his value chain model should be mentioned. In contrast to this, the resource-based view focuses on the individual company and its sustainable handling of resources.

The resource-based view is also used to explain the origin of the business model concept (Schweizer 2005; Seppänen and Mäkinen 2006). 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.

The concept of innovation is another approach that is 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) (Hedman and Kalling 2002; Schweizer 2005). In doing so, two different approaches are mainly considered. 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 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 towards innovation is associated with the strategic approach. Figure 2.3 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.

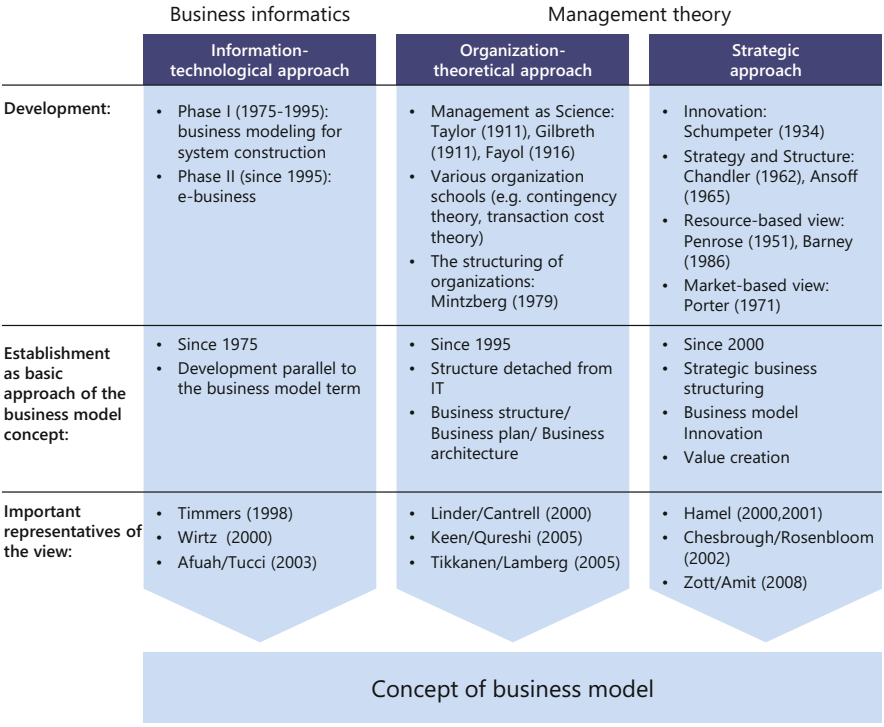

Fig. 2.3 Overview of the theoretical foundations of the business model concept. Source: Wirtz (2010a, 2011, 2018a)

The different theoretical approaches underlying the business model concept have increasingly converged in recent years. Thus, in the current literature, a similar conceptual understanding of the business model concept has been established (Wirtz et al. 2016a, b). Based on the classification of business models, Fig. 2.4 shows by way of example the change or development of a converging business model view by displaying the aggregation levels used and the areas of processes (operation) and strategy (planning).

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 development of the business model concept as well as the basic theoretical approaches were described. Next, the general relevance and particularly the significance of success of the business model concept will be discussed.

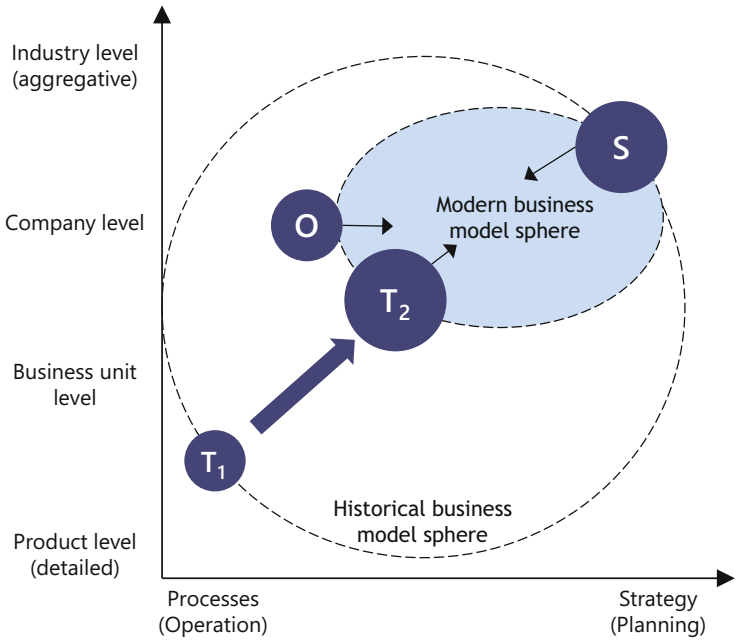

Fig. 2.4 Development of the three basic theories towards a converging business model view. Source: Wirtz et al. (2016a, b) and Wirtz (2019a)

In addition to the 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 a business model can abstractly address all relevant issues of a business. Hence, a business model is a structured management tool that helps a company to achieve its aims (Magretta 2002).

This is confirmed by 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 (IBM 2007). Furthermore, it is shown that business models particularly contribute to success when companies want to differentiate their range of products, enforce a change, or implement innovative ideas.

Business models enable a manager to focus on the essential aspects of their 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. Thereby, a well-conceived business

model increases the sustainability of competitive advantages and creates consequently long-term business success.

Furthermore, a business model constitutes a conceptual and comprehensive management tool for companies to distinguish themselves from competitors in all sectors over the long run (McKinsey 2008). By consistently analyzing the different partial models of the business model, a company can better assess the relevant competitors and particularly their value proposition to the 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 in order to 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 (Magretta 2002).

Changes in existing business models are considered to be an essential component of business model management in order to survive in the market over the long run and adapt to changing conditions (Linder and Cantrell 2000). Almost every company makes adjustments to existing business models to deal with new technologies or customer needs. Approximately 70% of companies state that the business model often has to be radically changed in order to remain competitive (IBM 2007).

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. While Dell developed into one of the leading manufacturers of computer systems worldwide and became the most dynamic company in the computer business, its competitors like IBM or Compaq hesitated to adapt their business models accordingly. With the business model of direct sales, Dell shortened the value chain and could better respond to customer needs due to their greater customer intimacy. 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 (Tikkanen et al. 2005).

Another important element of business model management is business model innovations that are also relevant in the context of changes in business models. With the help of the business model management concept, innovative business models can be identified and successfully implemented. Regarding this, Johnson et al. (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" (Johnson et al. 2008).

An example of a successfully implemented business model innovation through business model management is Apple's iPod and iTunes store. By combining a portable media player with an appealing design and the digital music business, Apple transformed the whole company and has also created a completely new market (Johnson et al. 2008). The innovation by 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." (Johnson et al. 2008). Today, Apple receives nearly 50% of its revenue from the iPod/iTunes combination and has

increased its market capitalization from 1 billion US dollars to more than 150 billion US dollars.

All in all, the concept of the business model has gained significance, and today is considered to be relevant for success in both academic circles and in management practice. By means 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 may also exert its influence across sectors (Zollenkop 2006).

Business Model Concepts in Literature

3

A variety of business model concepts can be distinguished in the literature. In the following chapter, the three basic theoretical approaches of 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.[1]

Section 3.2 presents selected technology-oriented business model approaches, and Sect. 3.3 presents organization-oriented ones. Finally, in Sect. 3.4, approaches of the strategy-oriented business model approach are discussed. 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 shows the structure of the chapter.

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.

However, this led to a pluralism of perspectives and a heterogeneous understanding of the concept in the early concept-forming phases, 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 (MacInnes and Hwang 2003;

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

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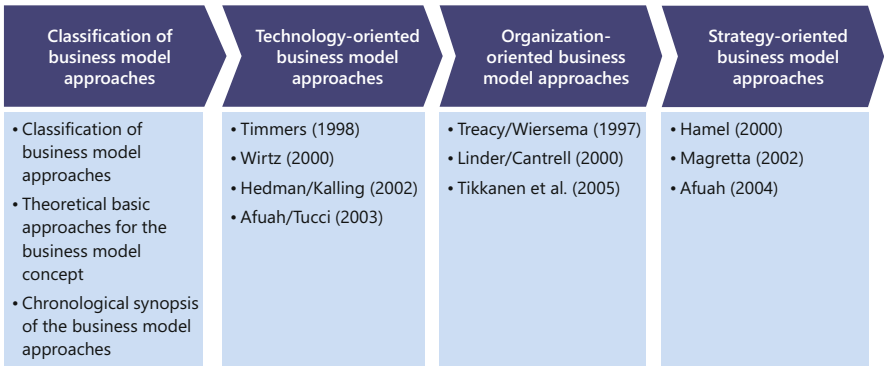

Fig. 3.1 Structure of the chapter

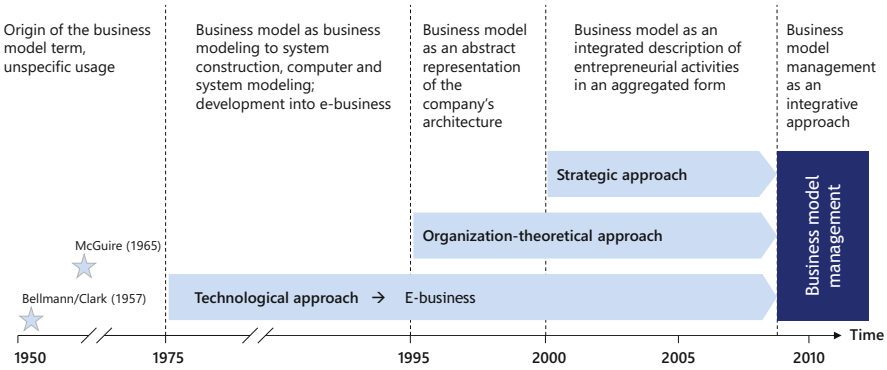

Fig. 3.2 Development of the business model concept. Source: Wirtz (2010a, 2011, 2018a, 2019a)

Pateli and Giaglis 2004; Al-Debei et al. 2008). 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 (Afuah and Tucci 2003; Osterwalder 2004),
- The context of the business model definition is taken into account (Pateli and Giaglis 2004).
- Different categories of business models are formed (Al-Debei et al. 2008).
- Existing business models from practice are grouped in categories (Krüger et al. 2003) or attempt to establish a taxonomy.

For instance, Bieger et al.'s (2002a, b) analysis compares eight selected contributions from business model literature and shortly outlines each publication. Eight core elements are extracted from the different approaches, and it is emphasized that the respective contents overlap. The difficulty to clearly distinguish these

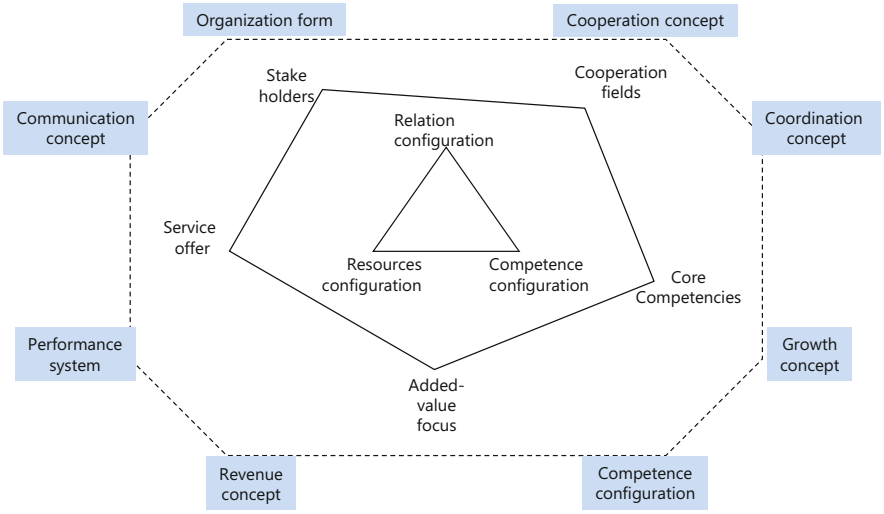

Fig. 3.3 Eight dimensions of a business model. Source: Bieger et al. (2002b)

categories involves the danger of varying interpretations. This might lead to misunderstandings especially when implementing the model in practice. 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 Fig. 3.3.

MacInnes and Hwang (2003) have analyzed different approaches to 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. MacInnes and Hwang say that the components of business models are vital for the success of a company. Therefore, they extract the relevant components from the seven contributions and classify the approaches based on these components.

MacInnes and Hwang (2003) and Krüger et al. (2003) focus on types or characteristics and components of business models. They analyze three selected approaches regarding the taxonomy of Internet business models and subsequently derive components of business models from three further approaches. Krüger et al. argue that components may be linked to the corresponding taxonomies and illustrate this by a generic linking approach. Finally, they transfer their results from the analysis to the special context of the online news market.

The classification by Pateli and Giaglis (2004) is more comprehensive than the previous approaches. They note that the existing literature is characterized by a confusing diversity and emphasize the heterogeneity in general and the different angles of the existing approaches in particular. Based on their analysis, the authors conclude that there is no consistent framework for the analysis and research of business models in academia so far. Although all of the examined research

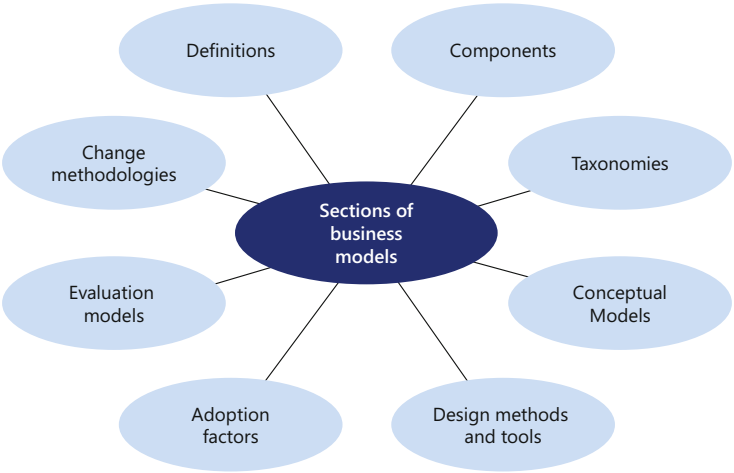

Fig. 3.4 Sections and research approaches of business models. Source: Wirtz (2010a)

Table 3.1 Nine business model building blocks

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

Source: Osterwalder et al. (2005)

approaches can be assigned to one or several sections of business models, these approaches have not yet been connected interdisciplinary. Figure 3.4 sets the eight principal sections identified by the Pateli and Giaglis (2004) in context.

The categories were validated by five experts who assigned the different approaches to the above-mentioned categories (Dubosson-Torbay et al. 2002). All classifications were checked for suitability and affirmed as statistically significant.

Gordijin et al. (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 make a rough classification and subsequently examine the structure, differentiation, and development of the business model concept. Based on this framework, the nine business model building blocks are derived, and a synthesis of the literature is made. Table 3.1 shows the business model building blocks.

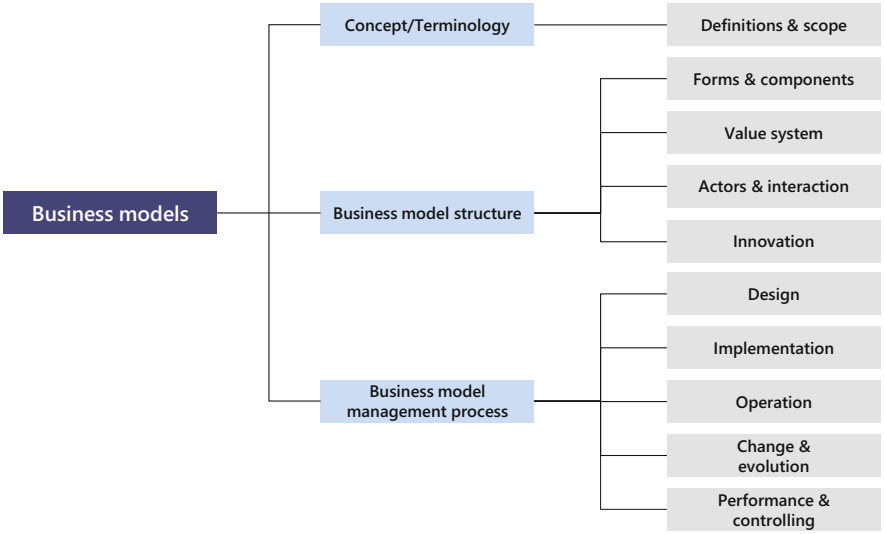

Fig. 3.5 Business model classification. Source: Wirtz et al. (2016b) and Wirtz (2019a)

Lambert (2006) also attempts to classify selected contributions of the existing literature. In contrast to the classification approaches above, the author adopts a perspective characterized by electronic business. Lambert identifies four criteria to differentiate the literature and illustrates selected approaches by means of this research grid. The author argues that it is possible to create a universal approach from the existing approaches but that this would be less significant because of the loss of specific criteria.

Wirtz et al. (2016b) provide a holistic classification of the business model literature by quantitatively investigating relevant research papers published and carrying out a differentiated, research field-oriented qualitative analysis. Here, 681 peer-reviewed journal articles have been investigated for the period between 1965 and 2013. Based on the heterogeneity of existing business model approaches and classifications, the authors identified three main categories, which have been further differentiated into specific subcategories. The first main category is concept/terminology and combines "definitions and scope" of the business model concept. The second main category is business model structure, whose subcategories are "forms and components," "value system," "actors and interaction," and "innovation." The third main category is business model management process and comprises "design," "implementation," "operation," "change and evolution," and "performance and controlling." Figure 3.5 displays the described business model classification (Wirtz et al. 2016b).

Figure 3.6 summarizes the business model classification according to Wirtz et al. (2016b) and describes the individual subcategories. Based on the literature analysis, the figure further illustrates the research intensity regarding the individual subcategories divided into conceptual studies, case studies, and complex empirical

	Key content	Research status conceptual	Research status case study	Research status complex empirical	Total
Definitions & scope	• Basic definition of the concept • Differentiation from existing concepts	27 (100%)	-	-	27 (4%)
Forms & components	• Decomposition of the business model concept regarding partial models • Categorization of concrete parameters	25 (45%)	31 (55%)	-	56 (8%)
Value system	• Structure of value creation • Topology of value chain partners	22 (47%)	22 (47%)	3 (6%)	47 (7%)
Actors & interaction	• Analysis of the interactions and relationships of the different business model actors	14 (37%)	20 (53%)	4 (10%)	38 (5%)
Innovation	• Entrepreneurship, socio-economic implications of business model innovations	87 (9%)	84 (48%)	5 (3%)	176 (26%)
Design	• Arrangement of the design process • Graphical visualizations (ontologies)	38 (54%)	29 (41%)	4 (5%)	71 (10%)
Implementation	• Arrangement of the implementation process	7 (37%)	12 (63%)	-	19 (3%)
Operation	• Arrangement of the operational process	7 (37%)	12 (63%)	-	19 (3%)
Change & evolution	• Change of business models over time (evolution / revolution) • Factors to adapt a business model	59 (49%)	56 (47%)	5 (4%)	120 (18%)
Performance & controlling	• Development of methods for testing the feasibility, sustainability and profitability	29 (27%)	65 (59%)	15 (14%)	109 (16%)
Total		315 (46%)	330 (49%)	36 (5%)	681

Fig. 3.6 Articles in the field of business model research. Source: Wirtz et al. (2016b) and Wirtz (2019a)

studies. While the distribution between conceptual papers (46%) and case study-based research or other basic empirical work (49%) is almost balanced, there is a clear deficit and therefore high potential for research in the case of multivariate analyses (5%). Considering the respective research fields based on the individual subcategories, the authors have identified four essential foci with special research intensity: innovation (26%), change and evolution (18%), performance and controlling (16%), as well as design (10%).

Upon a closer look at the distribution, it seems reasonable that innovation is the most important research field because globalization trends and the accordingly growing competitiveness in the marketplace become increasingly challenging for many companies. Therefore, it is highly important to understand how to become and remain innovative and thus successful with the company's business model. The research field of innovation is strongly related to the research area change and evolution, when considering how business models of various industries have fundamentally changed or been adapted over time, due to the rapid development of new information and communication technologies. Furthermore, there is an increased research interest in performance and controlling of business models since new procedures are necessary to examine the profitability and sustainability of business

models. This is particularly relevant considering the current situation, in which companies are increasingly challenged by competitive advantage and continuing discussions about their impact on and responsibility for society, environment, and multiple stakeholders. Finally, the design of business models that has been investigated intensively as a distinctive arrangement of the design process, as well as well-structured graphical visualizations, ontologies, and their communication within the company, is essential for well-rounded decision-making (Wirtz et al. 2016a, b).

Looking at the different perspectives of the individual authors regarding a business model classification, in summary, it can be stated that particular overlaps are apparent regarding the classification criteria of the different authors, but a basic homogeneity is not discernible. Table 3.2 summarizes the criteria presented.

The briefly outlined classification attempts are exemplary of current literature. The observed categories 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 considered, and relations or implications are not sufficiently taken into account. For the most part, only selected approaches of the literature are examined.

Regarding the classifications of business models, it becomes evident that a component-oriented perspective is present in the majority of business model understandings. To develop a clear understanding of the business model concept, the extraction of relevant components is therefore considered to be highly relevant. The following deliberations about relevant business model components refer to Wirtz et al. (2015).

Based on an elaborate meta-analysis in terms of a quantitative and qualitative examination of peer-reviewed journal articles, Wirtz et al. (2015) identify that the first component-oriented approach has been mentioned by Hamel (2000). The author identifies "core strategy" as a central component of a business model. The contributions of Hedman and Kalling (2002), Afuah (2004), Yip (2004), and Tikkanen et al. (2005) in the following years also name strategy as a significant business model component. Another important component is (material and immaterial) resources. In this context, company internal and external resources and competencies/capabilities are observed (e.g., Wirtz 2000; Osterwalder et al. 2005).

An additional business model component is network that influences the value creation of a company. The network component includes the various, mostly external interactions of a business model and serves as a management tool to monitor the value distribution with a joint value creation. Further, the special importance of customers is frequently referred to in the literature. The customer model presents all products and services for specific customer segments of the business model. Another component often referred to in the literature is the market offering model that includes the frequently mentioned value proposition, i.e., the customer value delivered by a business model. Besides the focus on the own company, the main aspect here is the consideration of competitors (Hedman and Kalling 2002).

The revenue component is also frequently mentioned ranging from transaction-dependent and transaction-independent direct revenue to indirect forms of revenue.

Table 3.2 Criteria for the classification of business models

Authors	Classification criteria
Bieger et al. (2002b)	• Incentive system • Concept of communication • Concept of revenue • Concept of growth • Configuration of competence • Form of organization • Concept of cooperation • Concentration of coordination/control
MacInnes and Hwang (2003)	• Types and development of business models • Components of business models
Krüger et al. (2003)	• Types of business models • Components • Taxonomies
Pateli and Giaglis (2004)	• Definitions • Components • Taxonomies • Conceptual models • Design methods and tools • Adoption factors • Evaluation models • Change methodologies
Osterwalder et al. (2005)	• Value proposition • Target customer • Distribution channel • Relationship • Value configuration • Core competency • Partner network • Cost structure • Revenue model
Lambert (2006)	• Referred to by the authors(s) as • Criteria for differentiation • Number of categories and subcategories • Business model categories
Wirtz et al. (2016a, b)	• Concept/terminology – Definition and scope • Business model structure – Forms and components – Value system – Actors and interaction – Innovation • Business model management process – Design – Implementation – Operation – Change and evolution – Performance and controlling

The support of the entire business model is determined by different revenue streams. The revenue streams and revenue structure are to be designed in such a way that they maximize revenues. The term service provision is also reflected in the components. In this context, Afuah (2004) and Johnson (2010), for instance, quote "activities," "implementation and configuration of value creation activities," and "processes." Hence, the service provision model portrays the value creation of the business model, defining central parameters and depicting how lower-order goods may be transformed into goods of higher order by internal company processes.

Today's modern procurement management particularly needs to comply with globalization, decreasing production cycles as well as the change from producer to buyer markets. Therefore, the business model component of procurement is obligatory since neglecting this aspect can have extensive impacts on other components. In this regard, an input-based understanding of procurement predominates in the literature (e.g., Hedman and Kalling 2002; Yip 2004). Finally, the finance model can be stated as the last component of a business model. It undertakes the functions of controlling and financial planning by means of detailed financial planning and the analysis of the cost structure (e.g., Demil and Lecocq 2010; Osterwalder et al. 2005; Osterwalder and Pigneur 2010). Figure 3.7 presents an analysis of the relevant business model components.

In summary, the business model literature presents various classification criteria mostly including a component-oriented view. In this context, many authors present specific basic approaches but only implicitly address their significance for business models. Although the different authors do not use the same nomenclature, they quite obviously have a common understanding. In this regard, Osterwalder (2004) explains that different points of view on business models can also exist within a company, and a business model may be the link between these views. Here, one can distinguish between business strategy, business organization, and ICT (information and communication technology) (Osterwalder 2004).

Bieger et al. (2002a, b) present a very similar point of view. They address the topic of business models by means of the following three analytical patterns: network effects and strategic network theory, strategy theory, and value chain configuration. Pateli and Giaglis (2004) also draw on three basic approaches emphasizing that it is necessary to consider them not separately but as a whole (Pateli and Giaglis 2004).

In the following, first the approaches of various authors will be assigned to the three basic approaches, and then the latter will be illustrated together with their specific relevance 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, and subsequently, in Sects. 3.2–3.4, publications relevant to the

Component / Author	Strategy	Resources	Network	Customers	Market offering (value proposition)	Revenues	Service provision	Procurement	Finances	Spectrum of the Components
Hamel (2000)	Core Strategy, Strategic Resources		Value Network	Customer Interface						◔
Mahadevan (2000			Logistic Stream		Value Stream	Revenue Stream				◔
Wirtz (2000)	Combination of production factors for strategy	Core competencies & Core assets		Market & customer segmentation	Service offer & Value proposition	Systematization of revenue forms	Combination & transformation of goods & services	Production factors & Suppliers	Financing & Refinancing	◕
Hedman/Kalling (2002)	Managerial and organizational, longitudinal process component	Resources		Customers	Competitors, Offering		Activities & Organization	Factor & Production Input Suppliers		◕
Bouwman (2003)		Technical architecture		Customer Value of Service					Financial arrangements	◔
Afuah (2004)	Positions	Resources			Industry Factors		Activities		Costs	◑
Mahadevan (2004)				Target Customers	Value Proposition	Revenue Model	Value Delivery			◔
Voelpel/Leibold/ Tekie (2004)		Leadership capabilities	Value Network (Re)Configuration for the Value Creation		Customer Value Proposition					◔
Yip (2004)	Scope, Differentiation	Organization		Nature of Customers, Channels	Value Proposition, Nature of Outputs		How to transform inputs (including technology)	Nature of inputs		◕
Lehmann-Ortega/Schoettl (2005)					Value Proposition, Value	Revenue Model				◔
Osterwalder/ Pigneur/Tucci (2005)		Core Competency	Partner Network	Target Customer, Distribution Channel, Relationship	Architecture Value Proposition	Revenue Model	Value Configuration		Cost Structure	◕
Tikkanen et al. (2005)	Strategy & Structure		Network				Operations		Finance & Accounting	◑
Al-Debei/El-Haddadeh/Avison (2008a)			Value Network		Value Proposition, Value Architecture				Value Finance	◔
Demil/Lecocq (2010)		Resources & Competences, Organization			Value Proposition	Volume & Structure of Revenue Streams			Volume & Structure of Revenue costs	◑
Johnson (2010)		Key Resources			Customer Value Proposition	Profit Formula	Key Processes			◑
Osterwalder/ Pigneur (2010)		Key Resources	Key Partners	Customer Relationships, Channels, Customers Segments	Value Proposition	Revenue Streams	Key Activities		Cost Structure	◕
Intensity of use	◑	◕	◑	◑	◕	◑	◑	◔	◑	

○ Very low ◔ Low ◑ Moderate ◕ High ● Very high

Fig. 3.7 Overview of selected business model components. Source: Wirtz et al. (2016b) and Wirtz (2019a)

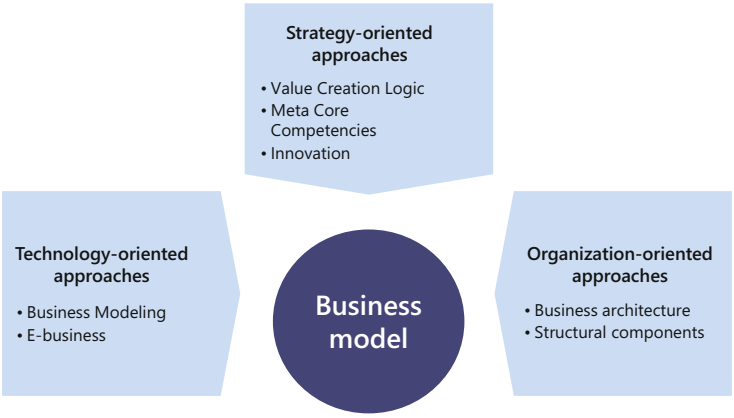

Fig. 3.8 Theoretical approaches for the concept of a business model. Source: Wirtz (2010a, 2011, 2018a)

individual basic approaches are presented in detail. Figure 3.8 shows an aggregate overview of the basic approaches.

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 can be assigned to this field, which aim at 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 (Eriksson and Penker 2000). On the other hand, this basic approach explains concepts relating to electronic business. Due to the advancement of the Internet, the emphasis of the discourse shifted from technological aspects to the description of Internet-based business concepts (Wirtz and Becker 2002a).

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 (Mintzberg 1979). The overriding corporate design determines both the size and the type of different units, whereas in centralized decision-making, a horizontal and a vertical shift of responsibility is examined.

In job planning, job requirement profiles of the individual roles within a company are defined, and an integrated corporate culture and general understanding of learning are 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 (Zott and Amit 2007).

The most recent field 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 also take elements of competition into account. In this context, subject area innovation is increasingly discussed,

which may also be assigned to this basic approach (Hamel 2000). 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 (Normann and Ramirez 1993).

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 in strategy orientation as a medium of operationalization. Therefore, processes are 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 assign processes to one individual research approach; instead they constitute a cross-departmental function.

In literature, three different levels of business layers are mentioned (Osterwalder 2004):

- Strategic layer
- Business model layer
- 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 in terms of an integrated cross-departmental function in the context of a comprehensive business model approach.

Important authors of the different business model approaches will now be presented in a chronological synopsis in Fig. 3.9. 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 Fig. 3.9 shows how the contributions are arranged within the three basic approaches, Fig. 3.10 conveys the most essential points of the development of the business model concept within the individual development phases.

Early Phase of the Conception of the Business Model Term

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) and 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 that deals with process modeling or computer business models. Here, business models are regarded as a structuring tool that helps to master the increasing complexity of business activities and the associated information systems or architectures (Konczal 1975). Konczal (1975) implicitly hints at the other approaches by stating: "Models

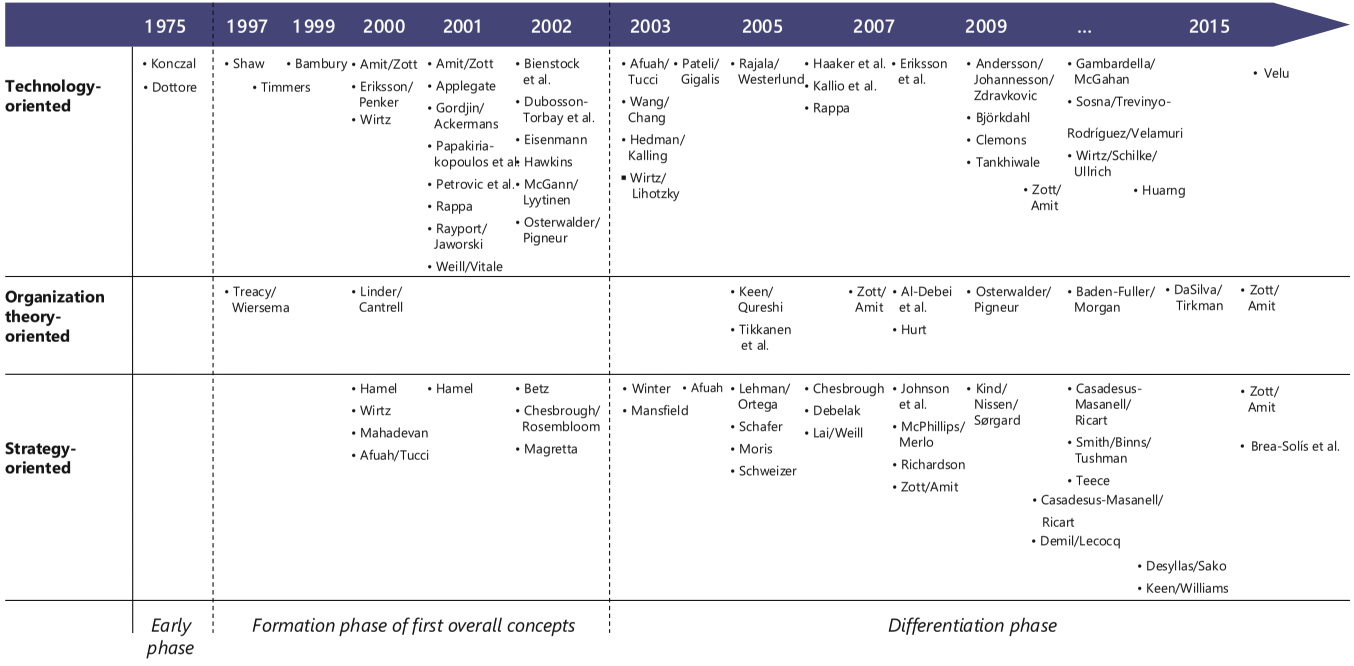

Fig. 3.9 Chronological synopsis of the business model approaches. Source: Wirtz (2010a, 2011, 2018a)

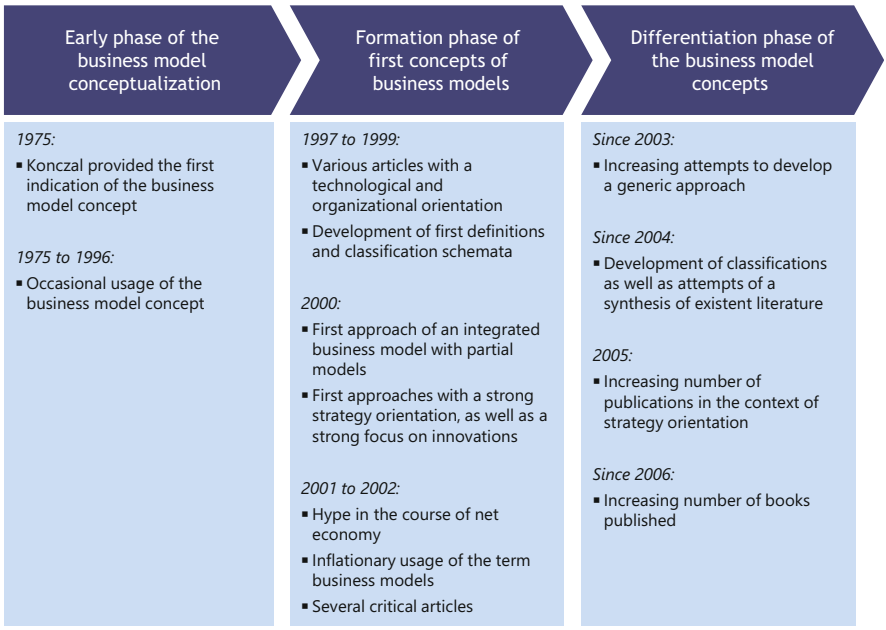

Fig. 3.10 Course of the development phases of the business model. Source: Wirtz (2010a, 2011, 2018a)

are for managers, not mathematicians" (Konczal 1975). This clarifies the scope of application of business models as management tools.

Formation Phase of First Business Model Concepts

In the second phase of development, business model concepts were developed and systematized. Between 1997 and 2002, the number of publications in this field increased. This phenomenon can primarily be traced back to the growing significance of electronic business. Especially during the Internet hype, in practice the term was used almost inflationary.

In 1997, Treacy and Wiersema 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 et al. (1997) strongly focus on the topic of electronic commerce and, in this context, examine business models in more detail for the first time.

Furthermore, between 1998 and 1999, three papers were published which can be classified as technology- and organization-oriented. Timmers' (1998) article 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.

In 2000, Wirtz presented a new integrated typology of business models in electronic business—the 4C (content, context, commerce, connection) net business model. Fritz (2004) commented: "In German literature, Wirtz' 4C net business model approach attracted the biggest interest for the B2C area" (Fritz 2004). 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 who introduced a purely strategy-oriented business model approach. It is 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 several factors of innovation (Hamel 2000). 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 and Rosenbloom 2002; Knyphausen-Aufseß and Meinhardt 2002; Magretta 2002).

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: "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" (Porter 2001).

Differentiation Phase of Business Model Concepts

Since 2003, the classification of the different concepts and 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 and Kalling (2003) and Rentmeister and Klein (2003) present a business model approach that contains elements of all three theoretical approaches.

In addition to searching for a comprehensive business model, some authors also examine the current situation of business model research. Pateli and 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 importance. While the article by Afuah and Tucci (2003) is still strongly technology-oriented, the book "A Strategic Management Approach" by Afuah (2004) is characterized by an expanded and strategic point of view.

Lehmann-Ortega and Schoettl (2005), Morris et al. (2005), Schweizer (2005), and Shafer et al. (2005) also deal with business models in the context of strategy. In order to develop their approaches, they used established theories of business economics like the resource-based view. All authors agree that a business model does not

constitute a corporate strategy and that it should only be considered in relation to a superior strategy (Shafer et al. 2005).

Now that various classification approaches suggested by the literature have been introduced, Sects. 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. Based on 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 (Lambert 2006):

- Definitions reflecting the extent and the understanding of the respective author (Timmers 1998; Linder and Cantrell 2000; Magretta 2002)
- Aims depicting the intention and the use of the business model concept (Magretta 2002)
- Level/applications indicating the degree of abstraction, for example, industry, company, or strategic business unit (Lai et al. 2006; Al-Debei et al. 2008)
- Components through which business models can be divided and complexity is reduced (Hamel 2000; Osterwalder and Pigneur 2002)
- Interactions explaining the correlation between the components of a business model (Afuah 2004)

3.2 Technology-Oriented Business Model Approaches

The technology-oriented approach is the earliest theme in business model literature. Here, business processes are mapped by applying structured methods such as ARIS or UML to increase efficiency and effectiveness. Business process modeling and the business model term evolved with the increasing importance of the Internet.

Hence, current literature frequently uses the term business model or Internet business model 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 thus their future viability. In this way, venture capital companies should be convinced of the merits of financing these start-ups. In the following, four important publications are presented by way of example, illustrating the various specifics of technology-oriented business model approaches.

Business Model Approach by Timmers (1998)
One of the first approaches in the field of electronic business was introduced by Timmers (1998). His considerations are based on Porter's value chain approach. According to Timmers, new business models can be created by reconfiguring the value chain. 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. This aspect plays a central role in Timmers'

examination since the Internet, for example, increasingly facilitated the disintermediation and thus the dissolution of intermediary trade stages. One of the first definitions of the term business model can be traced back to Timmers (1998):

Business Model Definition by Timmers (1998)

- 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 (Timmers 1998).

This definition is detached from the author's original electronic business perspective. According to Timmers, 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 model (Timmers 1998). Timmers' approach aims at designing a classification framework for Internet business models. Primarily, the different business model types are to be presented and their changeability to be illustrated by means of reconfiguring the value chain.

With regard to the level or application of this business model approach, it should be noted that a precise positioning is not intended. However, one recognizes that the adoption of a business-related perspective has 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 postulates 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 Fig. 3.11 are business models or generalizations of business models which Timmers identified by means of case study research. He argues that these categories can be applied both in the business-to-consumer and the business-to-business spheres.

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.

Business Model Approach by 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.

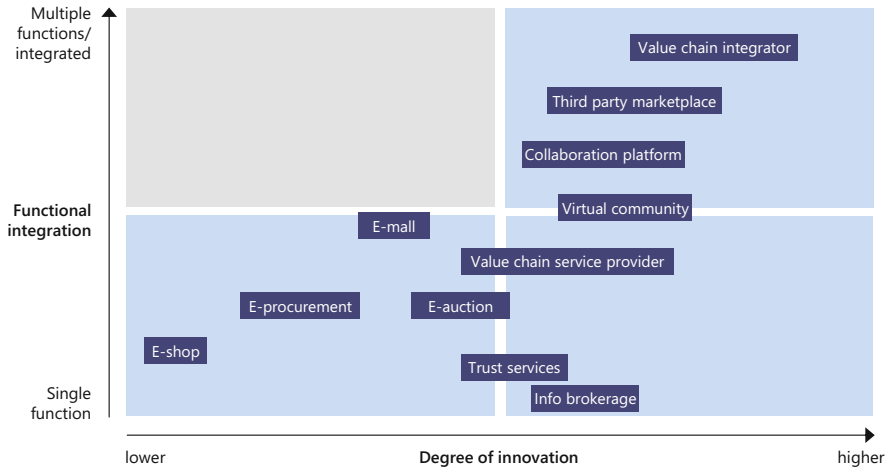

Fig. 3.11 Classification of Internet business models. Source: Timmers (1998)

Business Model Definition by Wirtz (2000)

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. Therefor 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. (Wirtz 2000)

This business model approach should not be a substitute for individual partial economic analyses, but rather guarantees an aggregate form of description and conception (Wirtz 2000). At the same time, this approach intends to create a special typology for business models in the context of electronic business. Figure 3.12 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.

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 discernible.

With the capital model, procurement model, value creation 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 3.13 shows the correlation of these partial models.

	Content	Commerce	Context	Connection
Definition	• Collection, selection, systematization, compilation and provision of contents	• Initiation, negotiation and/or settlement of corporate transactions	• Classification and systematization of information available on the Internet	• Creation of the possibility to exchange information in networks
Goal	• Online provision of consumer-centered, personalized contents	• Supplement and substitution of traditional transaction phases by the Internet	• Complexity reduction • Navigation	• Creation of technological, commercial or purely communicative connections in networks
Revenue model	• Indirect revenue models	• Transaction-dependent direct and indirect revenue models	• Indirect revenue models	• Direct and indirect revenue models
Examples	• Financial Times • nytimes.com • MP3.com	• Amazon • Dell • eBay	• Google • Yahoo! • Bing	• AT&T • Outpost.com • GMX

Fig. 3.12 Characteristics of business model typologies. Source: Wirtz (2000, 2018b)

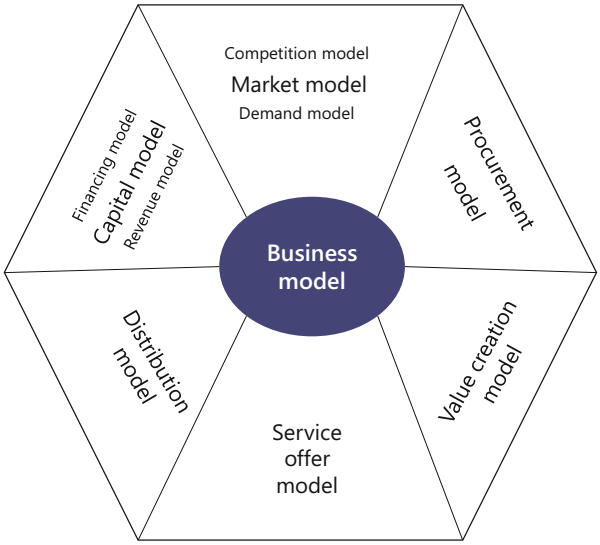

Fig. 3.13 Partial models of an integrated business model. Source: Wirtz (2000, 2018b)

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 divided 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.

The procurement model determines the selection of suppliers for the respective production factors. In this context, the power of both the suppliers and the demanders needs to be taken into consideration. The value creation model describes the conversion and combination of these input factors into new goods and services. This model focuses on the economic relationships between the production factors rather than on technological aspects.

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 is described in which products and services are distributed. In principle, a distinction can be made between tangible and intangible goods. While online channels of distribution can be utilized for the distribution of intangible (mostly information-based) goods, 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.

The capital model can be perceived as a superior model for two partial models that correspond to the financial structure of a company: the financing and the revenue model. The financing model shows the sources where the capital comes from that is used for financing the business activities. 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.

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

Business Model Approach by Hedman and Kalling (2002)

The business model approach taken by Hedman and 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, organizational 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.

Business Model Definition by Hedman and Kalling (2002)

> 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. (Hedman and Kalling 2002)

This definition bears a resemblance to those by Timmers (1998) and Wirtz (2000) but refers to electronic business in its concrete application. Hedman and Kalling emphasize that they aim to create a better understanding of economic connections within the scope of information technology. Thereby, the concrete reference point is a reduction in the complexity of IT or the reorganization of value creation. At the same time, they illustrate that the approach can also be applied in other fields of research.

The business model serves as a structuring tool and is supposed to make investment decisions in IT and their subsequent influence on the success of a company more transparent. Regarding this business model approach, it must be noted that a differentiated classification is not made. Primarily a business-related perspective is adopted that draws on information technology as a frame of reference.

According to Hedman and Kalling, a business model comprises the following five integral components: market/industry, sales portfolio, activities and organization, resources and competencies, and factor markets and suppliers. Figure 3.14 illustrates these components of the business model framework.

The market/industry component contains the two partial models of customers and competitors. The customer segments addressed by the company as well as their needs and requirements need to be determined and described in a business model. Furthermore, a competition analysis needs to include the most important competitors and their influence on the company in a business model. Size and business environment of the respective industry should also be observed in order to establish barriers to market entry and create high costs of change (lock-in) if necessary.

In order to satisfy all customer needs, the sales portfolio should contain a selected combination of goods and services. In this context, bundling and unbundling strategies should be taken into account in order to increase sales. By concentrating on such strategies, customer attention can be drawn to specific products within the portfolio. In doing so, production costs for all products should be set in relation to potential retail prices to ensure profitability for the whole range of products.

The activities and organization component contains aspects of both organization and process design. By means of organizational design, responsibilities, coordination, structure, and communication channels within a company can be determined. In

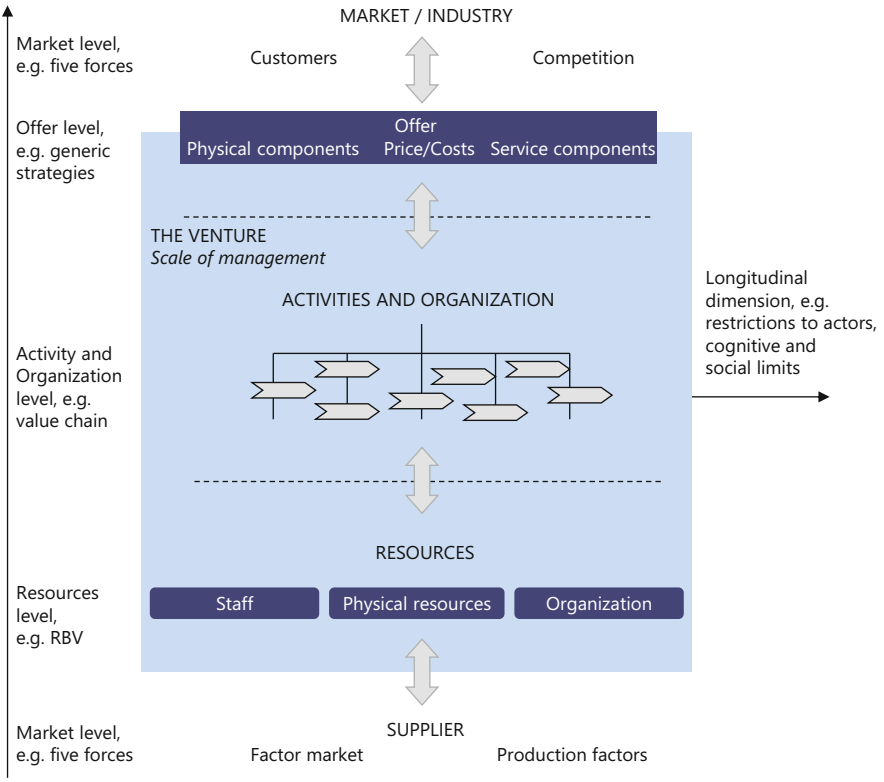

Fig. 3.14 Business model approach according to Hedman and Kalling (2003). Source: Hedman and Kalling (2003)

this context, the activities and processes describe how value is created within the organization.

The resources and competencies that are strategically important for the process of value creation must be identified within this component. Therefore, the value drivers of a resource (e.g., rarity or imitability) should be analyzed in order to counteract possible bottlenecks in procurement at an early stage.

In order to ensure resource procurement, accurate knowledge of factor markets and suppliers is necessary. The early establishment of relationships with suppliers of strategically important (mostly rare) resources is of great significance. However, too close of a relationship with a supplier involves the danger of dependence and therefore needs to be carefully considered on a case-by-case basis.

In contrast to the approaches presented so far, Hedman and Kalling (2002) are the first to deal concretely with the interdependencies between the different components. They emphasize the importance of the causal dependence between the components, but they do not explain how the individual components presented in their approach are connected and in which way dependencies should be considered in business

practices. With their approach, the authors go beyond the publications observed so far. Nevertheless, for a comprehensive business model approach with implications for practical implementation, the interaction of the components of a business model has to be examined in greater detail.

Business Model Approach by Afuah and Tucci (2003)
The business model approach suggested by Afuah and Tucci (2003) is characterized by an Internet technology-related perspective. In the course of their analysis, the authors also present a generic business model approach distanced from the Internet. This approach contains a definition and a list of components as well as an observation of the change in a business model over time.

Business Model Definition by Afuah and Tucci (2003)

> The first determinant of a firm's performance is its **business model**. This is the method by which a firm builds and uses its resources to offer its customers better value than its competitors and to make money doing so. It details how a firm makes money now and how it plans to do so in the long term. The model is what enables a firm to have a sustainable **competitive advantage**, to perform better than its rivals in the long term. A business model can be conceptualized as a system that is made up of components, linkages between the components, and dynamics. (Afuah and Tucci 2003)

In contrast to the approaches by Timmers (1998), Wirtz (2000), and Hedman and Kalling 2002), Afuah and Tucci point out the significance of business models as a management concept by illustrating the connection between business models and competitive advantages. By observing and influencing the business model, management can actively and structurally influence the company's success.

That being said, the aim of this business model approach becomes obvious. Through a better understanding of business models on the Internet, the performance of a company can be critically observed, and competitive advantages over rival firms can be developed. For managers, the following question arises: What are the determinants for the success of the company, and how can they be influenced? By means of the business model approach by Afuah and Tucci, managers are better able to identify these determinants and therefore attain a stronger position in the (Internet) market, for example, via faster integration of new technology.

Within this approach, a specific systemization is not made regarding the level of observation. In the context of the Internet, both industrial and business perspectives are perceptible. Within the scope of analysis, the eight areas (customer value, design scope, price setting, revenue sources, interrelated activities, implementation, capabilities, and sustainability) are identified as essential components of an integrated business model. They constitute the cornerstones of a company's value creation and are causally linked with the determinants of a company's performance and success (Afuah and Tucci 2003).

Afuah and Tucci (2003) explain that depending on the existing capabilities, technologies, and the corporate environment, three generic strategies can be chosen

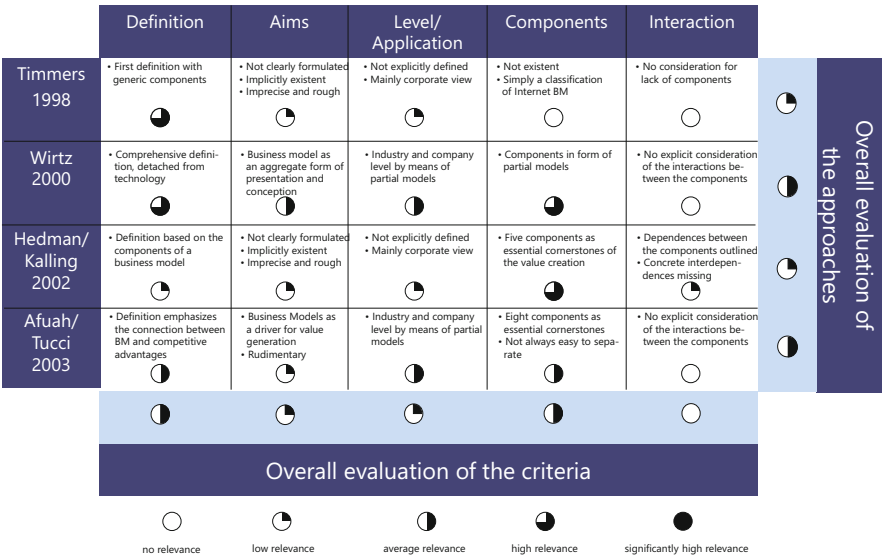

Fig. 3.15 Summarizing analysis of the technology-oriented approaches. Source: Wirtz (2010a, 2011, 2018a)

to secure the business model. On the one hand, the individual business model can be protected against imitation by establishing barriers. Alternatively the company can pursue a strategy innovation since barriers can quickly become obsolete due to technological developments. On the other hand, there is an opportunity to build strategic alliances with which the company can access the resources of a partner and strengthen its own business model. In addition to the detailed presentation of business model components, Afuah and Tucci (2003) also emphasize the existence of correlations. However, the type of interaction between the different components remains unclear.

Evaluation of the Technology-Oriented Approaches

Against the backdrop of developing an integrative business model approach, several problematic aspects become apparent in analyzing the technology-oriented approaches. Figure 3.15 illustrates the results of an evaluation of the different approaches. The relevance of developing a comprehensive business model concept is shown for each approach and examination criterion.

3.3 Organization-Oriented Business Model Approaches

In the 1990s, a connection between the business model concept and organizational theory was established. When the information technology-based perception of business models as a conceptual precursor to systems development started to become

less important, the concept increasingly developed into an independent instrument of analysis (Zott and Amit 2010). Following the organization-theoretical approach, the business model is seen as an abstract representation of the company's structure and architecture (Al-Debei et al. 2008).

Through this development the concept's effective direction permanently changed. Today, in the context of business management, organizational theory focuses on achieving high efficiency by planning and structuring organizational regulations (Schmidt 2002). Here, the business model serves as an instrument to understand the mechanisms of existing companies. In the following, three selected organization-oriented business model approaches will be introduced and compared based on different criteria.

Business Model Approach by Treacy and Wiersema (1997)

The business model approach by Treacy and Wiersema (1997) has an organization-oriented background and is enriched with several components of strategy orientation. It focuses on the pursuit of market leadership, which is supposed to be achieved by means of an operational business model oriented towards customer benefit. In this context, the authors present three generic strategies: cost leadership, product leadership, and customer partnership. Within this structural framework, the concept of the operating business model is embedded.

The observational approach expressed in the definition implicitly confines itself to the organization. By using the term "operational" in this context, it becomes apparent that the authors understand the concept as a management tool for planning and maintaining processes that are relevant to the company. Therefore, the definition reflects a strong focus and a rather narrow understanding of business models.

Business Model Definition by Treacy and Wiersema (1997)

> 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. (Treacy and Wiersema 1997)

The business model approach by Treacy and Wiersema aims at enabling a company to survive in a new competitive environment. After selecting a strategy that fits the chosen category of benefit, the concept provides an instrument for execution and implementation.

Regarding the level of observation, the authors focus on the "managers of business units" (Treacy and Wiersema 1997). In contrast to technology-oriented approaches that neglect this perspective, Treacy and Wiersema (1997) take strategic business units into account for the first time.

According to Treacy and Wiersema (1997), the operating business model comprises four essential components: operating processes, business structures, management systems, and corporate culture. They emphasize that the coordination of these components is imperative to create a superior benefit for the customer. The authors neither describe the components in detail nor differentiate between them, and also the interaction of the components is not taken into account.

Business Model Approach by Linder and Cantrell (2000)
Linder and Cantrell (2000) explain that there are often different interpretations of the term business model. They identify three different elements that are often used within this context: operating business models, change models, and components. According to their understanding, the concept is based on an operating business model that explains the core logic for generating customer benefit within an organization. In the consideration of their business model, they go beyond the static perspective and introduce four change models.

Business Model Definition by Linder and Cantrell (2000)
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 organizations 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. (Linder and Cantrell 2000)

Like Treacy and Wiersema (1997), Linder and Cantrell (2000) draw on an operational understanding of the business model concept. By better understanding structures and processes, company managers are able to design their business models in a way that higher company value can be sustainably generated.

In pursuit of this goal, a company-oriented perspective is adopted that focuses on the respective organization. Thereby, the pricing model, revenue model, channel model, commerce process model, Internet-based network model, organizational form, and value proposition comprise the seven components of an integrated business model. These are causally related to one another and hence build the fundamentals for corporate success.

In their operating model framework, authors Linder and Cantrell (2000) do not further specify or explain the components. They emphasize that a connection between the components exists, but they do not take into account the interaction or interdependencies between them.

Business Model Approach by Tikkanen et al. (2005)
Tikkanen et al. (2005) understand the concept of the business model as a cognitive system that enables managers to make decisions in a structured way. They illustrate

that a manager's cognition, his resulting action, and the business model of a company are causally connected. This connection is accordingly taken into account in their business model concept.

Business Model Definition by Tikkanen et al. (2005)

> We define the business model of a firm as a system manifested in the components and related material and cognitive aspects. Key components of the business model include the company's network of relationships, operations embodied in the company's business processes and resource base, and the finance and accounting concepts of the company. (Tikkanen et al. 2005)

The definition of Tikkanen et al. (2005) is similar to the technology-oriented approach of Hedman and Kalling (2002). Both define a business model through single components and aim to create a better understanding of the interrelations of decisions within a company.

According to Tikkanen et al., the core competencies of a business model are strategy and structure, network relations, processes, and resources as well as finances and accounting. In addition to these components, they also refer to the underlying value system and its associated influence on the evolution of a business model. The business model components are interconnected and influence one another.

Evaluation of the Organization-Oriented Approaches

The development of a generic and integrative business model approach is not accomplished by the organization-oriented approaches in the literature. The analysis of such publications has shown that while some single aspects are covered, no holistic concept is illustrated. Particularly the interactions between individual business model components are not sufficiently explained. Figure 3.16 presents the result of the evaluation.

3.4 Strategy-Oriented Business Model Approaches

Beyond the intra-corporate perspective, several business model approaches increasingly take competitive aspects into account. This tendency establishes a close connection between strategy and the business model. Furthermore, the topic of innovation is more and more discussed in the context of business models (Hamel 2000).

Essential factors of the strategic business model approaches are particularly the value-added logic that describes how value can be generated by certain actors, as well as the meta-core competencies within the scope of the dynamic capabilities of a company (Normann and Ramirez 1993). The business model comprehensively describes business activities in an aggregate form and thus allows for statements

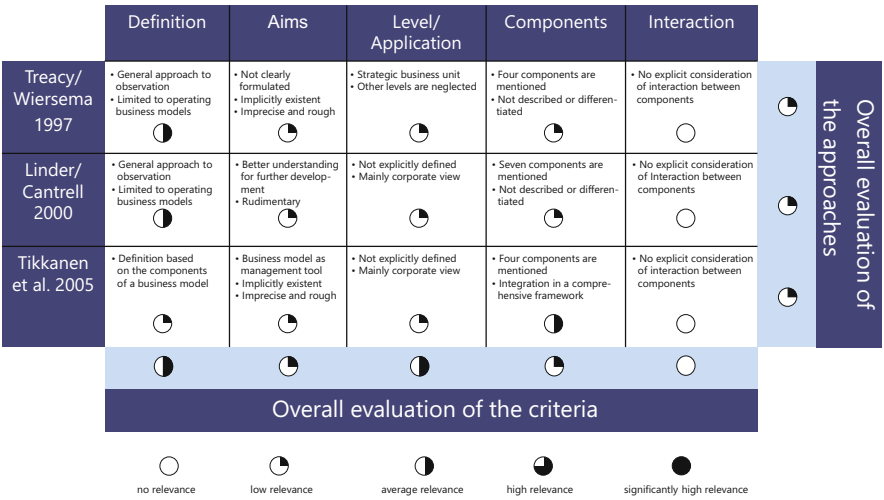

Fig. 3.16 Summarizing analysis of the organization-oriented approaches. Source: Wirtz (2010a, 2011, 2018a)

about the production factors necessary for implementing a company's business strategy (Zott and Amit 2007).

Business Model Approach by Hamel (2000)
According to Hamel (2000), business model innovation can generate key competitive advantages over competitors. Thus, apart from the internal business perspective, the business model concept contains a competitive strategic component as well. This understanding becomes apparent in the following business model definition.

Business Model Definition by Hamel (2000)

> Business concepts and business models consist of the same elements; a business model is nothing other than a business concept put into practice. A really innovative development in this field includes the ability to imagine completely new concepts or completely new ways of differentiating existing business models. Therefore, renewing business concepts is the key to developing new possibilities of value creation. (Hamel 2000, p. 83)

The definition emphasizes the significance of business model innovation for competitive advantage. Universal components within the scope of a general understanding of business models are not taken into account. Instead, Hamel concentrates on the possibilities of value creation and illustrates the potential of differentiated positioning in contrast to competitors. The purpose of this concept is to identify "blind spots" within a business model.

By arguing through competitive advantage, it primarily adopts an industrial perspective. In addition, it includes an internal perspective within the scope of resources and new possibilities of value creation, thus providing a dual view of business model levels. However, the strategic business unit as a level of observation is not taken into account.

Hamel's (2000) approach presents four major components of a business model: core strategy, strategic resources, customer interfaces, and added-value network. Furthermore, the author presents three so-called bridge components that link the major components with each other: customer benefit, configuration, and corporate boundaries. Altogether, four factors then determine the profit potential of a business model: efficiency, uniqueness, accuracy of fit, and profit boosters.

By introducing the bridge components, the author explicitly takes into account the interaction of business model components. In doing so, he chooses a simple structure and only presents interactions between selected components that are characterized by a linear structure. For this reason, a holistic observation of all interaction processes is not fully achieved (Hamel 2000).

The Business Model Approach by Magretta (2002)

In her approach, Magretta (2002) attempts to distinguish between business model concept and strategy. According to her, business models describe a system by means of which the interaction between individual company levels can be explained. Furthermore, the business model components are examined with regard to their impact on success. However, competition aspects are only indirectly referred to in this context.

Business Model Definition by Magretta (2002)

> 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 Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost? (Magretta 2002)

Although the business model concept is distinguished from strategy in the definition, there is still a connection between the two areas postulated. This is reflected, for instance, in the approach's degree of abstraction, which is characterized by an industrial-dominated view. The author does indeed discuss the internal reconfiguration of the value chain through the business model concept, but this aspect is not considered in detail. Magretta (2002) does not present any components of a business model but instead presents the business model in terms of variations of the generic value chain. In the absence of a classification of components, the author also does not present any interactions.

The Business Model Approach by Afuah (2004)
The approach of Afuah (2004) can clearly be assigned to the strategy orientation. In comparison to the approaches discussed so far, Afuah's (2004) approach presents a comprehensive concept which contains various aspects of group strategy, business strategy, functional strategy, operating performance, and implementation strategies. It unites the revenue-oriented elements in an overriding, holistic concept. In addition to this strong strategic orientation, the topics of life cycle (execution, change), innovation, planning process, and corporate social responsibility as well as the evaluation of business models are discussed.

Business Model Definition by Afuah (2004)

> A business model is the set of which activities a firm performs, how it performs them, and when 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. (Afuah 2004)

Whereas previous definitions by Afuah and Tucci (2003) focus more strongly on competitive advantages, recent versions refer to the specific characteristic of value-added logic. In this context, the importance of customer value for the success of a company is illustrated.

The business model concept created is relevant to the fields of strategic management as well as entrepreneurship. For this reason, the perspectives of both the company and industry are explicitly taken into account. So, on the one hand, the determinants of a company's profitability are illustrated, and, on the other hand, the differences between industry-specific and company-specific factors are described. Competition, resources, positioning, and costs are four components of a business model identified by Afuah (2004). These affect corporate activities and can influence the profitability and success of a company by means of an appropriate orientation and combination.

Evaluation of the Strategy-Oriented Approaches
Even after analyzing strategy-oriented approaches, the development of a generic and integrative business model approach is not yet complete. So far, the separate partial aspects of the business model concept are insufficiently interrelated. Figure 3.17 shows the results of an evaluation of the different approaches. The relevance for developing a comprehensive business model concept is shown for each approach and each analysis criterion. Based on these fundamental analyses of literature, the following chapter will present definitions, application areas, and aims of business models.

Finally, Fig. 3.18 depicts the individual business model approaches (technology orientation, organization orientation, and strategy orientation) and gives a summarizing evaluation based on the criteria of definition, aims, level/application, components, and interaction.

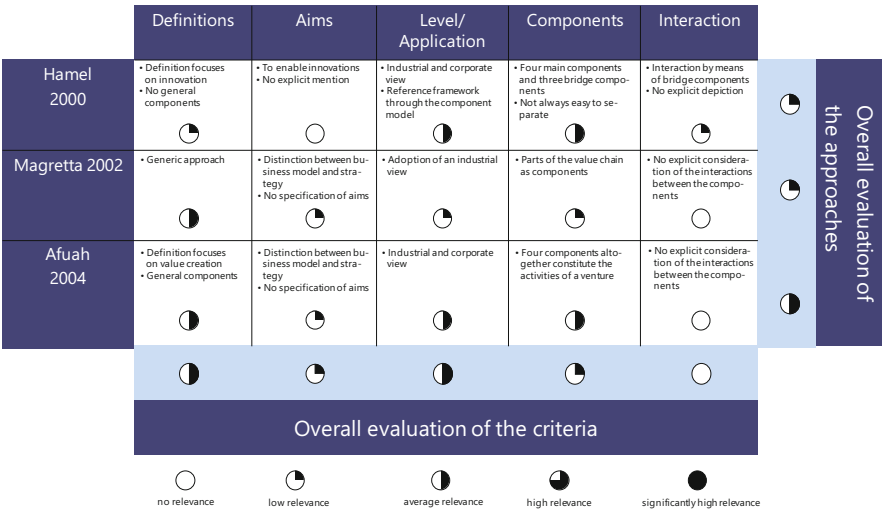

Fig. 3.17 Summarizing analysis of strategy-oriented approaches. Source: Wirtz (2010a, 2011, 2018a)

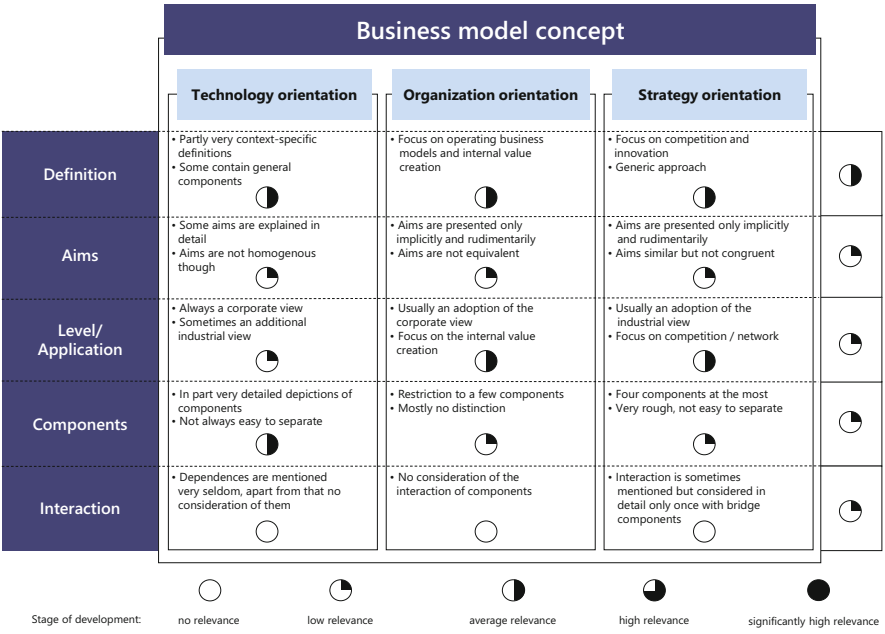

Fig. 3.18 Summary of the chapter business model approaches in literature. Source: Wirtz (2010a, 2011, 2018a)

Distinction and Aims of Business Models

4

The term business model has been used in various disciplines whereby, over the course of time, different basic explanatory approaches to the concept have been developed. This thematic heterogeneity is particularly reflected in existing definitions, which in most cases merely cover subareas, such as business model components, or are very context-specific (Eriksson and Penker 2000).[1]

When looking at possible business model definitions, generally two perspectives may be distinguished. On the one hand, a simplified point of view can be adopted by deriving the business model definitions from the partial definitions of the two terminologies. This method, however, leads to very general concepts that give little information about the specificity of the business model term and neglect relevant features (Knyphausen-Aufseß and Meinhardt 2002). On the other hand, there is an integrated business model definition that includes the pure intersectional perspective of the simplified view along with the various basic approaches. Here, an attempt is made to combine the different schools of thought and numerous specific insights of business model research in order to deduce a comprehensive and specific business model definition.

Therefore, subject-related, functional, and teleological aspects are systematically considered in the following sections in order to derive an integrated business model definition. While subject-related aspects refer to the subject and structure of the connotations that are to be explained, functional aspects relate to their function or mode of operation. When considering teleological aspects, objectives and purposes are important.

In this chapter, the functions and targets of the business model concept and business model management are particularly important. First, the different levels of a business model are presented, and it is described how the functions of a business model are relevant for these different levels. In addition, the various goals of the

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_4

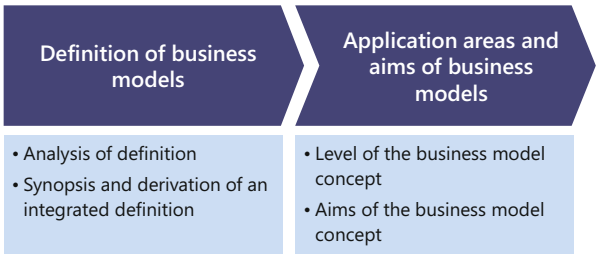

Fig. 4.1 Structure of the chapter

business model concept are addressed in detail in order to integrate the definition into an overriding framework. Figure 4.1 shows the 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 and latest definitions of the business model concept were identified, which in total provide a quite thorough and comprehensive picture of the definitional approaches (see Table 4.1).

The definitions show a variety of differences concerning the subject and structure of a business model. The vast majority of these authors consolidate the general structure of business models in their definitions and subdivide business models into several partial models. Particularly Hamel (2000), Rayport and Jaworski (2001), Hedman and Kalling (2002), and Johnson et al. (2008) provide a clear overview and suggestions for a component-based business model definition. Apart from this conceptual understanding of business models, the definitions also illustrate the frames of reference, architecture, and tools from a subject-related point of view.

Wirtz (2000), for instance, explicitly describes business models as a representation of the production and performance system of a company. Eriksson and Penker (2000) and Johnson (2010) share this perspective. In principle, Afuah and Tucci (2003) and Rentmeister and Klein (2003) also understand business models as a representation and an abstract, corporate frame of reference, but with a much higher level of abstraction. Similarly, the architecture can be seen as an interpretation of the business model concept. While Timmers (1998) terms it as the architecture of the company's most important services including the relevant information flows, Linder and Cantrell (2000) and Teece (2010) summarize the entire architecture of a company as the core logic.

Ultimately, it becomes evident that some authors also adopt an instrumental view apart from these more illustrative conceptualizations of the business model. Osterwalder et al. (2005), for instance, understand business models as a conceptual tool that cannot only be used to illustrate but also to manage a company's core logic. Zollenkop's (2006) description of a business model is similar, but he clearly focuses

Table 4.1 Overview of business model definitions

Author	Definition
Treacy and Wiersema (1997, p. 10 et seq.)	"The second concept, the operating business model oriented to the customer benefit, describes the synergy of operating processes, management systems, organizational structure and business culture which allows a company to make good on its promise of service. To be more precise, this involves the systems, infrastructures, and the environment with the aid of which the customer benefit can be realized. The promise of service is the business objective; the costumer value-oriented operative business model by contrast constitutes the means with which this purpose 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 Resources, Customer Interface, Value Network."
Linder and 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 organizations 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 and Penker (2000, p. 2 et seq.)	"A business model 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 and 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."

(continued)

Table 4.1 (continued)

Author	Definition
Rayport and 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 finance 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 finance model is the various ways that the firm is proposing to generate revenue, enhance value, and grow."
Hedman and 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 (2002, 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 and 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 and 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 (2004, p. 9)	"A business model is the set of which activities a firm performs, how it performs them, and when 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 et al. (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

(continued)

Table 4.1 (continued)

Author	Definition
	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 et al. (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 et al. (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."
Baden-Fuller and Morgan (2010, p. 168)	"Business models are not recipes or model or scale and role models, but can play any—or all—of these different roles for different firms and for different purpose: and will often play multiple roles at the same time."
Johnson (2010, p. 22)	"A business model, in essence, is a representation of how a business creates and delivers value, both for the customer and the company"
Osterwalder and Pigneur (2010, p. 14)	"A business model describes the rationale of how an organization creates, delivers, and captures value."
Teece (2010, p. 173)	"A business model articulates the logic and provides data and other evidence that demonstrates how a business creates and delivers value to customers. It also outlines the architecture of revenues, costs, and profits associated with the business enterprise delivering the value. [. . .] In essence, a business model embodies nothing less than the organizational and financial 'architecture' of a business."

Source: Wirtz (2010a, 2011, 2018a)

on the strategic aspect of business model management. However, this perception is already closely linked to the functional aspects of the concept.

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

Eriksson and Penker (2000) and Wirtz (2000) use business models to present the complex relationships within a company in a clear and aggregate way. Both

explicitly address a number of necessary processes and activities, which the business model is supposed to present in a conceptually simplified way. Other more specific processes and activities are taken up by Treacy and Wiersema (1997), who concentrate on the interactions of different corporate parameters, whereas Timmers (1998) focuses on the actors in a business model and the relevant interactions that are supposed to be explained.

Linder and Cantrell (2000) and Magretta (2002) assume a higher level of abstraction in the context of business model functions. The authors assert that a business model needs to 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 and Klein (2003) and Osterwalder et al. (2005), but without specifying the relevant 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 mentioned implicitly, and many definitions do not provide any at all. Beyond the goal of generally advancing the understanding of the company as a whole and the core logic of the production of goods and services (Magretta 2002; Osterwalder et al. 2005), especially the value proposition, 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 and Wiersema (1997) distinguish between the conceptual level of a company's value proposition and the operational realization, i.e., the creation of customer benefit in the business model. Rayport and Jaworski (2001) have a similar understanding regarding the purposes of a business model, though the authors also consider the differentiation from competitors when analyzing the need satisfaction. Afuah and Tucci (2003) establish the connection between service fulfillment, need satisfaction, and the company's profitability by definition. Linder and Cantrell (2000) focus on corporate success as an essential objective of the business model, implicitly addressing the services and satisfaction of consumer needs.

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

In summary, an integrated and comprehensive business model definition can be established that focuses on the illustrative, graphical depiction, respectively, the architecture of the company within the scope of the subject-related aspects. From a 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 implemented to ensure the realization of the value proposition, need satisfaction, long-term profitability, and further development of business ideas.

This can be summarized as the preservation or generation of competitive advantages. The synopsis of this analysis in terms of an integrated business model definition can be described as follows:

Business Model Definition by Wirtz (2000)

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. (Wirtz 2000, p. 81)

Furthermore, based on the analyzed definitions, an instrumental view of the business model may be identified (Osterwalder et al. 2005; Zollenkop 2006). In this context, the entire management—in terms of describing, analyzing, and structuring a company—is increasingly addressed by means of business models, in order to secure and foster the long-term business activities. Here, one can focus on a management process that is guided by the different phases of a business model (Debelak 2006; Bridgeland and Zahavi 2009). In the following, the business model management definition is presented that may be derived from this.

Business Model Management Definition by Wirtz (2000)

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. (Wirtz 2000, p. 81)

4.2 Levels and Goals of Business Models

In many fields, it is important to apply the business model concept specifically. The basis of a business model is to describe the relevant value creation and the value proposition. Here, the concept depicts an aggregate framework of the most important partial models and illustrates their structure (Wirtz 2001a). 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 (Afuah 2004). Figure 4.2 illustrates this notion.

Regarding the industry level, environmental conditions and external factors of the profitability consideration are included. This is carried out in line with familiar

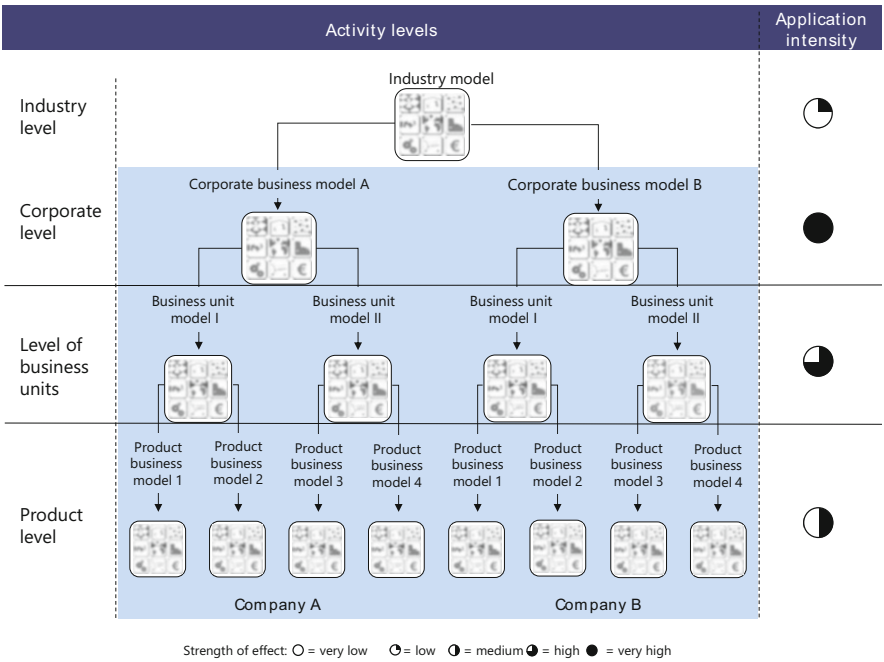

Fig. 4.2 Business model levels. Source: Wirtz (2010a, 2011, 2018a, 2019a)

concepts of strategic management, such as Porter's aspects of rivalry within an industry, supplier and customer power, potential market entrance, and substitutes (Porter 1980). 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.

The company can be identified as another possible degree of abstraction in the business model concept. While the industry level focuses on the corporate environment, here, corporate factors and determinants are considered. Three essential factors should be emphasized in the context of business models: resources, activities, and the positioning of a company (Afuah 2004). Along with the core competencies, resources form the foundation of a business model.

They considerably influence the configuration of the production system and significantly impact success. The positioning of a company determines not only its resources and activities but also its success. It further provides information about which consumers or markets can be served and how revenues can be generated.

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 the management of the production of goods and services (Susman 2007). For this reason, an even more detailed degree of abstraction is introduced in the form of the strategic business unit level. A strategic business unit is the corporate segment that is

responsible for the functioning of one or more business units or products. Many different business models may exist within a corporation. While single partial models of a business model may be consistent with one another, the consumer's perception may differ.

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 cell phone iPhone by Apple Inc. serves as an example since the hardware production and software development are performed by different departments.

Depending on the application context and the size of the company, the appropriate level for considering the business model has to be chosen. The levels are not mutually exclusive, and in some cases it is reasonable to consider a company on several or all business model levels mentioned. 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 creation of long-term competitive advantage through business models.

Apart from securing competitive advantages as an overriding objective of business models, further objectives can be derived from the functional aspects of the business model concept, especially for business model management. Due to the instrumental character of business model management, six procedural objectives may be identified which, in turn, serve the prevailing business model objective. Figure 4.3 illustrates the procedural subgoals of business model management with the overriding business model goal as a core.

The first objective is to assist the companies in describing their business activity. The existing business concept can be explicated by means of a business model or the individual partial models. The theoretical business operations are graphically depicted in order to simplify the management of interactions, processes, etc. This graphical representation achieves a higher level of abstraction for all business activities and supports the corporate management in developing a better basis for decision-making. Furthermore, graphical depictions may also serve as a foundation for deliberations within the scope of further development or the adaptation of business models (Osterwalder 2004).

Another procedural goal is the reduction of complexity (Bridgeland and Zahavi 2009). The corporate management needs to be equipped with relevant and aggregate information regarding processes, resources, competencies, finances, and competition in order to develop appropriate strategies that ensure competitive advantage.

The simplified depiction of the business activity by means of a business model allows to clearly present information on the company as a whole. This, in turn, leads to a better basis for decision-making within business model management in order to successfully operate the company.

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 enable a long-term, profit-based orientation. In the course of this

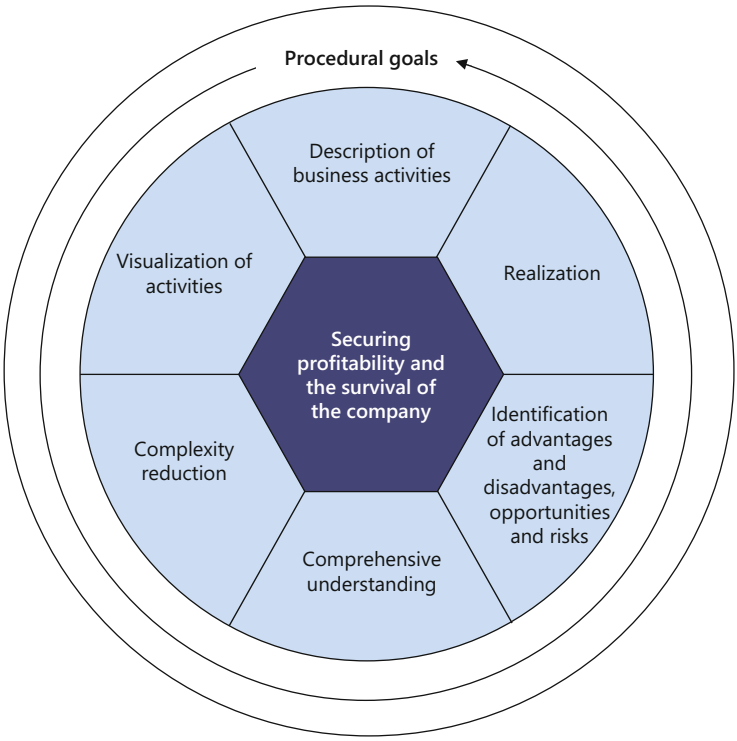

Fig. 4.3 Objectives of the business model and business model management. Source: Wirtz (2010a, 2011, 2018a, 2019a)

long-term orientation, it is important for the manager to fully understand the relationships within the company as well as the processes and links to the corporate environment. For this reason, building a holistic understanding is another goal of business model management, in order to better identify potentials and evaluate risks more precisely (Eriksson and Penker 2000).

The internal and external potentials and risks have a considerable impact on decision-making in a company. Therefore, the identification of opportunities and risks constitutes an important procedural goal of business model management for the company (Debelak 2006). 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 this internal perspective, the business model facilitates the competition analysis and the identification of possible external value creation partners for the responsible business model managers. Apart from focusing on partial models, the business model management may also undertake the task of consistently evaluating the whole business model, in order to identify advantages and disadvantages of its strategic orientation.

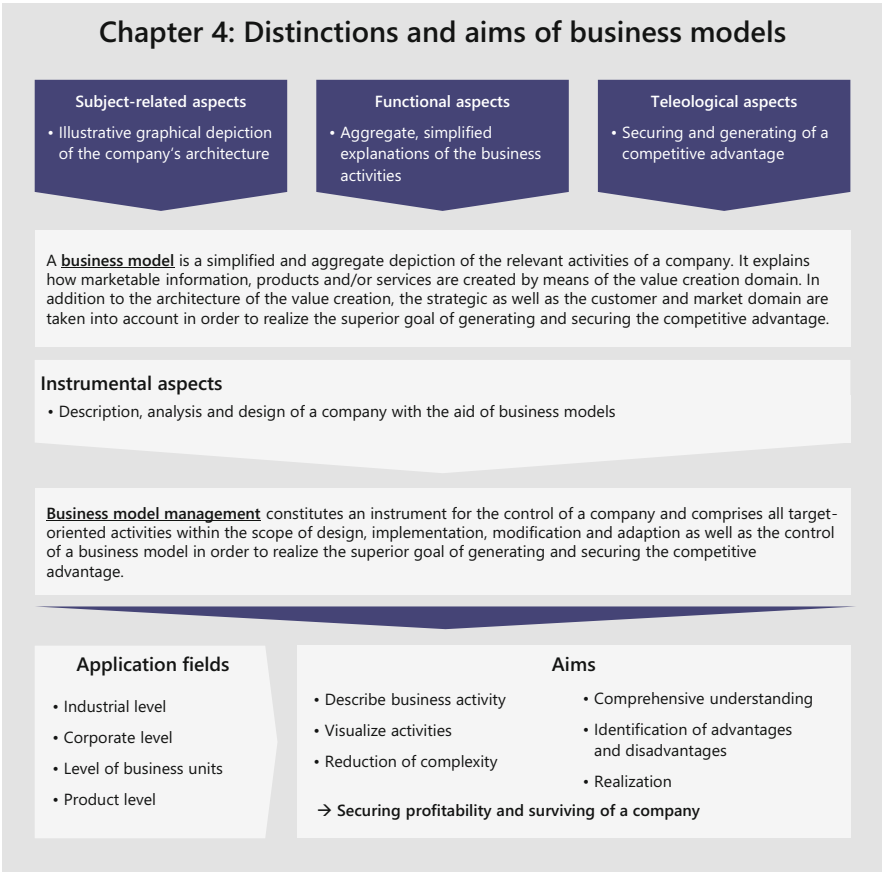

Fig. 4.4 Chapter summary: distinctions and aims of business models. Source: Wirtz (2010a, 2011, 2018a)

The last procedural goal is to support companies in implementing the business models (Osterwalder et al. 2005). In the course of restructuring or changing the business model, the business model management can help to present an overview of the relevant aspects of the company's change process. Furthermore, when implementing a new business model, the business model management can ensure that all relevant aspects and partial models have been considered, which increases the probability of success. In conclusion, Fig. 4.4 summarizes the complete chapter definitions, areas of application, and aims of business models.

Part II

Structure of Business Models

Introduction

5

The structure of a business model is particularly dependent on the contributing partial models. The connections between the partial models and relevant actors thereby shape every company's unique business model. In order to be able to use business models as an integrated management tool, it is essential to develop an understanding of its structure.[1]

Partial models are characterized by a similar functionality, so that first a differentiation of various business models according to content has to take place via specification of the partial models. When changing the company's business model, the structure of the single partial models has to be modified rather than the whole structure. In general, the basic structure of a business model is relatively stable. Furthermore, modifications within the business model are mainly caused by innovations in the field of manufacturing and development of products.

Thus, a cross-sectoral overview of the structure of business models will be presented in the following chapters. In this section, the relevant components of a business model are discussed and related to one another. The central actors and their interactions are also shown.

First, the structures of value creation regarding business models will be discussed. The basic value proposition of a product or service thereby functions as the starting point for the structuring of partial models (Chesbrough and Rosenbloom 2002). Beginning with the depiction of various types of value creation, the individual partial models are subsequently described. In conclusion, dynamic processes are presented on the level of the whole business model as well as the partial models. Figure 5.1 shows how Part II is incorporated in the overall context of the book.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_5

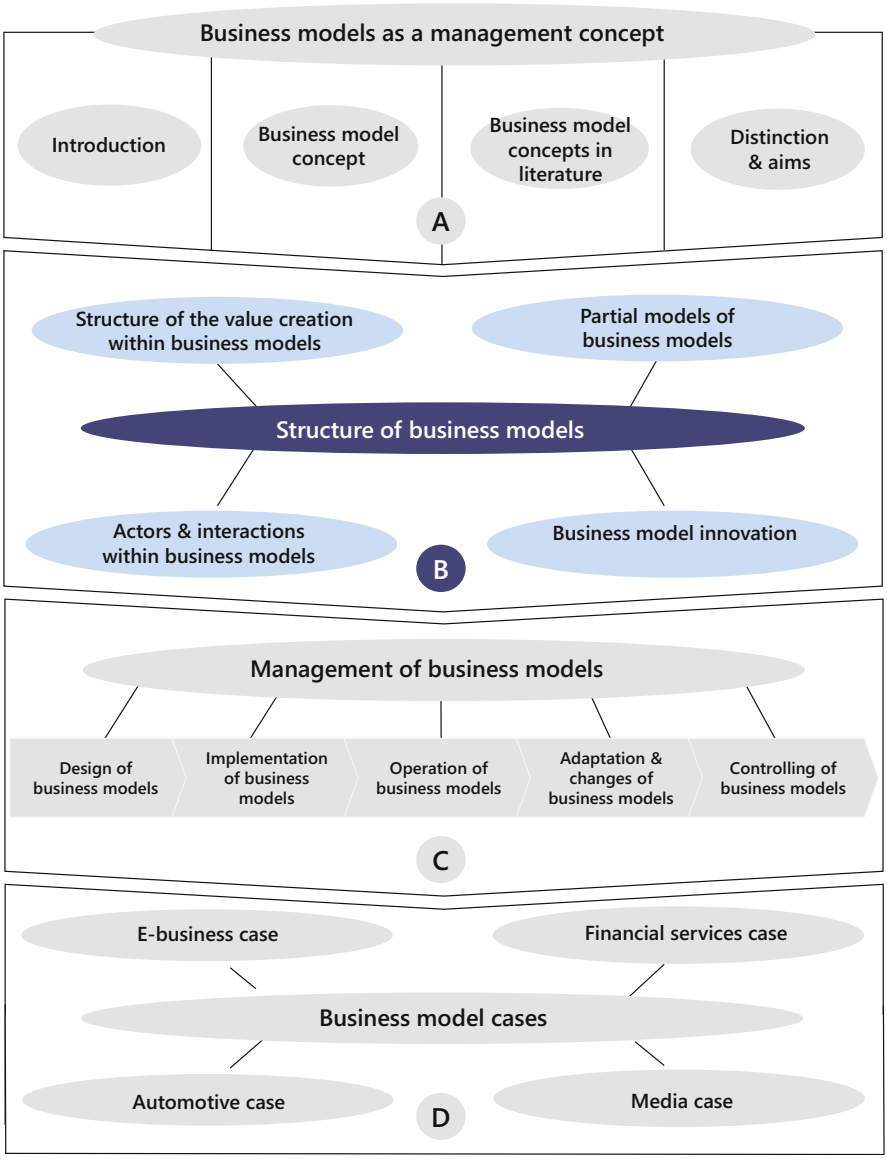

Fig. 5.1 Putting the section into context

5.1 Introduction to Business Model Innovation

With the increasing practical relevance of business model innovation, since 2000 more and more researchers have taken up the topic. The literature in the following years shows a very heterogeneous field of research. Some of the earlier articles, such as those by Chesbrough and Rosenbloom (2002), are often still associated with innovation literature or consider the concept only in its early stages. With the exception of Hamel (2000), approaches were developed at a later stage that treat the innovation of the business model itself as a key role.

Important articles to be mentioned include Keen and Qureshi (2006); Chesbrough (2006, 2010); Zott and Amit (2007, 2010); Johnson et al. (2008); and Gambardella and McGahan (2010). Research in the context of business model innovation was not limited to successful e-business companies such as Amazon, Google, or Facebook, but also looked at the success (e.g., Dell, Southwest Airlines) or lost opportunities (e.g., Xerox) of long-established companies in terms of business model innovation (Magretta 2002; Chesbrough and Rosenbloom 2002). The relationship to existing concepts such as product and service innovation or strategic reorientation was also assessed and further specified the business model innovation.

In principle, the work done so far in this area can be divided into three streams: Corporate Strategy, Innovation and Technology Management, and Entrepreneurship. Figure 5.2 shows these in different development phases.

It can be noted that the business model innovation literature has had a clear strategy orientation since the beginning. This general connection between business model innovation and corporate strategy is obvious since a business model can be regarded as a direct result of the corporate strategy.

Aspects of innovation and technology management also play an important role in business model innovation research. This research current is primarily concerned with the structured creation and implementation of business model innovation and the effective and efficient use of information technology. In contrast to the research currents Corporate Strategy and Innovation and Technology Management, the literature on entrepreneurship has only gained in importance in recent years.

The development of the business model innovation literature to date can be divided into three phases: “early phase,” “formation phase” (formation phase of overall concepts), and “consolidation and differentiation phase.”

The research contributions of the early phase primarily attempt to establish the connection between business models and innovation and to advance the conceptual development of business model innovation. Despite this relatively early stage of development, the potential of business model innovation has already been recognized by some authors.

In the subsequent justification phase, the further development and expansion of business model innovation concepts was increasingly addressed and the usefulness of business model innovation compared to pure technology innovation was emphasized. In addition, the potential associated with a business model innovation

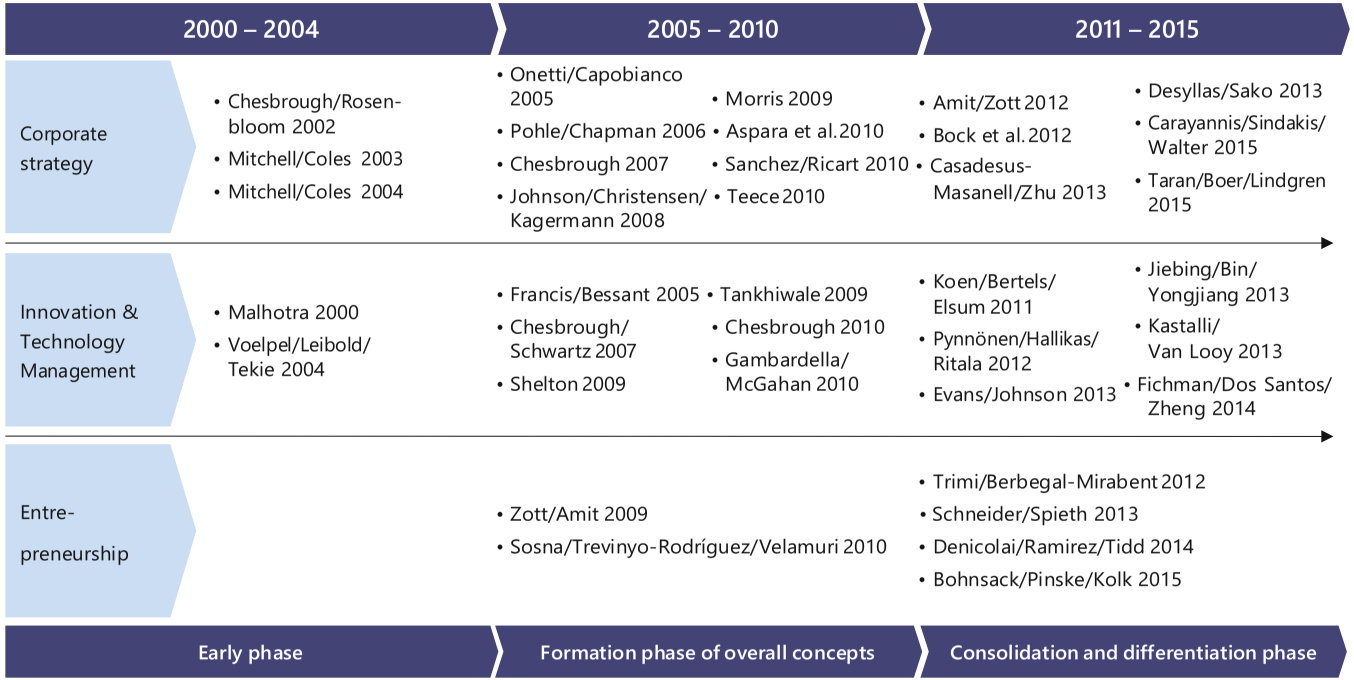

Fig. 5.2 Overview of business model innovation literature. Source: Wirtz et al. (2016a)

was increasingly examined and the great importance of the business model innovation for sustainable business success was emphasized.

Pohle and Chapman (2006) summed this up succinctly: "business model innovation matters." In addition, other aspects such as tried and tested guidelines, procedures, and manuals for practitioners are also addressed in the justification phase and business model innovation is increasingly described using case studies from practice.

In the currently ongoing consolidation and differentiation phase, the main focus is on consolidating scattered and interdisciplinary aspects of the business model innovation concept. These consolidation efforts lead to a differentiation of concepts and thus to a strengthening of the independence of this still relatively young research area, which has developed into a significant subarea of business model management in recent years.

The development in the scientific literature has been largely parallel to the increasing importance of the business model or business model innovation concept in entrepreneurial practice. Especially since 2010, there has been a significant increase in the number of business model innovation publications. Figure 5.3 shows the development of publications.

In their literature analysis on business model innovation, Wirtz et al. (2016a) identified 178 publications in peer-reviewed English-language scientific journals. Of these, 149 are scientific research papers (45 with conceptual, 74 with qualitative-empirical, and 30 with quantitative-empirical research design) and 29 are other publications (e.g., reviews or editorial notes).

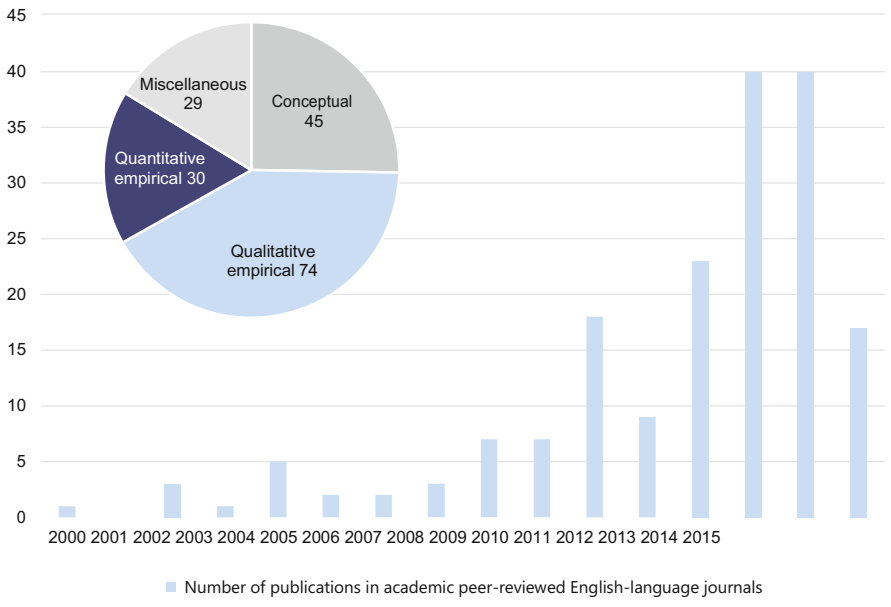

Fig. 5.3 Number of BMI publications from 2000 to 2015. Source: Wirtz et al. (2016a)

The majority of scientific research in the field of business model innovation is empirically oriented. The majority of these are primary data-based studies based on case studies, interviews, or questionnaire-based surveys. This shows the high practical relevance and closeness of business model innovation research.

The 178 research studies can be assigned to six areas (Definition and Types; Design and Process; Drivers and Barriers; Frameworks; Implementation and Operation; and Performance and Controlling) and presented according to their focus (see Table 5.1).

It can be seen that the "Design and Process" area has received the most attention in the literature (24.8%). This is followed by the areas "Frameworks" (20.1%), "Implementation and Operation" (16.8%), "Definition and Types" (15.4%), "Drivers and Barriers" (13.4%), and "Performance and Controlling" (9.4%). Most of the Business Model Innovation literature is empirical in nature (69.8%). These are mainly qualitative-empirical studies.

The relevance of the business model innovation and the autonomy of the concept are hardly questioned today. Both in practice and in the literature the importance of the success of the Business Model Innovation is stressed. In an IBM study from 2008, for example, 98% of more than 1000 CEOs surveyed said that they would make at least moderate innovations to their business model. With regard to the success relevance, the following could be determined: Most CEOs are embarking on extensive business model innovation. And outperformers are pursuing even more disruptive business model innovations than their underperforming peers. Figure 5.4 presents the key findings of the study with regard to business model innovation.

In a more recent study by IBM in 2015, four-fifths of the C-level managers surveyed said they regularly experimented with new or alternative business models. In this context, a large number of managers rated business model innovation as more important for corporate success than product innovation. The IBM study cites Uber's business model innovation as an example. The market capitalization of the company, which was founded in 2009, already exceeds the sum of the market capitalizations of all car rental companies. In this context, one of the board members interviewed described the business model innovation as "Uber syndrome." He thus described a situation "where a competitor with a completely different business model enters your industry and flattens you."

While the 2008 study basically talked about the potential of business model innovation and saw one of the main reasons for business model innovation in the opportunities for differentiation from competitors, this perception has changed in the meantime.

Business model innovation is now considered a clear threat to established business models. In view of the changed competitive conditions, business model innovation is now in a position to pose a significant threat to traditional business models in many industries. Against this background, business model innovation can be considered to play an important role in the sustainable success of a company.

In addition, the new situation makes it more difficult to monitor potential threats to one's own business model, since it is often no longer established competitors who are entering the market, but rather digital start-ups that threaten existing business models with completely new business models.

Table 5.1 Allocation of the analyzed articles for the BMI state of research

	Key content	Conceptual	Empirical (Qualitative)	Empirical (Quantitative)	Total
Definition and types	• Basic definition of BMI concept and differentiation from existing concepts • Differentiation of certain BMI types	10 (43.5%)	10 (43.5%)	3 (13.0%)	**23 (15.4%)**
Design and process	• Ex-ante BMI development • Steps and phases of BMI	12 (32.4%)	19 (51.4%)	6 (16.2%)	**37 (24.8%)**
Drivers and barriers	• Drivers of BMI • Barriers of BMI • Unbundling of BMI concept	7 (35.0%)	13 (65.0%)	0 (0.0%)	**20 (13.4%)**
Frameworks	• Categorization of concrete parameters	12 (40.0%)	13 (43.3%)	5 (16.7%)	**30 (20.1%)**
Implementation and operation	• Arrangements for BMI implementation • Running BMI business operations	3 (12.0%)	16 (64.0%)	6 (24.0%)	**25 (16.8%)**
Performance and controlling	• Ex-post measurement of BMI feasibility, profitability, and sustainability	1 (7.1%)	3 (21.4%)	10 (71.4%)	**14 (9.4%)**
Total		**45 (30.2%)**	**74 (49.7%)**	**30 (20.1%)**	**149 (100.0%)**

Source: Wirtz et al. (2016a)

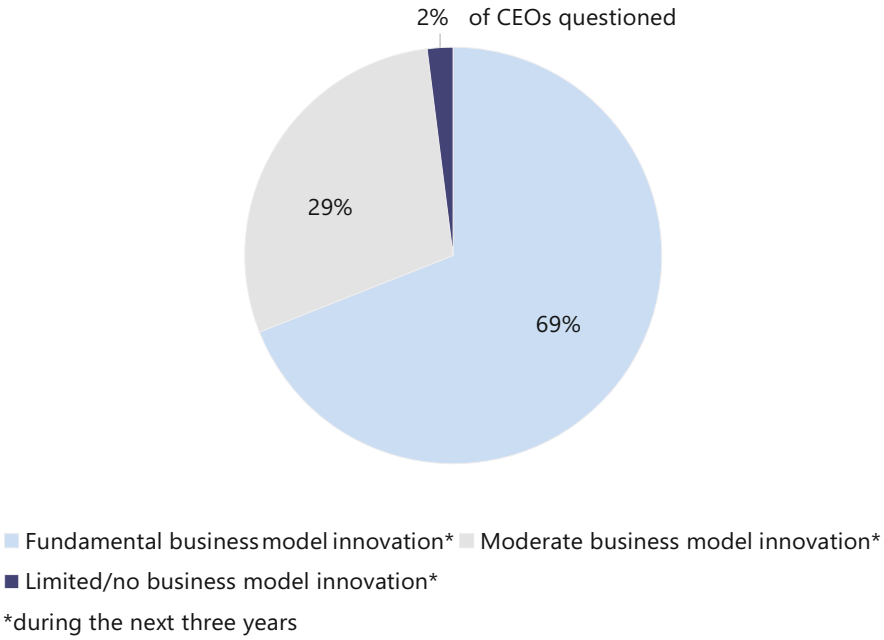

Fig. 5.4 Planned business model innovations of CEOs interviewed. Data source: IBM Global CEO Study (2008)

Although there is a broad consensus on the relevance to success and importance of the concept, various research streams regarding business model innovation can be identified in literature. The approaches are based on the assumption that business model innovation has a transformative character and hence is the counterpart to the static approaches previously considered (Demil and Lecocq 2010).

The approaches shown in the literature can be differentiated on the basis of two dimensions. The first dimension refers to the definition of a structural frame of components for business model innovation (Demil and Lecocq 2010). One question is whether a structural frame of components (ex ante) exists before business model innovation or whether it is formed after innovation by means of the new model or the definition of a structural frame is entirely waived.

A statement about innovation efforts can only be made before business model innovation if there is knowledge of an existing structural frame. The second dimension, which is more important to classifying the approaches existent in the literature, refers to the degree of structuring of business model innovation. Here, it is differentiated whether business model innovation is done according to a structured plan that is carried out by the management of a company or whether business model innovation is realized more experimentally. Figure 5.5 classifies the approaches in the literature based on the dimensions introduced. The following shows the individual quadrants and their most important representatives.

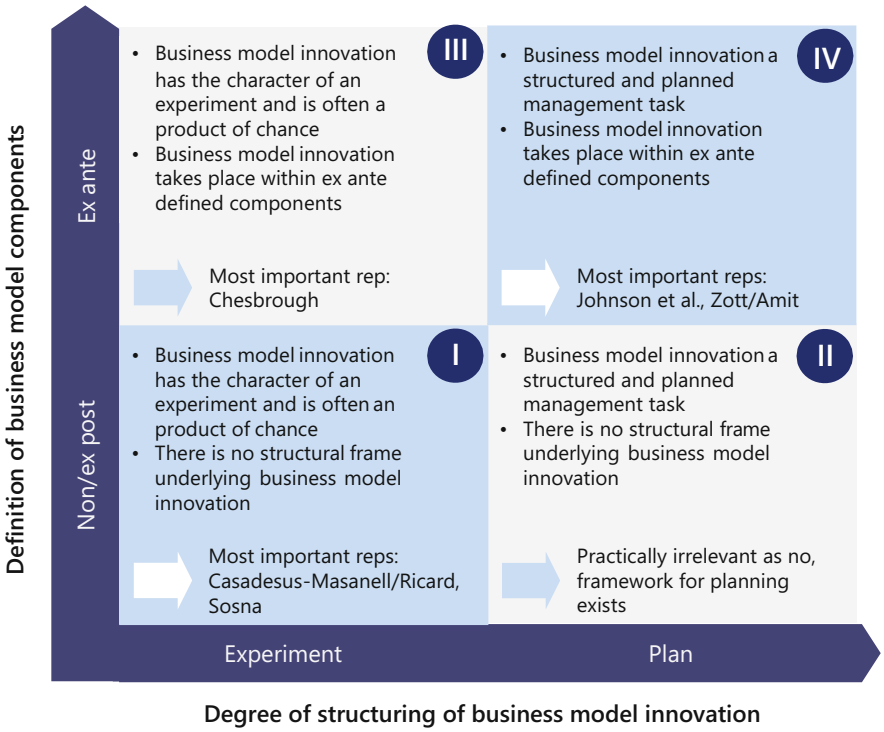

Fig. 5.5 Business model innovation approaches in literature. Source: Wirtz (2013a, 2018a)

The first quadrant represents approaches that postulate an experimental procedure for business model innovation, without defining a concrete scope of action ex ante. These approaches are characterized by maximum degrees of freedom for business model innovation while, however, offering the least structuring aid for business model management. Representatives of this viewpoint are, for example, Sosna et al. (2010) who propose a trial-and-error method for business model innovation.

The inductive approach by Casadesus-Masanell and Ricart (2010) can also be assigned to this category. Demil and Lecocq (2010) state that the ex-ante definition of components limits business model innovation too much with regard to the new model. The authors choose therefore a middle course between I and III and define only a few core components.

The second quadrant plays only a minor role in the classification of business model literature. Structured and methodical business model innovation is hard to imagine without the definition of (core) components. Quadrants III and IV are more important, postulating an ex-ante definition of the structural frame of business models.

Structure of the Value Creation in Business Models

6

A central component of business models is their value creation logic. This describes how value is generated by certain processes within a company (Amit and Zott 2001). Against this background, relevant structures and relationships between different approaches of value creation logic will now be described. The architecture of the company as a network for value creation and value relationships, denoted here as the value constellation, will be emphasized (Gordijin et al. 2005). The value creation model of the value constellation explains the generation of value, describing it as a parallel and bidirectional network process.[1]

Especially in connection with business models of the New Economy, the creation of value through value constellation has become increasingly important. Particularly in the field of E-business, business models focus on networks. In contrast to traditional value chains, the added value of a product is here often created across corporate borders. In addition, intangible products, such as software or services, cannot be adequately depicted.

Nevertheless, the implications of the development of a networked economy do not exclusively apply to New Economy businesses (Gummesson 2002). Due to their network-based corporate environments, these businesses can only ideally illustrate the modified conditions for value creation. Figure 6.1 illustrates the most important aspects of a change in economic environmental conditions which have positively contributed to the creation of value—following the value constellation principle—as well as the related changes in terms of business models.

The value constellation was developed from the value-related considerations of the value chain and value system. It is a network-based and cross-company value creation system that aims at single products rather than at entire businesses. Due to this focus, the concept can be better integrated into business model management than other models such as the value chain or value system.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_6

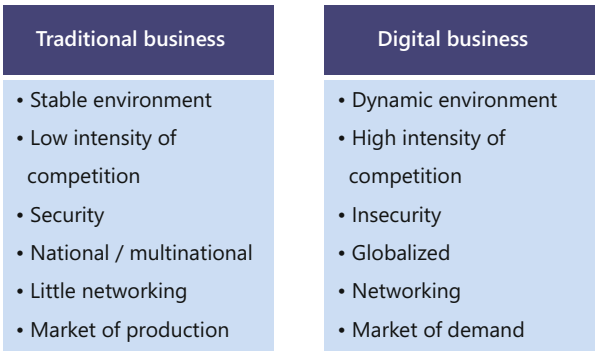

Fig. 6.1 Traditional business vs. digital business. Source: Wirtz (2010a, 2011, 2018a)

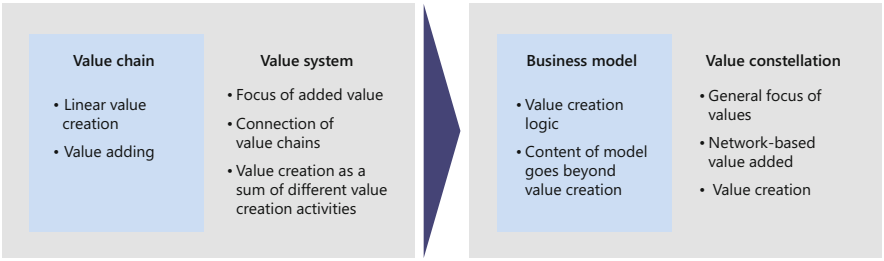

Fig. 6.2 Value creation models and business model concept. Source: Wirtz (2010a, 2011, 2018a)

Within the general concept of value constellation, the business model is classified as a company-specific ascertainment, which, among other things, includes the realization of value creation (Ghezzi 2011). In addition, linear value chains can be integrated into the representational form of value constellations. Figure 6.2 shows an overview of the relevant value creation models and the classification of the business model term.

The concept of value constellation will be outlined in the following sections. The term will first be distinguished from those of value chain and value system in order to emphasize its significance for business model management. Next, business models as management instruments will be discussed along with how business models can be classified into the framework of strategy and business process models. Figure 6.3 presents the structure of this chapter.

6.1 Value Chain

Due to its comprehensibility and application logic, the value chain is often used for the analysis of value creation. The activities required for a company's manufacturing are shown in the order of their performance. In order to determine the profit margin,

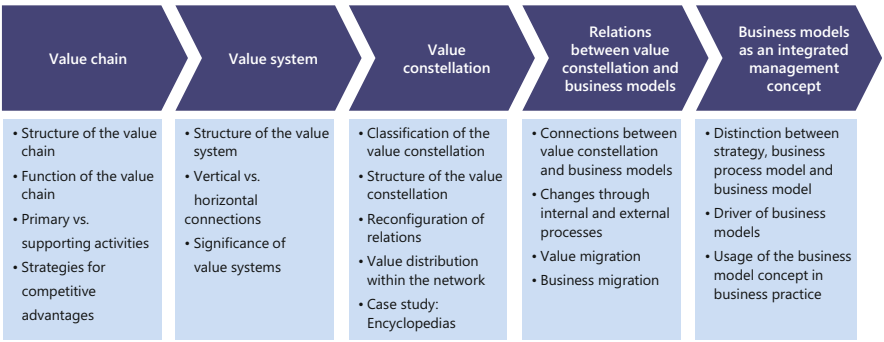

Fig. 6.3 Structure of the chapter

costs for value-added activities are compared with the total amount of revenue generated by a product.

Nevertheless, value chains of suppliers and distribution must be considered as well. If the costs exceed the value generated, the company is not profitable. In this context, the focus of the value chain is on the analysis of individual activities and their potential competitive advantages within an industry (Porter 1980).

The value chain created by Porter (1980) serves to functionally structure in-house activities, in order to identify approaches to improve the quality of products and processes. Originally, the value chain was developed for manufacturing companies. In this context, it comprises primary activities with regard to physical production and distribution of products. These include inbound of materials, creation of the products, outbound logistics, product marketing and sales, as well as after-sales activities. Further, during the entire value-creation process, supporting activities influencing the individual primary activities are necessary.

Supporting activities include procurement, research and development, human resource management, and the infrastructure of the enterprise. The sequential portrayal of these activities clarifies the consistent orientation of value-creation activities towards the consumer, whereas the profit margin represents the ultimate goal. The profit margin comprises the difference between total revenue and total costs that are incurred in conducting the value-creation activities (Porter 2004).

The value chain can be understood as a vastly simplified depiction that has to be individually adapted to each enterprise. However, particularly concerning primary activities, the value-chain structure cannot be transferred to service enterprises, respectively, media enterprises, without any difficulty. In this regard, inbound logistics may not be interpreted as logistic activities in the sense of inventory planning since the input factors of the production process are often intangible. Furthermore, regarding operations on the advertising market, the first contact with advertising clients already occurs at this point since the advertising company considerably contributes to the input.

In a value chain, competitive advantages can be achieved through cost advantages or differentiation potential, the foundation being optimization and coordination of

value-adding activities and their links to one another. From these considerations, three strategies for competitive advantage can be derived (Porter 1980). On the one hand, a company has the option of establishing the lowest costs possible in their industry, thereby trying to achieve cost leadership. This can be accomplished primarily through learning effects and related cost reduction. The danger of this strategy, however, lies in the potential price competition with other firms which could result in the destruction of profit margins. The American airline industry of the 1990s is an example for this type of development.

On the other hand, a company has the option to pursue a value-related differentiation of products to those of competitors. A crucial point is that the additional costs which are required in order to achieve a prominent market position for a certain product must be lower than the additionally generated price for the product. In such a case, the profit margin for competitors would remain the same or could even be increased. In this regard, it is of great importance to correctly evaluate customer needs in order to offer a product that appears to be highly useful and therefore justifies a so-called price premium. Apple, the multinational computer manufacturer, for instance, uses this strategy in terms of design and user interfaces of their product portfolios.

Furthermore, a focus strategy can be applied to defined segments of an industry, occupying a niche. The business then needs to decide to what extent a focus on either the market as a whole or a specific niche generates greater competitive advantages. A focus strategy seems most appropriate, especially when a total market strategy is not promising but the requirements of a certain market segment can be successfully met.

This strategy can also be applied in combination with either the cost leadership or differentiation strategy. While Jack Wolfskin focuses on the segment of high-quality outdoor clothing, Orsay concentrates on the niche of affordable fashion for young women.

According to Porter (1980) there are four competitive strategies. By utilizing the cost leadership strategy, a broad market (industry) is targeted and the lowest possible price is offered (cost advantage). The company then can opt to keep costs as low as possible or to have a larger market share with average prices. It is imperative that the company costs are kept as low as possible. In order for this strategy to be applied successfully, the company usually maintains a considerable investment capital, efficient logistics, and low material and labor costs.

The differentiation strategy also caters to a broad market (industry); however, the product or service offered has unique characteristics (differentiation). If the product or service is to appear more attractive compared to the competition's product or service, the company must render their product or service as exclusive as possible. The success of the differentiation strategy depends on extensive market research, innovation, and on the high quality of the product or service offered. In order to thrive, the company must be able to adapt in a changing market.

The focus and cost leadership strategy targets a focused market (single segment) while offering the lowest possible price (cost advantage) for the product or service. The company can ensure that the costs remain low by analyzing the dynamics of the focused market and the consumers' expectations.

Last but not least, the differentiation focus strategy also aims for a focused market (single segment). Its difference regarding the focus and cost leadership strategy lies in the unique characteristics (differentiation) of the product or service provided. The company must ensure that the product or service remain unique, generating a sense of brand loyalty among the consumers.

In terms of business models, the value chain is a restricted analytic tool for value creation primarily relevant to industrial producing companies. Its usage is limited to linear and unidirectional value creation processes. In order to take a more complex look at the matter, the value system concept can be useful, since it allows for a greater potential of possible interactions by connecting multiple value chains.

6.2 Value System

The basic conditions for value creation have considerably changed through the possibilities of modern ICT technology and the persistent trend towards globalization. Therefore, simply focusing on separate business areas within a company or single companies is not always sufficient. Porter copes with this difficulty by creating the value system concept Porter (1980) in which activities of different value chains are linked. These activities are responsible for both the connection of different business domains in diversified companies as well as the explanation of cross-company activities. Nevertheless, the idea of a linear value creation remains.

According to Porter (1980), a value system is the sum of all individual value chains that generate value through a large stream of activities. Included in the value system are the suppliers that provide the inputs that are important for the company as well as their own value chains, the value chain of the channel, and the buyers' value chain. Once the company has produced its product, it passes through the value chains of the other collaborating companies. Then, the product reaches the buyers. All these steps comprise the value system. The entrepreneur of a company must understand how the value system operates so that a competitive edge can be achieved and sustained.

When integrating different value chains, a distinction should be made between vertical and horizontal connections. Vertical connections include interactions between suppliers' activities or distribution channels and the costs or performance of business activities. Thus, integration potential exists either upstream or downstream of the total value creation of a product. Consequently, the connection occurs along the value chain and is also referred to as value-added depth.

Horizontal connections, however, cover cross-sectoral potentials for the common value creation that result from structural similarities. A diversified enterprise like Siemens, for example, can utilize new developments in electronic control systems in the production of train and road traffic technology as well as in the production of industrial plants. The similarities between different sectors or business areas can be assigned to one of the following three categories: tangible, intangible, or on the level of competitors (Porter 1980).

Tangible connections concern primary and support activities of value chains. When different business units share raw material charges or technology, for instance, they can create a basis for a connection between them. The analogies of intangible connections are less concrete. They are primarily characterized by the transmission of value creation logic and management knowledge. An example of this is Apple's entry into the cell phone market. Based on the company's dominant position in the music player market, concepts of trademarks and technology development were successfully transferred to the iPhone.

The third category of horizontal connections does not refer to strategic partners but rather to the competitors of a company. When competitors offer several products that compete with those of another company, their activities result in a connection on a competitive basis. In this context, Porter uses the term multipoint competitors. Here, the efficiency of the overall value system is a crucial factor for sustainable competitive advantage.

The extension of the value chain to a value system is especially important to alliances, since value systems can be used to capture jointly created value. In doing so, it is important to not only look at one product offered by multiple businesses along with its stages of value creation but rather at complementary products that mutually increase each other's value. This is how the value of a related product is indirectly gained in independent value chains (Greffi et al. 2009). For this reason, Kagermann and Österle (2007) use the term ecosystems in this context. A network of computers and a network printer are an example of complementary products. The value of PCs increases when the network printer can be used to print out the information stored on the computers. At the same time, the more computers access the network printer, the more the printer's value increases.

Especially in the context of E-business, the terms value network or value web are often used alternatively to the term value system (Li and Whalley 2002). These terms indicate an implicit degree of institutionalized and structured form of a value system. Thus, these approaches are based on the value chain as well, but there is a greater focus on the idea of networks (Hansen and Birkinshaw 2007). The inconsistent use of the term, however, makes it difficult to strictly differentiate between value systems and value constellation.

The limitations of the value system concept refer to the linear view of value creation and the focus on generating additional value. However, in the context of business models, further value domains including core competencies or core assets should also be described. The more comprehensive concept of value constellation that avoids the restrictions of linearity will be outlined in the next section.

6.3 Value Constellation

Value constellation is a network-based value creation model that depicts relationships between internal and external actors. The concept is based on Normann and Ramirez (1993), who had already identified the potential of networked value creation by the early 1990s. The idea behind this new logic of value Normann and

Ramirez (1993) is to concentrate on the proposition created within the network. Thus, on a structural level, value constellation presents an answer to the question of how an offer is created within this network and which relationships characterize value creation.

The value constellation has developed from various streams of strategic management. Several classical approaches from this field can be identified and therefore serve as a theoretical basis for the value constellation (Chesbrough 2006). Normann and Ramirez have united these themes into a coherent concept, outlining the three most important theoretical basic approaches: added value, network structure, and systemic corporate understanding.

As a basis for value creation, Porter's ideas can be found in this approach, although Normann and Ramirez break with Porter's structure of the value chain. In this context, the term and its use within a company are central concepts. The creation of value and its importance for a company also remain of great importance for the value constellation.

The change of the value creation model results in a paradigm shift from the linear conveyor belt metaphor to that of the microprocessor (Kippenberger 1997). The corporate- or sector-centered view of value creation, like Porter's value chain concept, is characterized by a linear adding of value to a product, whereas the network-based concept of the value constellation focuses to a greater extent on the interdependent relationships between different companies (Vanhaverbeke and Cloodt 2006). Following this concept, value can be generated simultaneously from different points. In other words, multidirectional value creation processes receive more attention.

This network-based view of value creation for business models is not focused on the value chain; instead it is based on the increased complexity of the manufacturing process. The requirements of a successful market offer have increased significantly as well. This is due to developments like globalization and enhanced market transparency, which were made possible by means of modern ICT technologies.

It becomes more and more difficult for a single company to be the only creator of value for an offer and thus to successfully compete in the market (Bieger and Rüegg-Stürm 2002). A good example of this is the automobile industry. Already in the 1980s, Toyota demonstrated the quality and cost potential that manufacturing with specialized partners and just-in-time production involves.

However, the idea of connecting value chains in a value system is not sufficient to explain network effects. Since this approach focuses too much on business segments in the sense of strategic corporate divisions, the linearity of value creation remains preserved. As a consequence, value-chain-based approaches primarily look at competition within certain industries and not within individual stages of value creation (Everingham et al. 2002). Thus, competitors from other industries are not sufficiently taken into account.

The main features of a strategic management network structure are mentioned early on in the approach of Probst and Gomez (1987). However, further development towards a basic strategic position was not mentioned until the work of Dyer and Singh (1998). The theory of Probst and Gomez (1987) generally covers networked

thinking, acting, and problem-solving, whereas Dyer and Singh (1998) use the relational view of the firm and propose turning away from the resource-based view in favor of embedding resources into corporate relations. In the case of the concept of value constellation, focusing on the network as a landmark is essential.

On the level of this corporate concept, the value constellation refers to Ulrich's systematic approach (1970), according to which a company is a target-oriented, structured, and open social system. In the context of value constellation, this classification refers to both single companies and the network as a whole. Due to changed corporate requirements, value constellation requires a revision or a reconfiguration of relationships between internal and external actors (Kippenberger 1997; Wirtz 2001b). For this kind of value creation, interactions should be examined for their appropriateness.

Examples of potential actors include suppliers, strategic partners, and customers. Due to the value constellation's focus on offers, changes in relationships with customers are at the center of attention. The limits of an offer are no longer necessarily determined by the characteristics of the last company in the collective value chain.

Instead, value-added activities can be adapted according to demand and then distributed. The added value of a value constellation leads to the pursuit of mobilizing customers to generate value for themselves from an offer (Normann and Ramirez 1993). In this context, the customer can influence value creation to a greater extent. Value adding then becomes value creation, as illustrated in the following example.

The classic method of sending a package by mail occurs through the service of a postal employee. Such a transaction is thus value adding, since the customer offers the package as an input factor and receives a service in return—namely, the acceptance of the package and the required postage. If, in contrast, the customer acquires the stamps via the Internet, prints them, and performs the mailing through a self-service station, this process corresponds to a form of value creation.

The customer him- or herself must become an active participant in the value-adding process. In return, consumers profit from advantages such as better availability, lower prices, independence from opening hours, and the processing capacity of a particular post office branch. The value creation of expectations experiences a restructuring, as the activities between customers and companies are redistributed. This, in turn, modifies the relationship between the involved parties.

The three basic theoretical approaches presented above serve as a starting point for analyzing value constellation. However, the structure of a value constellation can be specified beyond this theoretically derived rough classification. Vanhaverbeke and Cloodt (2006), for instance, created four dimensions for organizing the concept which can be helpful for further orientation: value creation, transaction, resources, and networking (Vanhaverbeke and Cloodt 2006).

In the context of value creation, the transaction dimension considers the transaction costs that result from interactions within the network. Resources stand for the distribution of resources within value constellations, whereas the dimension

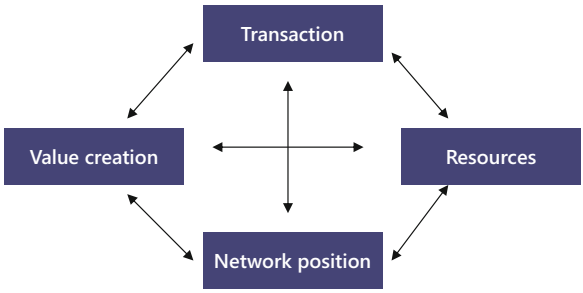

Fig. 6.4 Dimensions of the value constellation. Source: Wirtz (2010a, 2011, 2018a)

networking covers the competencies for the management of relations within the corporate network. Figure 6.4 shows an overview of the model.

In addition to these general dimensions, structural factors and actors are especially relevant. However, no general structure can be depicted since the peculiarity of this value creation model lies in its configuration of cross-company and cross-sectoral manufacturing that is superior to competition. This means that even between similar products, great differences in the value constellation are likely to appear (Heuskel 1999).

The value constellation as a whole represents a specific offer that competes with other offers (Kippenberger 1997). Despite the various possibilities to specify it, one can observe a basic set of means to design a value constellation which comprises connection points and transactions. The concept of connection points is thereby not only restricted to companies but also covers all actors of the value creation. The single connection points of the network are linked to each other by means of transactions. Transactions can run in both directions and depict interdependent value creation processes.

The importance of single connection points results from their tangible and intangible resources and functions within a network. The definition of the term resource is very broad and covers materials, knowledge, and their positions within a network (Macharzina 2003). For instance, a company can contribute to a value creation network by offering access to central input factors, customers, or other companies via a gatekeeper function.

The functions within a network are, to some extent, derived from resources which contribute to the process and describe the role of a company in the overall value constellation. Moreover, implications for the relationship management of the company are involved. Typical actors in a value constellation are, for instance, orchestrators, distributors, partners, and customers (Vanhaverbeke and Cloodt 2006).

By planning an offer, the orchestrator determines the structure and the aim of the value constellation. In order to put it into effect, effective relationship management must be implemented. A portion of the resources and know-how required for the offer are procured by suppliers. Distributors provide access to consumers. Beyond this, using meta-distributors for wholesale trade is another option. They could be connected to the company—for example, through the licensing of technology—or act independently.

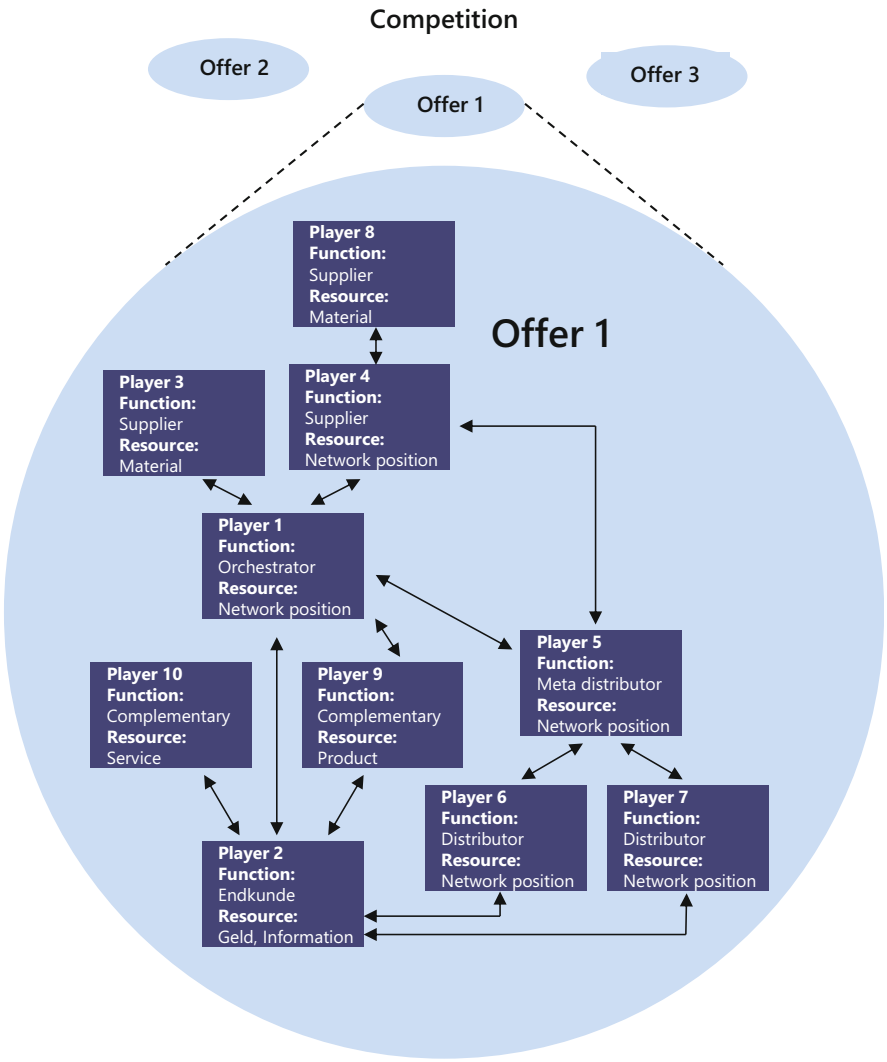

Fig. 6.5 Exemplary structure of a value constellation. Source: Wirtz (2010a, 2011, 2018b)

The consumer ultimately uses the offer to generate value for him- or herself. Accordingly an ending point is not marked after the acquisition, but the possibility exists to further capitalize on this generated value (Ramirez and Wallin 2000). All actors retain a specific function in a value constellation but can potentially be involved in several such constellations. Figure 6.5 uses an example in order to show the structure of a value constellation.

The structures and value-added activities of a value constellation can be analyzed on different levels of detail. The task of a company's management is to find a

pragmatic compromise between accuracy and the realistic potential for influence (Parolini 1999). The goal is to reasonably narrow down the value creation model to relevant items.

It is important for a producer of inexpensive landline telephones to use plastic as a resource for production, but it is not necessary to have it analyzed by firms of the polymer chemistry industry that function as suppliers. The key activities of value creation are subsequently evaluated according to whether they are self-produced, purchased, or processed by alliances (Parolini 1999).

Although a network structure initially implies equal treatment of the network partners, this principle does not apply to a value constellation (Vanhaverbeke and Cloodt 2006). In order to justify the organizational expense of relationship management within a network, all companies involved need to generate a higher value than in alternative value creation models. However, the generated value will not be evenly distributed. Instead, the value that was created within the network is distributed according to the importance of the respective connection point. In the literature different criteria exist for determining the importance and hence the power within the network.

A central concept is bargaining power as a critical factor in the distribution of value (Brandenburger and Stuart 1996). This power can either be traced to its position in the network and the related personnel or manifest itself in the management of resources (Gomes-Casseres 2003). Consequently, a company can achieve advantages when it comes to the distribution of added value by profiting from special relationships. This becomes clear within the network or beyond network borders. Apart from that, the possession of basic resources may positively influence bargaining power.

Looking at the distribution of value on a corporate level, however, is insufficient for a detailed analysis since the extent of the added value generated that is to be distributed within the network depends on the commitment of all network partners. This is the reason why a unilateral use of the position of power in a network can result in a relative value gain. However, this can also mean a total loss in value and even result in network partners dropping out. Consequently, more powerful players within the value constellation need to clearly demonstrate self-interest and ensure that other network partners perceive the value distributed to them as fair and superior to other forms of value creation (Vanhaverbeke and Cloodt 2006).

This shows that partners in a value constellation do not have equal rights. In addition, it is imperative that a corporate network has a superordinate management. For this reason, the value constellation of the network structure includes a central company, which is referred to as orchestrator or keystone (Iansiti and Levien 2004). It holds a preeminent position and, through its activities, characterizes the value constellation of the associated business model.

Thus, in most cases, the orchestrator company is the company that the broad public associates with the business model of the value network. IKEA, for instance, represents a value constellation-based business model of inexpensive furniture in which the customers themselves are responsible for the transportation and setup of the furniture (Normann and Ramirez 1993). The subsequent case study illustrates the

tasks of an orchestrator. At the same time, it emphasizes the competition-related aspects of a value constellation.

In the field of encyclopedias, two competing approaches are discernable. The encyclopedia Britannica which has been only published digitally since the year 2012 chooses keywords as an orchestrator, commissions specialized authors to write texts, and hires editors to proofread them. Whereas earlier the final product is used to be sold in bookstores, today it is only available as fee-based online offer. In contrast, Wikipedia is subject to a different value creation network.

For the online encyclopedia, no costs apply and every person can act as an author and write articles for a chosen topic. In discussions, the Wikipedia community verifies these entries in terms of correctness and appropriateness. Other authors or readers can edit, rephrase, or restructure these articles. Hence, the tasks for the orchestrators of Wikipedia include the offer of a platform as well as maintenance by the community. The contents are acquired either at no charge on the Internet, in the form of data saved on a DVD, or as excerpts in a book. In any case, the major revenue sources are contributions from online users.

Both products have similar basic benefits for the customer despite the differences in their value creation processes. The relationships between authors, readers, the orchestrator, and customers are designed differently. Wikipedia enables the customers to function as both authors and readers. Thus, additional value is generated in the form of appreciation or participation in a community. The success of this changed form of value constellation has meanwhile even lead Britannica to accept user-generated content.

In addition, Wikipedia can ensure more up-to-date and obtainable contents by focusing on Internet-based writing and editing of the articles. These advantages were obtained by removing printing from the value creation process and by introducing a server-based and user-friendly content management system. At the same time, the online system lowers the technological restriction barriers for authors since a free Internet browser is sufficient as a tool. At this point, the restructuring of resources and relationships results in advantages within the value creation.

This case study shows that a value constellation is convenient for depicting comparisons with other competitors related to value creation. In doing so, it is possible to capture parallel, nonlinear value-adding activities. At the same time, linear structures of a value chain or a value system can be transferred to this model. In the following section, the conceptual connections between the business model and the value constellation are shown. The focus is set on modification processes within the value creation and business models.

6.4 Value Constellation and Business Model

The value constellation has a cross-company orientation and thus offers an excellent conceptual framework for the analysis and management of value creation. The business model can be interpreted as a concretization of the basic structural aspects

	Value chain	Value system	Value constellation	Business model
Development	• From industrial economy	• From industrial economy	• From network theory	• From technology-oriented approach
Structure	• Linear	• Linear, connection of value chains	• Network	• Focus beyond value creation • Network
Functions	• Description of value creation in single companies • Value adding	• Description of value creation in single companies • Value adding	• Description of value creation between different companies • Value creation	• Description of business structure and value creation
Aims	• Identifying the potential of stages of value addition	• Integrating complex structures of value addition	• Identifying potentials of connections in the value creation	• Development, implementation and support of sustainable and successful corporate strategies

Fig. 6.6 Comparison of value-added models and connection to the BM concept. Source: Wirtz (2010a, 2011, 2018a)

of the value constellation. In this context, the value constellation can be seen as an overriding construct that is described by the respective business model.

Basically, value constellations can be used for the strategic management of value creation. However, usually the value constellation is aggregated to a great extent, so that it is only minimally suited for particular and direct guidance regarding the design and modification of corporate activities. In such a case, the business model concept can be applied. It aims at substantiating, breaking down, and specializing the value constellation parameters in order to derive practical guidance.

In this sense, the business model concept represents a further logical development of the pragmatic analysis of value constellations. Furthermore, in opposition to the value constellation, the business model concept benefits from being able to better focus on companies, business areas, and product specification. In contrast, the value constellation approach has a primarily external view that is interaction-oriented and thus is better able to capture competition and cooperative relations.

Figure 6.6 gives an overview of the different value creation models and connects the value constellation with the business model concept. It becomes apparent how the different models contribute to the explanation of value creation. For this purpose, they are arranged in ascending order according to their complexity. Also presented is the development of value creation models of linear systems, such as a value chain or value system, to network-based value constellations.

Figure 6.6 also shows that the business model concept offers a business-related specification of the value constellation. Since both approaches are based on the same

structural parameters, they can be easily combined. The value constellation approach can thus be understood as a meta-approach. Various interaction structures of the concept result from this connection.

Value constellation and business models are dynamic concepts, which mean that they are subject to interdependent changes in a chronological progression. The focus of a company in a value constellation and the structure of the related business model are dependent on one another. Thus, changes of the value constellation can call for adaptations of the business model and vice versa. In the following section, both variations of change processes will outline the implications for the formation of value creation.

On the one hand, a business model influences the structure of the value constellation. The position of a company within the network, its relations to other network participants, and the balance of power when distributing any generated value are central factors in this context. Changes in the value constellation directly influence the business model.

When McDonalds applied the franchise system to their fast food restaurants, for instance, the new actor in the value creation, namely, the franchisor, changed the relationship between customers and suppliers. Individual local restaurants were replaced by a multinational chain including a unified brand, product, and quality policy. Economies of scope were utilized, especially for communication and purchasing. In addition, unified operating procedures were established and the design of the restaurants was standardized. In doing so, also the business model changed, as it was no longer exclusively concerned with selling food but primarily about know-how and the brand itself.

Changing the business model affects the value constellation as well. In this case, modification of the business model results in a change of relationships between value creation partners. When Britannica, the encyclopedia, decided to invest in user-generated content, it was not only cost structures that changed: an important characterization of this decision was the reconfiguration of the relationship between customers and the value they could generate from the offer. By extending the function of customers, the concrete value constellation was updated.

Since the orientation of value-adding activities within a value constellation is subject to change, the adjustment of value factors is a central task of business model management. Change processes within a value constellation and business model of a company can be explained by two types of patterns. One option is that there are external influences in the form of value migration. Another option is that developments within the business influence value creation in the form of business migration (Slywotzky 1996). Value migration and business migration can be interpreted as significant activity processes within the framework of value constellation and business model relations. A structure of this relationship is shown in Fig. 6.7.

The two phenomena of value migration and business migration will be distinguished from one another in the following section. In doing so, it will be shown how change processes in value constellations and business models take place and what this means for the management and their possible range of decision-making. At the

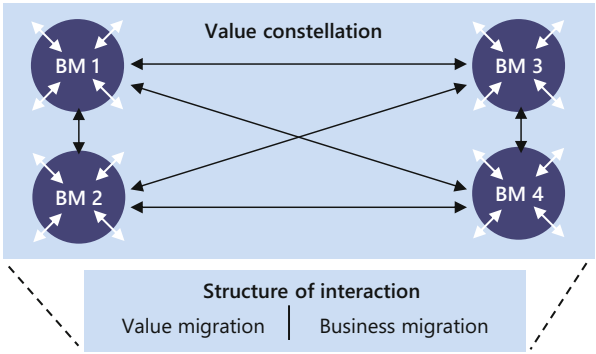

Fig. 6.7 Relationships and change processes of value constellation and BM. Source: Wirtz (2010a, 2011, 2018a)

beginning of the section, the modification of value creation by external influences will be explained. As an externally induced process of change, value migration describes changes in the value creation on various levels.

When looking at value migration, the changes observed can be divided into three different categories: changes between industries, between businesses, and between different business models within a company (Slywotzky 1996). The concept of value migration explains how value configurations within a value constellation can change.

Since this approach is customer-oriented, the center of value migration is the dynamic decision patterns of the customers. Due to this, the changing demands and wishes of customers are a crucial decision factor. In this context, the supply side is represented by flexible business models. When changed customer demands occur simultaneously with new business models that are better adapted to these demands, this results in profit migration. Traditional business models progressively lose their market share, forcing a reaction from the businesses concerned.

It is of great importance for the management of a business to recognize trends towards value migration and initiate corresponding actions on the level of business models. In this context, it is highly relevant to record changes in the value-added flow while at the same time adjusting the focus of value-adding activities in accordance with these insights. In doing so, predictions of developments in value-added activity must be oriented towards the process models of value migration.

The value migration model focuses on the relationship between market value and revenue. On the basis of this relationship, the process of value migration takes place in three stages (Slywotzky 1996). In the inflow phase, the influence of a business division increases due to consistent market growth. At this point, it is absolutely necessary to record the inflow of a company as well as the corresponding orientation of the business model in order to participate in a new value creation system.

This is followed by a stable development tendency that is thus labeled as stability. The value structure is established, market growth stagnates, and investments concerning the development of business models are cut back. The final outflow phase is characterized by a loss of value and a shrinking market. Customers and resources are lost at an increasing rate. At this point, businesses need to use suitable

absorption or withdrawal strategies in order to avoid long-term losses. Business models should be adapted or restructured.

Value migration explains the changes of value constellation and business models by means of external influences. However, with regard to changes in value creation, the perspective of internal factors can also be examined. Thus, the origin of these kinds of change processes lies on the level of an individual company. In this context, Heuskel (1999) presents an activity-oriented approach based on Slywotzky's (1996) concept. He calls this approach business migration.

Based on the development of cross-sectoral business fields as well as those that work across product limits, a classification of value-added architecture is created. This results from a deconstruction of the classic value chain (Timmers 1998). Companies overcome classical limits regarding products and sectors by focusing on single stages of a value chain that they can then deal with specifically (Heuskel 1999; Wirtz and Becker 2002a).

This shows how single businesses may react when, for example, value-added structures have become obsolete due to value migration. Hence, it is a process-oriented depiction of value-added strategies that profoundly changes a value constellation. In this context, four fundamental categories of new kinds of value creation will be presented and explained based on the approaches laid out in Wirtz and Becker (2002a), Edelman (1999a, b), and Baubin and Wirtz (1996).

The approach of an integrator serves as the initial point for this examination. Its value creation logic is based on the classic value chain. A company using this business model operates within existing value chains. All relevant parts of the value creation are kept within the business to the greatest possible extent through a forward and backward integration process. Hence, they can be operated with maximal control. This kind of value creation can mostly be found in diversified enterprises like Procter & Gamble, Exxon, and Novartis. The integrator business model has a potentially high yield due to efficiency gains, economies of scope, and it being independent from suppliers. In this way, costs are kept low. Figure 6.8 illustrates the integrator model.

In contrast, layer specialists focus on a particular area of value creation which they market horizontally across multiple, already existing value chains. SAP procurement serves as an example as they offer IT-based procurement services for large corporates. Such specialization makes it possible to establish economies of scale and know-how superior to that of competitors. These two factors serve as the basis for cross-industrial expansion (Schweizer 2005). The most crucial task is providing an offer that is superior to integrated business, forcing these businesses to turn to specialists (Edelman 1999a). Figure 6.9 illustrates the layer specialist model.

In contrast to an integrator and a layer player, the value creation of a coordinator—sometimes labeled as orchestrator—only happens partly within the business (Edelman 1999a). Instead, strategic partners are responsible for a significant part of the value creation. Hence, the coordinator business focuses on the management of the corresponding relations. It needs to be clarified which activities have to remain a part of the business and for which parts of the value creation outsourcing would be a better option. In doing so, the coordinator minimizes costs while benefitting at the

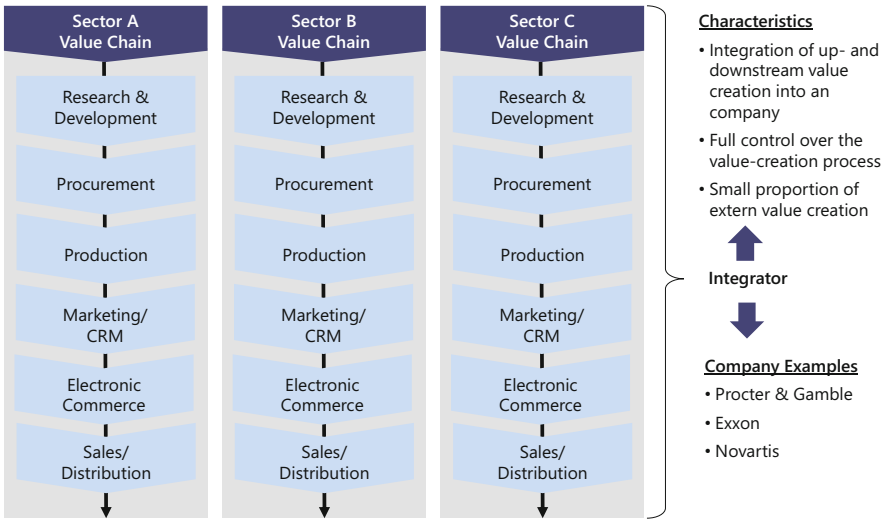

Fig. 6.8 Integrating the value chain. Source: Wirtz and Becker (2002b)

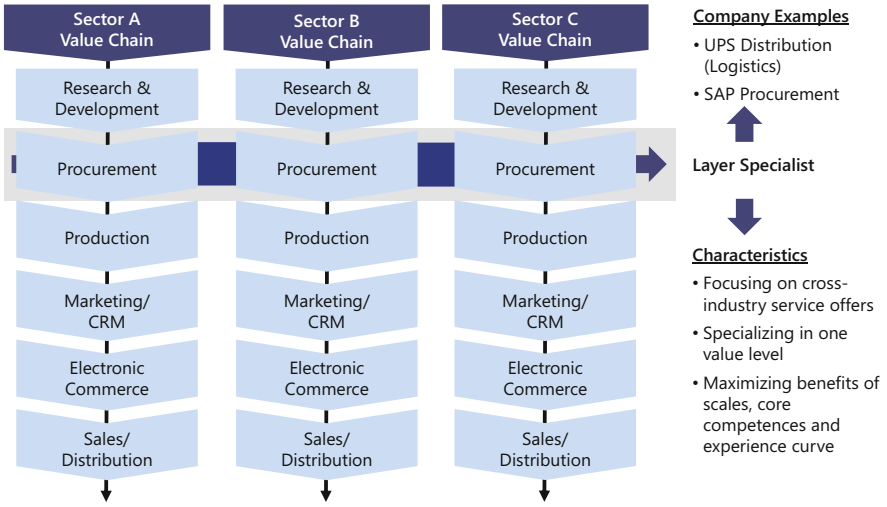

Fig. 6.9 Focusing on a value chain layer. Source: Wirtz and Becker (2002b)

same time from the suppliers' economies of scale, potentially resulting in a high yield. Examples of this case are apparel manufacturers like Nike, United Internet, or LVMH. Figure 6.10 illustrates the coordinator model.

By creatively recombining different value creation stages, a pioneer—sometimes market maker—contributes to the creation of new markets. As an innovative intermediary, a market maker creates an offer that better addresses the interests of customers than others. This means that pioneers introduce a new stage of value

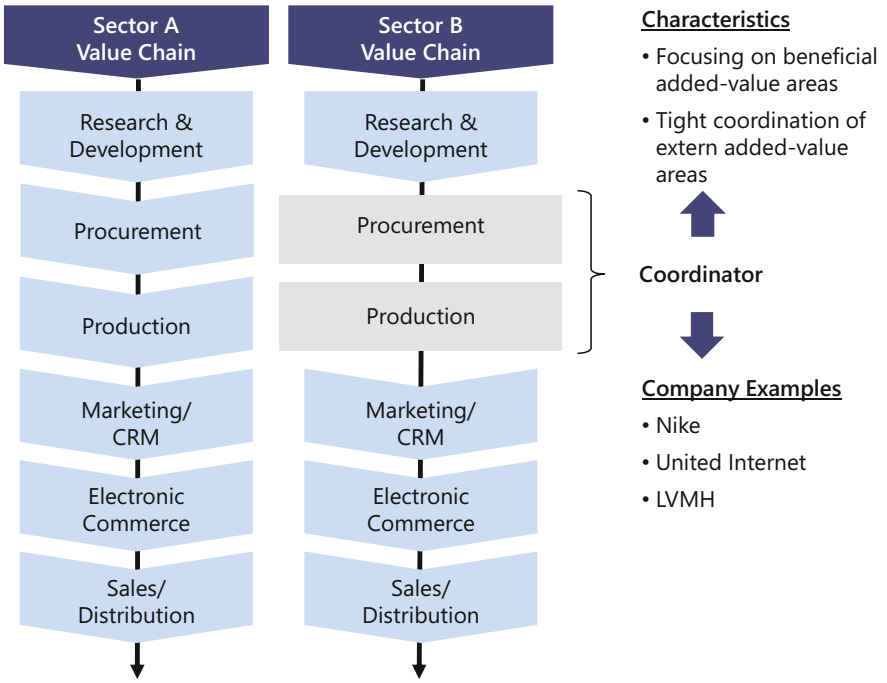

Fig. 6.10 Coordination of external providers. Source: Wirtz and Becker (2002b)

creation by making use of information advantages. In other words, pioneers cater to the needs of customers that previously remained unmet, which results in a potentially high yield. Figure 6.11 illustrates the coordinator model.

Although the similar nomenclature implies a primary connection between the coordinator model and the value constellation, other types can be displayed as value constellations as well. In an extreme case, for instance, when looking at an integrator, this results in a network consisting of only two connection points: business and customer.

The business migration concept shows possible approaches how to change a value constellation. In order to identify possibilities of improving value creation, businesses can make use of single sub-concepts. This means drastic changes: value constellations are replaced, so that it becomes inevitable to thoroughly examine options, opportunities, and risks. This creates a competition of value-added architectures between businesses (Kothandaraman and Wilson 2001).

One process is value migration. In the system of generated value, it is value inflow and value outflow that are specified and put in concrete terms. The other process is the business migration approach which shows how the management of value positioning and value orientation changes value management. Both value interactions affect the value constellation and the business model. In summary, it can be said that both the value constellation and the business model concept are

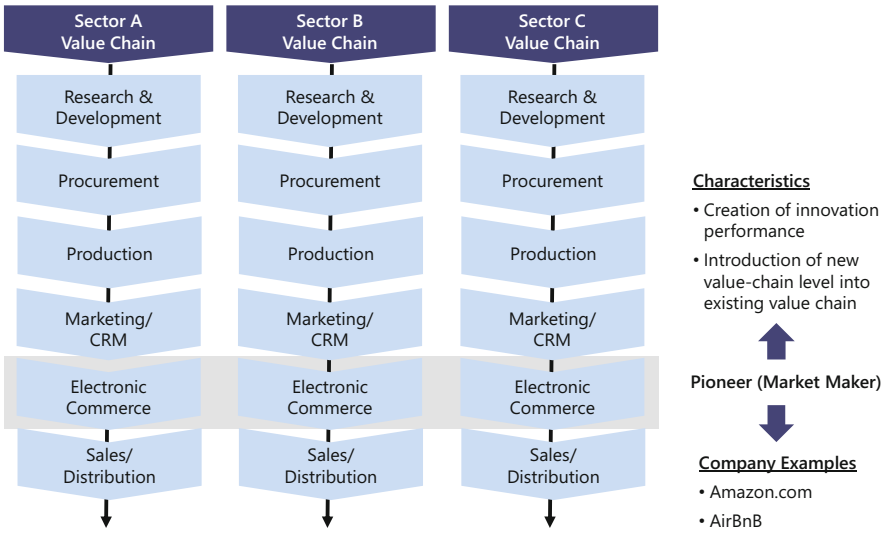

Fig. 6.11 Creating new markets as a pioneer. Source: Wirtz and Becker (2002b)

concepts that are roughly complementary in terms of making clear what value creation in business networks is about.

Having clarified the significance, structure, and interaction of the value constellation concept in relation to business models, the next section deals with the description of business models as a tool for strategic management. After a distinction between the terms strategy, business model, and business process model, application-oriented concepts and practical instruments will be presented.

6.5 Business Models as a Management Instrument

Being an integrative tool, business models support various management tasks (Osterwalder 2004). Primarily, the design of a business model supports decision-making by means of various submodels. In addition, further development of the sub-processes of planning, change, and implementation is made possible. By understanding its own business model, a company can improve its reaction capacity in terms of speed and adequacy and can better align strategy, organization, and technology.

Following the taxonomic classification of business models, business process models, and strategy, this section deals with decision-supporting concepts and concrete practical examples of business model management. Subcategorized instruments of business model management and possible sources of error that can affect the conception and implementation of business models will then be addressed.

The functions of business models in business management can be derived from their suitability for abstract depictions of business activities. They can be applied

when pursuing market entrance into new business fields or in terms of spin-offs of brainstorming and conceptualization (Wirtz 2009). In business practice, business models are often used as a tool to examine the sustainability of ideas and concepts. In addition, business models are also used to develop and classify successful, lasting business strategies (Wirtz and Becker 2002a). With the help of the value creation model, various kinds of business models can be identified that imply a specific strategic orientation of a company.

In terms of E-business, the business model concept has become a significant competitive factor. The highly practical benefit of the business model approach has decisively contributed to its dissemination. The evaluation of start-ups and accompanying business ideas created with the help of business models has also affected the usage of the term business model (Osterwalder 2004). In this context, the usage of business models is primarily looked at on the level of the entire company. This is due to the fact that decisions which are related to the formation of a business often go beyond single business areas (Chesbrough and Rosenbloom 2002).

In order to analyze business models as a management tool, a demarcation of similar management instruments is needed. In particular, the focus is on the concepts strategy and business process models. In contrast to business models, they function as a kind of business process that is abstracted from individual characteristics of the business process (Eriksson and Penker 2000).

In terms of interactions between the concepts strategy and business model (as well as business process model), three different approaches exist:

- Strategy vs. business model
- Business model as an intermediary between strategy and business processes
- Business model as a set of strategies

When a distinction is made between a strategy and a business model, this happens mostly based on the content-related orientation of the two concepts. A strategy, for instance, can be interpreted as primarily competition-related; a business model, on the other hand, is mainly structure-oriented (Magretta 2002).

According to this approach, both concepts of the business are contrasted with one another on the same level. According to this argument, business models serve as a system to display internal and market-related potential. In contrast, strategy focuses on a company's particular measures in relation to its competitors' activities and thus concentrates on a differentiation from the competition. This differentiation will be explained in the following example of eBay.

The eBay business model consists of charging fees for the use of an online auction platform. Any further value-adding activities of the auctioned products, such as payment and shipping, are not offered by eBay—it is instead the user who is responsible for these additional services. The payment service PayPal, which used to be a subsidiary of the eBay enterprise, is not necessarily part of the online-auction business model. eBay's strategy aims at minimizing the market share of other auction platforms and increasing its own brand awareness. This results in a shift of

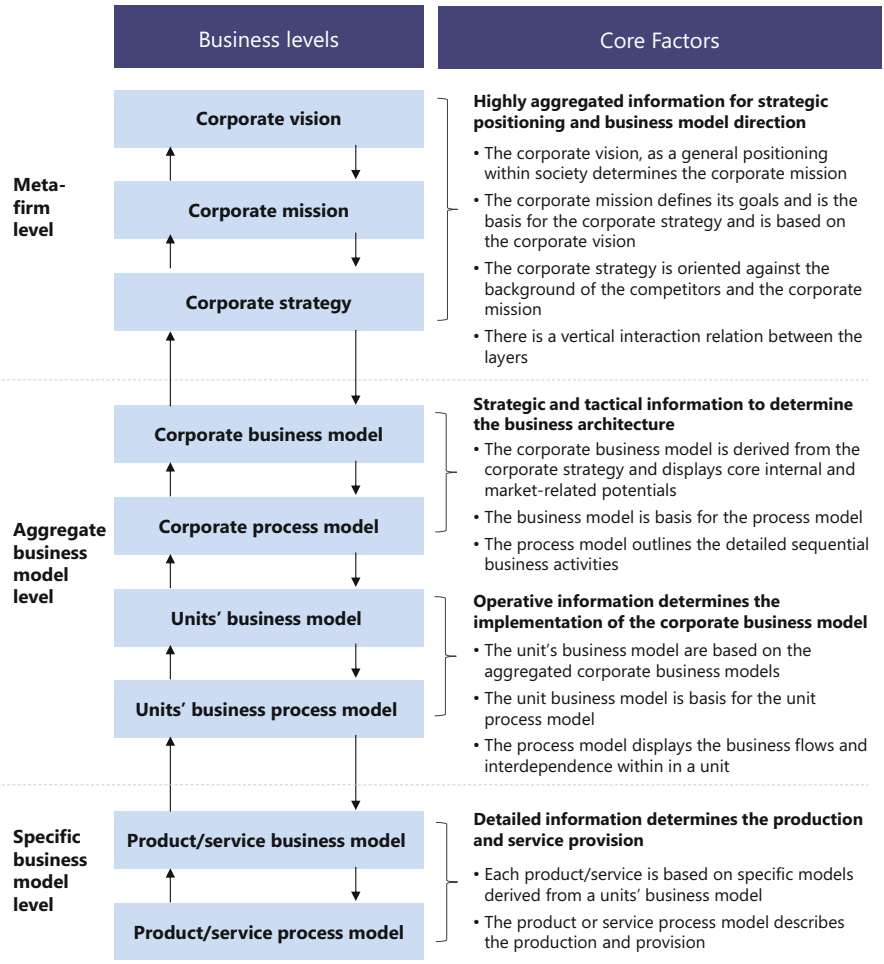

Fig. 6.12 Business model layers

focus between both instruments, namely, from a descriptive system of value creation logic towards a competitive positioning of the business.

When looking at business models on different levels, literature often classifies them as intermediaries between strategy and business process models (Osterwalder 2004; Rajala and Westerlund 2007; Tikkanen et al. 2005; Al-Debei et al. 2008). This requires to conceptualize the different business layers, as clarified in Fig. 6.12.

According to the stated approach, business models can be derived from the meta-firm level that describes the corporate vision, mission, and also its strategy. Those three layers are based on highly aggregated information from the corporate business model and also provide aggregated information for the design of the corporate business model. As illustrated there are three levels: the meta-firm level, the aggregated business model level, and the specific business model level.

There is a hierarchical structure of business models below the general and comprehensive meta-firm level. The highest level of business models is the corporate business model that displays the internal and market-related potentials. Following that, there is the corporate process model, which in turn displays the value process on the corporate business model.

The corporate business model can be subdivided into the units of a corporation and thus also divided in units' business models. Those units' business models are a separate business model for the business unit, which is in turn derived from the corporate business model. Such business model has also a process flow, which feeds and determines the respective level above and below.

The last category is specific business models that relate to single products and services. For each such product and service, a separate specific and detailed business model can be designed. Such business model also depends on the respective process that describes the value flow behind a specific product or service.

Against this background, business models function as a type of interface or intermediary level between strategic guidelines and business model processes. With the help of a business model, the highly aggregated information of a strategy can be transferred to a tactical level. This process simplifies applications on an operational level. The transformation works in the opposite direction as well. Converting information from an operational business on the level of a business model can contribute to the formulation of abstract strategic guidelines.

A diversification strategy, for instance, can be applied for an online book retailer by using a business model for the digital distribution of music downloads. For this purpose, the following aspects need to be derived from the strategy: the production of goods and services, like the provision of music; programming or the adjustment of the sales platform; and the operation of the download servers and revenue structures. On an operating level, the model created is divided into single business processes and subsequently put into operation. With the help of feedback from the customers and employees involved, business processes and the business model itself can be adjusted. In addition, implications for the further development of business structures can be derived.

If, for example, sales are low despite a wide variety of songs, a high convenience factor of the download platform, and an abandonment of digital copy protection, this could be based on the retail prices. To counteract this, the revenue structure of the business model can be changed. Possible alternatives include variable pricing based on the release date of the songs or price bundles when several songs are purchased. If the modified business model succeeds in increasing the sales of digital music, these options can also be considered to extend the book business as well, for example, by introducing e-books and creating a corresponding business model. In doing so, experiences gained from a business model result in the development of a new strategy for another business field.

However, the business model concept can also be seen as a sub-area of strategy since the components of a business model may also be described as a set of strategies (Kallio et al. 2006). In this context, the business model functions as a meta-strategy

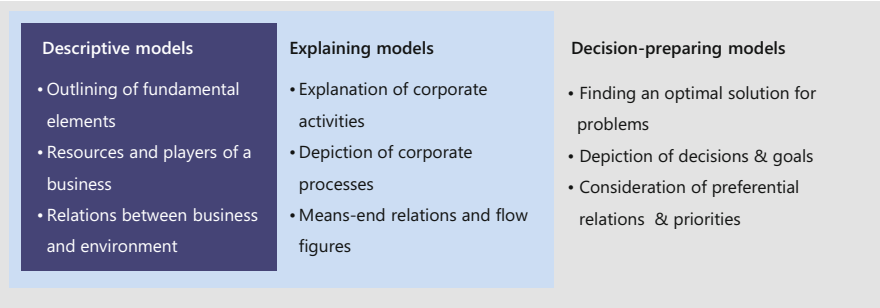

Fig. 6.13 Overview of the different business model types. Source: Wirtz (2010a, 2011, 2018a)

or coordination task, characterized by strategic components like value creation or competition. Different strategic sections can be summed up in a coherent model.

After having classified the business model on the level of management instruments, relevant applications of business models are presented in the following section. Literature offers a number of approaches which can be used for successful business model management. First of all, the different functions of business models need to be taken into consideration since the complexity of a business model depends on these. In this context, there exist three basic functions of business models that can be applied, namely, those of description, explanation, and decision (Osterwalder et al. 2005).

The term model serves as a common basis for the functions mentioned above. In this case, a model shows goal-oriented parts of reality. A crucial aspect for the quality of a model is its ability to structure complex connections and represent them in a very simple way. This narrowing down to relevant information contributes to a better understanding of the matter (Konczal 1975; Kilov 2002). The different types of models can be shown both graphically and verbally and serve as a means to transmit information.

In this context, distinguishing business models according to their functions makes it clear that they have various application possibilities within a business. This means that a descriptive model can be used for internal communication, for instance, whereas a decision model primarily functions as an instrument of strategic management. Figure 6.13 shows an overview of the three model types which mainly distinguish themselves from each other in their ability to integrate complex data.

Business Models as Descriptive Models

When business models are used as descriptions, only essential elements of the business's situation are captured. In doing so, both the fundamental components of the business as well as the relationships between a business and their environment are outlined (Lindström 1999). Consequently, the corporate activity of the business is described. Figure 6.14 shows an illustrative descriptive model of the music downloading platform iTunes, operated by Apple Inc. For simplification purposes, only the musical offerings were taken into consideration.

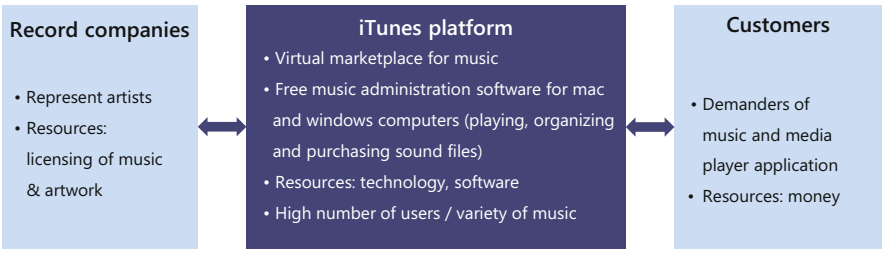

Fig. 6.14 Descriptive model of Apple iTunes. Source: Wirtz (2010a, 2011, 2018a) and on the basis of own analyses and estimations

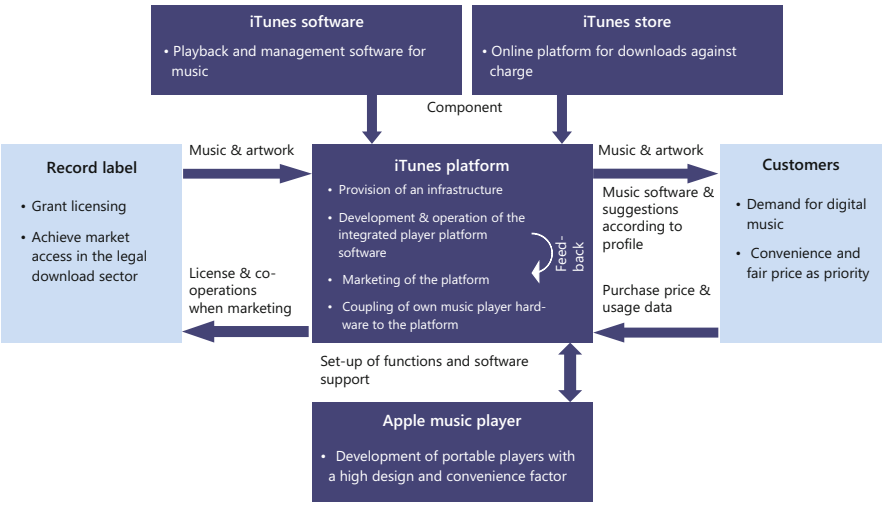

Fig. 6.15 Explanatory model of Apple iTunes. Source: Wirtz (2010a, 2011, 2018a) and on the basis of own analyses and estimations

Business Models as Explanatory Models

In addition to the contents of descriptive models, explanatory models also include means-end analyses and flow figures, such as the flow of information or the flow of goods. The aim is to depict the way in which value creation works (Lindström 1999). This means that a stronger focus is put on relationships and interdependencies between players and resources, making corporate processes clearly evident. Figure 6.15 depicts an explanatory model.

As in the explanatory model, all relevant players are shown in the figure above. Additionally, the two components of the iTunes platform—the music player software and the iTunes store—are denoted separately (Wirtz 2013b). However, this depiction shows a stronger process orientation: it explicitly lists information flows, like the registration of usage data, and the flow of goods, like the distribution of music. In doing so, the value creation process becomes clear.

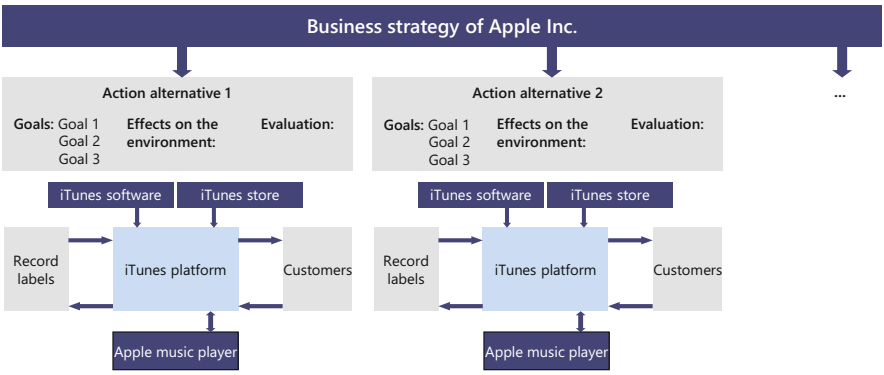

Fig. 6.16 Decision-preparation model of Apple iTunes. Source: Wirtz (2010a, 2011, 2018a) and on the basis of own analyses and estimations

Business Models as Decision-Preparing Models

On a fundamental basis, decision-preparation models require descriptive and explanatory models since they can be used to identify actions that are needed to reach certain goals. The most important part of this process, though, is discovering and designing possible management alternatives. Hence, a decision-preparation model can be understood as a scenario that not only takes into consideration measures and goals but also uncertainties (Polasky et al. 2011).

It is thereby shown what kinds of decision possibilities a business has. Those possibilities consist of alternatives for action and different environmental conditions. Additionally, the model shows the goals of the business. From this information, preferential relationships can be built. In addition, information about the goal achievement rate of the various alternative actions and their corresponding priorities can be provided. Figure 6.16 shows a diagram of this model using Apple's iTunes platform as an example.

Initially, different variants of further development are derived from the Apple business strategy and used for the corresponding business model. At the same time, the different goals of the strategy are named and classified according to their priority. Subsequently, the alternatives for action are evaluated according to how they meet certain goals and which environmental effects are expected. This way, it is possible to find an optimal procedure for updating the business model.

In his work published in 2002, Braun presents a practical application of the decision-preparation model for the financial services sector using a scenario technique (Braun 2002). The three phases of preliminary study, main study, and detailed study include the analysis and diversification of business models. Following this, the variants are evaluated and a decision can be made (Croom 2006). The preliminary study contains the project assignment, guidelines, and basic conditions. This is followed by the determination of strategic business fields and current business models as well as the formulation of objectives.

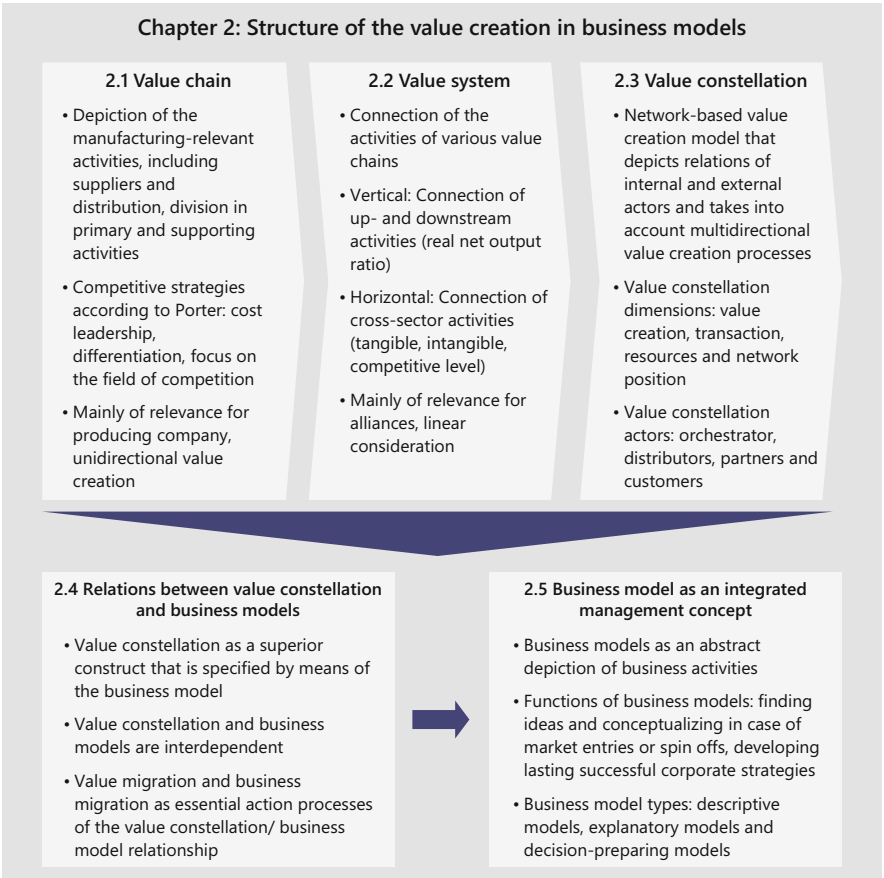

Fig. 6.17 Summary of the chapter on the structure of value creation in business models. Source: Wirtz (2010a, 2011, 2018a)

The main study deals with a comprehensive analysis of the current state, particularly analyzing resources and factors critical for success. From this, the foundations for possible future scenarios of business modeling can be derived. Subsequently, variants of business models for designing distribution and product ranges are developed and evaluated, taking into consideration the effects on resources and the market. The detailed study then estimates the market size for the service offer of the business model variants and analyzes the offer's demand volume.

In the next stage, essential resources are identified and, if necessary, cooperation partners determined. If cooperation partners are needed for manufacturing, the service offer will be revised together with them. Following this, the business model variants are evaluated by means of specified criteria and the optimal solution is selected. If this occurs, the decision model has fulfilled its function.

Having presented various application areas for business models as a management instrument, the single partial models of business models will now be introduced. Thereby, the partial models are classified—according to the components of strategy, customers & market as well as value creation—and discussed in terms of their composition and the respective specifications. Figure 6.17 gives a graphical synopsis of the entire chapter structure of value creation in business models.

Partial Models of Business Models

7

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 Sect. 7.1, 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.[1]

Section 7.2 indicates the characteristics of the strategic partial models of a business model and illustrates the respective strategies, competencies, and networks that are relevant for the business model concept. 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.

In Sect. 7.3 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.

By elaborating on the value creation model and the resources model, Sect. 7.4 demonstrates how value is eventually created in a company. It requires clarification how resources are embedded in a company and how they are then transferred to marketable products and services. 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 (Sect. 7.5) will summarize the

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_7

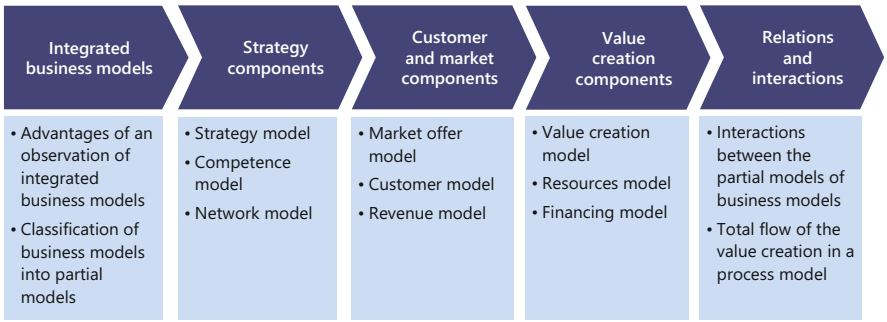

Fig. 7.1 Structure of the chapter

previously discussed partial models in one process model. A rather general process flow has been chosen to allow for transferability and thus easy applicability to concrete business models. Figure 7.1 gives an overview of the chapter.

7.1 Integrated Business Model

Concrete applications of the business model concept can be found in various fields. The scope of application reaches from the rough modeling of a business idea in the early stages of a start-up to the change management process for established and long-standing companies, in order to withstand changing basic conditions (Wirtz 2018b; Afuah 2004; Osterwalder et al. 2005). Altogether, however, the application of the business model concept is always associated with a primary intention, namely, the development, implementation, and protection of a lasting, successful and profitable corporate strategy (Wirtz and Becker 2002a; Wirtz and Nitzsche 2011).

Nevertheless, a detailed analysis of a company's activities and the resulting effects on lasting success requires a certain precision. This ensures that relevant aspects of a business model are anticipated and integrated during the processes of formation and change, so that unnecessary sunk costs are prevented. 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 (Wirtz 2018b).

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 internal aspects as well as environmental conditions of a company need to be considered in order to derive the relevant components of a business model (Afuah 2004).

Especially industry-specific factors are counted among the environmental conditions or 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 also 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 (Dyer and Singh 1998; Dyer and Nobeoka 2000).

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 (Afuah 2004). 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 compared to 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 to analyze the long-term success of the company.

Especially in strongly diversified companies, a further observation of business models on the level of strategic business areas is useful (DeWit and Meyer 2010). Within a conglomerate, such as Siemens, a variety of relevant business models exist whose partial models may admittedly correspond to some extent 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.

The use of strategic business units is thus based on the adoption of different tasks within a company's sales market (Hungenberg 2004). 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 be highly homogeneous (Smith 1995). Thus, the business areas formed need to 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 7.2 illustrates the single partial models of the integrated business model.

The strategy, networks, and resources of a company play a central, interdependent, and superior role within the integrated business model approach since these

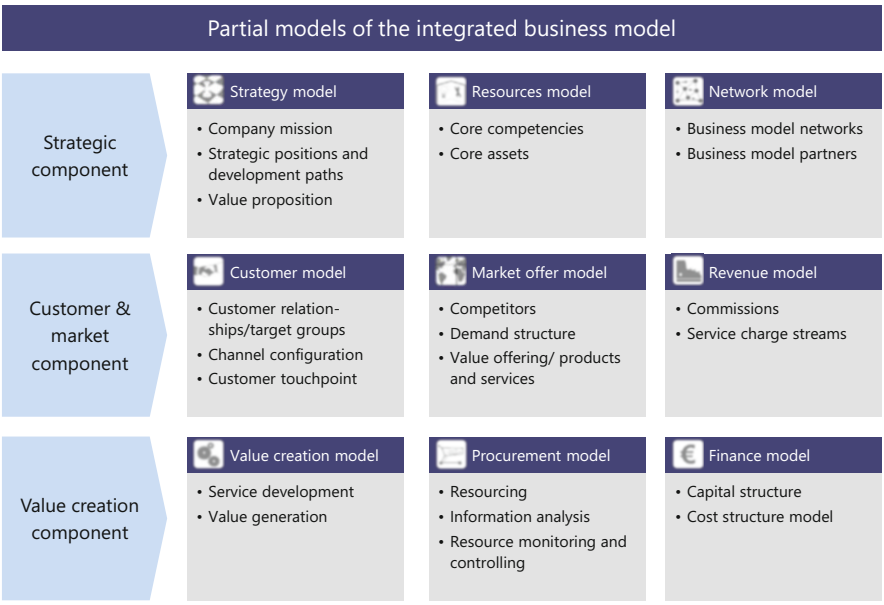

Fig. 7.2 Partial models of the integrated business model. Source: Wirtz (2010a, 2011, 2018a, 2019a)

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.

7.2 Strategic Component

Strategy, internal resources, and networks build an upper unit of the integrated business model concept and are therefore particularly important when analyzing value creation in business models (Lambert 2008). These strategic partial models generate an operational scope for the other partial models and define which types of value creation are generally possible.

7.2.1 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

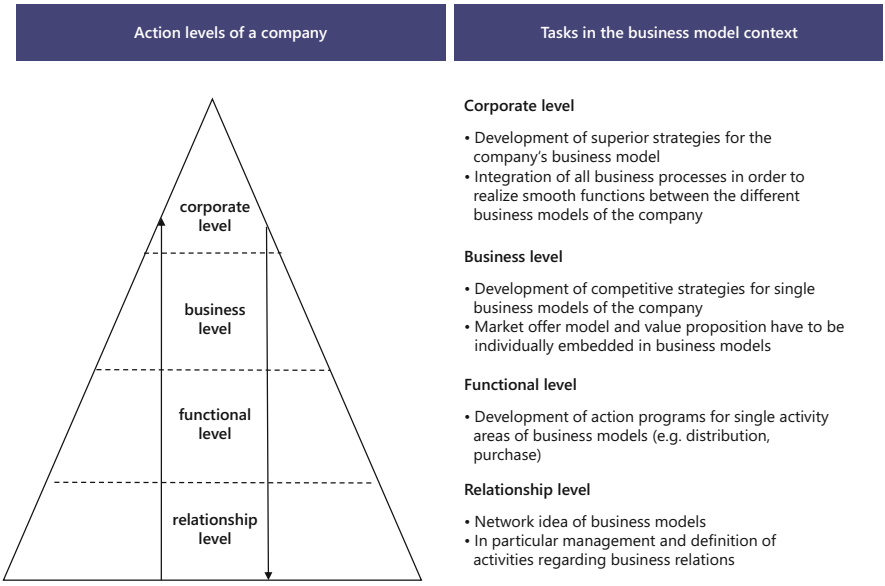

Fig. 7.3 Strategy levels and tasks of the business model management. Source: Wirtz (2000, 2018a)

framework conditions, scope of action, and strengths and weaknesses of the company serves as a basis (Wirtz 2013c).

In the context of business models and strategy, four different levels can be described on which strategically relevant decisions have to be made: the corporate level, business level, functional level, and relationship level (Wirtz 1999). Figure 7.3 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 the strategic starting points: vision, mission, goals, etc. Furthermore, their effects on other partial models of business models will be described.

On the level of the business as a whole, it needs to 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 particularly important. 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.

Apart from that, it is possible for a company not to have a comprehensive corporate brand and, consequently, no comprehensive corporate business model, such as in 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 single business models (Afuah 2004). 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.

The value proposition of a business model describes the satisfaction of customer needs by generating benefit through the value creation process (Torbay et al. 2001). It thereby comprises aspects of both the benefit and the value of a company's offer. By measuring results, the ways in which the value proposition is communicated to the customers through the respective action programs—along with the associated profit potential—can be examined. In this context, the value proposition can also be used for the development of new service offers of the business units (Anderson et al. 2006).

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.

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 towards the customers. In order to achieve the intended image that is meant to link the customers to the areas of activity and the company, appropriate goals are formulated.

Afterwards, the current degree of goal attainment and development potential is analyzed. From these results, action parameters are deduced which shape the customer image according to the business mission. A similar procedure also takes place on the level of the value constellation, although there additional relationships to external partners are also taken into account. Figure 7.4 illustrates the management process both on the level of the area of activity and on that of the value constellation.

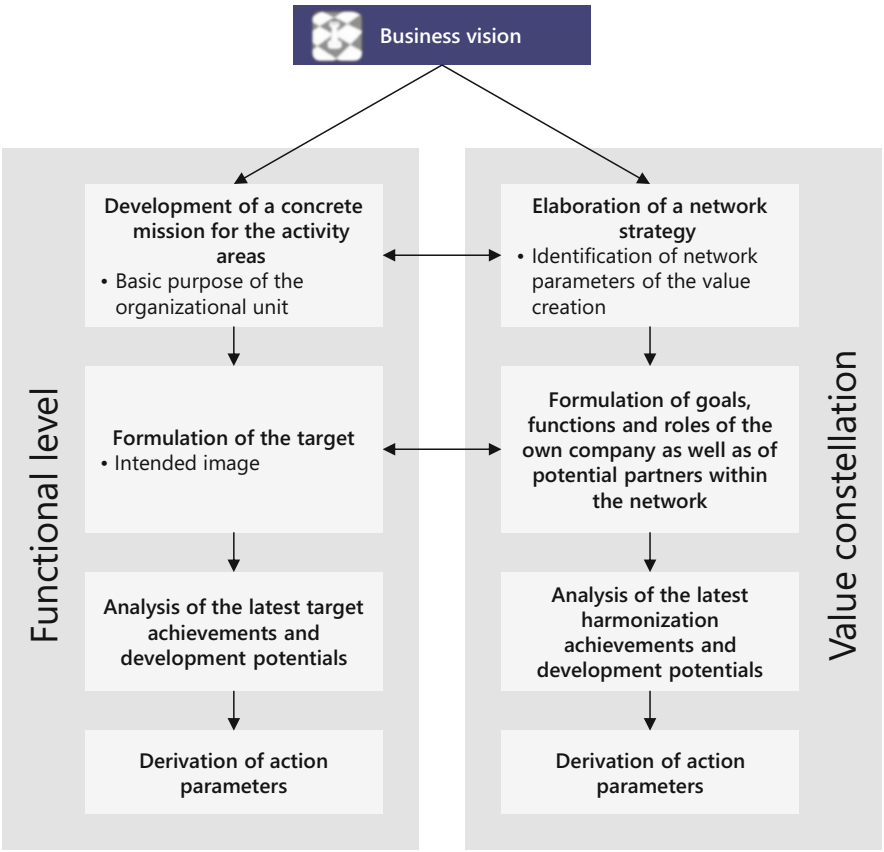

Fig. 7.4 Management process within the strategy model. Source: Wirtz (2010a, 2011, 2018a, 2019a)

The example of the company Deutsche Bahn demonstrates this typical management process. The vision of the company is to be "the global leading mobility and logistics company" (Deutsche Bahn AG 2014). This particular demand is communicated to the customers by the claim "Die Bahn macht mobil" ("The railroad mobilizes"), 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 (Deutsche Bahn AG 2014). 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.

7.2.2 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 (Petrovic et al. 2001; Currie 2004). In this process, both internal and external resources and competencies are presented. It needs to be considered, however, that only relevant processes are included in the model (Wirtz 2013b). Figure 7.5 shows the composition of a resources model using Apple iTunes as an example.

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 (Amit and Zott 2001). 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

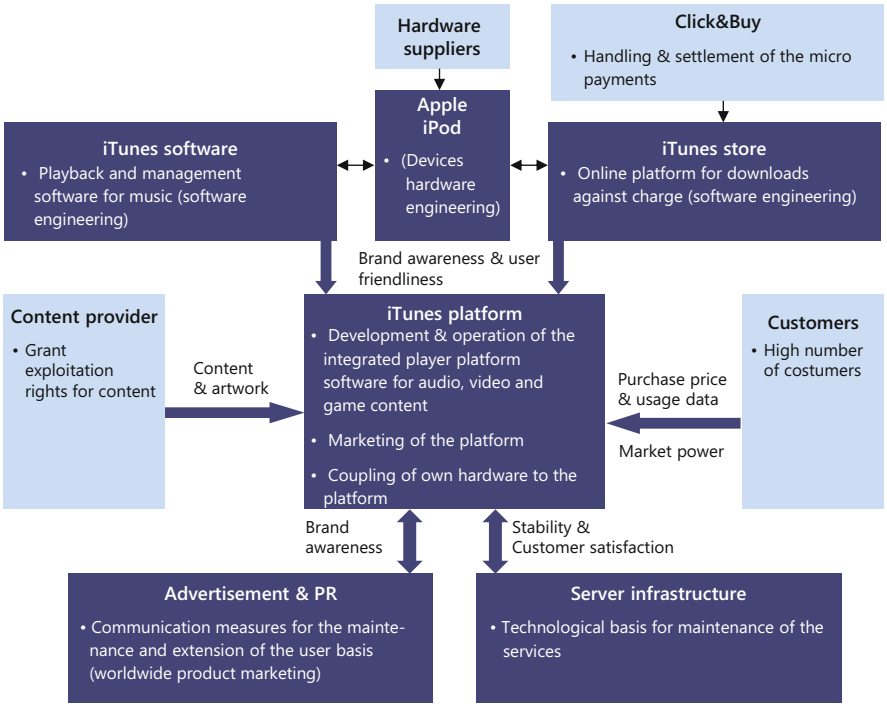

Fig. 7.5 Composition of a resources model using the example of iTunes. Source: Wirtz (2010a, 2011, 2018a) and on the basis of own analyses and estimations

so well integrated within the offer that, apart from the separate registration process, the end-consumer scarcely perceives the outsourcing.

For the modeling process, resources which are valuable, intangible, and difficult for competitors to imitate are particularly important 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 the 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 (Afuah 2004). 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 the risk that a competitor may break through the barrier or reshape the market through a major innovation.

In contrast, an offensive strategy does not rely on single blockades but on continuous advancement and improvement which maintains or increases the advantage over competitors. By utilizing first-mover advantages, the company tries to make new resources usable for the business model. Furthermore, an alliance strategy can also be adopted which may be performed 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 7.6 illustrates the strategies as well as the core aspects of the resources model.

7.2.3 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 analyzed in this process (Wu and Zhang 2009). 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 integrated into a superior, larger network (Barney 2004). 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

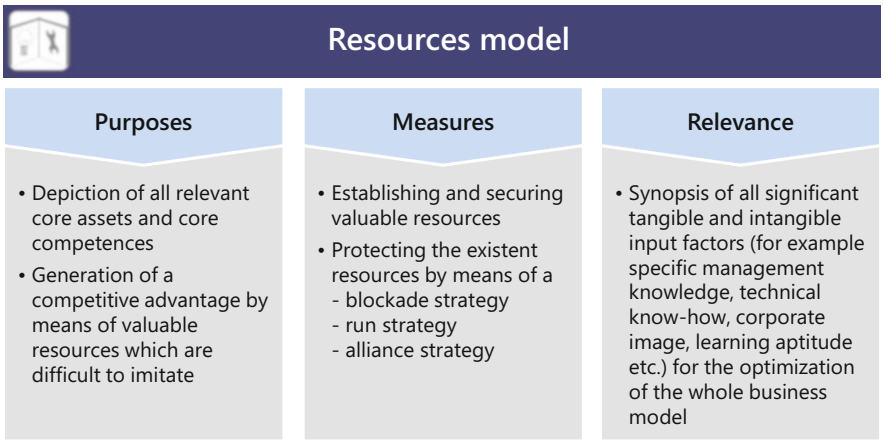

Fig. 7.6 Core aspects of the resources model. Source: Wirtz (2010a, 2011, 2018a)

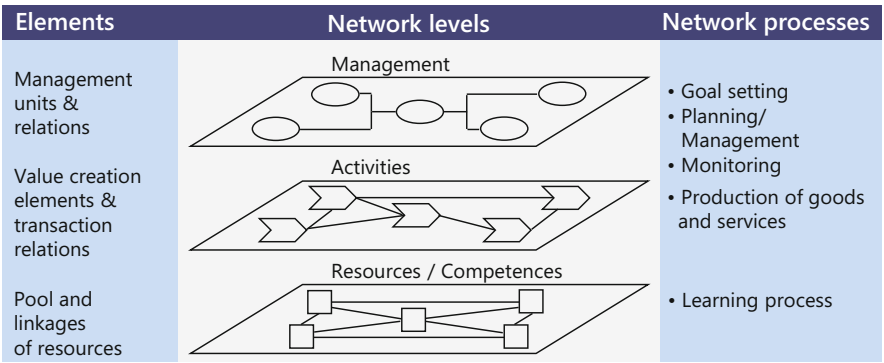

Fig. 7.7 Levels of the business model network model. Source: Mack (2003)

resources model. External relationships that are significantly important for the business model are comprehensively illustrated in the partial model.

Partner-based value creation in the form of a value constellation first requires a shared vision of the management of all companies involved. At the same time, a mutual market goal is formulated. Through the interorganizational coordination of strategic procedures, this vision is then specified in collective business model strategies, which means that the strategy of market cultivation is proposed through the value constellation (Pynnonen et al. 2008). 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. When analyzing the corresponding network models, various levels can be examined. Figure 7.7 gives an overview of this matter.

The relevant management units and their relationships to each other are depicted on the management level. The network processes illustrated comprise strategic goal

setting, planning, management, and control. This form of presentation thus 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.

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 form of representation thus describes the basic structure of the value constellation which is also characterized by a configuration of various value-adding activities (Kippenberger 1997). The distribution of power between the actors within the value constellation, however, is not taken into account on this level of the network model.

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 (Weitzel et al. 2000). 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 increase the user base and service life, they can support this form of application in their offers. For this reason, most Internet providers offer email access at no charge.

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 may be identified in the business model context. Figure 7.8 illustrates the most important core aspects of the network model.

Upon summarizing these observations, the complex and multidimensional 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, Fig. 7.9 presents an explicatory checklist with the most important questions regarding implementation in this subject area.

7.3 Customer and Market Components

The partial models of the area of customer and market components depict basic influence factors for the design and operation of a business model. They comprise the models of customers, market offer, and revenue. The information from these models depicts the corporate environment and connects it to internal value creation by means of revenue. They are consequently located at the intersection between strategy and value generation. Before transferring strategic targets to the process of

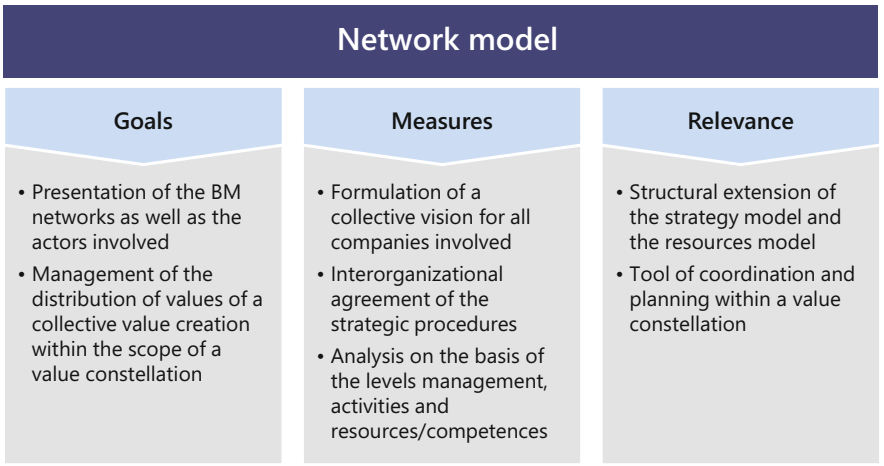

Fig. 7.8 Core aspects of the network model. Source: Wirtz (2010a, 2011, 2018a)

value creation, first adaptations to customer needs and market situations need to be made. The data that is obtained by means of the customer and market components can also be used for the corporate strategy.

7.3.1 Customer Model

The customer model serves to illustrate relevant offers which can include products as well as services and the corresponding customers. The customers are thereby segmented in order to define different target groups. By means of distinctive demographic criteria and differences in patterns of usage, various strategies are derived in this context. For this reason, great importance is attached to the customer model for the development of a business model (Magretta 2002).

In some business models, the customer model is directly connected to value creation. This is the case when customers play an active role in generating value within the scope of value constellation. As a partner in the creation of value, they are responsible for a part of the product or service benefit. Sometimes the concept of the co-creation of added value is also used, but this mainly aims at individualizing the product or service (Prahalad and Ramaswamy 2004).

The active role of the customer for value creation can be illustrated by the case of IKEA. Since the customer takes care of the transportation and assembly of the furniture, these aspects are not included in the internal production of services. To make this possible, the corresponding product features are created first (Normann and Ramirez 1993). As a result, the furniture is supposed to be easy to transport and assemble, which is ensured by means of its design and packaging. The connection to the customer model arises from customer preferences and the necessary competencies for the assembly of the furniture. IKEA specifically focuses its

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

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

Network model

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

Fig. 7.9 Checklist of the strategic component. Source: Wirtz (2010a, 2011, 2018a)

business model on customers who generate their own value for the usage of the furniture on behalf of a reasonable price. In return, these customers have to invest resources and competencies.

Behavioral-based customer models are not exclusively based on a segmentation using socio-demographic data but also include usage data in their analysis. In this

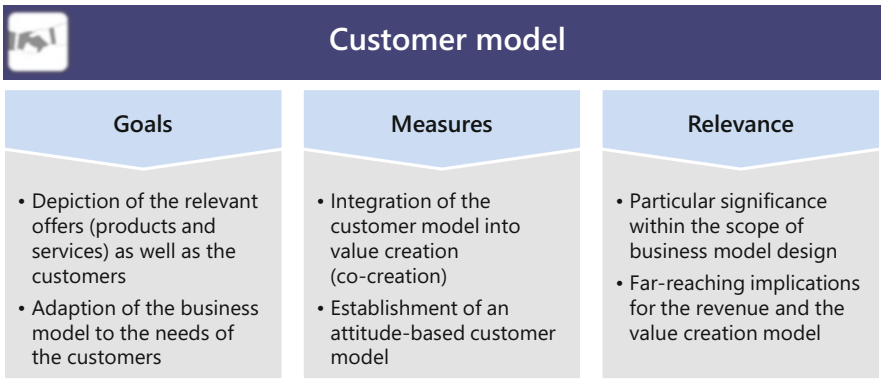

Fig. 7.10 Core aspects of the customer model. Source: Wirtz (2010a, 2011, 2018a)

way, the strategy of a business model can be better adjusted to the corresponding situation. Furthermore, the customer model may also serve as an early warning system for potential problems or dissatisfaction when using the product. When developing behavioral-based customer models, three types of information are mainly needed as inputs: profile information, usage information, and information on potential (Normann and Ramirez 1993).

Profile information depicts the characteristics of a customer and his general environment. In addition to demographic data, information on preferences, experiences, habits, hobbies, requirements, or wishes is also compiled. Ultimately, general customer profiles can be derived from these single profiles. Usage information depicts the usage situation of a customer. These comprise both location-related and context-related information. By means of usage frequency as well as the customer's actions and reactions related to usage, usage histories can be compiled. From this, usage profiles can be derived.

Information on potential focuses on the specific achievement potential of a company. It comprises resources as well as competencies which are necessary to make an offer that fulfills the customer's needs and that is economically profitable enough. The combination of the three information types gives a company with behavioral-based customer models an advantage in reaction time over the classic and exclusively socio-demographic-oriented customer models.

In some business models, behavioral-based customer models are actually an essential condition for generating long-term success. Business models of Web 2.0 communities are an example where profile information as well as usage situations are particularly important for the satisfaction of customer needs (Wirtz and Ullrich 2008; Wirtz and Elsäßer 2012). Figure 7.10 summarizes the goals, measures, and relevance of the customer model.

7.3.2 Market Offer Model

The market offer model depicts the company's environment in the context of a business model, focusing on market structure and competitors. Thus, an analysis of competing business models which affect the company's own business model is made through this partial model. The company's specific environment that consists of value constellation partners and competitors is also examined (Kallio et al. 2006). The results of this analysis are finally implemented in the procedures of the strategy model which promise a competitive advantage.

Furthermore, they also serve to reactively recognize tactical maneuvers of competitors and to initiate any necessary countermeasures. In addition to this, the market offer model is also used to detect new markets for a business model. These functions jointly constitute a strategic information input on the level of the business model and the company as a whole. This can be implemented, for instance, by applying the portfolio technique (Strong et al. 2010).

Relevant information for the market offer model is derived from the actions and structure of various market stakeholders, particularly customers, procurement partners in the value constellation, and competitors. The market analysis can thus be depicted as a process that directly affects the design of the business model. Figure 7.11 illustrates this matter.

In this context there are three main sources of market knowledge. Competitors, potential and existing customers, and other actors. In order to extract knowledge from the customer base, it is important to understand their characteristics and classify them according to features through a customer segmentation process. The next step is the consideration of customer interfaces through customer touch points. There are various ways of generating data such as the collection of customer transaction data, netnography, lead customer approaches, etc. Together with the knowledge from the analysis of competitors and other actors, the customer information constitutes the general market intelligence, which is the result of a careful analysis through various examination procedures.

The procedure of a market analysis typically consists of several steps classified according to the various corresponding submarkets (Churchill and Lacobucci 2010). For instance, the structure of the procurement market is first determined by the extent to which the company has access to the quantity and quality of all necessary production factors. Thereby, the conditions for the price and transportation costs are analyzed. In addition to this, considerations are included for a possible lock-in for specific production factors (Churchill and Lacobucci 2010).

In the next step, the customer structure and competitive environment are analyzed. This segment of the market analysis targets the sales market. In considering customer segments, profiles are created of competitors' activities which are competing with the company's own business model. This can also happen across branches. For instance, the German national railway company, the Deutsche Bahn Corporation, can also take offers by airlines such as Lufthansa or Ryanair into account during their analysis of the competition.

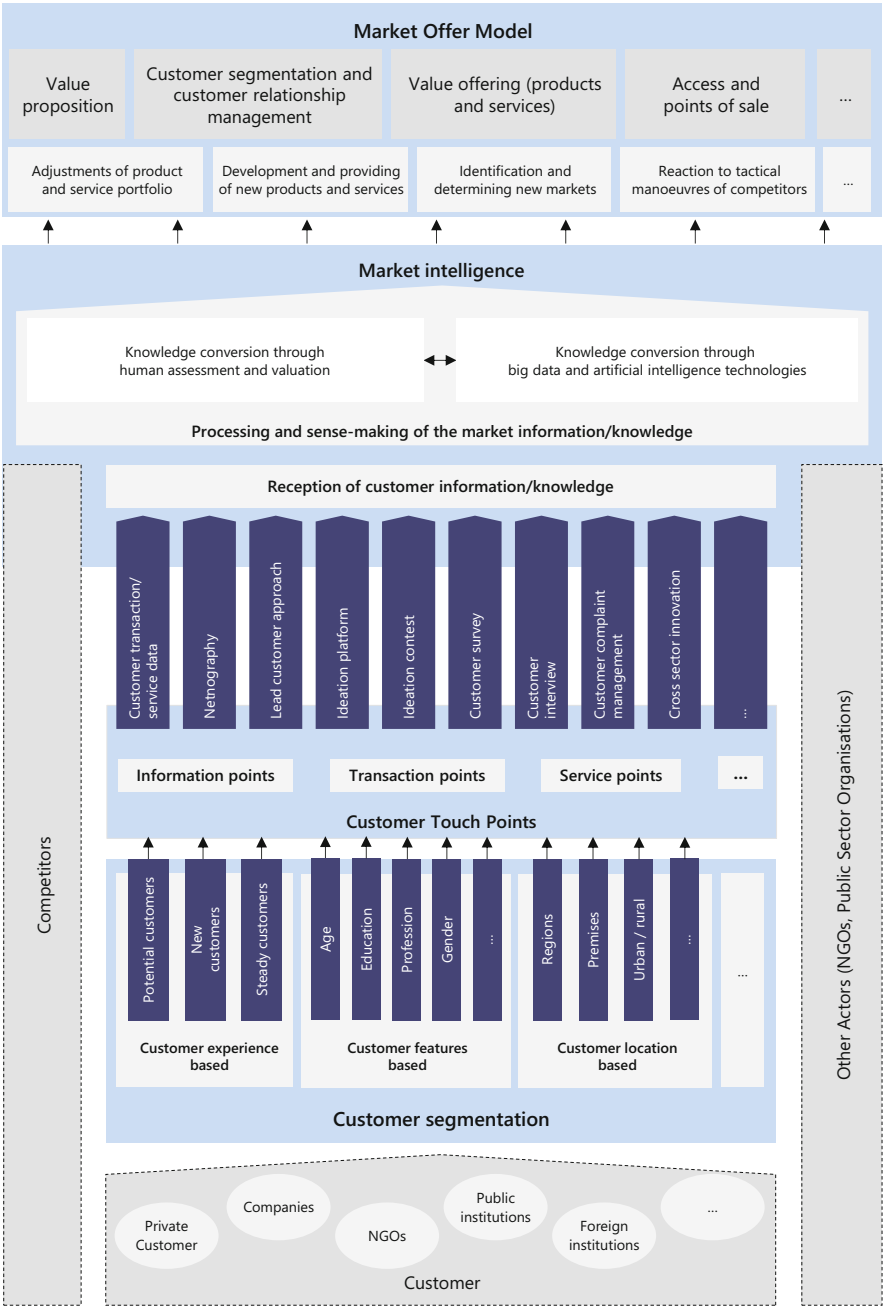

Fig. 7.11 Market offer development process

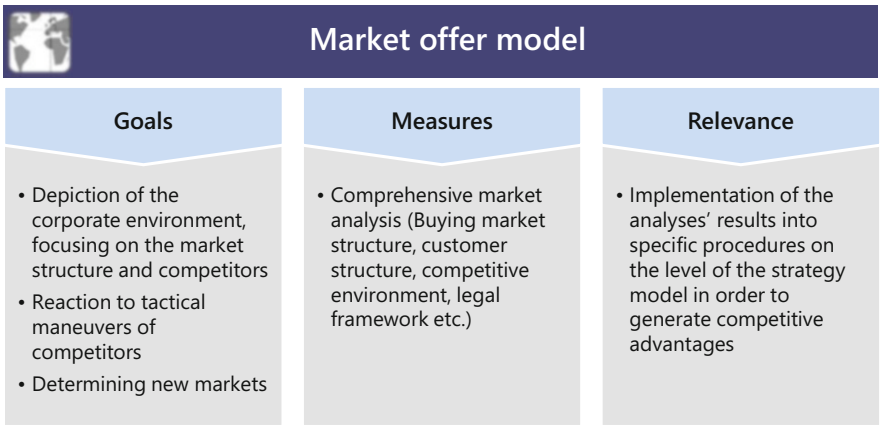

Fig. 7.12 Core aspects of the market offer model. Source: Wirtz (2010a, 2011, 2018a)

Finally, an evaluation of the legal framework is made in order to anticipate potential restrictions of market development strategies and corresponding costs in the form of penalties, legal fees, and process costs (Javalgi et al. 2011). This can include factors such as liability or environmental regulations, for instance. The information generated from the market analysis can then be pooled to conceptualize the market offer model. The essential core aspects of the market offer model are illustrated in Fig. 7.12.

7.3.3 Revenue Model

Actual revenue streams and their relevance to the business model are managed by the revenue model. This partial model depicts the value capture of internal value creation. This means that it clarifies how and to what extent the value generated can be monetized for the company. The revenue model is thus responsible for the absorption of a portion of the added value generated from the production of goods and services. The arrangement of the revenue model takes place using specifications from the strategy model.

Firstly, different forms of revenue can be formulated and a classification can be made into direct and indirect as well as transaction-dependent or transaction-independent revenue (Wirtz 2018b). Direct revenue is generated through the product or service itself, whereas in the case of indirect revenue, additional services such as advertising space are marketed. Revenue forms are described as transaction-dependent when they are directly linked to single offers of a company. In contrast, transaction-independent revenue is already generated through the provision of usage and is consequently independent from the actual usage (see Table 7.1).

Various revenue strategies can be formulated for a business model depending on market data and guidelines from the strategy model. A distinction exists between

Table 7.1 Overview of the revenue forms through examples

	Direct revenue generation	Indirect revenue generation
Transaction-dependent	• Transaction revenues in a strict sense • Connection charges • User fees	• Commission
Transaction-independent	• Set-up fees • Basic fees	• Advertising • Data mining revenues • Sponsorship

Source: Wirtz (2001a, 2010b, 2018b)

revenue types and revenue sources which are coordinated to minimize the effect of cannibalization. Additionally, an overview can be developed to illustrate how the value capture is included in a business model. For this purpose, the customers and suppliers as stakeholders and the company are compared with each other regarding their added value obtained.

The total value generated within the scope of value creation is distributed within the value constellation. Thus, the value capture of the stakeholders is created through the difference between their willingness to pay and the perceived utility. In this context, a company tries to maximize its own value capture, preferably so that the continuity of its value constellation is not threatened. This can be achieved by means of integrative supply chain management processes that allow reduction of costs or by generating increased internal added value.

In the area of computers and mobile equipment, Apple produces devices that have a higher added value for customers than technically comparable devices. This can be attributed to Apple's competencies in creating stylish designs and to their user-friendly software. The customer thus estimates the generated value of Apple's products to be considerably high, so that Apple is able to generate much greater revenues than their competitors. Hence, the revenue model serves to absorb the value captures as comprehensively as possible in order to preserve the long-run performance of the overall business model. Figure 7.13 illustrates the goals, measures, and relevance of the revenue model.

These observations highlight the complex correlation between the different partial models of the customer and market components. Based on the conceptual depiction of the different contents, a checklist is usually helpful for successful implementation. Figure 7.14 illustrates a checklist containing the most important questions for implementation in this subject area.

7.4 Value-Added Component

The partial models within the value creation component comprise the internal value generation. In this context, the value creation model, the procurement model, and finance model will be classified and presented. Here, the focus is put on how and under which conditions value can be generated by means of a central value creation

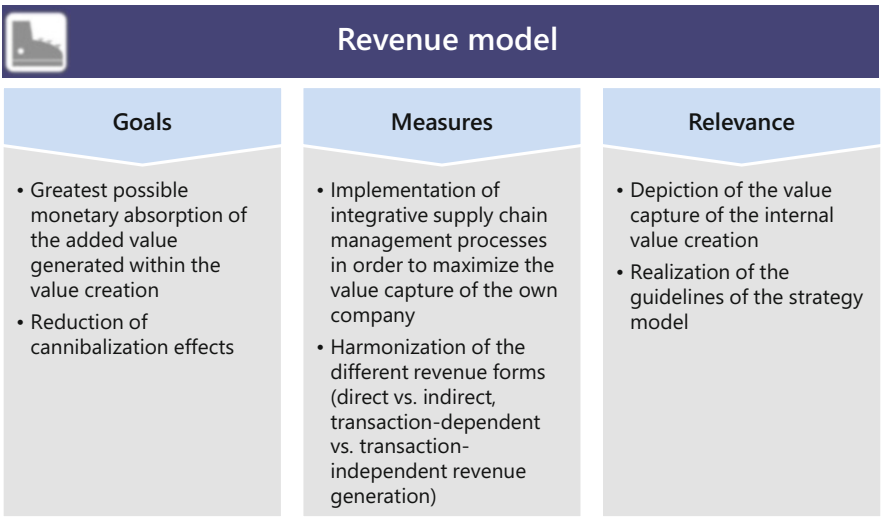

Fig. 7.13 Core aspects of the revenue model. Source: Wirtz (2010a, 2011, 2018a)

logic. The partial models of value creation are thereby influenced by the strategic components as well as the customer and market components of the business model.

7.4.1 Value Creation Model

The value creation model depicts generation of additional value as building on the topic of initial value creation. It defines key parameters of the offer-oriented business model and is of particular importance for the business model management process. The value creation model gives an overview of the conversion process of inferior goods to better-quality goods through internal processes (Hedman and Kalling 2002). This conversion is accomplished through performance and production factors which function as input and can be subdivided into administrative and production components. Figure 7.15 illustrates the production factors.

The administrative factors describe resources that target the management, planning, organization, and monitoring of the manufacturing process of goods and services in the form of a management system. Thus, strategy and management-related competencies are acquired which are especially relevant for the production of goods and services. The planning factor affects the formation of the elemental production factors that consist of repeating and potential factors. Repeating factors are immediately used in the course of the manufacturing process of goods and services. Potential factors, in contrast, can be used several times for the production of goods and services and remain in the company inventory.

Another classification of the fundamental production and performance factors can be found in literature and subdivides these factors into operating resources, service

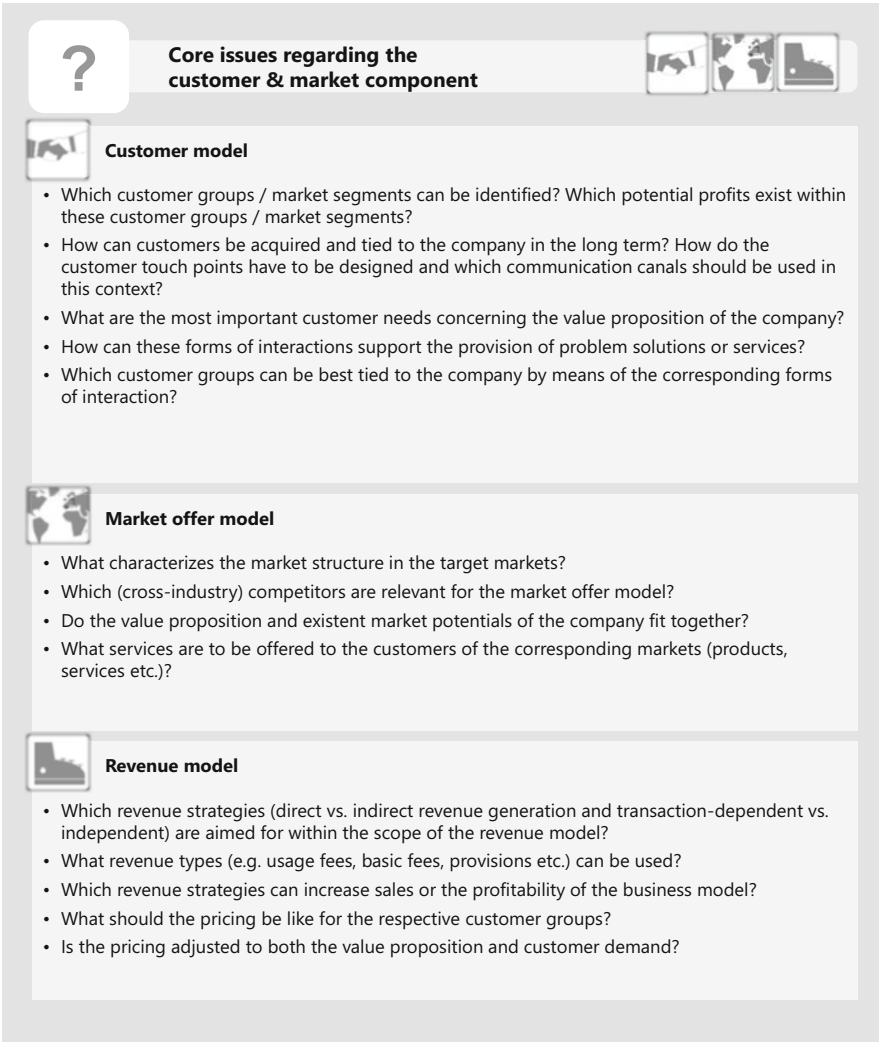

Fig. 7.14 Checklist for the customer and market component. Source: Wirtz (2010a, 2011, 2018a)

objects, and the manpower used. Operating resources are thereby understood as tangible and intangible requirements necessary for the production of goods and services. This includes buildings, energy supply, property and industrial plants, as well as rights and patents.

In contrast, service objects, such as raw materials and supplies, are directly used in manufacturing. In this context, the manpower used stands for the work performance that has to be delivered in the course of production. The purpose of the value creation model is to depict and assess the single factors systematically in reference to a specific business model.

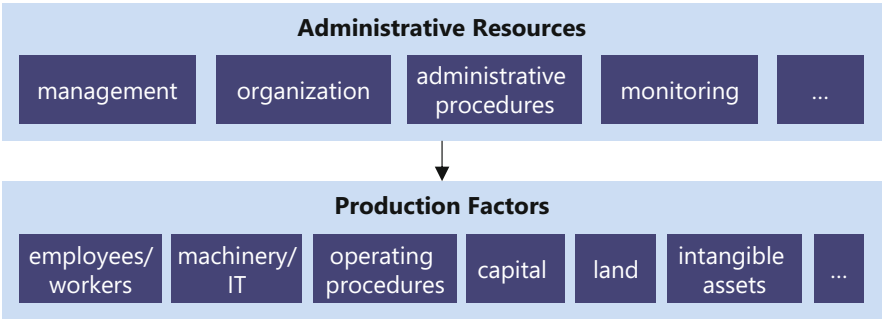

Fig. 7.15 Overview of administrative resources and the production factors

Furthermore, a distinction is made between different production types by means of the value creation model in order to plan the value creation. Depending on the scope and depth of the program, different types of production or the production of goods and services may be used. The program scope depicts the number of different activities, whereas the program depth represents the number of production stages. It is therefore worth noting how many different services are performed within the scope of a business model and how homogenously they are organized.

Within the scope of industry, single-item production and multiple manufactures are seen most often. Multiple manufactures can in turn be subdivided into batch, type, and mass production (Garbie 2011). In the case of serial production, the amount of units to be produced is limited, and the particular service is removed from the product range of the company after production. This procedure can be found, for instance, in the business models of the automobile industry when old models and platforms are removed.

Production by type, on the other hand, is made without any limits but discontinuously. Thereby, services are created which are highly homogenous. Breweries producing different types of beer may serve as an example. Mass production is the continuous and unlimited production of services. An example of this is a hydroelectric plant that provides drinking water. When developing the value creation model, such different production types should be considered.

The value creation model not only includes the production types but also the extent to which a product or service is suited to customer requirements. The combination of standardization and individualization within a mass productivity system is described as mass customization (Wehrli and Wirtz 1997). Concerning this matter, the value creation model should specify which partial services or subproducts create discernable added value for the customer. This added value should be higher than the costs of individualization. These and all other essential core aspects of the value creation model are presented in Fig. 7.16.

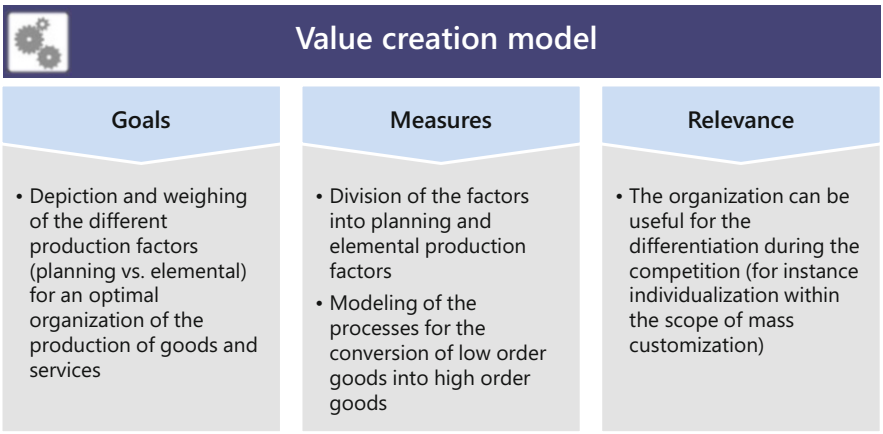

Fig. 7.16 Core aspects of the value creation model. Source: Wirtz (2010a, 2011, 2018a)

7.4.2 Procurement Model

The procurement model describes the structure and sources of the raw materials, goods, and services that are necessary for the production of value-added goods and services. An input-based understanding of procurement can be found in the literature. Thereby, a process-oriented foundation is created for planning the resource input for value creation. In this context, modern procurement management is mainly characterized by changes in respect to globalization, shorter product life cycles, and the conversion of producer markets into buyer markets.

In order to support the internal procurement function, it is first appropriate to include the different phases of procurement in the procurement model. The depiction of specific partial processes of procurement allows to analyze strengths and weaknesses and enables an alignment with best practices of other market participants. Figure 7.17 gives an overview of the different procurement phases (content based on Hartmann (1999), Weigel (2015), Wirtz (2018b), Heinecke (2017), and Inside Business (2019)).

Initiation
In the initiation phase, the procurement process is initiated within the company. Here, demand is determined and compared with the actual stock, and in case of a deficient stock, potential buying sources are sought. In this phase, it is important that the actors specify the demand as precisely as possible. Electronic systems in the area of desktop purchasing and bidding over the internal website or bidding platforms can be used in order to support the procurement model.

Arrangement
During the arrangement phase, the concrete product and corresponding source of supply are chosen. The request is then examined, and if necessary, an approval procedure is initialized. After the request has been authorized and approved, the final

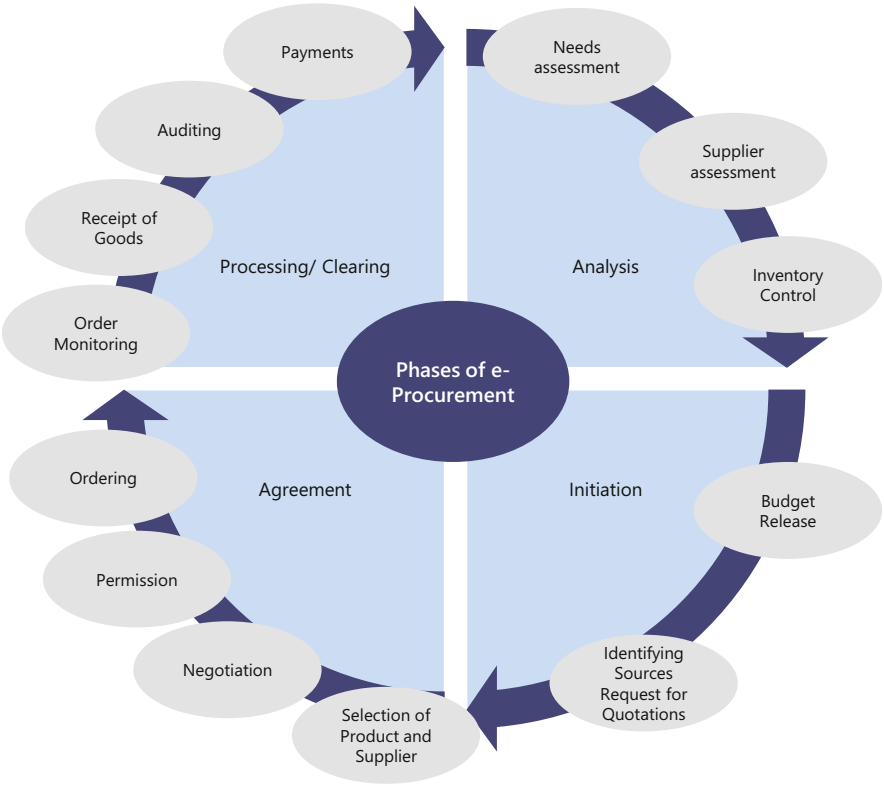

Fig. 7.17 Phases of e-procurement. Source: Wirtz (2020)

order is placed and transferred to the supplier. With this step, a binding arrangement is made for the delivery of the ordered item.

Transaction
Once the order has been placed, its status can be checked by means of electronic tracking systems. Upon the receipt of goods, quantity and quality is verified and any wrong deliveries have to be protested before a review of the invoice can take place. Finally, the payment is made which concludes the purchasing process.

The typology of the goods to be purchased constitutes another relevant aspect of procurement modeling. In this context, the acquisition process is adapted for specific goods in order to guarantee an optimal utilization of resources in the business model. First, a rough distinction can be made between strategic and operating goods. Whereas strategic goods play an important role for value creation and need to be relatively rarely purchased, operating goods to be purchased are less important for value creation and have to be purchased more frequently. For this reason, a

disproportional amount of resources is employed for purchasing operating goods, as these resources cannot be utilized for strategic procurement.

The ABC analysis plays an important role in this problem (Tsai et al. 2010). The company's goods are subdivided into three groups according to their value. A-class goods, such as industrial plants and buildings, account for approximately 80% of the total value. They do not have to be purchased very often which means they have a small share in the procurement costs. The value of B-class goods is between that of A- and C-class goods, which is why purchasing decisions on a case-by-case basis achieve optimal results. C-class goods, in contrast, are characterized by minor product and process costs when purchased. They make up approximately 70% of the procurement costs. For this reason, an automatic purchase should be utilized for this class, and high-volume orders should be accumulated in order to benefit from discounts.

By means of the ABC analysis, the procurement model can be optimized on the level of single goods to be purchased in order to devote more resources to the acquisition of strategic goods. Furthermore, the goods to be purchased may also be evaluated by means of a matrix comprising the importance of the acquisition and the complexity of the procurement market or the strategic importance and the automation potential (Nenninger 1999).

In addition to the typology of the goods to be purchased, several types of interactions should also be taken into account in the procurement model. Especially within the scope of electronic purchasing, or e-procurement, various transaction platforms have been developed which constitute different procurement situations and therefore require specific strategies. Differentiation, however, is also transferable to classic purchasing methods. Figure 7.18 gives an overview of the different types of interaction in e-procurement.

One-to-one interactions are direct procurement transactions between the supplier and the company by means of an electronic purchasing system, e-mail, telephone, or fax. A close relationship between the company and its supplier is an advantage, leading to quicker transactions when fully automated systems are used. However, insufficient opportunity to solicit competitive offers constitutes a disadvantage.

The field of one-to-many interactions is dichotomous. On the one hand, there are sell-side solutions, which mean that a supplier transacts business with several companies via its website. On the other hand, there are also buy-side solutions, which mean that a company installs a central electronic platform for all suppliers and manages its resource input solely via that platform. By focusing on the demand and supply sides, an uneven balance of power develops which affects the scope for action regarding the transactions.

However, the conception and implementation of such a solution requires a significant application of resources, which primarily have to be procured by the dominant side. That is why this form of interaction is only suitable for large businesses or business associations. An example of this form is the buy-side solution of Covisint, which handles supplier orders for multiple large automobile manufacturers.

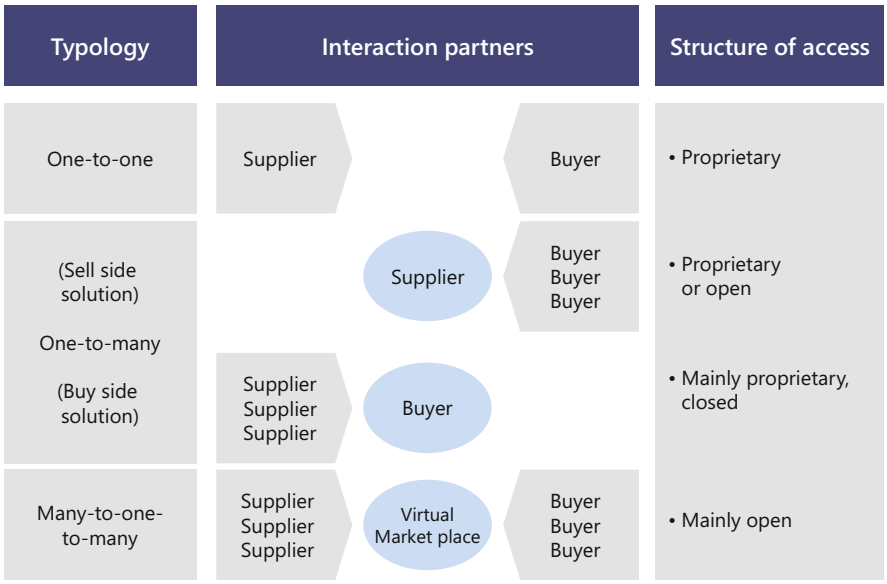

Fig. 7.18 Typology of interactions of electronic purchasing. Source: Wirtz (2001a, 2018b)

Many-to-one-to-many transactions are those which take place via an intermediary. Different suppliers and companies use an independent platform that mediates between the offer and demand. In practice, virtual market places, mediating between offer and demand, are frequently used by enterprises. The choice of the corresponding interaction form affects the procurement model in that both the power structure and the procurement activity need to be taken into account.

When developing a business model, the interdependencies between the procurement model and the value creation model should be considered. The corresponding configuration of resource inputs for value creation can lead to competitive advantages. The Dell corporation, for instance, could become an industry revolutionary by consistently using another type of procurement. By efficiently organizing interactions and procurement phases, Dell could establish a unique business model of direct computer marketing.

In order to offer customers the latest hardware and price advantages, Dell introduced a build to order model and produced computers only according to incoming customer orders. The required hardware was purchased from the supplier only after receiving a client's order which, on the one hand, meant that the company did not have to make use of warehouses and, on the other hand, reduced the loss in value of the computer hardware during production and sales. This business model was possible through the strong integration of suppliers as well as the establishment of a just-in-time delivery system. The procurement model can thus create far-reaching implications for the whole business model. In this context Fig. 7.19 illustrates its essential core aspects.

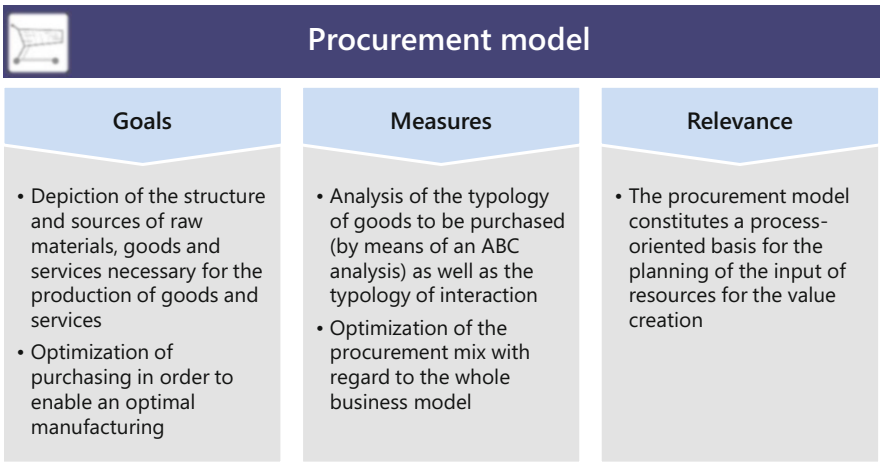

Fig. 7.19 Core aspects of the procurement model. Source: Wirtz (2010a, 2011, 2018a)

7.4.3 Finance Model

The finance model combines two financial areas of the business model. On the one hand, the financing of the business model is depicted. Therefore, a capital model is developed that enables planning by means of equity and debt capital. On the other hand, the cost structure of the business model is also included in the finance model. In this way, a monetary quantification of the resource input is made which is particularly relevant for manufacturing and revenue.

The capital model of a business model is developed in accordance with the business model strategy. Thus, this component includes a representation of information flows and commodity flows of the company (Osterwalder et al. 2005). The finance model provides information about which financial resources are transferred to a business model and how the refinancing of corporate activities can be organized. Consequently, the model also shows the sources of financing for the business model. Furthermore, with the aid of data from recent periods, it enables an evaluation of the financial success of a business model and thereby allows to forecast prospective financing and liquidity requirements. In this way, revenues and expenses are contrasted in order to predict future development with regard to market development potential and customer model.

Thus, by means of the capital model, the basis for financial planning is established, which is geared to future-oriented acquisition, disposal, and control of the financial processes of a business model or company (Torbay et al. 2001). Through financial planning, short-term, medium-term, and long-term goals are pursued (Maurer 2008). The company's payment reserves are secured for the short-term goals. The medium- to long-term focus, in contrast, seeks to optimize capital demand and financing possibilities in order to accomplish long-term corporate goals. Minimization of capital costs as well as optimization of the capital and

payment aspects can be pursued as greater goals. The optimal payment range is present when sufficient liquidity is available at any time and at the same time spare liquidity reserves are avoided.

The cost structure of a business model has a significant impact on manufacturing and purchasing within a business model. In the finance model, monetary input for value creation is included. The goal of an analysis of the cost structure is thus to connect cost centers with the corresponding activities of value creation and to detect saving potential. The analysis procedure is therefore oriented towards value creation logic (Grant 2008). For this reason, the structure of the value creation model should also be taken into account in this context.

When analyzing the cost structure, initially the costs incurred are assigned to particular activities within the scope of value creation (Bhimani et al. 2007). A rough sorting is therefore sufficient since the main purpose is to identify essential cost factors. Next, the relative cost efficiency is determined by means of a benchmark to the costs of competitors. The cost drivers of the single activities can subsequently be identified.

When identifying cost drivers, potential correlations to other activities of value creation must be recognized and taken into account. From this knowledge, the cost-cutting potential is finally derived, which improves the cost structure and, in some cases, restructures the value creation in the business model. In this context, one should critically examine to what extent the modifications generate strategic advantages or whether their positive effects are only short term.

The business model of Southwest Airlines can be used as an example of these correlations. In the course of a crisis which threatened its existence in 1971, the company invented the principle of a low-cost carrier. In contrast to other airlines, Southwest positioned itself as an airline that did not include any extras but in exchange offered its customers flights at very favorable prices. The cost structure was consequently analyzed, and all cost drivers of services were identified in order to significantly cut costs. As a result of this, however, a restructuring of the existing value creation became necessary. The finance model can thus have a strong impact on the value creation model or the strategy model. Figure 7.20 depicts the essential core aspects of the finance model.

Building on these descriptions, the complex connections between the various partial models of the value-added component become clear. Based on the conceptual depiction of the different contents, a checklist is usually important for successful implementation. Figure 7.21 shows an example checklist with the most important questions for implementation in this subject area.

7.5 Relations and Interactions of Partial Models

The partial models of the business model form an interdependent network of structural elements. For this reason, the single models cannot be observed separately or solely within the respective components but instead need to be applied to the whole spectrum of partial models in terms of their causes and effects. A holistic

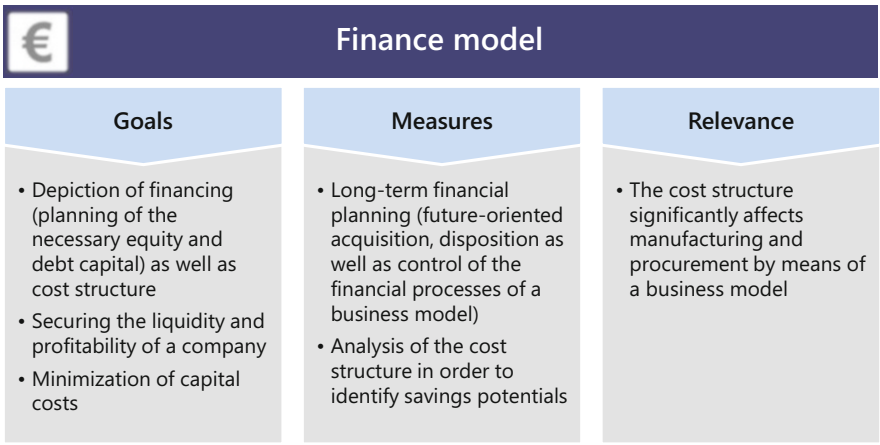

Fig. 7.20 Core aspects of the finance model. Source: Wirtz (2010a, 2011, 2018a)

understanding of business models can therefore only be achieved with an overview of interactions for all partial models. In Fig. 7.22 the respective interactions are presented.

The purpose of a business model is to accomplish long-term corporate goals such as high profitability or quality leadership. Thereby, the strategy model, resources model, and network model affect the composition of value creation. The single models constitute a strategic framework and influence one another. In turn, the value creation model and the market offer model serve as a central partial model for value creation. An offer that is conceptualized and realized in a business model by employing capital is recapitalized on the market in order to generate a part of the added value as revenue.

Value creation enforces a transformative process in which, after a development phase, products or services are generated from monetary input factors and their transformation into elementary production factors. This process comprises the value generation portion of the value creation. In order to obtain elementary production factors such as materials, information from the procurement model needs to be taken into account. The source of supply is weighted according to the criteria of quality, quantity, reliability, and flexibility.

The monetary transaction of purchasing and the transaction related to the flow of goods are moderated by means of the finance model, for instance, by coordinating price negotiations and payment terms. Acquisition, however, serves not only to produce goods and services but also to support non-product-related planning services and non-product-related internal services. Planning services are responsible for managing the production of goods and services, whereas internal services comprise activities within value creation which can happen either before or after the production of goods and services.

The market offer model and the customer model are intended for the planning of value capture which eventually appears in the revenue model. Therefore, the

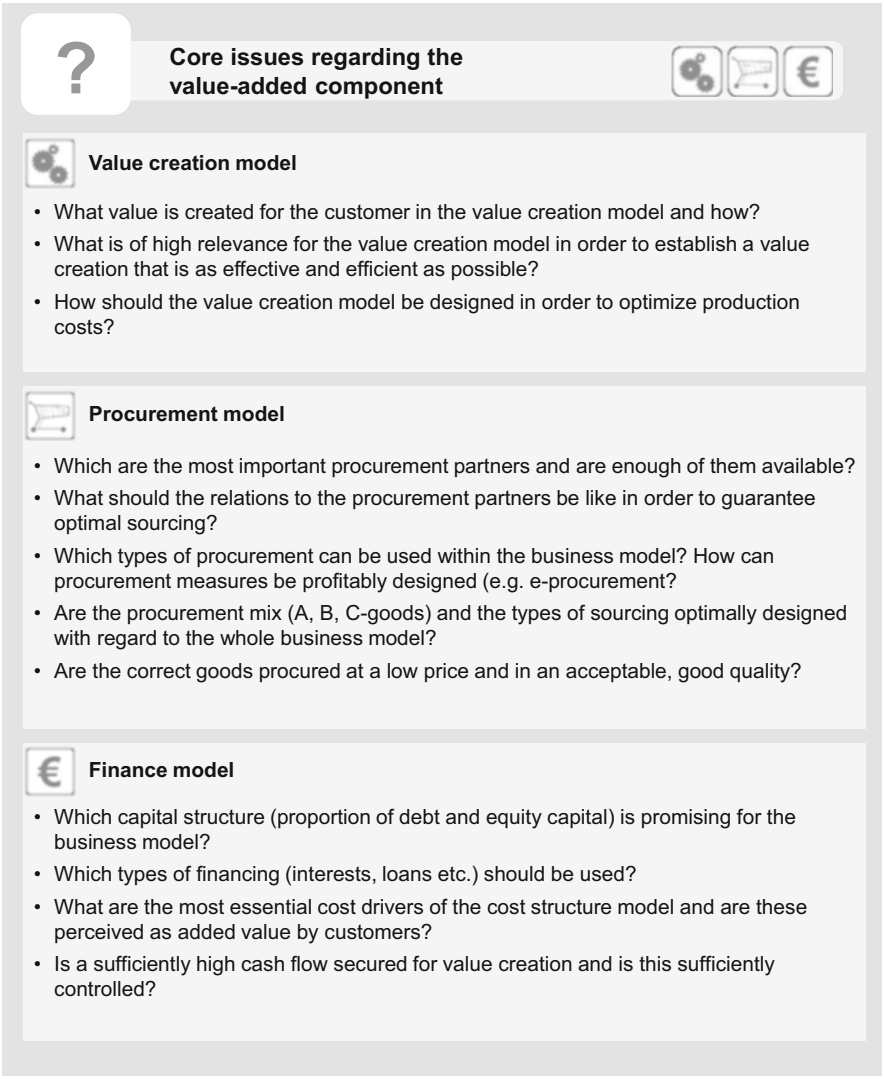

Fig. 7.21 Checklist for the value-added component. Source: Wirtz (2010a, 2011, 2018a)

different offers of the business model are compared according to their value proposition, cost structure, and, to some extent, their suitability for coopetition. As a second step, the offers of competitors are included in this analysis. Offers are finally made to customers which can be divided into different segments according to the customer model and which in turn interactively influence the design of offers. Performance can further be differentiated into the areas of presentation, distribution, and service. After the transaction has been made, the monetary revenue stream is

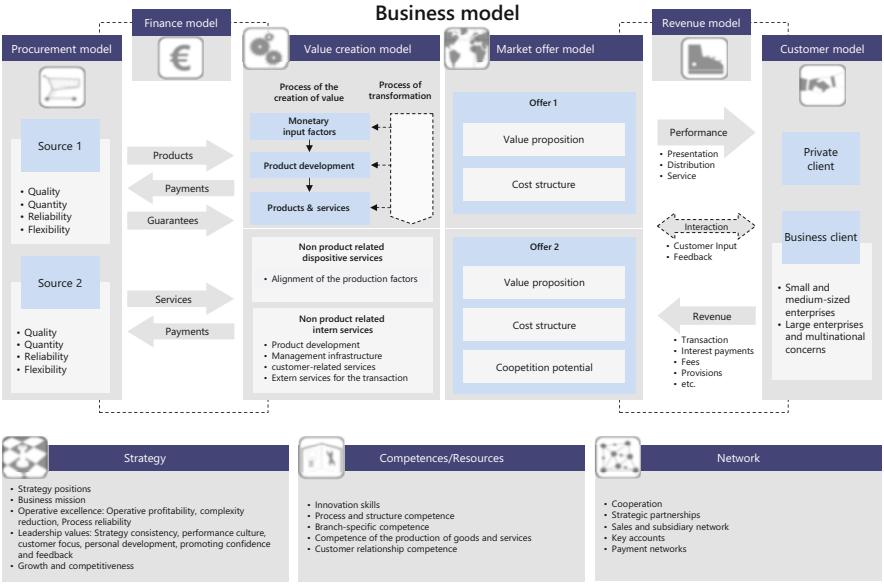

Fig. 7.22 Interactions of the partial models of the business models. Source: Wirtz (2010a, 2011, 2018a)

transferred to the business model by the customers and completes the value creation phase of value capture.

Through this interaction structure, the synergy of the single partial models within a business model is described on a general level which results in a basic, generic understanding of their interdependent operation. However, further conclusions can be drawn by including different actors and a detailed depiction of the single partial models. Before they are depicted in the following section, Fig. 7.23 first summarizes the entire chapter of the partial models of business models.

Integrated business model approach

- The goal of the business model concept is the development, implementation and securing of a long-lasting successful and profitable business strategy.
- The integrated business model concept presents a conceptual aggregate framework of the most relevant components in order to show how value creation takes place within a company and how the company's profitability can thereby be guaranteed.
- The partial models of a business model constitute an interdependent network of structural elements. The single models cannot be observed separately or simply within the corresponding components but have to be applied to the whole spectrum of partial models according to their causes and effects.

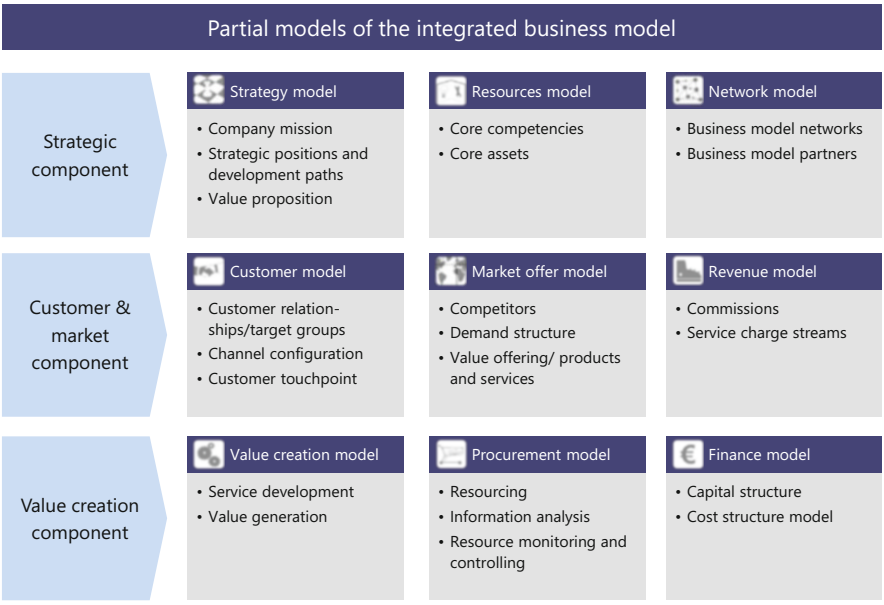

Fig. 7.23 Summary of the chapter on partial models of business models. Source: Wirtz (2010a, 2011, 2018a)

Actors and Interactions in Business Models

8

Information about the relevant actors and their interactions in the value creation process is an essential component of business models (Timmers 1998; Gordijin and Akkermans 2001). This information is the basis for relationship management in a multi-actor network (Bruijn et al. 2008). In some literature, the actors and interactions are said to have an elemental function for the business model (Papakiriakopoulos et al. 2001). For this reason, relevant stakeholders in the context of business models are presented in the following section.[1]

To begin with, a general distinction is typically made between internal and external stakeholders. For the value-adding activities of a company, the staff, customers, partner companies, and actors which regulate the market, such as the state, are particularly important. Their relation to the design, implementation, operation, and change of a business model are thus depicted.

Subsequently, relevant actors are also integrated and discussed on the level of partial models of business models. The partial models are thereby summarized into the sections of strategic components, customer and market components, and value-added components. In this way, it can be shown which corporate members or external partners are responsible for the corresponding arrangement.

The interdependencies between individual business model actors constitute the conclusion of this chapter. In this context, relevant information, product, and monetary flows are presented. Furthermore, the competition between companies will be taken increasingly into account by discussing the phenomena coopetition and impact of role expectations. Figure 8.1 presents the structure of the chapter.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_8

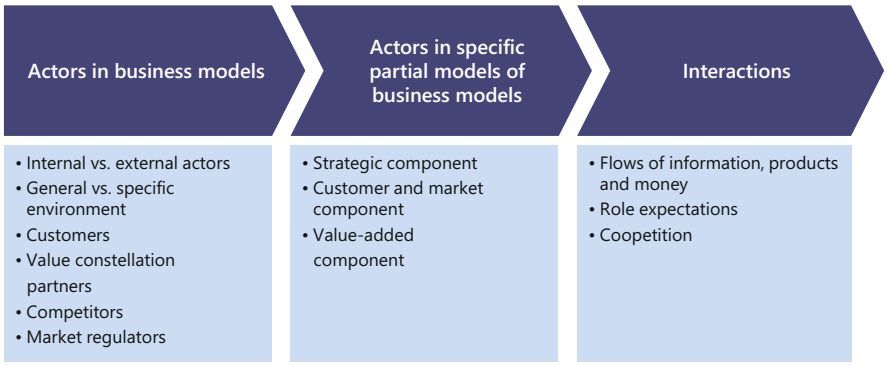

Fig. 8.1 Structure of the chapter

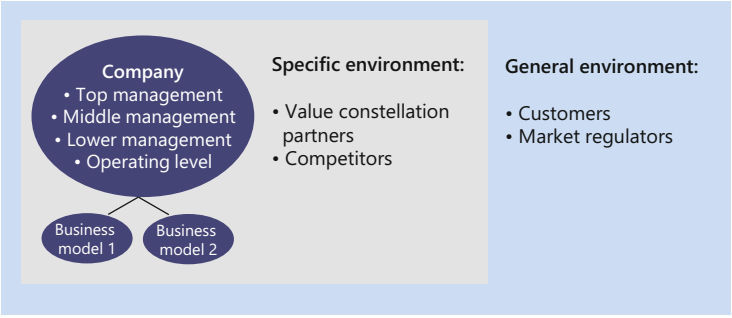

Fig. 8.2 Overview of the actors in a business model. Source: Wirtz (2010a, 2011, 2018a)

8.1 Actors in Business Models

Business models describe the status quo for a specific offer within the company, with the actors representing an important component. In literature, business models are metaphorically seen as a story that depicts how a company works and how value is created and distributed within it (Magretta 2002). For this procedure, actors are indispensable since processes and tasks can be assigned to them. In this way, they put the business model into practice and allow for an analysis of the interactions within the business model. Efficient and effective implementation can thus be seen as an individual competitive advantage (Afuah 2004).

When observing actors within business models, it is initially useful to differentiate between internal and external actors. The internal actors represent the hierarchy of decision-making power within a company. The external actors can again be subdivided into a general and a specific corporate environment. Whereas the observation of the general environment holistically focuses on internal actions, the analysis of the specific environment primarily focuses on the corresponding sector.

Figure 8.2 gives an overview of the different groups of actors in business model management.

All internal corporate actors can be subdivided into four groups: top management, middle management, lower management, and operating level. Thus, business models are used as an integrated concept within the company. Whereas the top management is primarily in charge of the structure of the company, the development and adjustment of business models, and the corporate strategy, the middle and lower management is responsible for implementing the strategy in functional business models. In this way, corresponding business process models are derived according to the guidelines of the business model and strategy.

All three management groups control whether aims are achieved in their areas of responsibility. For this purpose, a mixture of quantifiable success measures should be used as a basis. Ideas for improvement can be generated in this way and can either be integrated as iterative development cycles into existing business models or contribute to the design of new business models.

The business processes derived from the business model are finally implemented on the operating level. Thereby, an effective and efficient implementation may lead to a competitive advantage. Knowledge gained from the application of business processes should therefore be systematically collected and passed on to the management as a foundation for further development.

External actors exhibit their significance for business models in a wider range than their internal counterparts. They include customers, public market regulators, value constellation partners, and competitors. It is therefore necessary to further subdivide the corporate environment. By way of example, a general and a specific corporate environment can be differentiated.

Actors in the general environment are related to all companies and therefore portray the basic parameters of interaction between corporate actions. Actors in the specific environment, in contrast, are characterized by an individual connection to a single company. This relationship can be established by means of an affiliation inside the sector or a connection within value creation. In the following section, individual external stakeholders will be presented.

Customers

Focusing on customer needs is particularly important in strategic management. Meeting their needs by means of marketing concepts, technology, and organizational forms is called customer relationship management. Also, considering customers as actors is an essential condition for success when designing business models.

Therefore, an active customer concept should be applied, since in modern business models customers are often not only passive recipients of benefits but also participants in value creation. In the case of IKEA, customers are part of the value constellation since the low retail price is partly due to the fact that the customer him- or herself is responsible for the delivery and setup of the furniture. In order to do justice to the particular importance of customers when designing business models, a conceptual classification of the clientele is necessary.

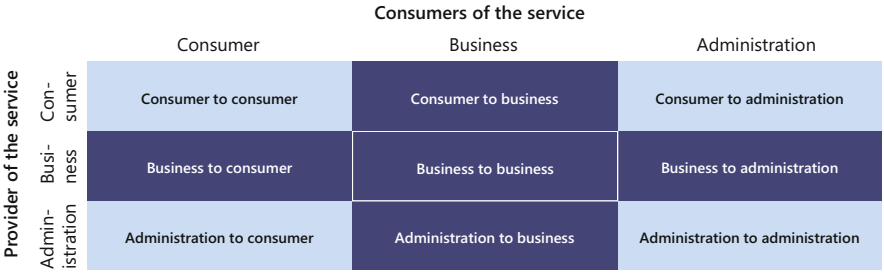

Fig. 8.3 Customer groups as a market typology. Source: Wirtz (2010b, 2018b)

Customers of a company do not constitute a homogeneous group. They differ from one another in their various characteristics, which means that differentiated designs of business models can provide competitive advantages. First, a classification according to the institutional nature of the customers can be made. Figure 8.3 shows this form of customer differentiation.

Business and administration markets differ from consumer markets due to the structure of the purchase decision. Whereas end-consumers usually act individually, companies and corporations often use purchasing centers when making purchasing decisions in accordance with the guidelines from the management. For this reason, when developing business models in the B-to-B and B-to-A area, it is necessary to analyze formal and informal role allocations of the members of the purchasing center and their effect on purchasing behavior (Wirtz 2000). Furthermore, value creation can also be adapted to different sales markets. Dell, for instance, offers an extended service for PCs to its business customers. Since problem-free operation is of higher priority in a company than in private usage, additional value can be generated with this service.

In addition to the basic orientation of the sales market, differences within the respective market must be taken into account when developing business models. This is why individual sales markets are further subdivided into segments which are as heterogeneous as possible but which are internally highly homogeneous. Thus, the aim is to meet as many needs of similar customers as possible while simultaneously minimizing the company's costs (Parvatiyar and Sheth 2001). The criteria presented in Fig. 8.4 can be used to distinguish between the various customer groups.

When segmenting according to the criteria above, it should be taken into account that higher revenue can be generated for the company by means of higher costs. Therefore, it must be ensured that there is a demand for segmentation within the customer base. The basis for this are quantifiable parameters for the individual customer segments. Furthermore, it must be scrutinized whether customer segmentation is economically reasonable for the company.

Since customers can be a part of the value constellation of a company, the customer benefit generated by the company should not be the only consideration when segmenting. After all, customers can also be seen as a direct input factor of

Criteria of segmentation	Behavior-oriented	Psychographic	Sociodemographic	Geographic
Types of segmentation	**Price behavior:** • Price class • Purchase of bargain offers **Media use:** • Type and number of the used media • Usage intensity **Choice of retail outlet:** • Type of business • Business loyalty • Switching of business **Choice of product:** • Buyer • Non-purchase • Brand loyalty • Switching of brands • Multiple bookings • Single bookings	**General personality trait:** • Activities • Interests • General attitudes • Social orientation • Risk preference **Product-specific characteristics:** • Perceptions • Motives • Specific attitudes • Utility perceptions • Purchase intentions	**Demographic characteristics:** • Gender • Age • Family status • Number of children • Size of household **Socio-economic characteristics:** • Occupation • Education • Income	**Macro geographic characteristics:** • States • City / country • Community **Micro geographic characteristics:** • Districts • Residential area • Street sections

Fig. 8.4 Criteria for the customer segmentation. Source: Meffert et al. (2019)

value creation. When customer experiences in dealing with products or services can be used for further development of products and business processes, value is generated for the company. In this context, not only positive types of usage feedback are relevant but particularly also complaints. An efficient complaint management enhances the customer's sense of fairness and increases customer satisfaction.

Market Regulators

Another important group of actors in a company's general environment are government market regulators. They set the basic conditions for specific business portfolios and influence the design of business models. It needs to be examined which laws and public institutions within the specific sectors and the different countries may have an impact on the corresponding business model. Here, the business model of private television channels in Germany can be used as an example (Wirtz 2013b).

In order to transmit television programs, a license from the respective state media authority is necessary. This license is tied to various conditions which restrict access to the business model of free TV providers. In addition, guarantees of continued existence and development as well as funding of public broadcasting constitute other forms of regulation. This is due to the fact that competitive advantages of public broadcasting create entry barriers for private providers.

At the same time, national guidelines also apply to the operation of a German TV channel. The broadcast content is regulated by the Interstate Broadcasting Agreements which include a requirement of basic provision and the broadcasting

of regional programs. Broadcasting of commercials is also subject to national regulations. Daily commercials are restricted to 20% of broadcasting time and are also regulated in regard to their position and distribution. The state media authorities are responsible for the respective monitoring and sanctioning. These restrictions mainly affect the value creation and revenue models in the business model of private television channels.

Value Constellation Partners

Partner companies in the value constellation also belong to the category of relevant business model actors. They have a strategic influence on the business model as a whole since they participate in collective value creation. They can thus act as coordinator, supplier, distributor, or general partner depending on their function within the value constellation (Vanhaverbeke and Cloodt 2006).

The coordinator organizes and operates the business model of the value constellation and plays a central role within the value creation network through relationship management. Suppliers, in contrast, provide portions of the resources as well as the necessary know-how, while distributors provide access to customers. General partners broaden the key offerings of the business model through additional products or services. Figure 8.5 presents a typical value constellation.

The aim of collective value creation is to increase customer value via the value constellation. This is achieved through unique core capabilities of the individual companies which are integrated by means of strategic relationship management. The distribution of resources determines the power structure within the value constellation as well as the distribution of profit.

For this reason, the coordinator has to make sure that the added value generated is higher for each partner than the individual value creation outside of the value constellation. However, an increased customer value can only be achieved when all involved actors subordinate themselves to the value creation network. Therefore, a direct and fair coordination with all value constellation partners is necessary for the success of the common business model.

Competitors

In the business model literature, competition analysis is often seen as a task of the business strategy (Magretta 2002). In this context, however, competition not only takes place on subordinate levels such as value creation, product or service characterization, and pricing but also between different business models (Hamel 2000). The consideration of competitors is therefore necessary within business model management as well.

Google News is an example of business model competition. In contrast to the classic print and online news offerings, Google News does not do its own research but simply adopts teasers and headlines of news agencies or other media as an aggregator. The full report can be directly accessed via a link to the original provider. Furthermore, the offerings of Google News can be personalized by the user. With this orientation as a meta news site, Google directly competes with the classic content business models of media companies. Currently, this competition is not

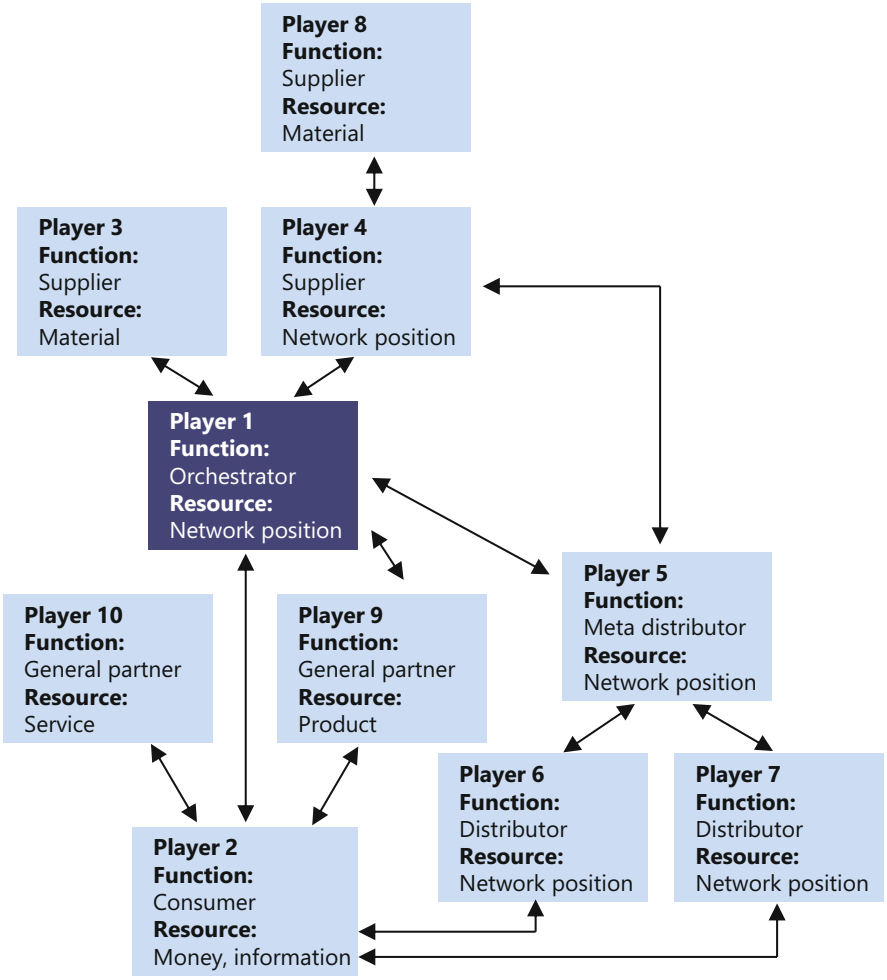

Fig. 8.5 Value constellation partners as actors in business models. Source: Wirtz (2010a, 2011, 2018a)

yet fully developed since Google has so far waived a value capture, for example, in the form of promotional revenue.

8.2 Actors in Specific Partial Models of Business Models

Both internal and external actors are involved in the single components of business models. On the one hand, motivations and roles of company employees are of great significance for conceptualizing and implementing business models (Afuah 2004). Thereby, various areas of responsibility—fulfilled by the top management, middle

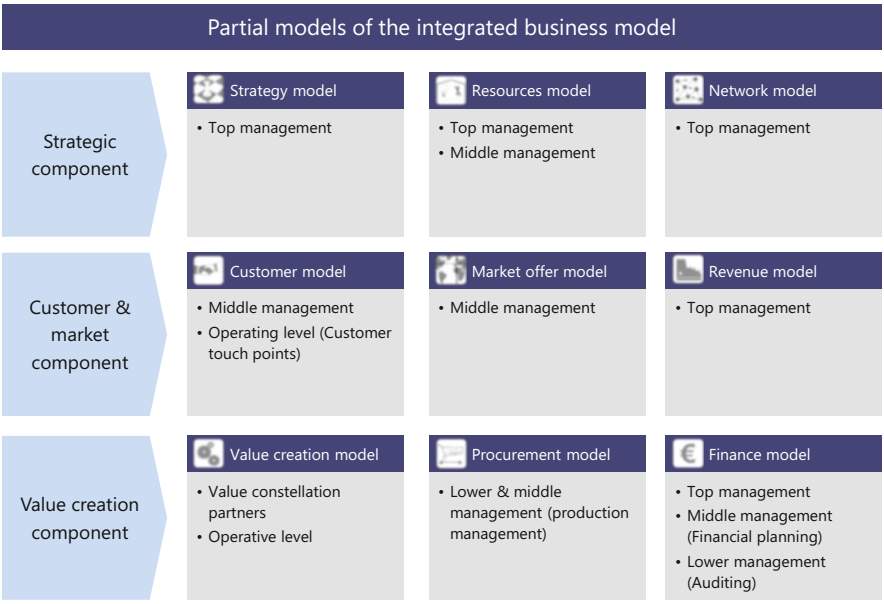

Fig. 8.6 Overview of the actors within partial models of business models. Source: Wirtz (2010a, 2011, 2018a)

management, lower management, or operational-level employees—can be assigned to the single partial models of a business model.

On the other hand, external actors are also an essential component of partial models. The value constellation partners are an important example in this context. The partial models of a business model can be subdivided into the areas of strategic components, customer and market components, and value-added components, which are presented in Fig. 8.6 according to this classification.

Strategic Component

The areas of responsibility of the strategic components are mainly covered by the top management of a company. In the strategy model, the central value proposition of the business model needs to be formulated first. In addition, strategic positions and development paths of the business model are planned by drafting a business model mission which serves as a general orientation for developing the business model and its competitive aspect. The conception of the business model mission represents a critical factor in business model management (Alt and Zimmermann 2001).

The main purpose of the resources model is to shape the input of assets and competencies for value creation in the business model (Currie 2004). Thereby, the top management of a company is again the principal actor. The middle management, however, contributes to the conception of business processes within this subsegment. It is responsible for implementing the business model's guidelines into concrete responsibility and action patterns for the operational level.

The network model depicts business model networks and value constellation partners. The company's share in the value creation is thereby integrated into a superordinate frame. In this context, the aim is to present relevant linkages and relationships within the company's own business model. This task is accomplished by the top management. All in all, it becomes clear that the top management dominates the elements of the strategic component.

Customer and Market Components

This area of the business model depicts a segment of the corporate environment which functions as a framework for value creation. The respective partial models provide key knowledge for strategic development and simultaneously shape the character of the value-added component. The customer and market components consist of three partial models: the customer, market, and revenue models.

The company's offers in the form of target-group-specific products and services are included in the customer model. These offers are characterized by a corresponding segmentation of the clientele and customized customer relationship management. In addition, usage and orientation of the marketing channel are defined in this context. These tasks within the company are mainly fulfilled by the middle management.

But also the operational level within the customer model is of great significance. Implementing strategies and surveys regarding customer feedback are principal tasks of operational-level employees at customer touch points. The basis for further developing and improving the customer model is established by means of direct contact to the clientele.

The market offer model depicts the market structure in a simplified form. This partial model is thus used to show which actors a company is confronted with in various markets (Wirtz 2013b). An integrated analysis of competitors and customers is thereby performed which investigates market players, objects of purchase, incentives to buy, purchasing actors, purchase targets, and purchasing practices (Kotler 1994). This task is mainly fulfilled by the middle management.

The revenue model is designed by the top management. For each offer of a company, revenue streams are conceptualized which represent the basis for the value capture. Revenue streams show how the revenue of an offer is distributed among different activities (Garnefeld et al. 2013). In doing so, value-added increments, downstream services in the life cycle of a product, and additional products and services are observed. The revenue of a film production may be generated through both cinema attendance and DVD sales of or legal downloads. Further revenue may be generated by means of sales and licensing of merchandise items. By implementing the revenue model, part of the added value generated is made usable for the company. The next section deals with the actors of value creation as a subarea of business models.

Value-Added Component

The value generation of a business model is described by the partial models of the value-added component, which include the value creation model, procurement

model, and finance model. Within these segments, both internal and external actors are employed. They conceptualize, design, and monitor the collective value creation.

In this context, the value creation model is characterized by its illustration of the company's central value creation logic. This knowledge is relevant for all internal actors. Whereas the management undertakes the functions of creation and monitoring, the corresponding guidelines are implemented on the operating level. In addition, value constellation partners also need to be included when analyzing the production of goods and services. Depending on their role within the value constellation, their share in the value creation is taken into account. The distribution of the jointly generated revenue is an important aspect in this context (Vanhaverbeke and Cloodt 2006).

The procurement model depicts the resource inputs of the business model. Then, necessary factors for the production of goods and services and the corresponding sources are ascertained. Middle and lower management are responsible for planning the production. The finance model can be viewed as a special case of the procurement model which, according to this argument, deals with the provision of funding. The actors of the finance model are situated on different levels within the company. Whereas the top management and middle management are responsible for financial or capital planning and cost structure, auditing is carried out by the lower management. Financial planning and auditing can alternatively be done by external consulting firms.

In this section, actors both on the level of the overall business model and on the level of partial models have been depicted. Various interaction processes will now be presented, in particular, flow processes and role expectations. Furthermore, the phenomenon of coopetition will also be described in the context of business models.

8.3 Interactions in Business Model Management

Business models are subject to dynamic processes. This applies to business models as a whole as well as to the single partial models of the business model (see Part I, Chap. 3). Therefore, various possibilities for interaction between the actors involved need to be taken into account when using business models as a management instrument. Multidirectional exchange processes can be derived from these relationships between actors.

According to the literature, these can be illustrated as marketing channels. Three types of flow processes can initially be identified in business models: information flows, flows of goods, and monetary flows (Wirtz 2013c). Each of these flows refers to a specific service of a company. On the level of the company as a whole, it is therefore necessary to establish a number of independent flow charts to illustrate the interactions within different business models and business portfolios. Figure 8.7 presents an overview of the relevant flow processes by way of example.

The flows of goods within a business model are made up of the physical movement of a product, transfers of ownership, and an acceptance of risks. They thereby give an overview of relevant subprocesses of distribution. The movement of

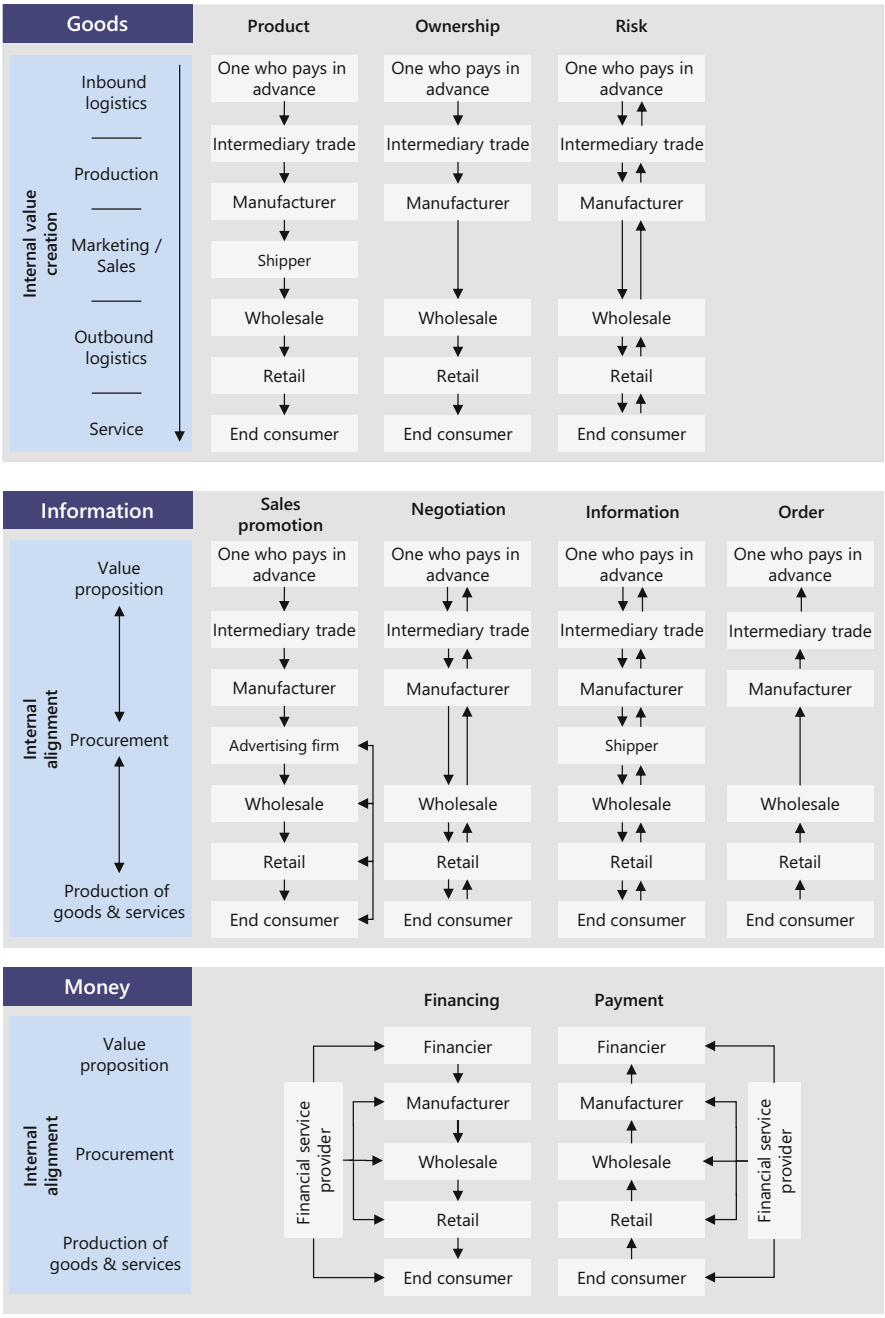

Fig. 8.7 Types of flow processes in business models. Source: Berman (1999)

a product, for example, is not necessarily connected to a transfer of ownership when the product is delivered to a place such as a mail-order establishment. In this context, the risk flow depicts the acceptance of risks related to distribution such as product aging, fluctuations in demand, or nonpayments. Within the company, the goods of a business model pass through various stages of the value chain.

Under the term information flows, four flow processes which are characterized by the use of communication tools are summarized (Wirtz 2013c). These comprise sales promotion, negotiations, a bidirectional exchange of information, and orders. Modern information and communications media thereby enable an increasing dissolution of the classic serial flow processes in favor of direct interactions between the actors. In this context, it is relevant to coordinate value proposition, procurement, and manufacturing.

The monetary flows relevant to a business model can be classified into cash flows and financing flows. Cash flows ensure payment for the products from the buyer to the seller. A financial service provider who is responsible for the technical transaction and the acceptance of payment risks is therefore engaged. All actors who are part of the flow of ownership or negotiation take part in the cash flow. Services that are not connected to an acceptance of ownership or risk are thereby also remunerated. eBay can be used here as an example, since it is involved in a private online auction although it does not play a role in the flow of goods.

The financing flow, in contrast, depicts the financial conditions under which the service of a company is transferred to the value constellation partners. In this way, terms of payment may be granted, debts purchased, and credits given. Credit institutions or financial service providers are engaged in the transaction where risks are assumed by credit underwriter in case of nonpayment. Within the company, an alignment of the capital structure, cost structure, and revenue needs to be made as a basis for the financial flow processes.

On the level of partial models, these three types of flows can also be seen as interaction patterns. According to this, information, goods, and money are also exchanged between the single partial models. The strategy model, which roughly specifies the orientation of the business model, plays a central role in this context. Consequently, effect relationships between the partial models which reflect the development of the business model can be derived. Figure 8.8 gives an overview of the interactions between the partial models. Rather than presenting the complete range of interactions, only the most relevant interaction processes are included.

The analyses and decisions of the top management within the framework of the strategy model constitute the basis for designing and implementing business models. These fundamentals of the strategic framework have a direct effect on the design of the customer, market offer, resources, manufacturing, and network models. The corporate strategy therefore specifies how a business model can be applied on the market and how to differentiate oneself from competitors.

At the same time, the results of the market offer and customer models also serve as information inputs and as a data basis for updating the strategy model. Furthermore, an indirect effect of the strategy model can be detected for the procurement,

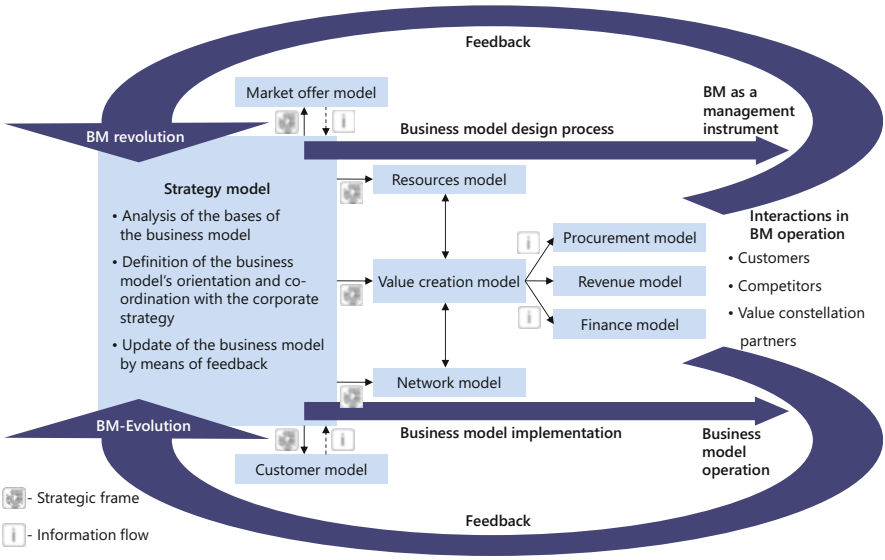

Fig. 8.8 Interaction map of the partial models of business models. Source: Wirtz (2010a, 2011, 2018a)

revenue, and financial partial models. Strategic guidelines are transferred to various company levels in the context of the production of goods and services.

After the business model design and implementation processes have been completed, experience for the company is gained within the frame of business model operation. This arises from interactions with different stakeholders within a business model who can be divided into customers, competitors, and value constellation partners.

These experiences constitute the basis for an update of the business model and corresponding interactions between the partial models (Magretta 2002). These data are used to design the strategy model and the business model as a whole via a feedback or change process. Thereby, business model revolution and business model evolution must be distinguished Demil and Lecocq (2010). While business model revolution aims at reorganizing the business model fundamentally, business model evolution is geared towards incrementally improving existing structures. In the following section, the interactions and connections between the single partial models will be presented.

Strategy Component

The strategy component of a business model consists of the strategy model, resources model, and network model. Within the partial models the strategy model is particularly important. All essential activities in the business model are operated and monitored by means of the central strategic framework produced by this partial model. Within the company, one should distinguish two important processes: on the

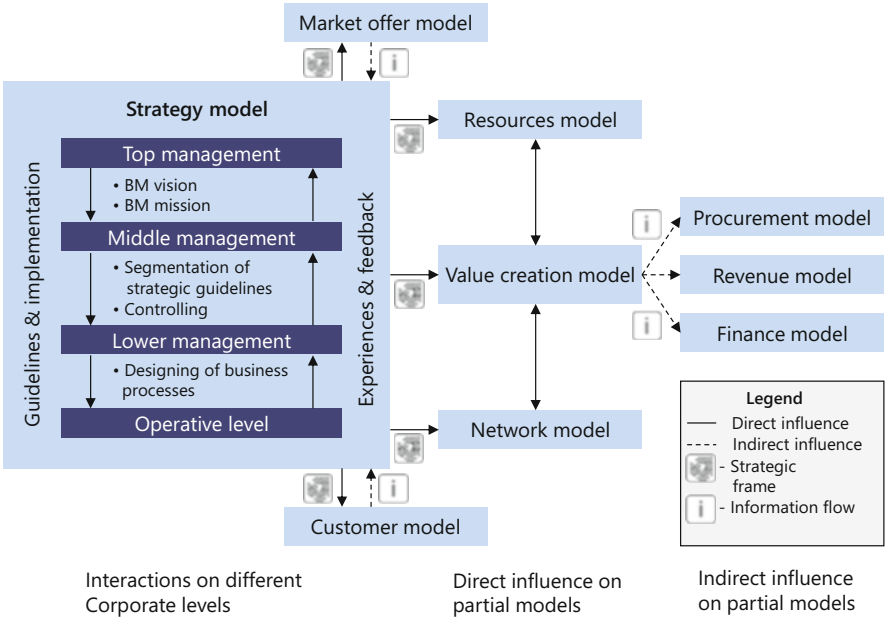

Fig. 8.9 Interactions of the strategy model. Source: Wirtz (2010a, 2011, 2018a)

one hand, strategic guidelines given by the top management correspond to the corporate hierarchy, are passed on, and differentiated. On the other hand, feedback regarding practical values of the strategy application is analyzed and aggregated, beginning with the operational level. Figure 8.9 presents the range of influence and interaction patterns of the strategy model.

On the one hand, the strategic partial model of a business model is characterized by its clarification of strategic guidelines within the corporate hierarchy. Specific business processes are derived from superordinate instruments such as the business model vision and business model mission. On the other hand, experiences from applying business models also affect the strategy model. Furthermore, there are various information flows from the strategy model to other partial models which communicate strategic guidelines into other areas.

In this way, the strategy model defines the orientation of the customer, market offer, resources, manufacturing, and network models. By means of the value creation model, strategic guidelines for the revenue, procurement, and finance models are indirectly established as well. The guidelines for the finance model thereby primarily relate to the cost structure. The market offer and customer models have a special feature within the framework of interactions in the strategy model. The data from market configurations and customer groups function as support for decisions within the strategy model. When conceptualizing the business model strategies, this information is taken into account in order to arrange a successful offer.

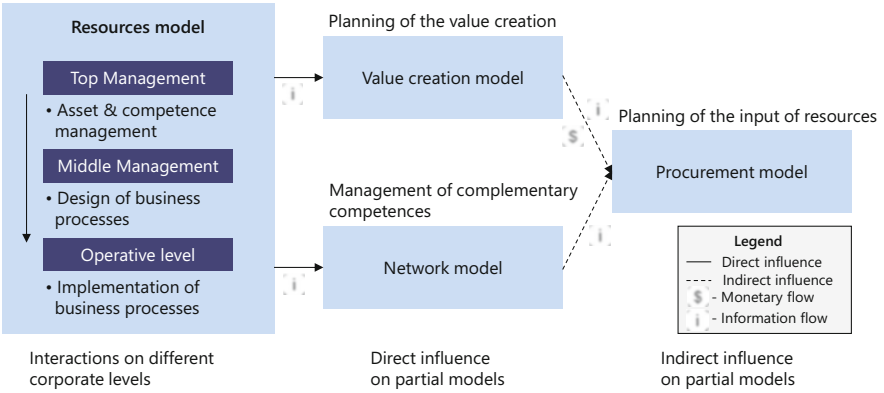

Fig. 8.10 Interactions of the resources model. Source: Wirtz (2010a, 2011, 2018a)

The resources model of a business model presents the company's central resources and competencies for value creation, thus enabling to plan operational business processes to generate value. Figure 8.10 depicts the connection of the resources model to other partial models.

In the resources model, the interactions between the different corporate levels are mainly unidirectional from the top management to the operating level. While the guidelines and management of central assets and competencies is the task of the top management, the middle management develops corresponding business processes which are eventually implemented on the operational level. The resources model and its information flow directly affect the manufacturing and network models. The company's core competencies determine the framework of internal value creation and outsourcing of value creation processes to value constellation partners.

In addition, the resources model indirectly affects the procurement model, since it is essential to coordinate the procurement of internal and external competencies as well as various processes of value creation. Apart from this basic information, procurement-related monetary flows are also influenced by the resources model. Business processes that constitute a basis for internal and external value creation, and which therefore affect the necessary input of resources, are consequently derived from the company's core competencies and core assets.

The network model shifts the focus from internal to external competencies and assets. Within the value constellation, business model partners are depicted as networks of value creation (Normann and Ramirez 1993). The modeling of this network features connections to other partial models of business models. Figure 8.11 gives an overview of the interactions of the network model.

Initially, the network model is determined by an information flow from the value creation model. In this context, the value constellation offer is observed in terms of externally generated value creation, and performance requirements are defined for value constellation partners. These constitute the basis for a market analysis of complementary competencies. Furthermore, the network model serves as a tool for

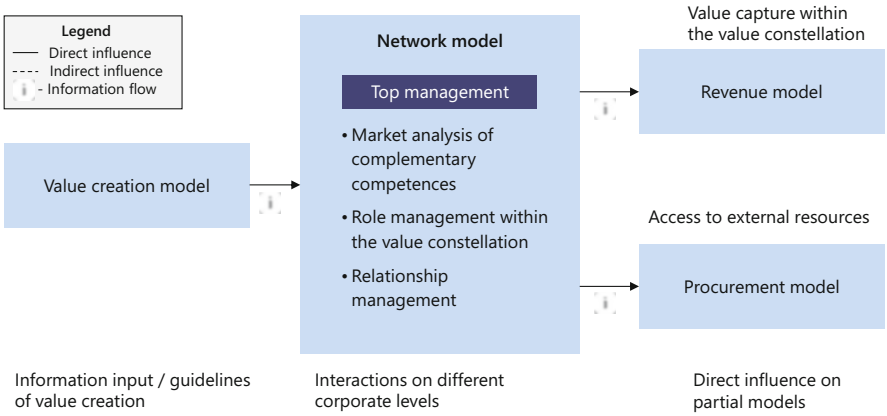

Fig. 8.11 Interactions of the network model. Source: Wirtz (2010a, 2011, 2018a)

value constellation and relationship management. Short-term interactions and activities as well as long-term relationships with stakeholders, such as suppliers or customers, can be managed with the aid of the network model.

The network model directly affects the revenue and procurement models. On the one hand, the value constellation network creates a basis for potential sources of procurement. On the other hand, the company's position within the value constellation and the corresponding power structure define the potential types and levels of revenue (Vanhaverbeke and Cloodt 2006). The network model of IKEA, for instance, shows that the company can claim a high proportion of the value constellation's revenue for itself due to its role as orchestrator and its direct contact with customers (Normann and Ramirez 1993). Additionally, relationships with all relevant suppliers are shown in the network model.

Customer and Market Components

The customer and market components of a business model consist of the customer, market, and revenue models. The customer model gives an aggregate overview of the company's central offers in terms of target groups. It contains information about customer relations and the configuration of trade channels. The customer model consequently affects other partial models as well. Figure 8.12 depicts the interactions of the customer model with other business model partial models.

Contingent upon strategic guidelines, first customer segmentation is performed before completing the design of specifically coordinated business processes. The strategy model therefore influences the orientation of the customer model. In the course of business model operation, guidelines for business processes generate empirical values on the operational level and in the lower management. Direct interaction with customers at various customer touch points consequently initiates a feedback process that may lead to revisions of the customer model (Peppers and Rogers 2004).

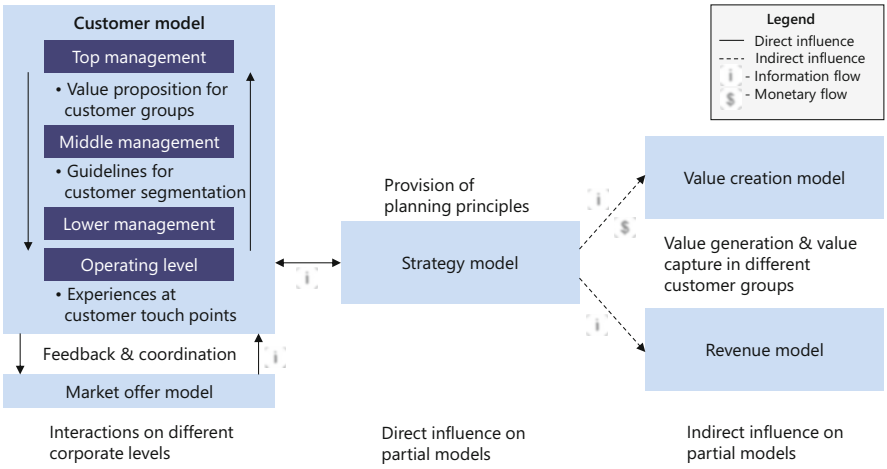

Fig. 8.12 Interactions of the customer model. Source: Wirtz (2010a, 2011, 2018a)

Similar to the market offer model, the customer model also directly influences the strategy model. Both models consequently feature interdependent information flows. Information on customer groups is considered as a basis for strategic design. Furthermore, the customer model indirectly impacts the manufacturing and revenue models, where value generation and value capture for various customer groups are depicted. In the area of value creation, monetary flows are also related.

The market offer model also has a direct influence on the strategy model in the form of strategically relevant information. In particular, this comprises information on market structure and competitors whose significance can theoretically be proven through the structure-conduct–performance-paradigm. Figure 8.13 gives an overview of the interaction processes of the market offer model.

The market offer model is mainly designed by the top and middle management. Here, the central instrument is a market analysis that reveals information on market penetration and the success of market cultivation strategies. Additionally, new markets can be accessed in this way. In line with the data of the customer model, the market offer model serves as an information basis for strategic decisions and is therefore connected to the strategy model. However, due to its specifications and similar to the customer model, the strategy model also affects the market offer model since the partial models are in an interdependent relationship with one another.

There is also an indirect interaction between the market offer model and the value creation model. A market-specific value creation managed by the strategy model can be ensured through corresponding information and monetary flows. The goal is to increase the performance of the business model through an improved fit to the market position or a competitive advantage of the own offer. The portfolio technique is often used for decision-making (Strong et al. 2010).

The task of the revenue model is to differentiate between various types of business model revenues and to present the corresponding revenue streams (Wirtz

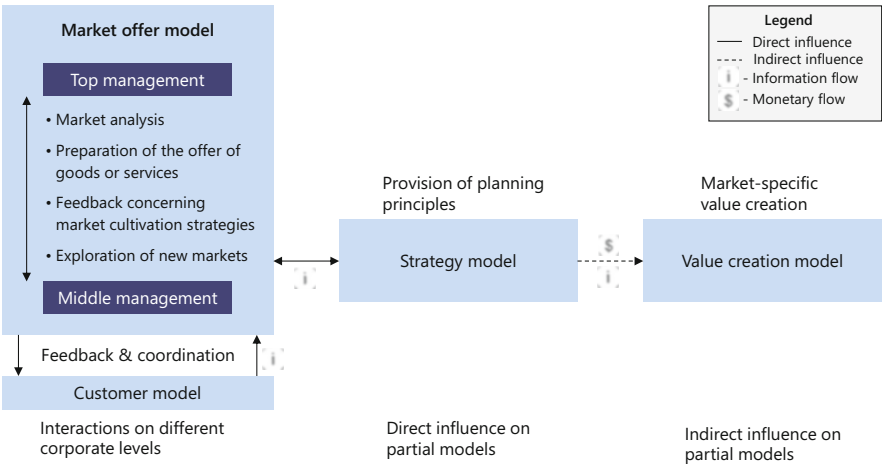

Fig. 8.13 Interactions of the market offer model. Source: Wirtz (2010a, 2011, 2018a)

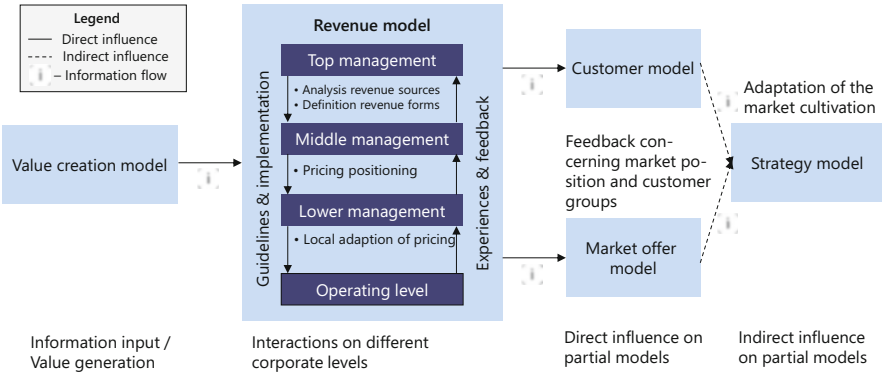

Fig. 8.14 Interactions of the revenue model. Source: Wirtz (2010a, 2011, 2018a)

2013b). Therefore, this model constitutes an essential component of the business model. Direct and indirect as well as transaction-dependent and transaction-independent types of revenue may be distinguished (Wirtz 2018b). Whereas the top management is responsible for the basic orientation of revenue sources and forms, concrete aspects of pricing are processed on lower corporate levels. The revenue model is also connected to other partial models. Figure 8.14 presents the influences and interactions that are relevant here.

First of all, manufacturing affects the revenue model in the form of an information flow. The resulting internal value creation functions as a framework for possible sources of revenue. Based on this input, various revenue forms for a business model are developed and then implemented. At the same time, experiences in dealing with various revenue sources and forms are gained.

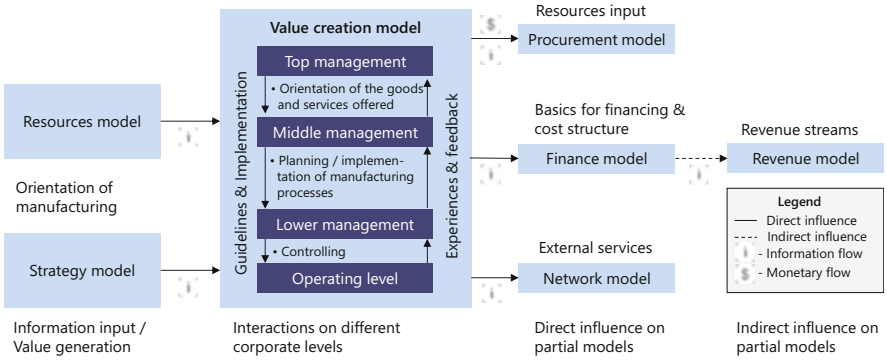

Fig. 8.15 Interactions of the value creation model. Source: Wirtz (2010a, 2011, 2018a)

A film production company, for example, can achieve value capture for generated content through different solutions (Wirtz 2013b). In this way, films can be rented to cinemas by lenders, sold by means of media such as DVD, Blu-ray disks, or Internet downloads, marketed as pay-per-view or flat rate-based platforms on TV and the Internet, or fees can be charged for commercial broadcasts on free TV. Additionally, revenue can be generated from the licensing of trademark and naming rights for merchandise and spin-offs. The selection and coordination takes place with the aid of the revenue model and is referred to as windowing.

The revenue model is directly related to the customer model through an information flow. Experiences with various revenue forms function as feedback for customer segmentation. Through successful feedback from the individual revenue components, customer groups can be adjusted and reconceptualized. A comparable process also takes place on the level of the market offer model. Feedback about the success of revenue forms may be used to predict market conditions. Both information streams indirectly influence the strategy model where the insight obtained is integrated into new strategies.

Value-Added Component

The value-added component of a business model consists of the manufacturing, procurement, and finance models. In a broader sense, the value creation model is a production model that mirrors the area of value generation for internal value creation. Based on the process structure competitive advantages can be identified by comparing a company's own value creation model with those of other companies (Wirtz 2013b). Since manufacturing plays a central role within the business model, the value creation model is part of a comprehensive network of interactions with other partial models. Figure 8.15 depicts the interaction processes that are relevant in the context of the value creation model.

As a basis for modeling the production of goods and services, information flows from the resources and strategy models are first used to adjust manufacturing by means of the resources, competencies, and strategies available in the company. This

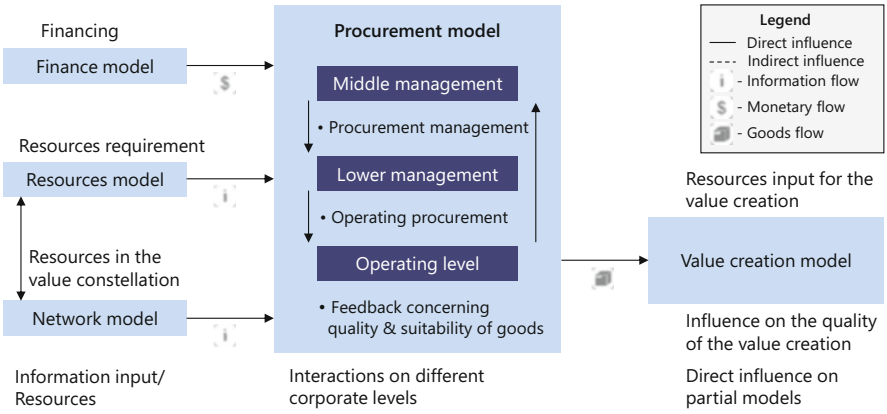

Fig. 8.16 Interactions of the procurement model. Source: Wirtz (2010a, 2011, 2018a)

alignment takes place from the top-down, while a feedback process takes place in the opposite direction.

Direct information flows from the value creation model affect the procurement, financial, and network models. For the procurement model, guidelines concerning the raw materials, products, and services necessary for manufacturing are shown. In this context, the value creation model is also connected to the procurement model through a monetary flow. For the finance model, manufacturing functions as a basis for financial planning and for the creation of the cost structure. There is also an information flow linked to the network model regarding external services. Internal manufacturing is thereby coordinated with value creation of the value constellation.

In addition, there is an indirect information flow to the revenue model. The result of manufacturing and the associated cost structure affects the design of revenue forms. This influence can, for example, explain why publishers offer news content for free on the Internet. Since the distribution costs are significantly lower than those for printed media, companies try to attract a high number of readers through pricing in order to design more attractive offers for the advertising market and to obtain remaining costs and revenue through advertising (Gellman 1996).

The procurement model depicts structures and sources of resource inputs for internal value creation (Wirtz 2018b). In this context, the procurement model functions as an interface between information and monetary flows of other business models' partial models and flows of goods of manufacturing. Figure 8.16 gives an overview of the interactions of the procurement model.

With the aid of information about the capital model and cost structure, a monetary flow can be discerned from the finance model to the procurement model. This input is supported by information from the resources and network models. In this process, internal and external resources and competencies relevant to manufacturing are transferred. Information and financial resources are then used for planning and implementing procurement. The goods subsequently enter the manufacturing process as a commodity flow. In this context, the users of the objects and services

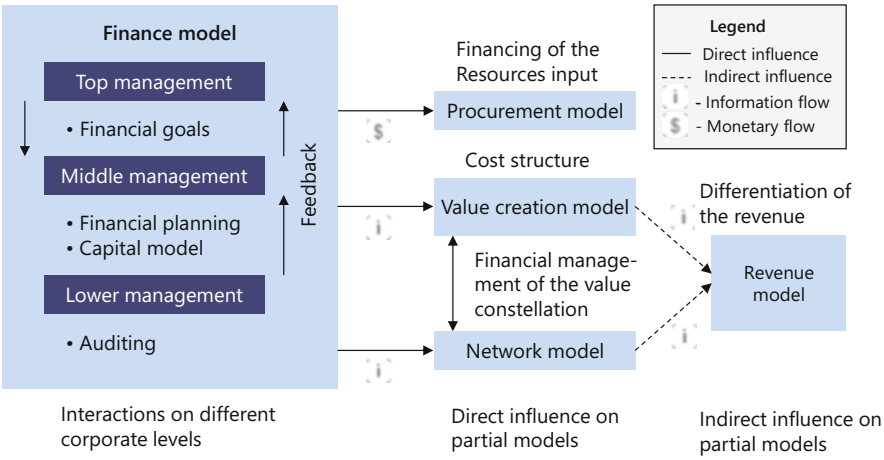

Fig. 8.17 Interactions of the finance model. Source: Wirtz (2010a, 2011, 2018a)

purchased initiate a feedback process for evaluating the quality and suitability for value creation.

The finance model consists of two basic areas which are relevant to the business model. On the one hand, financing is depicted by the capital model. On the other hand, a cost structure model is designed to quantify the resource inputs. Figure 8.17 presents the essential interactions on the level of the finance model.

Within the company, financial goals are defined by the finance model on the top management level. These goals are included in the financial planning and the capital model on the middle management level. Additionally, the cost structure of manufacturing is also established. On the lower management level, goal attainment of the financial aims can be monitored by auditing. This process may also be outsourced to external contractors.

The finance model directly influences the procurement model through a monetary flow by financing the resource inputs. In contrast, information flows affect the manufacturing and network models. The information flow of the finance model indirectly influences the revenue model through both partial models. A diversification of revenue is made by means of the guidelines for financing, capital, and cost structure for internal and external value creation.

Role Expectations and Alternative Interaction Explanations

Apart from the analysis of flows within the business model, the value constellation may also be a starting point for the interactions between different business model actors. The coordination of value-adding activities thereby constitutes an essential aspect. According to specific role expectations, which appear in the value constellation, interactions are managed by the central orchestrating company (Hinterhuber 2002). Successful interaction is the key to success for mutual creation of value and, consequently, for the business model as well.

Role expectations for actors within the value constellation are derived from their function within the value creation. In order to live up to his role, the supplier of raw materials or subproducts, for instance, should cooperate with the downstream company. Quantities, features of quality, and delivery dates must be reliably coordinated and potential discrepancies promptly addressed. Similar coordination functions also need to be carried out with general partners of the value constellation.

Only by exchanging market and product information, additional services and products may increase revenue from the value constellation's core offer. A sociological approach by Dahrendorf can be used to evaluate role expectations (Dahrendorf 2006). According to this, role expectations towards an actor may be divided into can, shall, and must expectations.

A can expectation constitutes the mildest form of expectation. If met, positive consequences exist; if not, no negative consequences are enforced. A shall expectation, however, includes negative, nonjudicial consequences if it is not fulfilled. The slow processing of warranty cases is an example of this. Admittedly, a company fulfills the legal provisions but will probably be less successful in future buying decisions due to low customer satisfaction. Finally, the must category comprises legally binding expectations, including state laws and regulations. Furthermore, the expectation of expectations functions as a reflexive mechanism that stabilizes social relations. Presumptions regarding other actors' expectations provide a basis for action for coordinating value-adding activities.

Despite the intensive coordination necessary for a successful value constellation, value constellation partners also compete with one another. The concurrence of cooperation and competition is called coopetition (Bouncken and Fredrich 2012). Based on game theory, coopetition argues that the classical concept of interactions should be rejected in dealing with competition. The initial point is a value net of the company whose main features are similar to the concept of the value constellation.

Coopetition appears as a special case of the value net. There is an overlapping of roles, which manifests itself in the fact that individual companies in the value constellation act both as a partner and a competitor on different levels of value creation. This may be illustrated by the example of Microsoft and Intel. The two companies cooperate in order to create a common benefit for the end-consumer, which manifests itself as efficiency in working with computers.

Intel therefore produces efficient processors, and Microsoft develops corresponding software products. The values of both services are increased due to the products of the other partner. The software of Microsoft requires less loading time due to faster processors, while more sophisticated software simultaneously provides an argument for the purchase of more efficient processors.

However, Intel and Microsoft also compete with each other. The best example of this is the distribution of margins by the computer manufacturer. For the manufacture of a complete PC system that can be booted up directly by the user, both a processor and system software are needed. Intel and Microsoft are consequently both part of the value constellation. The distribution of collective value, however, takes place according to the power structure within the value constellation. Therefore, both companies try to minimize the partner's influence. This simultaneous cooperation

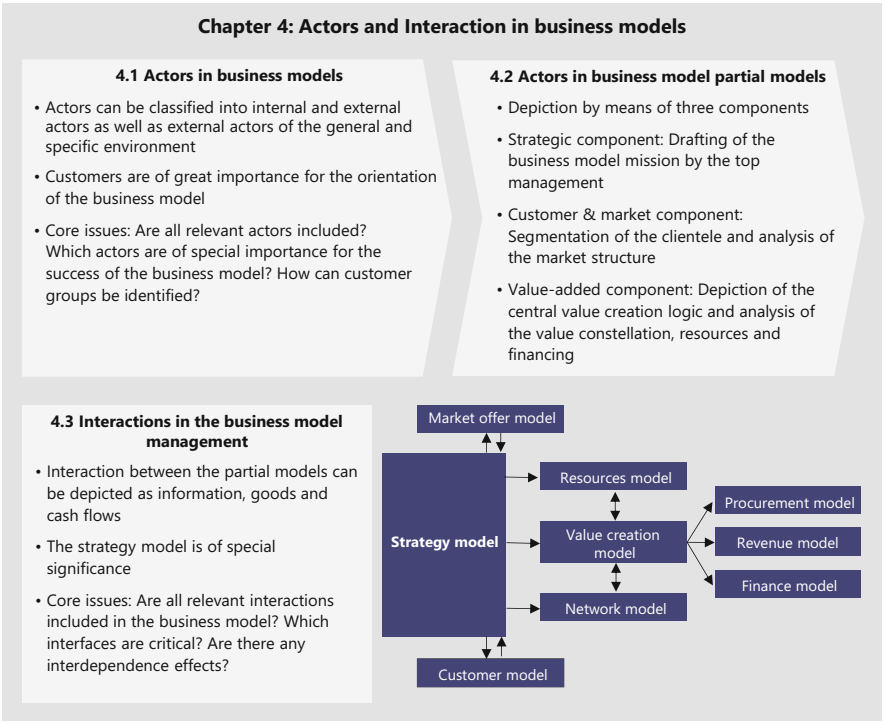

Fig. 8.18 Summary of the chapter actors and interactions in business models. Source: Wirtz (2010a, 2011, 2018a)

and competition needs to be harmonized and taken into account when making strategic decisions. A unilateral focus on only one of the aspects harms both companies in the long run. Figure 8.18 provides a summary of the chapter actors and interactions in business models.

The complex relationships between the different partial models and their interactions have become clear with the aid of these explanations. Based on the conceptual depictions of the various contents, a checklist is usually helpful for a successful implementation. Figure 8.19 shows an illustrative checklist containing the most important implementation-related issues in this subject area.

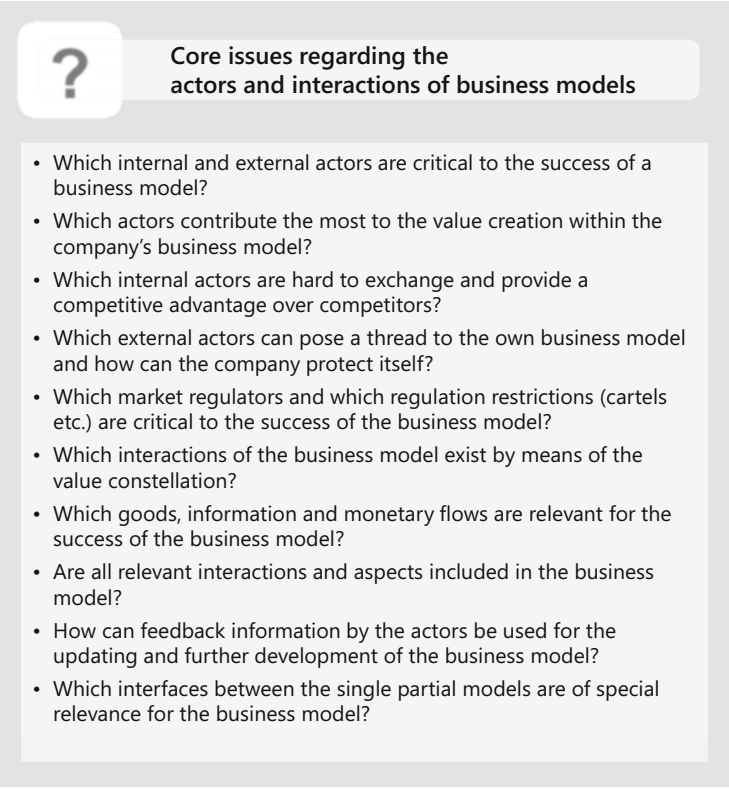

Fig. 8.19 Checklist actors and interaction. Source: Wirtz (2010a, 2011, 2018a)

Business Model Innovation

9

Business model innovation has received more attention in recent years than nearly all of the other subareas of business model management. In this respect, there is a great interest in literature and practice regarding the conditions, structure and implementation of innovations on the business model level. Since business model innovation is rather abstract compared to product or process innovation, knowledge of the business model concept as well as classic innovation management is necessary in order to better understand it.[1]

The following describes the structure of business model innovation relating to traditional innovation management. For this purpose, business model innovation will be defined and differentiated from other types of innovation, and its various characteristics will be shown. Subsequently, the process of business model innovation will be clarified. For this purpose, general innovation processes will be presented in order to develop a specific business model innovation process.

In addition, individual process steps will be explained and recommendations for action will be given. First, however, the development of business model innovation in literature is outlined, and the topicality as well as the significance of the concept in practice are explained. To better explain business model innovation, the most important approaches up to now will be introduced, and the relevance for the field of research will be outlined. Figure 9.1 shows the structure of the chapter.

9.1 Introduction to Business Model Innovation

With the increasing practical relevance of business model innovation, since 2000 more and more researchers have taken up the topic. The literature in the following years shows a very heterogeneous field of research. Some of the earlier articles, such

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_9

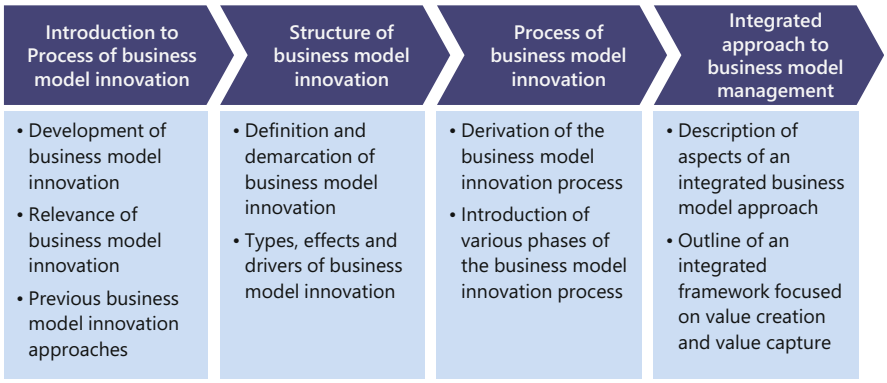

Fig. 9.1 Structure of the chapter

as those by Chesbrough and Rosenbloom (2002), are often still associated with innovation literature or consider the concept only in its early stages. With the exception of Hamel (2000), approaches were developed at a later stage, which treats the innovation of the business model itself as a key role. Important articles to be mentioned include Keen and Qureshi (2006), Chesbrough (2006), Chesbrough (2010), Zott and Amit (2007), Zott and Amit (2010), Johnson et al. (2008), and Gambardella and McGahan (2010). Research in the context of business model innovation was not limited to successful e-business companies such as Amazon, Google, or Facebook, but also looked at the success (e.g., Dell, Southwest Airlines) or lost opportunities (e.g., Xerox) of long-established companies in terms of business model innovation (Magretta 2002; Chesbrough and Rosenbloom 2002). The relationship to existing concepts such as product and service innovation or strategic reorientation was also assessed and further specified the business model innovation. In principle, the work done so far in this area can be divided into three streams: Corporate Strategy, Innovation and Technology Management, and Entrepreneurship. Figure 9.2 shows these in different development phases. It can be noted that the business model innovation literature has had a clear strategic orientation since the beginning. This general connection between business model innovation and corporate strategy is obvious, since a business model can be regarded as a direct result of the corporate strategy. Aspects of innovation and technology management also play an important role in business model innovation research. Currently, this research is primarily concerned with the structured creation and implementation of business model innovation and the effective and efficient use of information technology. In contrast to the current research, Corporate Strategy and Innovation & Technology Management, the literature on entrepreneurship has only gained in importance in recent years. The development of the business model innovation literature to date can be divided into three phases: "early phase," "formation phase" (formation phase of overall concepts), and "consolidation and differentiation phase." The research contributions of the early phase primarily attempt to establish the connection between business models and innovation and to advance the conceptual

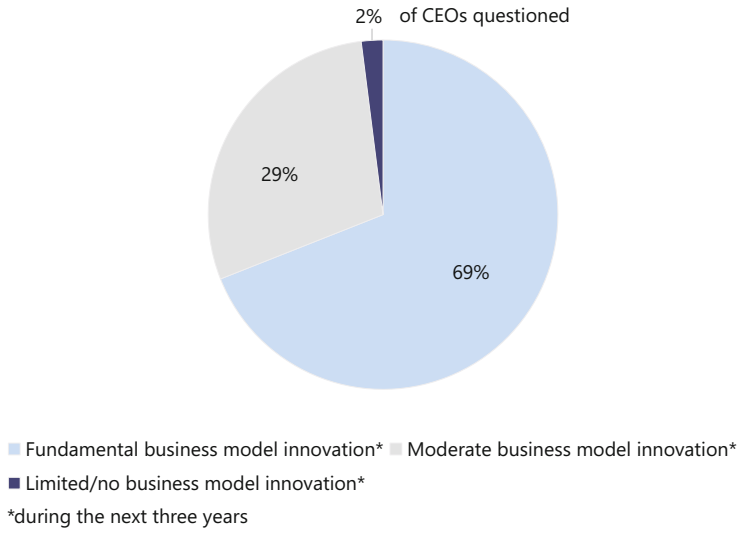

Fig. 9.2 Planned business model innovations of CEOs interviewed. Data source: IBM Global CEO Study (2008)

development of business model innovation. Despite this relatively early stage of development, the potential of business model innovation has already been recognized by some authors. In the subsequent justification phase, the further development and expansion of business model innovation concepts were increasingly addressed and the usefulness of business model innovation compared to pure technology innovation was emphasized. In addition, the potential associated with a business model innovation was increasingly examined and the great importance of the business model innovation for sustainable business success was emphasized. Pohle and Chapman (2006) summed this up succinctly: "business model innovation matters." In addition, other aspects such as tried and tested guidelines, procedures, and manuals for practitioners are also addressed in the justification phase and business model innovation is increasingly described using case studies from practice. In the currently ongoing consolidation and differentiation phase, the main focus is on consolidating scattered and interdisciplinary aspects of the business model innovation concept. These consolidation efforts lead to a differentiation of concepts and thus to a strengthening of the independence of this still relatively young research area, which has developed into a significant sub-area of business model management in recent years. The development in the scientific literature has been largely parallel to the increasing importance of the business model or business model innovation concept in entrepreneurial practice. Especially since 2010, there has been a significant increase in the number of business model innovation publications. Figure 9.3 shows the development of publications. In their literature analysis on business model innovation, Wirtz et al. (2016a) identified 178 publications in peer-reviewed English language scientific journals. Of these, 149 are scientific research papers (45 with conceptual, 74 with qualitative-empirical, and 30 with quantitative-empirical

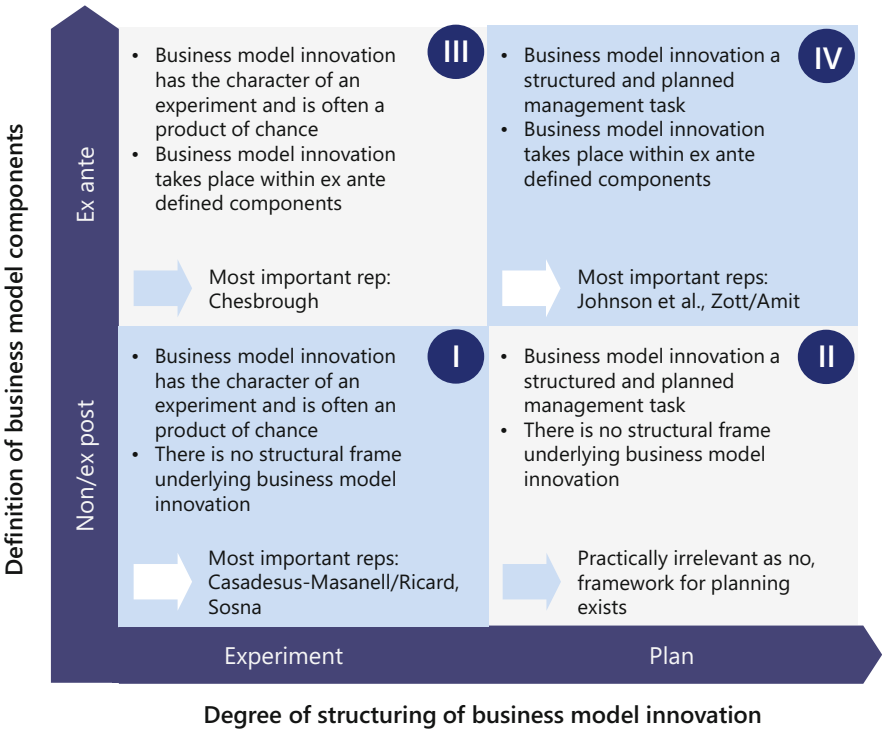

Fig. 9.3 Business model innovation approaches in literature. Source: Wirtz (2013a, 2018a)

research design) and 29 are other publications (e.g., reviews or editorial notes). The majority of scientific research in the field of business model innovation is empirically oriented. The majority of these are primary data-based studies based on case studies, interviews, or questionnaire-based surveys. This shows the high practical relevance and closeness of business model innovation research. The 178 research studies can be assigned to six areas (Definition & Types, Design & Process, Drivers & Barriers, Frameworks, Implementation & Operation, and Performance & Controlling) and presented according to their focus (see Table 9.1). It can be seen that the "Design & Process" area has received the most attention in the literature (24.8%). This is followed by the areas "Frameworks" (20.1%), "Implementation & Operation" (16.8%), "Definition & Types" (15.4%), "Drivers & Barriers" (13.4%), and "Performance & Controlling" (9.4%). Most of the Business Model Innovation literature is empirical in nature (69.8%). These are mainly qualitative empirical studies. The relevance of the business model innovation and the autonomy of the concept are hardly questioned today. Both in practice and in the literature the importance of the success of the Business-Model-Innovation is stressed. In an IBM study from 2008, for example, 98% of more than 1000 CEOs surveyed said that they would make at least moderate innovations to their business model. With regard to the success relevance, the following could be determined: Most CEOs are embarking on

Table 9.1 Definition of business model innovation

Author	Definition
Johnson et al. (2008, pp. 54/59)	"It's not possible to invent or reinvent a business model without first identifying a clear customer value proposition. [. . .] Established companies' attempts at transformative growth typically spring from product or technology innovations. Their efforts are often characterized by prolonged development cycles and fitful attempts to find a market. [. . .]Their success comes from enveloping the new technology in an appropriate, powerful business model."
Lindgardt et al. (2009, p. 1)	"A business model consists of two essential elements—the value proposition and the operating model—each of which has three subelements. [. . .] Innovation becomes BMI when two or more elements of a business model are reinvented to deliver value in a new way. Because it involves a multidimensional and orchestrated set of activities, BMI is both challenging to execute and difficult to imitate."
Demil and Lecocq (2010, p. 228)	"[. . .] the [Business Model] concept represents a transformational approach, where the BM is considered as a concept or a tool to address change and focus on innovation, either in the organization, or in the BM itself."
Gambardella and McGahan (2010, p. 263)	"In this conceptualization, business-model innovation occurs when a firm adopts a novel approach to commercializing its underlying assets. One arena in which many firms with important knowledge assets are currently innovating is in the rising 'markets for technology', where firms sell rights to their intellectual property rather than themselves directly commercializing products and services based on their knowledge capital."

extensive business model innovation. And outperformers are pursuing even more disruptive business model innovations than their underperforming peers. Figure 9.4 presents the key findings of the study with regard to business model innovation.

In a more recent study by IBM in 2015, four-fifths of the C-level managers surveyed said they regularly experimented with new or alternative business models. In this context, a large number of managers rated business model innovation as more important for corporate success than product innovation. The IBM study cites Uber's business model innovation as an example. The market capitalization of the company, which was founded in 2009, already exceeds the sum of the market capitalizations of all car rental companies. In this context, one of the board members interviewed described the business model innovation as "Uber syndrome." He thus described a situation "where a competitor with a completely different business model enters your industry and flattens you." While the 2008 study basically talked about the potential of business model innovation and saw one of the main reasons for business model innovation in the opportunities for differentiation from competitors, this perception has changed in the meantime. Business model innovation is now considered a clear threat to established business models. In view of the changed competitive conditions, business model innovation is now in a position to pose a significant threat to traditional business models in many industries. Against this background,

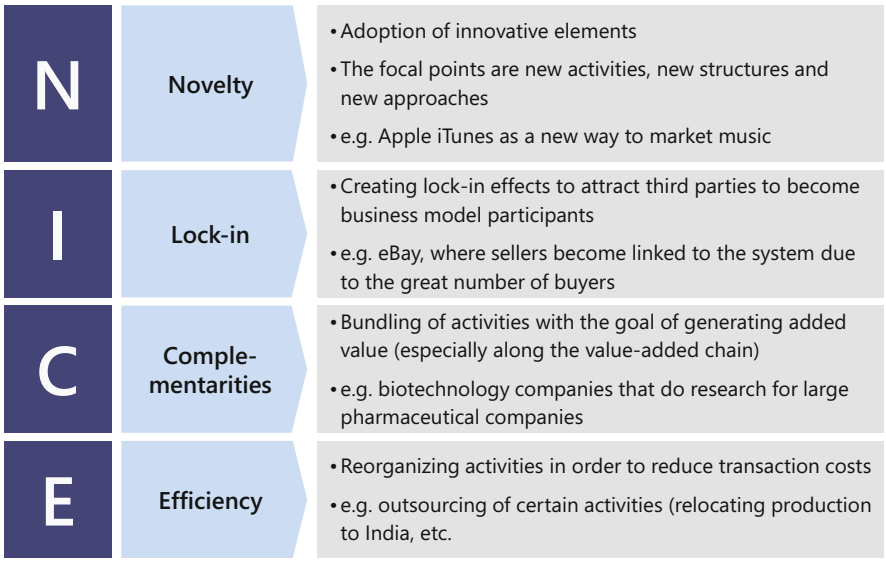

Fig. 9.4 NICE framework

business model innovation can be considered to play an important role in the sustainable success of a company. In addition, the new situation makes it more difficult to monitor potential threats to one's own business model, since it is often no longer established competitors who are entering the market, but rather digital start-ups that threaten existing business models with completely new business models.

Although there is a broad consensus on the relevance to success and importance of the concept, various research streams regarding business model innovation can be identified in literature. The approaches are based on the assumption that business model innovation has a transformative character and hence is the counterpart to the static approaches previously considered (Demil and Lecocq 2010).

The approaches shown in the literature can be differentiated on the basis of two dimensions. The first dimension refers to the definition of a structural frame of components for business model innovation (Demil and Lecocq 2010). One question is whether a structural frame of components (ex ante) exists before business model innovation or whether it is formed after innovation by means of the new model or the definition of a structural frame is entirely waived.

A statement about innovation efforts can only be made before business model innovation if there is knowledge of an existing structural frame. The second dimension, which is more important to the classifying of approaches existent in the literature, refers to the degree of structuring of business model innovation. Here, it is differentiated whether business model innovation is done according to a structured plan that is carried out by the management of a company or whether business model innovation is realized more experimentally. Figure 9.3 classifies the approaches in the literature based on the dimensions introduced. The following shows the individual quadrants and their most important representatives.

The first quadrant represents approaches that postulate an experimental procedure for business model innovation, without defining a concrete scope of action ex ante. These approaches are characterized by maximum degrees of freedom for business model innovation while, however, offering the least structuring aid for business model management. Representatives of this viewpoint are, for example, Sosna et al. (2010) who propose a trial-and-error method for business model innovation.

The inductive approach by Casadesus-Masanell and Ricart (2010) can also be assigned to this category. Demil and Lecocq (2010) state that the ex ante definition of components limits business model innovation too much with regard to the new model. The authors choose therefore a middle course between I and III and define only a few core components.

The second quadrant plays only a minor role for the classification of business model literature. Structured and methodical business model innovation is hard to imagine without the definition of (core) components. The quadrants III and IV are more important, postulating an ex ante definition of the structural frame of business models. These also correspond with the component-related view of the business model presented here, which has prevailed in the literature in recent years. In this context, it needs to be further differentiated in what way business model innovation is the result of an experiment or a management plan. These two approaches are identified in the literature today as dominant for business model innovation.

An important representative of the third quadrant is Chesbrough, who has shaped one of the two leading forms of business model innovation (Chesbrough 2006). Chesbrough's work for business model innovation can be traced back to the year 2002. Just as other authors in the context of business model management, Chesbrough also mainly focused on innovation management in his early work. He examined what it was that kept companies from utilizing new findings from the business environment in spite of substantial R&D investments and state-of-the-art research facilities. Chesbrough developed the approach that the opening of the innovation process for those companies is elementary and success will only come after the new understanding of innovation is embedded in a suitable, open business model (Chesbrough 2006). His view of the concept business model innovation also becomes evident here.

Potential innovations that require business model innovation, such as the foundation of a spin-off, can appear anywhere in the company or the business environment and are thus difficult to plan. According to the author, business model innovation can only succeed if the management goes along with such experiments. Chesbrough formulated important components of the business model as early as 2003 and also holds a component-oriented view of business model innovation. Overall, an understanding is shown that is characterized by classic innovation, in which the business model primarily supports the utilization of mostly technical innovation.

A second important form of business model innovation involves an active management by means of suitable structural components. In contrast to Chesbrough's approach, it is postulated that business model innovation is a procedure that is elaborated and accompanied in a structured management process. In particular, Zott and Amit as well as Johnson, Christensen, and Kagermann can be

identified as leading representatives of this school (Zott and Amit 2010; Johnson et al. 2008).

Johnson et al. (2008) postulate three steps for this process: First, the management has the task of developing a strong customer value proposition. In a second step, the management has to formulate the profit formula that is how revenues for the company can be generated from the value proposition. Only then the innovated business model can be compared with the existing one, and it can be decided whether it can be implemented within the existing organization or, for example, a new business unit must be created (Johnson et al. 2008).

Another important approach in the framework of structured, management-oriented business model innovation is proposed by Zott and Amit (2007, 2010). The authors present a framework within a system of activities for business model development, which is supposed to contain crucial design parameters in the management's point of view. Zott and Amit name the four central topics of novelty, lock-in, complementarities, and efficiency. The topic of novelty can be understood in this connection as business model innovation. By looking at innovation as a parameter with the elements content, structure, and governance, the authors postulate a very analytical view of business model innovation. Figure 9.4 illustrates the content provided by Zott and Amit (2007, 2010).

9.2 Structure of Business Model Innovation

The central component of business model innovation is its specific design in the framework of business model management. This design can be seen as the structure of business model innovation. In the following, a closer look at the structure of business model innovation will therefore be taken. For this purpose, first a definition of business model innovation will be deduced from existing business model innovation definitions and enriched through aspects of classic innovation. A demarcation between business model innovation and classic innovation will then be made. Section 9.2.2 deals with various kinds, effects, and drivers of business model innovation. A structural frame of business model innovation will be created based on these components.

9.2.1 Demarcation of Business Model Innovation

Innovation is one of the best-known and most discussed phenomena in various research disciplines. Innovation research can be found in natural, social, and political sciences as well as in economics and business management. Consequently, there are many views existing today, and there is no common understanding of what innovation comprises and which targets it pursues.

In addition, there has been an inflationary use of the term innovation in practice and in the media in recent times, which has contributed little to a general understanding of the phenomenon. The concept of innovation can be traced back to

Schumpeter and his theory of creative destruction and has proven to be highly relevant to success. This success orientation forms the core of the viewpoint on innovation for business analysis (Hauschildt and Salomo 2007).

This success orientation can also be applied to the concept of business model management and business model innovation. Since business model innovation is a special case of innovation, a closer look needs to be taken at classic innovation with regard to its importance for business model innovation, in order to better define the concept. In particular, four fundamental insights can be deduced in the context of business model innovation (Hauschildt and Salomo 2007):

- Innovations must differ significantly from their original condition.
- Innovation requires the exploitation of an idea on the market: innovation = invention + exploitation (Roberts 1987).
- Innovation can be initiated from the market by demand (demand pull) or by new supply (technology push).
- Innovation has a procedural structure.

These fundamental elements of innovation can also be applied to business model innovation, which has hardly ever happened in the literature before. Many authors dealing with the concept do not provide a clear definition, which signifies a considerable lack of conceptual clarity for business model innovation.

Business model innovation is often seen as a change of business models on a component level (Demil and Lecocq 2010). In recent years, however, the trend has been towards a definitional approach to the concept. Table 9.1 provides an overview of the relevant definitions of business model innovation.

The heterogeneity regarding the understanding of the term is clearly shown by these definitions. For example, Gambardella and McGahan (2010) take a business model innovation view that is strongly shaped by the use of new technology. Johnson et al. (2008) and Lindgardt et al. (2009), however, emphasize the importance of the new value proposition for business model innovation. In contrast, business model innovation even represents the core of the entire business model concept for Demil and Lecocq (2010). In spite of this heterogeneity, there are some commonalities that can be extracted to form an overall definition. The following definitions should be analyzed according to subject-related, functional, and teleological aspects.

With regard to the subject matter of business model innovation, the definitions show a similar understanding. The subject matter of business model innovation is always the (current) business model and thus its underlying structure. Since a component-oriented view has prevailed in literature, business model innovation represents innovation of this ex ante defined structural frame. In contrast, there is disagreement about the extent of structural change.

While some authors consider innovation with fewer structural components to be business model innovation, others require more substantial changes (Teece 2010). However, many approaches agree that a change of the value proposition is essential for innovation.

Although the definitions only partially identify functional aspects, similar approaches are also shown here. Accordingly, business model innovation serves the function of creating a new business model. There is disagreement, however, about the question of what degree of novelty this innovation must have. While some authors already speak of business model innovation when the innovated model is new to a company, other authors demand the novelty for the entire industry or even the creation of a new industry. Johnson et al. (2008) emphasize this aspect: "Pursuing a new business model that's not new or game-changing to your industry or market is a waste of time and money." (Johnson et al. 2008).

In terms of its teleological aspects, i.e., the targeting and functionality of business model innovation, the definitions, in turn, show similarities. The objective of business model innovation is always to secure or create sustainable competitive advantage. This primary objective is often expressed through other objectives, such as increased customer benefits or the utilization of technological innovations (Chesbrough 2010). Senger and Suter (2007) find: "Business models are temporary competitive advantages. A systematic approach ensures that a business innovation does not happen by chance and possible deflagrate but takes place quickly, targeted and sustainably."

In summary, it can be stated that the core elements of the business model are the subject of innovation for an integrated definition of business model innovation. Various viewpoints can be found in the literature regarding the question of which elements of the business model represent core elements in this context. The value proposition is such an aspect that can be deduced from this integrated definition. Along with value proposition, numerous indications are found in the literature that business model innovation can be accompanied by a change of the added-value structure (see in the following Magretta (2002), Schweizer (2005), Lindgardt et al. (2009), and Teece (2010)). Many authors refer in this connection to the change of the value chain (e.g., omitting value creation steps) or of the integration of new value-adding partners (e.g., customer integration). The second core aspect of business model innovation then is value constellation.

Furthermore, the view is taken that business model innovation will take on the function of a renewal or recreation of the business model, following the innovation literature that calls for this novelty. The teleological aspect follows the view postulated in the literature according to which the goal of business model innovation is always sustainable competitive advantage.

Although valuable knowledge could be deduced for business model innovation, up to now definitions of business model innovation have rarely integrated aspects from classic literature. In addition to the aforementioned novelty, particularly the procedural structure of innovation should be emphasized here.

Moreover, the aspect of implementing the innovation in the market also plays an important role for business model innovation. These aspects also need to be reflected in an integrated definition of business model innovation. The following definition should therefore be a synthesis of the definitions in the business model context and, at the same time, integrate the demonstrated core elements of classic innovation.

Definition of Business Model Innovation

Business model innovation describes the design process for creating a widely new business model on the market, which is accompanied by an adjustment of the value proposition and/or the value constellation and seeks to generate or secure a sustainable competitive advantage. (Wirtz 2013a)

The reference of the definition to the existing innovation understanding illustrates the content-related proximity of business model innovation to the two classic types of innovation, i.e., product and process innovation. However, business model innovation constitutes an independent concept. Today, many authors see it as a third type of innovation and on the same level with established concepts (Chesbrough 2007). Chesbrough says the following: "Today, innovation must include business models, rather than just technology and R&D" (Chesbrough 2007, p. 12).

Business model innovation differs from product and especially from process innovation by its higher degree of abstraction. While process innovation describes the new design or redesign of value creation processes, business model innovation includes the new design or redesign of the superordinate added-value network (value constellation) or of the value promised to the customer (value proposition). Furthermore, business model innovation can be differentiated from product and process innovation by means of its degree of novelty.

In business practice, more frequently incremental rather than radical innovation can be observed in the classic types of innovation, whereby great importance is attached to incremental innovation (Totterdell et al. 2002). In the business model innovation literature, however, the view has prevailed that business model innovation always has a radical character—this pertains at least to the innovating company, but mostly to entire industries (Johnson et al. 2008). Demil and Lecocq (2010) find: "In particular, new BMs have been acknowledged as radical innovations with the potential to shake whole industries" (Demil and Lecocq 2010). However, these three types of innovation may also be mutually dependent and overlap each other.

Interdependence can already be observed between product and process innovation, although it is not always easy to differentiate. For example, a product innovation is often accompanied by changes in the production process. Separating product and process innovation is often more difficult in the service sector. There are also overlaps in business model innovation. Usually, business model innovation includes a new design or redesign of processes.

Process innovation is, however, downstream from business model innovation and takes place at the operational level. Moreover, business model innovation can also follow product or even process innovation. Some authors argue that an innovation of the business model always needs to take place for the marketing of new technology (Chesbrough 2010). Hence, the traditional types of innovation become the driver of business model innovation.

9.2.2 Aspects of Business Model Innovation

Within the framework of business model management, business model innovation can be demonstrated by means of various aspects. First, a distinction can be made with regard to the innovation object. Here, it is necessary to check whether the business model innovation is an innovation of value constellation, value proposition, or a combination of the two.

Moreover, business model innovation can be differentiated based on its impact on the market. It can be examined whether the innovated business model will change the existing market or whether an entirely new market will be created. In addition, the drivers can be observed that triggered the business model innovation.

Analogous to the definition derived, the change of the value proposition or the value constellation of the business model constitutes the core of business model innovation. Value proposition in this context has to do with the promise of benefit and how this benefit is provided to the customer. Value constellation, in contrast, describes the structure of added value. It answers the question of who in what manner was involved in the creation of value.

In order to speak of business model innovation, at least one of these elements must undergo a change that is discernible in the market. It should be noted that the types of business model innovation describe the focus of the innovation. Value constellation innovation is often accompanied by a minor value proposition innovation and vice versa. We cannot talk of joint business model innovation in this context until both value proposition and value constellation are core elements of the innovation. Figure 9.5 shows the various types of business model innovation.

An example of a business model innovation by changing the value proposition is Southwest Airlines. The airline innovated the market for passenger flights in the

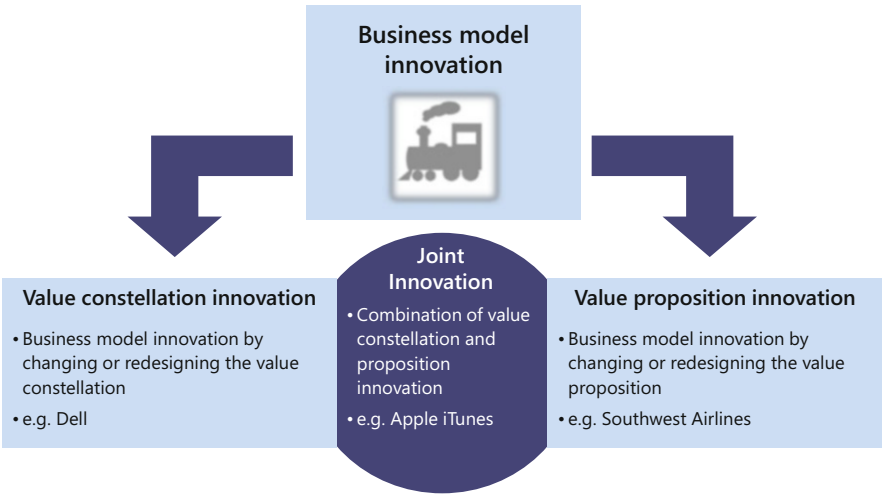

Fig. 9.5 Types of business model innovation. Source: Wirtz (2013a, 2018a)

1970s by being the first company in this sector to establish a low-price concept. As a so-called "low-cost carrier" (or also "no-frills," "discount," or "budget carrier"), Southwest gave up most of the additional services related to transport in favor of lower ticket prices. Later on, the concept was adopted by airlines such as Ryanair or Air Berlin. Although the rendering of the core service remained unchanged in principle, Southwest innovated the value proposition of the business model and became one of the most successful airlines.

The successful computer manufacturer Dell is an example of business model innovation through innovation of value constellation. The success of the company can definitively be traced back to the radical change of the value-added structure of the PC market. Dell was the first company to establish the direct marketing of PCs and thus to generate considerable cost advantages. In doing so, Dell neither offered any new hardware nor any fundamentally altered value proposition. Dell realized a sustainable competitive advantage through the innovation of value constellation.

Pure business model innovations by redesigning the value constellation can be found relatively seldom in practice, since a change in added value is usually accompanied by a change in customer benefit. In the case of Dell, these are cost advantages that the company passes on in part to the customers. However, the focus of business model innovation is value constellation. There are also companies though whose sustainable competitive advantage can be traced back to an innovation of the value constellation and the value proposition.

The company Apple, for example, succeeded in integrating value proposition innovation and value constellation innovation with its music platform iTunes. Apple formed a new value proposition with iTunes, allowing users to legally download a large selection of music. Especially when combined with hardware also offered by Apple (iPod, iPhone, iPad), the result is a unique value proposition. Moreover, Apple sustainably changed the value chain of the music market by establishing the Internet as a direct sales channel for digital music. Today, Apple iTunes is worldwide the largest music platform with the highest turnover.

Besides distinguishing according to the type of innovation object, business model innovation can also be distinguished by means of its impact on the market (or industry). There are two different scenarios: On the one hand, the new business model can have sustainable influence on the existing market, and, on the other hand, it is possible that a new market will be created by a business model innovation. Zott and Amit (2007) state that: "[. . .] business model either creates a new market (like eBay) or innovates transactions in existing markets (like Priceline.com)."

If business model innovation takes place in an existing market, it can have a significant or even a disruptive impact on previous business models. The innovated business model is distinguished by a superior value constellation that is usually reflected in the form of cost advantages or by a superior value proposition that better satisfies the needs of the customers. Both forms create sustainable competitive advantage to the disadvantage of the existing business models. A good example here is once again the computer manufacturer Dell, which sustainably changed the computer market through business model innovation, forcing established providers such as IBM to innovate their business model.

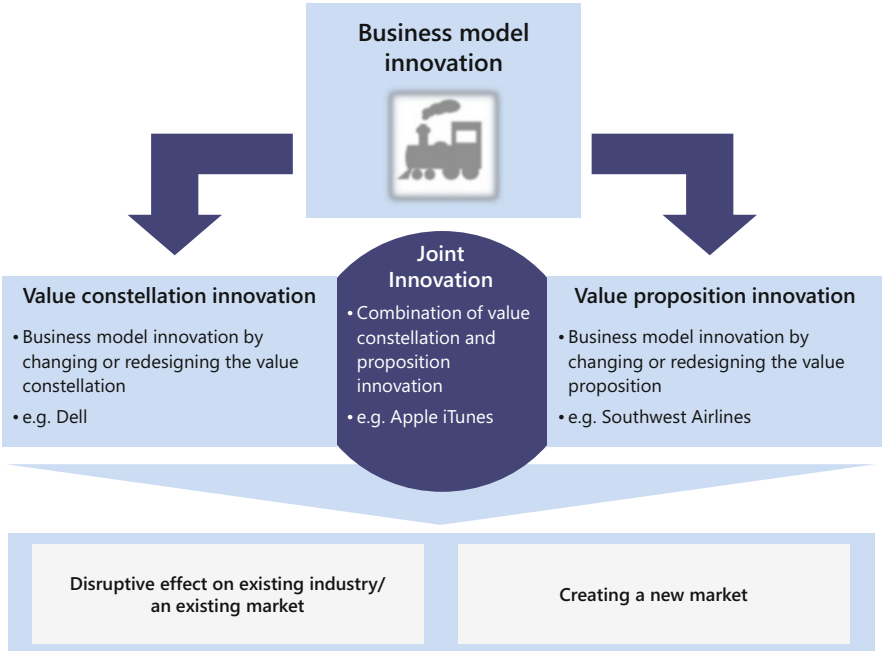

Fig. 9.6 Effect of business model innovation. Source: Wirtz (2013a, 2018a)

Besides changing an existing market, business model innovation can also create a whole new market (Chesbrough 2006; Johnson et al. 2008). The starting point of business model innovation can either be an existing business model or a new foundation such as a start-up or spin-off. In both cases, components of the innovated business model satisfy existing and previously unsatisfied customer needs or create new needs.

It becomes evident that creating a new market is only possible through value proposition innovation or a joint business model innovation. Besides the auction platform eBay, Google can also be mentioned here, as it created a whole new advertising market with search engine marketing and context-sensitive advertising. Figure 9.6 illustrates the effect of business model innovation in its structural context.

As a last distinguishing feature of business model innovation, the drivers and/or the triggers of the business model innovation process can be taken into account. Three central drivers of business model innovation can be deduced from innovation literature and existing business model innovation literature (Goffin and Mitchell 2010): technological progress, a dynamic market environment and tougher competition, as well as changed customer needs.

Some authors consider technological progress to be the central driver of business model innovation (Chesbrough 2010). Teece (2010) ascertains: “Every new product development effort should be coupled with the development of a business model which defines its ‘go to market’ and ‘capturing value’ strategies” (Teece 2010).

Accordingly, business model innovation plays a particularly important role during phases of technological breakthroughs, such as the development of the Internet and the growing significance of e-business. Here, business model innovation often serves as a tool to market new technology.

Changing market conditions that are primarily expressed by tougher competition is another driver of business model innovation. Long-established companies have found themselves confronted with many new competitors through globalization and modern information and communication technologies. Thus, the pressure on these companies to innovate their business model has increased.

But also today, new market players are forced to design an innovative business model in order to generate sustainable competitive advantage. It should be noted, however, that business model innovation not only takes place in economically difficult times but also during periods of economic upturn (Deloitte 2002).

Changing customer needs constitute the last driver of business model innovation. In this context, especially the greater influence of customers on companies plays an important role. Many companies have taken advantage of the customers' desire for participation and have included them in their value-added activities through value constellation innovations.

A good example here is the furniture group IKEA. Moreover, customer expectations with regard to product quality and level of service have changed. In this way, new business models have frequently emerged in connection with new services, especially on the Internet. Figure 9.7 shows the drivers of business model innovation in their structural context.

9.3 Process of Business Model Innovation

Just like other innovations, business model innovation is characterized by a procedural structure. This structure has similar phases in classic innovation management. Therefore, we first introduce classic innovation processes and then present the most important approaches from business model innovation literature. Finally, the various processes are summarized in an integrated business model innovation process. In the end, we explain this process and its various processing stages in more detail and conclude by linking the structure and process of business model innovation to one unified concept.

9.3.1 Process Derivation

Process models play a central role in innovation research. Especially in the context of innovation management, processes serve to illustrate relevant innovation activities and thus fulfill the role of a management tool (Hughes and Chafin 1996). Numerous innovation processes are to be found in the literature, which differ in terms of their number of stages or phases as well as their content orientation. Innovation processes

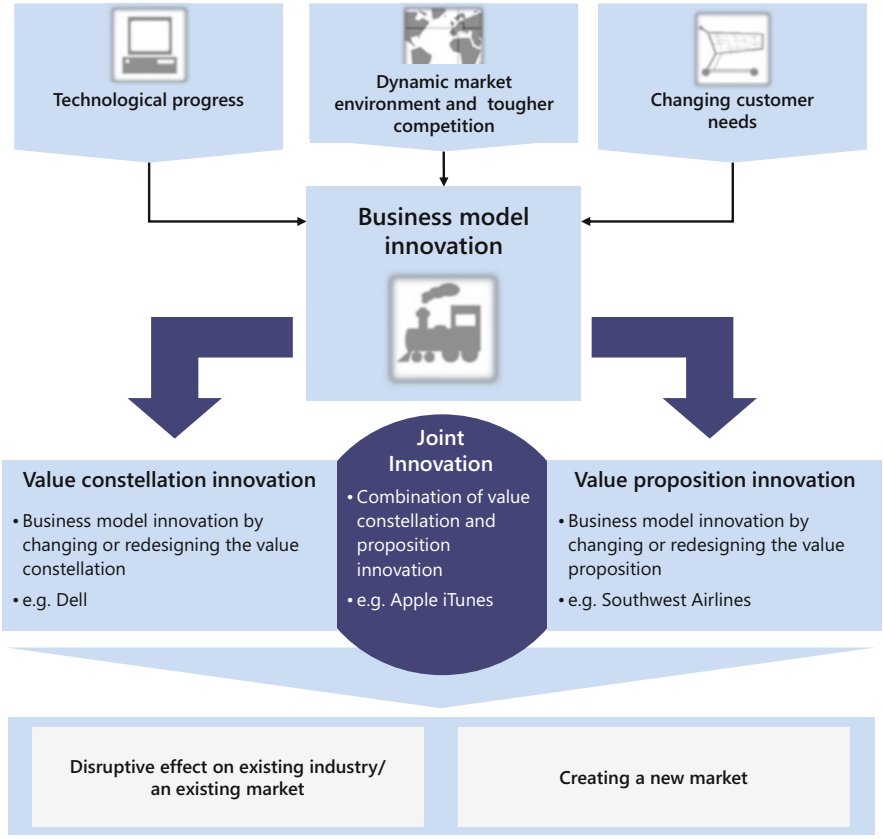

Fig. 9.7 Drivers of business model innovation. Source: Wirtz (2013a, 2018a)

show which activities in which order must be carried out to ensure innovation success.

For this purpose, process models in innovation research are composed of various stages or phases, which, in part, are followed by a review step. The task of these reviews is to control the degree of goal attainment in the respective stage. Process stages often do not have to be sequential but can also overlap or run parallel to some extent (Cooper 1994). Depending on the degree of abstraction of the process, innovation processes may consist of many different stages. Processes that show innovation in a very abstract form sometimes consist of only three phases. Figure 9.8 shows the selection of various innovation processes.

The visualization approaches of business model innovation in the respective literature are often characterized by a linear process-oriented structure that can be subdivided into individual process steps or stages of business model innovation. The approaches sometimes vary substantially with regard to these individual process steps. Against this background, the following presents a selection of important

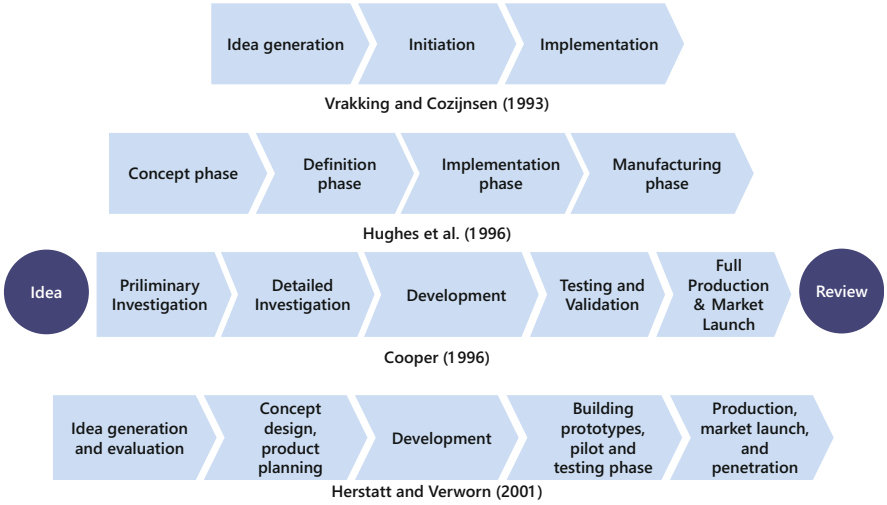

Fig. 9.8 Classic innovation processes. Source: Wirtz (2011, 2018a)

business model approaches based on the integrated business model innovation process by Wirtz (2011). Figure 9.9 shows a selection of innovation processes from business model innovation literature.

These processes are often very general and usually comprise four to five stages. The approaches by Deloitte (2002), Chesbrough (2007), Lindgardt et al. (2009), and Osterwalder and Pigneur (2010) specifically address the examination of the existing business model in the first stage of the process. The other approaches propose an investigation of the market or an analysis of customer needs or wishes in order to derive business model innovation activities. The deliberations with regard to the process stages "feasibility analysis," "prototyping," and "decision-making" are more heterogeneous than in the first process stages "analysis of initial situation" and "idea generation." Wirtz (2011) provides an explicit feasibility analysis in his approach. Osterwalder and Pigneur (2010) and Amit and Zott (2012) tend in a similar direction by considering the planned solutions or innovations in more detail. In contrast, Johnson et al. (2008) focus on the creation of the profitability formula in this process stage. Sosna et al. (2010) generally speak of business model development. While Chesbrough (2007), Osterwalder and Pigneur (2010), and Wirtz (2011) focus on the decision-making with regard to selecting the most suitable business model, Johnson et al. (2008) and Amit and Zott (2012) place special emphasis on the specific business model modifications and their integration into an overall model (e.g., core processes and resources).

The process stage "implementation" shows similarities in most of the process models presented. Six of the ten process models of business model innovation explicitly mention the implementation. Linder and Cantrell (2000) refer to this as "changing the business model" but also specifically relate to the implementation of the business model innovation.

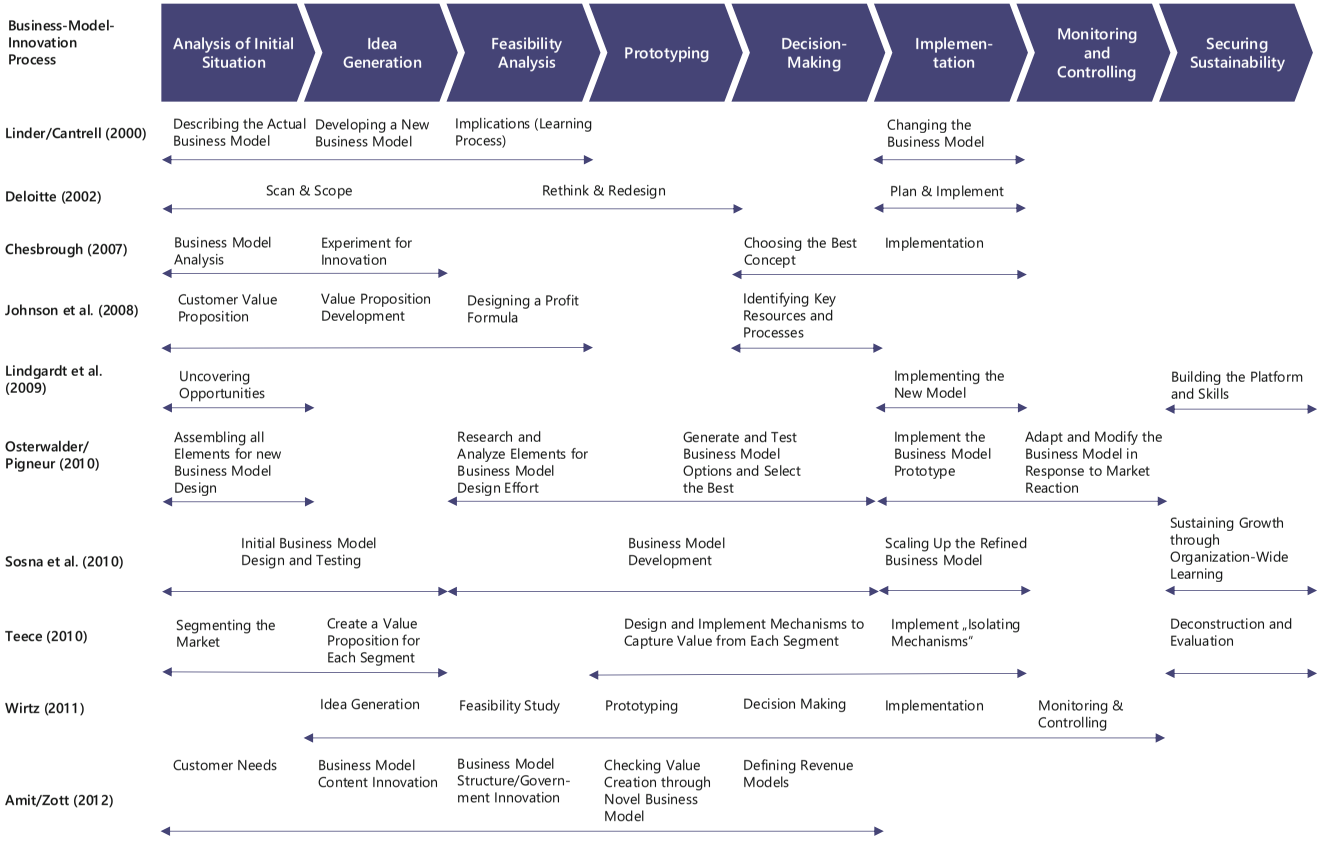

Fig. 9.9 Business model innovation processes. Source: Wirtz (2011, 2018a), Wirtz and Thomas (2014)

The process stages of "monitoring and controlling" and "securing sustainability" have so far received least attention among researchers. Only Osterwalder and Pigneur (2010) and Wirtz (2011) include a distinct process stage for the monitoring and control of new business models with regard to factors, like goal attainment or market feedback. In addition, Lindgardt et al. (2009), Sosna et al. (2010), and Teece (2010) incorporate a process stage for securing the sustainability of the business model innovation.

In principle, there are two requirements for an integrated business model innovation process. The process should depict all relevant activities of business model innovation. Moreover, the process should give concrete recommendations for action to be able to serve as a management tool in the sense of business model management. If the various innovation processes from classic innovation management and business model innovation are integrated under those conditions, an eight-stage innovation process can be inferred (Wirtz and Thomas 2014; Wirtz et al. 2016a). This process is illustrated in Fig. 9.10.

9.3.2 The Stages of the Innovation Process

The eight stages of the process of business model innovation are "analysis of initial situation," "idea generation," "feasibility analysis," "prototyping," "decision-making," "implementation," "monitoring and controlling," and "securing sustainability" (Wirtz 2011, 2018a; Wirtz and Thomas 2014).

The process of business model innovation begins with the analysis of the initial situation. This stage particularly contains the analysis of already existing business models. Of particular importance is the identification of strengths, weaknesses, opportunities, and risks of the current business models, as well as the potential and weaknesses of the product and service portfolio. In addition, the identification of customer needs and knowledge of important market and competition-related information is essential in order to analyze the degree to which customer needs are fulfilled.

The second stage of the process of business model innovation serves the generation of ideas. In this stage, companies elicit potential approaches to business model innovations and generate ideas. Starting points for innovations may be found within the company or its environment. Monitoring the market is therefore particularly important in this stage. Especially the top management is responsible for recognizing innovative potential and aligning it with the focus of the business model. Moreover, the company needs to determine basic design characteristics of the business model orientation. In this connection, the design of the value proposition and the value constellation plays a special role.

In the third stage, the feasibility analysis, a company comprehensively analyzes the market and environment as well as compares the already existing business models in the industry (Afuah 2004). In doing so, the company also seeks to develop the future positioning of the new business model. This stage requires a detailed market analysis and a qualified assessment of the potential of the business model

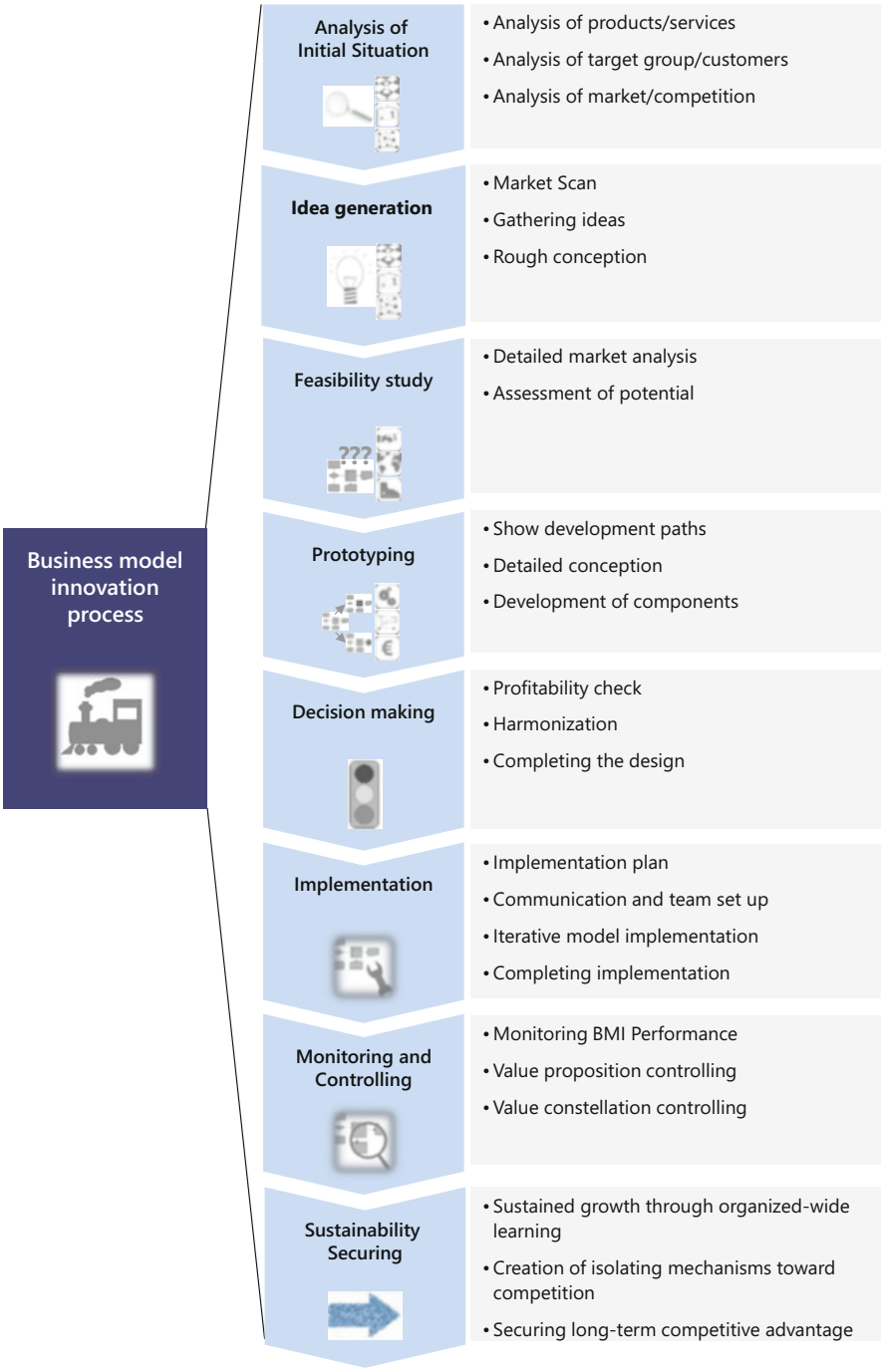

Fig. 9.10 Business model innovation process. Source: Wirtz (2011, 2018a), Wirtz and Thomas (2014)

innovation. The basic character of the business model innovation is crucial for its assessment.

Here, there are three constellations possible: (1) new conception of the business model in an existing industry/sector, (2) new conception of the business model in a new industry/sector, and (3) creation of a new market or branch of industry through the business model innovation. The innovation streams identified have to be analyzed in more detail in this stage, before the next stage of the process of business model innovation can take place.

In the stage of prototyping, a company develops specific value creation components and builds a prototype of the future business model. In this stage of development, the management can choose between several different development paths, which need to be evaluated in order to ultimately identify a dominant alternative (Osterwalder and Pigneur 2010). In this way, a company can develop different detailed concepts within the frame of prototyping that represent the relevant set of viable alternatives.

The development and elaboration of the business model components is also an important aspect in this context. After extensively testing the prototypes, the assessment and selection of the respective alternatives takes place within the subsequent stage. In the decision-making stage, the company selects and completes the model design. In addition, it makes a business plan for every previously conceptualized prototype, which is used for a detailed performance audit. Not until this stage, the company can detect weaknesses in detail and reject alternatives. During this stage, the company ultimately harmonizes the structure of the business model and finalizes the design of the business model.

In the implementation stage of the process of business model innovation, the company realizes the model. However, the implementation does not represent a linear process but rather requires an iterative procedure in terms of ongoing examination of the model and the relevant environmental conditions in order to make adjustments, if necessary. The requirements concerning the management greatly depend on the extent of the model change. For instance, if only small parts of the value creation change, only these respective components need to be adjusted.

In contrast, a completely new value proposition can have far-reaching consequences for the overall model. Since implementing a business model is characterized by a project-based procedure, a project-based organization appears to be appropriate. In this connection, the company not only needs to make an implementation plan and assemble a qualified and competent team that executes this plan, it also has to provide an appropriate communication structure. The implementation stage ends once the model is completely realized.

In the stage of monitoring and controlling, the company observes the completion and goal attainment of the business model innovation. Analogous to the classic innovation, a business model innovation can only be considered as completed when new model has been established on the market. The controlling team therefore has to supervise the stage from the model launch to market success. In doing so, it particularly needs to monitor the realization and achievement of the goals with regard to the value proposition and value constellation. In this connection, the

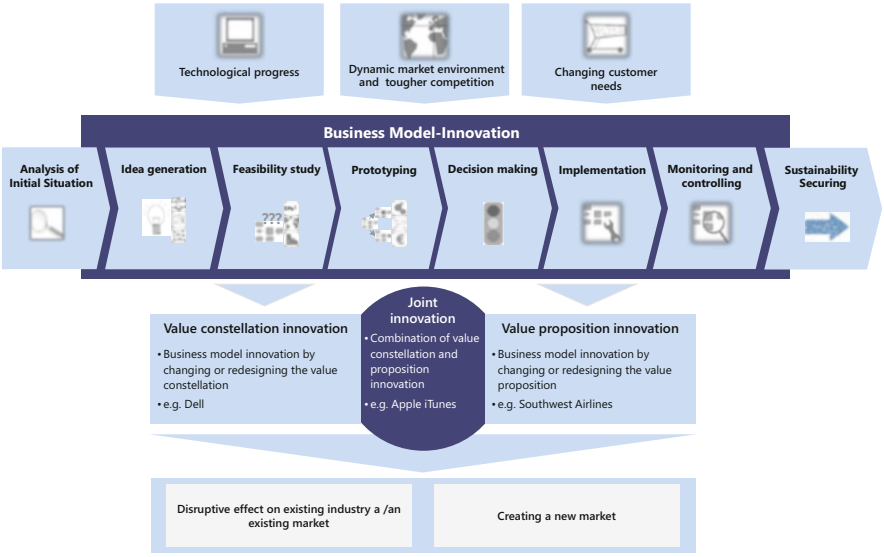

Fig. 9.11 Summary of business model innovation. Source: Wirtz (2011, 2018a)

controlling team has to constantly monitor the key performance indicators defined. The relevant key performance indicators and applied methods of control arise from the type of business model innovation. In the case of a value proposition innovation, for instance, key performance indicators with regard to the fulfillment of customer are central (Wirtz 2013a).

The last stage of the process of business model innovation refers to the securing of sustainability and growth of the new business model. Due to changes in the market or the company environment, the company usually has to make minor adjustments to the new business model. In addition, the company not only has to protect the own business models against imitations and competitors by means of isolation mechanisms but also has to secure long-term or sustainable competitive advantages as far as possible. In combination, the drivers, types, and corresponding process of business model innovation provide consistent and systematic guidance. Figure 9.11 summarizes all of these aspects of business model innovation.

9.4 Integrated Approach to Business Model Management

The success of business model innovations is largely linked to a structured and target-oriented management of the innovation environment. Therefore, it is necessary to follow an integrated business model innovation approach. This is why the following section will outline the most relevant aspects of business model management from respective scientific literature. Subsequently, an integrated business model innovation concept can be derived and described.

9.4.1 Aspects of an Integrated Approach

The business model innovation literature contains a few approaches that incorporate the different aspects of business model innovation as well as its interaction in a model (see for the following Wirtz and Daiser 2017, as well as other frameworks such as Malhotra 2000; Deloitte 2002; Mahadevan 2004; Voelpel et al. 2004; IBM Institute for Business Value 2008; Yang et al. 2014). However, those approaches present a heterogeneous picture. In particular, the applicability and the level of abstraction are quite different. Figure 9.12 presents the different approaches.

The assessment concerning the applicability and the spectrum of business model innovation aspects has been made in a qualitative manner and is based on existing models. The low applicability of the BMI tool and technical aspects as well as the BMI knowledge management aspects indicates that they are less important than other aspects.

Moreover, the abstraction level of the models differs substantially. While some authors are rather detailed in their description, others are rather abstract. The model of the IBM Institute for Business Value (2008), for instance, simply presents three core aspects: industry model innovation, revenue model innovation, and enterprise model innovation.

Authors	BMI Macro Environment Aspects	BMI Micro Environment Aspects	BMI Core Aspects	BMI Tools and Technical Aspects	BMI Knowledge Management Aspects	BMI Results/Impact-Aspects	Spectrum of BMI Aspects
Malhotra (2000)	Radical discontinuous change	Organizational need for new knowledge and knowledge renewal			• Information-processing model • Sense-making model	• Knowledge creation • Knowledge renewal	◔
Deloitte (2002)	External factors	Internal capabilities	• Who • What • How			• Superior shareholder value • Innovator advantages • Incumbent disadvantages	◑
Mahadevan (2004)	• Technology • Regulatory and economy	• Changing customer needs • Competition • Firm-level issues	• Target customers (who) • Value propositions (what) • Value delivery system (how)			Sustainability	◕
Voelpel et al. (2004)	Sensing strength, direction, and impact of technology	• Change in customer needs/behavior • New customer value proposition • Sensing potential for value system reconfiguration • Sensing feasibility and profitability	• Customers • Technology • Business system infrastructure • Economics/ profitability			Competitive advantage	◑
IBM (2009)			• Industry model innovation • Revenue model innovation • Enterprise model innovation			Successful financial results	◔
Yang et al. (2014)		• Company (competency) • Customer (market) • Value (product) • Profit (cost)	• Who • What • How	• Procedure • Combination • Internal evaluation		• Sustainability • Competitive advantage	◑
Applicability of Aspects	◕	◕	◕	◔	◔	●	

◔ low ◑ moderate ◕ high ● very high

Fig. 9.12 Overview of the different business model innovation aspects. Source: Wirtz and Daiser (2017), Wirtz (2018a)

Often discussed aspects refer to the BMI environment and are described as micro- and macro-environment aspects. These external factors, such as technological changes, deregulation, and changing customer needs, largely contribute to the increasing dynamization of the business world (Porter 2004; Teece 2010).

Against this background, the business model innovation literature strongly focuses on the interaction between companies and their environment. In this context, Mahadevan (2004) developed a conceptual model that classifies business model innovation according to the respective context (which specifies the central circumstances) and presents important aspects and drivers of business model innovation.

Looking at the different approaches, clear similarities become apparent. The three models explicitly address the aspects of "who" (target customer), "what" (value proposition), and "how" (value delivery system) (cf. Mahadevan 2004; Yang et al. 2014; Deloitte 2002). Even though Voelpel et al. (2004) do not follow this nomenclature, they also rest their study on these general aspects.

All aspects with regard to the result or impact of the business model innovation suggest a positive contribution to the company performance. These contributions can be knowledge-related, financially, or linked to a general competitive advantage. The following section presents an integrated model based on the previously described approaches.

9.4.2 Integrated Business Model Innovation Concept

The success of business model innovations depends on various factors. The most important aspects of the previously mentioned approaches to business model innovation are consolidated into an integrated model in the following section. Figure 9.13 illustrates this integrated concept of business model innovation.

The integrated concept of business model innovation comprises environmental dimensions (environmental BMI dimension) and central dimension (central BMI dimension). The environmental dimensions include aspects on the macro- and micro-level. The macro-level contains factors, such as globalization, technology, industry, and market changes as well as regulatory and economic issues. The micro-level comprises changing customer needs, products and service innovations, competitors, and corporate dynamics that have a clear impact on company's business model innovations and thus significantly influence the central dimensions of business model innovation.

The central dimensions consist of the business model innovation factors (BMI Factors) and the business model innovation areas (BMI areas). The BMI factors are the "who" (target customer), "what" (value proposition), and "how" (value constellation) (cf. Mahadevan 2004; Yang et al. 2014; Deloitte 2002). These factors determine the character of the business model innovation (e.g., business model innovation through changing customer needs, value proposition, and/or the value constellation that transforms the value chain and thus represents an important element of the central dimensions of the concept of business model innovation).

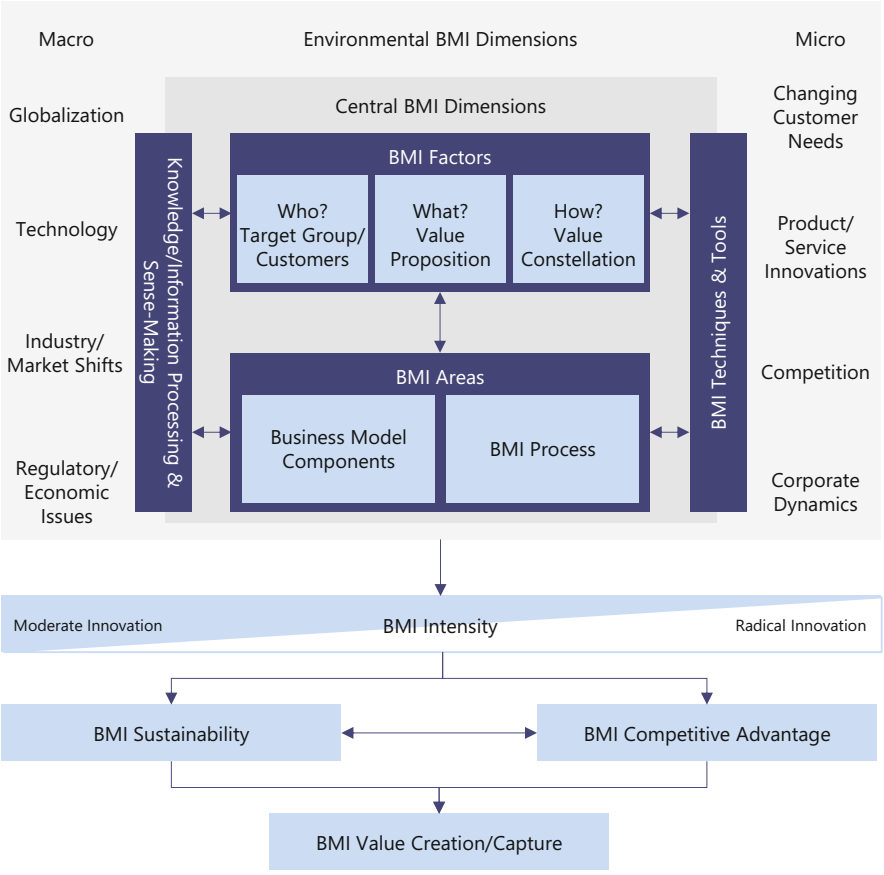

Fig. 9.13 Integrated concept of business model innovation. Source: Wirtz and Daiser (2017), Wirtz (2018a)

The changes resulting from business model innovation lead to new or existing activities that are carried out in a new and different manner. Thus, a business model innovation has an impact on the individual components of the business model innovation and thus can also change business model components and/or the business model innovation process.

The changes of the business model components and the business model innovation process are thus two important options for innovating existing business models, because both, collectively or individually, can have a significant impact on the efficiency and effectiveness of the business model innovation. This is why both options need to be carefully examined and assessed in the framework of business model innovation.

The aspects of the environmental and central dimensions are closely connected to one another and create an interactive dynamic, because innovation-related changes

lead to mutual adjustments (Mahadevan 2004). A company that revolutionizes an existing industry or technology, for instance, significantly influences the linked environment aspects, which in turn also influence the central dimensions of business model innovation.

This relationship indicates the great importance of a fundamental understanding of the internal and external aspects and factors that influence business model innovations. Against this background, the creation of knowledge and information (knowledge/information processing and sense-making) and the business model innovation tools and technics play an outstanding role (Eppler and Hoffmann 2012; Denicolai et al. 2014; Yang et al. 2014).

The objective of generating knowledge and information is mostly to identify relevant information within the environmental dimensions and to evaluate them with regard to the existing business model and business model innovation. In other words, a systematic knowledge generation takes place to make external information internally available and usable.

This process should be carried out by means of structured tools and technics to make the process understandable and repeatable (Eppler and Hoffmann 2012). This enables a systematic knowledge generation at the interface between the environmental dimension and central dimension. The basis of this method is, first, to generate knowledge/information and, second, to analyze and use this knowledge/information base in the own context for a business model innovation (Malhotra 2000; Denicolai et al. 2014).

In connection with the goals and the information from the central business model innovation dimensions, it is possible to derive certain business model adjustments. These can differ in their intensity of change (Markides 2006; Bucherer et al. 2012; Hargadon 2015). The change intensity is an important aspect of the concept of business model innovation, since a high change intensity is also associated with a high risk and substantial effort with regard to the implementation of the business model innovation.

Most business model innovations are rather simple and only require moderate adjustments of the existing business model (Hargadon 2015). Major adjustments of existing business models result from radical business model innovations that substantially change existing business models (Demil and Lecocq 2010).

Moreover, there are various constellations of business model innovation that lie in between moderate and radical business model innovations and that also differ with regard to their intensity of business model innovation. Generally, it can be concluded that a higher level of business model innovation leads to a higher level of change intensity.

A successful business model innovation leads to a sustainable business model innovation and also to competitive advantages (Teece 2010; Günzel and Holm 2013). Both aspects are closely linked to the general business success or the success of the business model innovation. Against this background, it is important to protect the business model innovation against imitation and competitors and to secure its sustainability. An example in this connection is Apple. Even though there were many providers of MP3 players in the market, Apple accomplished to establish a

Fig. 9.14 Checklist for business model innovation. Source: Wirtz (2013a, 2018a)

business model consisting of software (iTunes app and store) and hardware (iPod) that was difficult to imitate. In doing so, Apple succeeded in gaining competitive advantage and a sustainable position in the market for online music and MP3 players (Amit and Zott 2001).

A successful business model innovation allows companies to create great value. In particular, the aspects of sustainability and competitive advantage that result from a business model innovation contribute to creating great value. The BMI literature considers value creation as the main objective of business model innovation. Therefore, value creation is the last aspect of the concept of business model innovation (Chesbrough 2010; Amit and Zott 2001). The abovementioned deliberations demonstrate the complex relationships of business model innovation.

Building upon the deliberations, the complex steps of business model innovation become clear. Based on the conceptual presentation of the various contents, a checklist is applicable for successful implementation. Figure 9.14 shows an exemplary checklist for implementation with the most important questions about the subject area.

Part III

Business Model Management

Introduction

10

As an integrated and comprehensive management concept, business models may help a company to optimize the elements relevant for fulfilling service commitments in many areas. This management tool may be used in all corporate activities which help achieving a sustainable competitive advantage. In the context of business model management, an ideal-type, five-step process can be observed to reveal all relevant aspects.[1]

The business model design is the starting point for subsequent management processes and constitutes the conceptual framework for the implementation of a business model. In the implementation phase, in particular communication and team set-up are observed, and an implementation that is specific to the different partial models is sought. Once a business model is completely implemented, operational activities ensue.

In addition to general quality management, observing the relevant internal and external conditions is particularly necessary to recognize and anticipate changes. The next step in business model management is to modify and adjust business models. In all phases, this process is accompanied by control. Figure 10.1 shows how the management process of business models fits into the structure of the book.

Furthermore, it becomes apparent that the management process of business models is characterized by the different standards of companies or their founders. On this basis, different types of business model management will first be examined. These types are afterwards dealt with once again in the following chapters.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_10

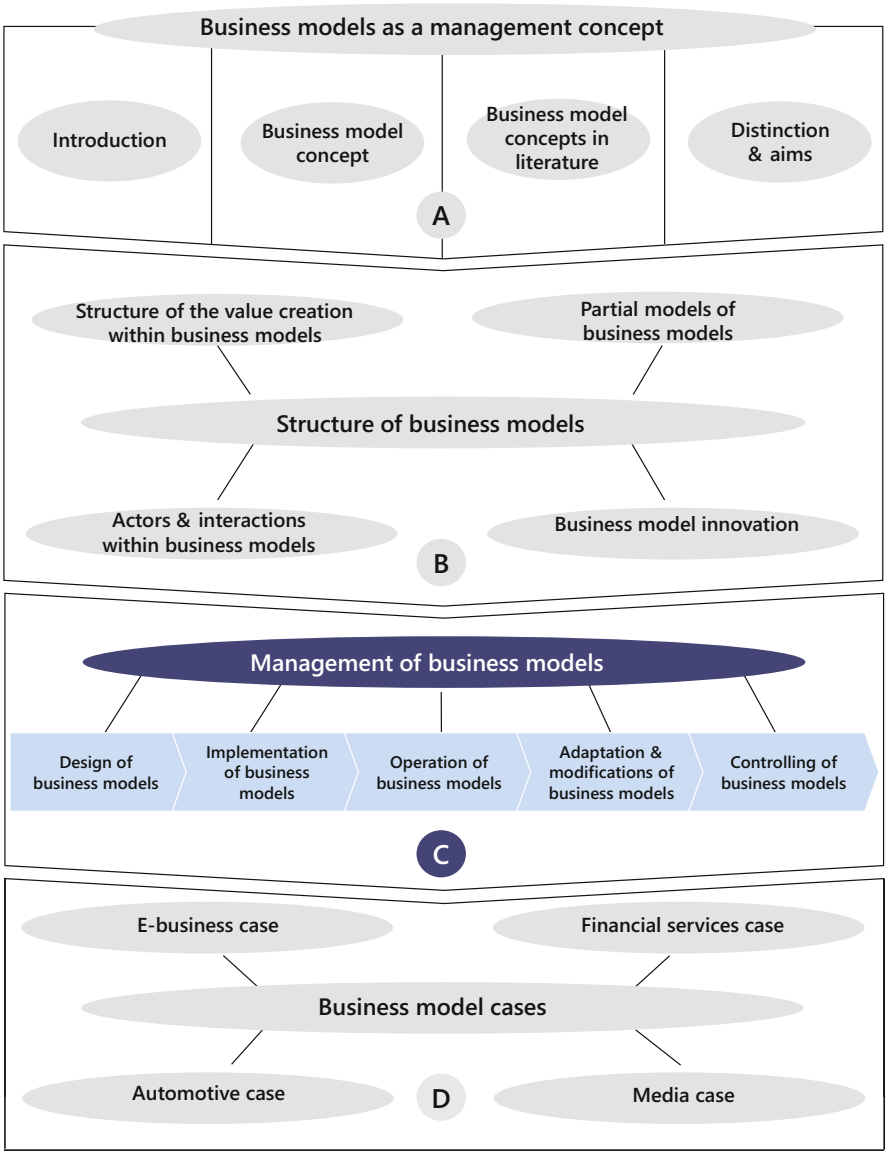

Fig. 10.1 Putting the section into context

Types of Business Model Management

11

The management of business models has a considerable effect on the general development of a company. Therefore, decision-making is of great importance in the management process. In this context, different types of management may be differentiated. An important typology was presented by (Mintzberg 1973) who divided the types of management into entrepreneurial mode, adaptive mode, and planning mode. This division has later been transferred to the context of business models (Afuah 2004).[1]

In Sect. 11.1, first, the three types of business model management are generally described and the important features for making management decisions are then specified. In Sect. 11.2, the focus is on the overlaps of the individual types of management that may partly occur in practice. In this context, it is described how behavior in terms of decision-making may or, respectively, must be adapted in the course of a business model life cycle. Figure 11.1 gives an overview of the structure of the chapter.

11.1 Types of Management

11.1.1 Entrepreneurial Mode

In the case of this management type, growth is the company's primary goal (Afuah 2004). In order to achieve this goal, the company continually examines its corporate environment and the given market conditions to discover potential market opportunities in an uncertain market environment. In many cases, the environment is not observed in a systematic way but rather in a general one. Beside these general

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_11

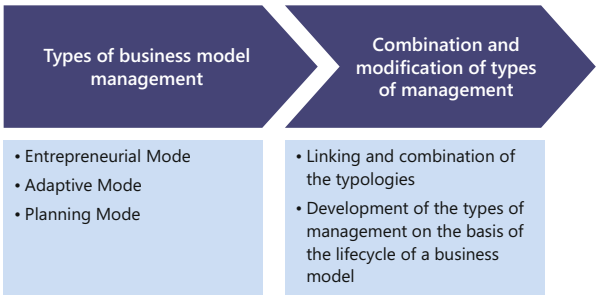

Fig. 11.1 Structure of the chapter

aspects of the entrepreneurial mode, the type of decision-making and the scope of the decision are also important for all types of management.

The type of decision-making in the management process of the entrepreneurial mode strongly depends on the personality of the entrepreneur. In small- and medium-sized companies, the entrepreneur often holds an important position and is substantially involved in strategic decisions, for instance, the modification or new development of a business model. Hence, in this context, it is evident that the resulting business model in the entrepreneurial mode is usually a "reflection of the top manager or entrepreneur" (Afuah 2004).

In order to evaluate this reflection in the entrepreneurial mode, the decision-maker completely relies on his subjective pattern of evaluation and his related competencies and abilities. In this context, no linear structure of decision-making can usually be detected as the entrepreneur makes his decision in a rather unstructured and loosely linked way (Afuah 2004). Moreover, associated with entrepreneurship, it should be mentioned that the decision of entrepreneurs in small companies are often determined by a risky and proactive behavior (Wiklund and Shepherd 2003). It is particularly important for an entrepreneur to proactively recognize opportunities that arise and to adjust or reconsider his business model accordingly.

The decision-maker's readiness to assume risk in the entrepreneurial mode also become apparent in the scope of the decision. Although most decisions have a long-term effect, loosely linked decisions can change the company on different levels within a few years. In this context, it is important that the business model is highly flexible. An increasing flexibility in strategy modification can be observed, particularly in start-ups of the New Economy. This flexibility was largely adopted by the investor market. Without bold decisions made by management or the entrepreneur and the associated risks, however, such strategic reorientations would not have been possible.

11.1.2 Adaptive Mode

In contrast to the entrepreneurial mode, the adaptive mode is characterized by consistent adjustment strategies for changing conditions of the environment. In the adaptive mode, there is no vision or concrete tendency of decisions but rather an

optimal adaptation to a changing attempted. The behavior of entrepreneurs regarding decisions in the adaptive mode is based on a stable framework that yields few radical changes (Afuah 2004).

Regarding the type of decision-making, the focus is on the various stakeholders of a company, including shareholders, governments, labor unions, and employees. Since each stakeholder has his own opinion and tries to represent his own interests as far as possible, the decisions of companies in the adaptive mode can be made only by negotiating with one another (Reynolds et al. 2006; Afuah 2004).

However, in this context as well, the decisions made are based on a subjective evaluation and the resulting advantages of the people involved in the decision-making process.

Furthermore, decisions in the adaptive mode are made primarily in a reactive way—that is, after concrete changes in the corporate environment or in specific partial models have occurred. The unconnected linkage of decisions that is characteristic for the adaptive mode is derived from this reactive pattern of action and the associated delay. For instance, in the adaptive mode, a company may gear the customer model towards important stakeholders. However, due to changes in the procurement model, the company can redirect this orientation to secure the continuance of the entire business model.

This abstract example illustrates the scope of the decision in the adaptive mode. Individual decisions lead only to incremental developments or adjustments of the business model when decisions made in negotiations with stakeholders have to be partially revised. In this context, the rather short-term orientation of the management of companies in the adaptive mode becomes apparent: it has to be possible to adapt strategies and decisions at any time in order to accommodate stakeholders.

11.1.3 Planning Mode

A company's decision-making in the planning mode pursues specific and clearly defined goals (Fredrickson and Mitchell 1984). What is paramount for these goals, and hence the decisions of the management, are growth and efficiency of the company. The growth target is generally to be positioned in a rather risky corporate environment to guarantee sufficient leeway for the business model. The target for efficiency, however, refers to a stable business situation that is able to be planned as well as which economies of scale may be achieved in various partial models of business models (Afuah 2004).

As a result of this dichotomy of the general goals of the planning mode, the type of decision-making is both reactive and proactive. Proactivity is important to identify adequate growth potential, while reactive behavior concerning decisions is better rooted in a stable environment to implement efficient and effective processes through long-term learning curve effects. Therefore, the management continually analyzes the environment and the individual partial models of the business model in order to make integrated decisions that meet both superordinate corporate goals.

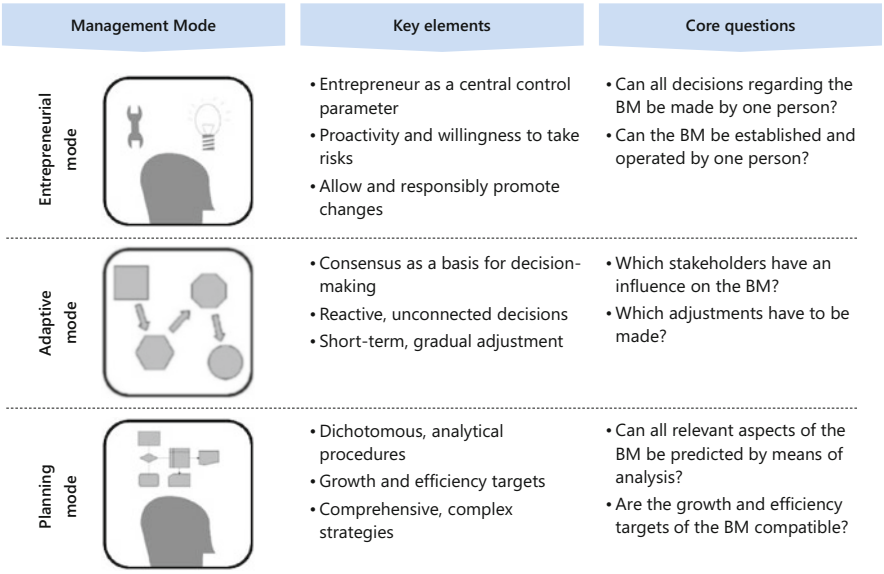

Fig. 11.2 Features of the types of management of business models. Source: Wirtz (2010a)

This complex analytical procedure of making decisions is reflected in the scope of the final decisions made. They are long-term oriented, as the decision concerning growth made with the central business model and with simultaneous optimization of the individual partial models is only promising with a long-range planning horizon. Furthermore, it becomes apparent that companies in the planning mode develop an integrated strategy for the entire company to be able to fulfill the complex targets. Figure 11.2 (content based on Mintzberg (1979)) displays the specific features of the individual types of management of business models and indicates the main issues of the decision-making process regarding business models explained by Mintzberg (1979).

11.2 Combinations and Modifications of Types of Management

Although the management types have a number of specific distinctive features with regard to the decision-making process, there are overlaps in some fields. Considering the decision-making process in a company as a whole, there are combinations of management types as well as modifications or shifts within the decision-making process (Thompson 1993; Afuah 2004).

Due to the complexity of large companies, the first case of mode combination seems to be particularly obvious, since different constellations of power that use different decision-making processes or modes of management are represented. In this context, Afuah (2004) mentions that, for instance, the particularly powerful position of a person in the research and development department allows them to

pursue personal goals and make risky decisions that can be clearly assigned to the entrepreneurial mode (Afuah 2004).

However, for the marketing department of the same company, it can make sense to choose the adaptive mode since different stakeholders highly affect the communication of companies. Therefore, a company can make adjustments on short notice more easily. Ultimately, a stable environment and hence a specific sales forecast is possible for many services. This can lead to an increased use of the planning mode by the production department of a company in order to realize growth and, at the same time, economies of scale. Business model development may be considered on basis of the traditional life cycle phases: introduction, growth, maturity, and decline, the type of business model management employed may vary.

A business model in the introduction phase has to initially prove itself on the market. Due to necessary initial investments and low rates of sales growth, no profits are generated in this phase. Furthermore, there is high uncertainty regarding the predominant customer and market situation. The company's behavior is usually characterized by proactivity and readiness to take risk. Consequently, it is advisable to employ the entrepreneurial mode as a type of business model management during the introduction phase of a business model.

In contrast to the introduction phase, the growth phase of a business model is characterized by increasing revenues and generating profits. In order to assert oneself on the market over the long term, however, it is necessary that the business model will be consistently adjusted to the given market and environmental conditions (Bridgeland and Zahavi 2009). This process mostly takes place through gradual, short-term adjustments, for instance, as a reaction to potential imitation strategies of the competition. For this reason, it is advisable to employ the adaptive mode as a type of business model management during the growth phase of a business model.

In the maturity phase, the business model hardly undergoes any changes. The business model concept, the business model partial models, and the technology employed have usually proven themselves. Moreover, the behavior of customers, competitors, suppliers, and other stakeholders is usually easier to predict, compared to the introduction and growth stages. As a result, it is sensible to employ the planning mode during the maturity phase of a business model.

The last phase of the typical life cycle of a business model, which follows the maturity phase, is the phase of decline. In the decline phase, the business model loses market shares and shrinking profits are expected. Consequently, two developmental options are available. Due to planned discontinuation, no further adjustments are made to the business model, but existing margins are exploited instead. A strategy of disinvestment releases capital with the aim of abandoning a respective business model. For this alternative, it is sensible to employ the planning mode as a type of business model management.

If, however, the continued existence of the business model is desired, it is necessary to enhance the current business model for the purpose of a relaunch (Afuah 2004). This enhancement aims at guaranteeing profitability and the ability to pass through another cycle. Since a reactive behavior is advantageous, employing the adaptive mode as a type of management is suitable for this development option.

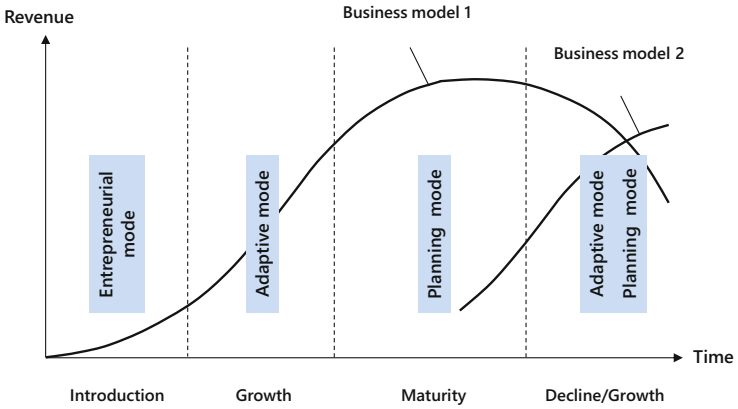

Fig. 11.3 Modifications of modes in the course of the lifecycle of a business model. Source: Wirtz (2010a, 2011, 2018a)

In conclusion, Fig. 11.3 summarizes the modifications of modes in the course of the lifecycle of a business model.

Design of Business Models

12

The design of business models has a substantial effect on the development and success of a company (Zott and Amit 2010). 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 a specific formation of a company focusing 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 Chap. 6 (Adjustment and Modification of Business Models). Therefore, this section focuses on the design of new business models.[1]

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 (Capelleras and Greene 2008). As a result, many authors argue for a more unplanned formation process and agree that a firm's business plan requires too much time and can therefore be a hindrance. Instead, they advocate a formation 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 for the establishment of companies and emphasizes its particular significance (Delmar and Shane 2003). This provides the entrepreneur with structural support in the long-run and increases the probability so 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 (Gavetti et al. 2005).

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

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_12

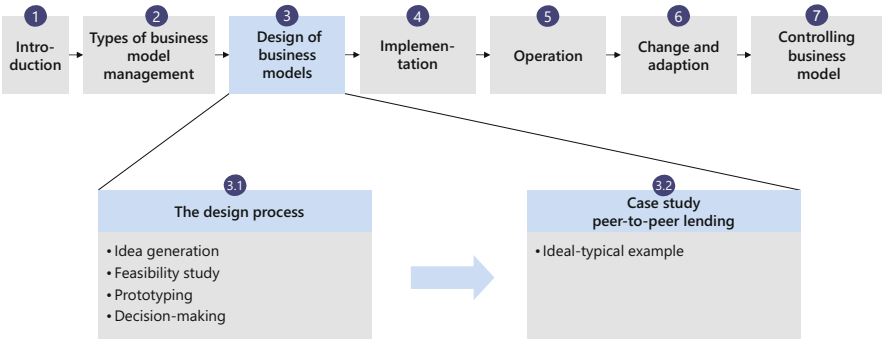

Fig. 12.1 Structure of the chapter

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 start-up 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 (Zott and Amit 2007).

In Sect. 12.1, 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 carry out development in business practice more effectively. The design process, however, does not always need to be completed because the structured course of action allows potential weaknesses as well as 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, Sect. 12.2 presents an ideal-type example of a business model design process. Figure 12.1 gives an overview of the structure of the chapter.

12.1 The Design Process

The business model design process can be divided into four phases: idea generation, feasibility analysis, prototyping, and decision-making. A generic business model must pass through each stage of development in order to increase the probability of the company's success. Figure 12.2 displays the individual phases of the business model design process.

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

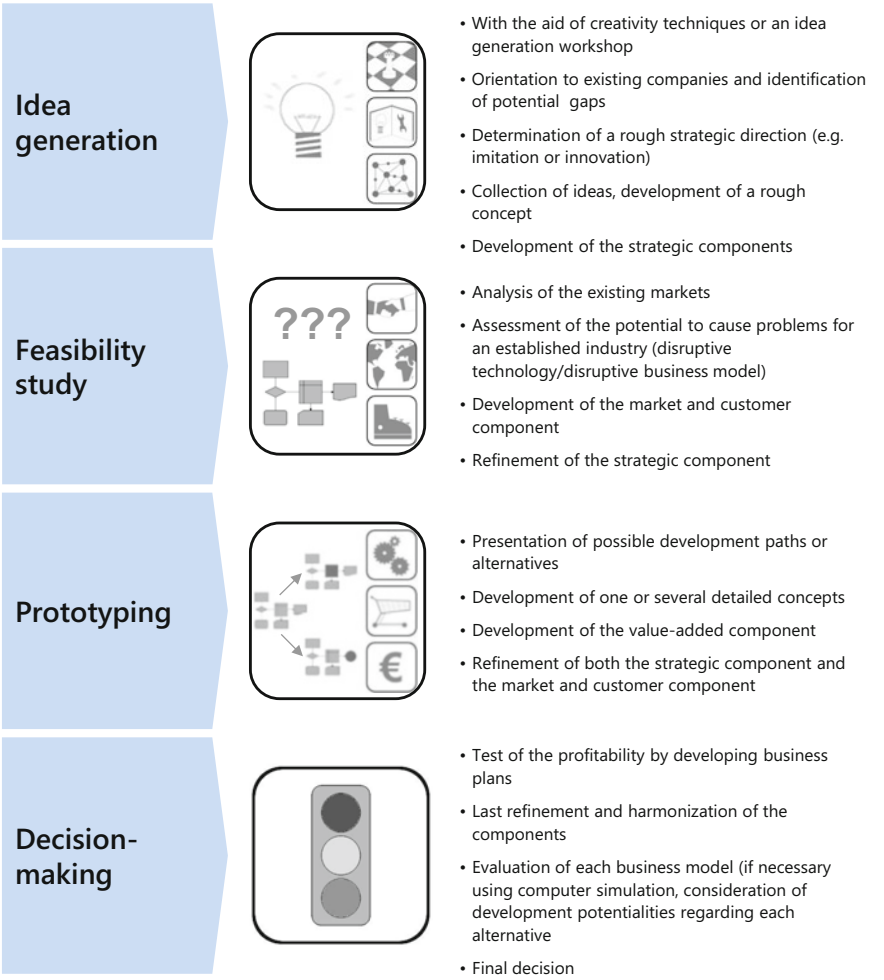

Fig. 12.2 Business model design process. Source: Wirtz (2010a, 2011, 2018a)

analyzed with regard to existing companies, and, building upon this, a new business model can be developed (Markides 2008). In general, the rough features of the business model's orientation should be determined. In this way, it can be decided whether 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 (Afuah 2004). 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 aligns 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 has a variety of options at his or her disposal and must weigh them in order to identify a prevailing alternative (Osterwalder and Pigneur 2010). The entrepreneur therefore formalizes the development paths in various models. At this stage, 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 him- or herself.

12.1.1 Idea Generation

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

There are different creativity techniques that can be used in order to generate business model ideas. The techniques can be 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).

In the context of idea generation for business models, the creativity techniques of classic brainstorming, morphologic box, method 635, and synectics seem to be suitable for usage in business practice. Figure 12.3 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 framework for workshops. Employing different creativity techniques increases the variety of ideas and meets the requirement to create as many business model ideas as possible more easily.

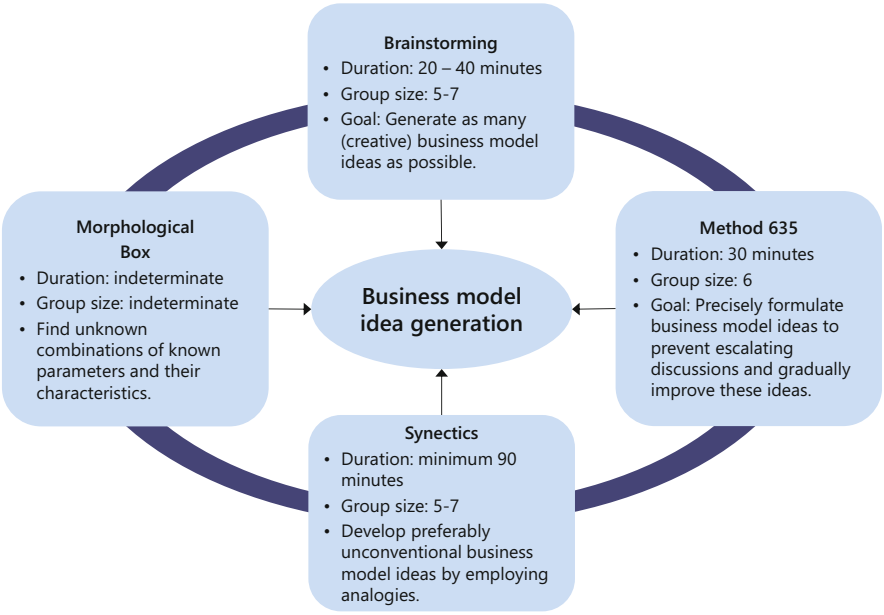

Fig. 12.3 Summary of the creativity techniques. Source: Wirtz (2010a, 2011, 2018a)

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 (Zott and Amit 2007). An example that can be cited in this context is the Dell Corporation which revolutionized the computer industry by introducing a 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 was a copy of the Facebook business model and merely adapted to the regional requirements of the German market.

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 12.4 displays the development path of each partial model in the current design phase. The strategy model, the resources model, and the network model are relatively clearly explained in this first phase. 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.

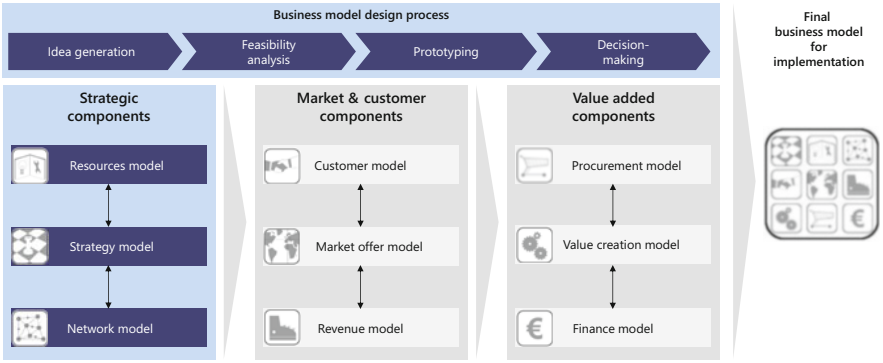

Fig. 12.4 Development of partial models during the design process. Source: Wirtz (2010a, 2011, 2018a)

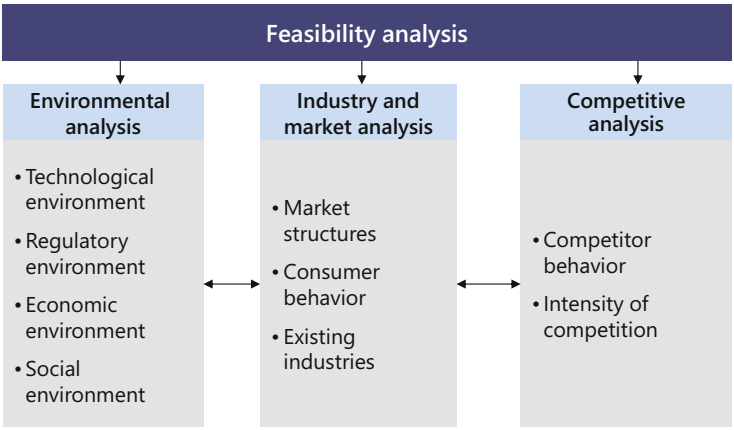

Fig. 12.5 Phases of the feasibility analysis. Source: Wirtz (2013b, 2019b)

12.1.2 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 be divided into the environmental analysis, industry, and market analysis as well as the competitive analysis. This is summarized in Fig. 12.5.

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 individual companies and hence provides the entrepreneur with an important indicator for assessing technological influence (Chesbrough and Rosenbloom 2002).

Both the regulatory and economic environments 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 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 prepaid phone.

This service enjoys increasing popularity and shows that the probability of the success of a business model depends 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 the acceptance and success of a business model.

When the environment analysis is complete, relevant industries are examined more closely with regard to the industry and market analysis (Afuah 2004). Here, the focus is on 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 analyzed holistically. This allows an assessment of whether implementing the business model idea in a particular market has the potential for success or not (Meffert et al. 2012). This analytical step not only provides important information about existing markets but also offers findings about the potential to create a new market.

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. Customer behavior 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, services, and customer models and instead launched sporty lifestyle fashion. While tennis shoes were only worn when doing sports in the middle of the twentieth century, they have now become socially acceptable in daily life. The classic shoe industry that had existed until then faced a new competitive situation; the boundaries between shoes, sports apparel, and lifestyle fashion industries increasingly shifted and finally dissolved.

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 as well as the intensity of competition. This should be

considered during the development process in order to successfully position oneself on the market.

The classic market analysis can, for example, be carried out using Porter's (1980) competitive forces model. This model focuses on the intensity of competition in a specific market. The following five forces affect the intensity of competition: threat of new entry, threat of substitutes, bargaining power of buyers, bargaining power of suppliers, and rivalry between existing competitors.

The threat of new entry plays a vital role when it comes to how much power a company can have within a specific market. If the industry allows for a quick and cost-effective entry to a market sector, the company may be affected. Thus, businesses operating within an industry that does not allow for easy entry are able to charge higher prices for their product.

Another part of Porter's model is the threat of a substitute product, similar or even seemingly identical to the product of the company. The company can charge higher prices for products that have no substitutes. Products for which more inexpensive substitutes are available are less likely to be purchased, effectively weakening the position of the company.

The bargaining power of buyers refers to the power that customers have when it comes to demanding lower prices. The number of buyers and their individual significance to the company as well as the cost of acquiring new buyers all play a major role in determining the bargaining power of buyers. If the company has a small number of powerful buyers, their bargaining power increases, resulting in lower prices, as opposed to a great number of buyers which leads to higher product prices.

The bargaining power of suppliers refers to the cost of inputs. The greater the number of suppliers of important inputs of a product or service, the lesser the power of individual suppliers. The distinctiveness of the inputs and the cost of changing suppliers are important factors affecting the bargaining power of suppliers. A limited number of available suppliers render the company dependent on mentioned suppliers, who in turn can charge higher prices for their product.

The rivalry between existing competitors refers to the number of competitors operating in the same sector of a market and their ability to undermine a company. The company loses its competitive advantage if there are a lot of competitors and subsequently many products that serve the same purpose. Suppliers and customers will choose the product of the competition if it is offered at a lower price. The company can offer its product for a higher price if there are no other competitors.

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 as well as 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 recently formulated strategic model might need to be

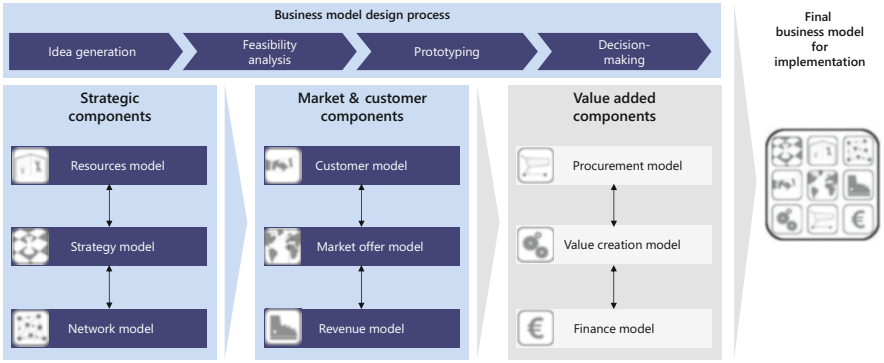

Fig. 12.6 Development of partial models during the design process. Source: Wirtz (2010a, 2011, 2018a)

modified. These are then adjusted so that the strategic components and the customer and market component form a coherent first draft of a business model. Figure 12.6 presents the development stages of partial models at the end of the feasibility analysis.

12.1.3 Prototyping

After testing the business model ideas for viability in 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 to 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 (Osterwalder and Pigneur 2010).

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.

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 of time for implementation. Contrary to this, prototyping only requires a certain amount of time for thinking through the various

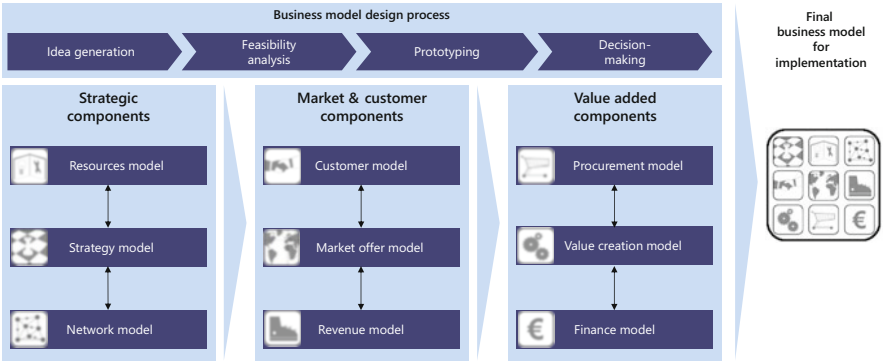

Fig. 12.7 Development of partial models during the design process. Source: Wirtz (2010a, 2011, 2018a)

conceptual models once. 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 that poses a basis for potential prototypes. 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 (Osterwalder and Pigneur 2010).

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 12.7 illustrates that the development of partial models can be considered complete by the end of this phase.

12.1.4 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 entrepreneur must first become aware of the strengths and weaknesses of each alternative. With the questions listed in Table 12.1, the founder of a company can work with the key aspects of business models in order to examine the concepts for completeness.

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

Table 12.1 Checklist for the key aspects of the design of a business model. Source: Wirtz (2010a, 2011, 2018a)

Partial models	Questions
Strategy model	• Which value proposition is relevant for the market? • What are the key aspects of the business model mission? • Which goals can be derived from the corporate strategy?
Resources model	• Which competencies and resources are required for the business model? • What are the critical competencies and resources of the business model? • Are some of these competencies and resources already available? Which can be obtained?
Network model	• Which fields of value creation can be covered by networks? • Which potential partners can be identified? • Which role does one's own company play in this network?
Customer model	• Which groups of customers/market segments can be identified? • Which channels can be used for interacting with customers? • To what extent can parts of the value proposition be individualized for customer groups?
Market offer model	• What characterizes the market structure? • Which competitors (across industries) are relevant for the business model? • What is the fit between the value proposition and existing market potential?
Revenue model	• Which revenue strategies are aimed for in the context of the business model? • Which forms of revenue can be employed? • To what extent can a revenue differentiation be used to reduce the economic risk?
Value creation model	• Which system forms the basis of value creation? • Which basic principle of value generation is employed in the business model? • Which internal and external drivers affect value creation?
Procurement model	• What do relationships to procurement partners have to be like to guarantee optimal procurement? • Which forms of procurement can be employed in the context of the business model? • How can procurement measures be designed profitably?
Finance model	• Which capital structure serves as a basis for the business model? • Which forms of financing can be employed? • Which are essential parameters of the cost structure model?

elements of value-adding activities of a company in a structured and detailed way (Afuah 2004).

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, equivalent business plans, and business cases to be able to choose a business model concept (Osterwalder 2004). Hence, the entrepreneur has a broad base of alternatives 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.

When the entrepreneur has identified the most profitable business model, there are basically four possibilities regarding the usage of the concept (Baron 2006): he can implement the business model itself, or he can sell, revise, or temporarily reject it. If the business model meets the expectations of the founder of the company, he or she can either try to sell the concept as profitably as possible or start implementing it him- or herself 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.

The last possibility is to reject the business model or the prototypes, in which case they may be archived for later usage. 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 influence 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 withdrawal from already guaranteed financing and credits. Consequently, it is possible that concepts can no longer be realized.

12.2 Case Study: Peer-to-Peer Lending

The earlier described general business model design process will now help to clarify the general application of the concept. For this purpose, the following section presents the perspective of an entrepreneur who wants to establish a peer-to-peer lending platform. Lending is thereby supposed to be possible among private persons in order to create a win-win situation for credit lenders and debtors and to enable higher yields or lower interest payments in the course of a disintermediation of the banks.

With peer-to-peer loans, such as “zopa” in Great Britain and “prosper” in the USA, a new type of intermediary platform is established as an alternative to small loans from classic financial institutions (Gonzalez and McAleer 2014). The entrepreneur first hears about the platform’s success in 2006 and notices that such a business model has not yet been realized in Germany and therefore decides to transfer the platform to the German market.

In doing so, he pursues the strategy of imitation and orients him- or herself towards the key aspects of the existing company. Nevertheless, the entrepreneur starts with a brainstorming session and examines the concept’s transferability prospects. Based on these ideas, he or she develops an initial version of the strategic component, which is displayed in Fig. 12.8.

In the second phase, the feasibility analysis is conducted and existing markets are analyzed. The entrepreneur’s research reveals that the market for microcredit is highly profitable and the established financial institutions can produce high margins. Compared to Great Britain and the USA, legal requirements in Germany are more restrictive in many aspects.

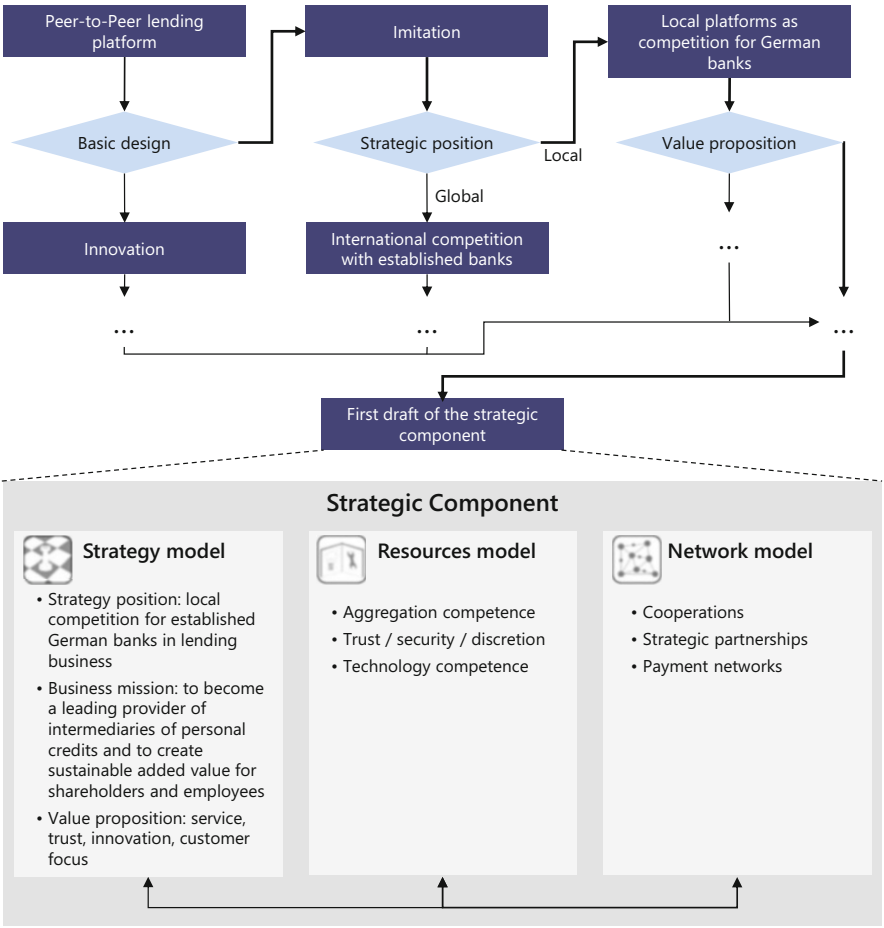

Fig. 12.8 Development of the strategic component in the context of idea generation. Source: Wirtz (2010a, 2011, 2018a)

The company founder finds out that he or she is subject to the German Federal Financial Supervisory Authority and only banks are allowed to grant loans in Germany. Therefore, the existing business models cannot be transferred to the German market without adaptation. The network model that was developed in the last design phase must be adapted, and a bank needs to be won as a business partner.

Based on the analyses, the strategy component is revised, and the customer and market component is defined. The entrepreneur therefore decides to orient the customer model towards private customers proficient in Internet usage and to provide fast and straightforward brokerage of microcredit within the context of the market offer model. In this connection, revenues are supposed to be generated through commissions and monthly processing fees for ongoing credit. Figure 12.9

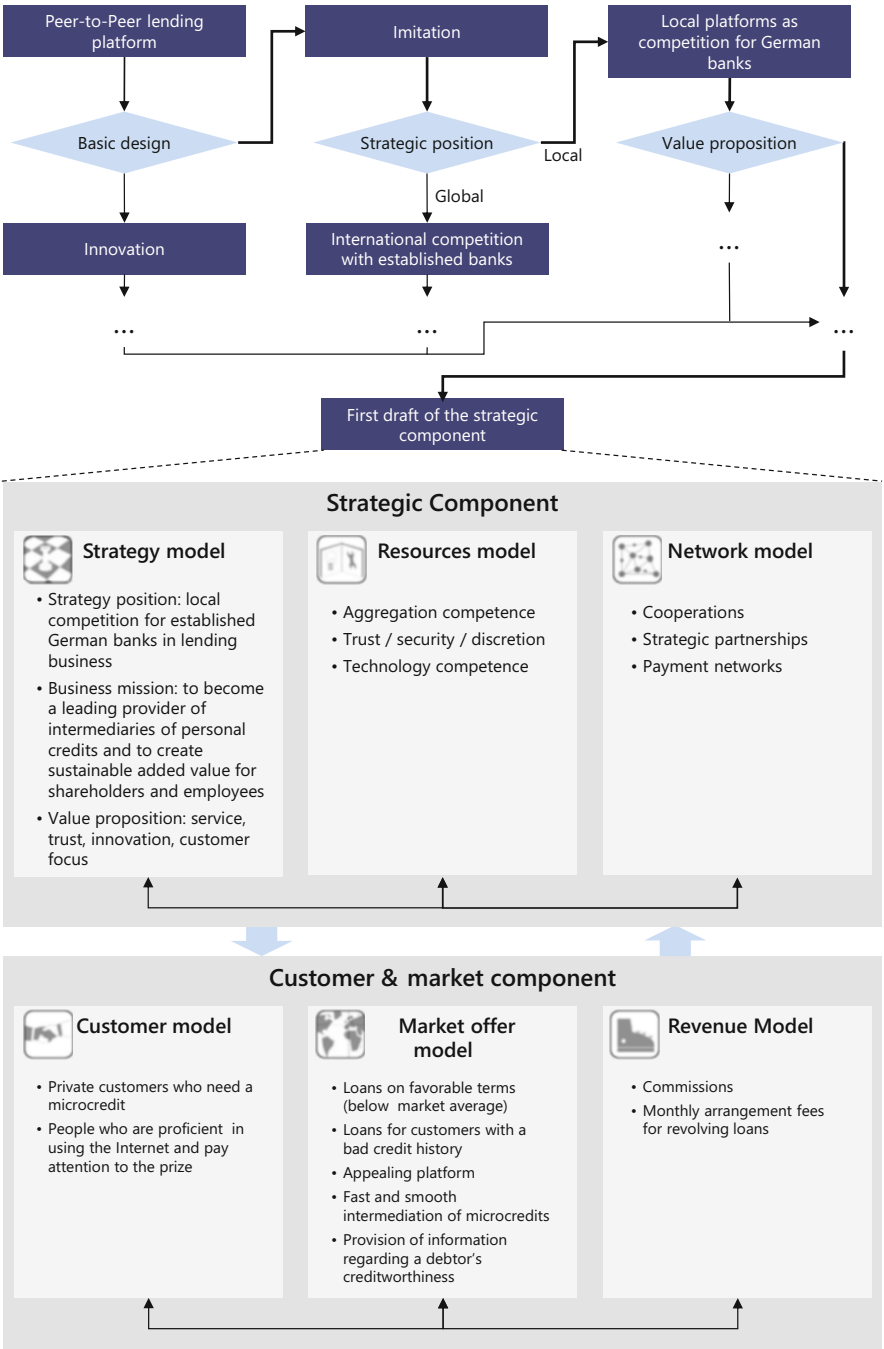

Fig. 12.9 Partial models of the business model by the end of the feasibility analysis. Source: Wirtz (2010a, 2011, 2018a)

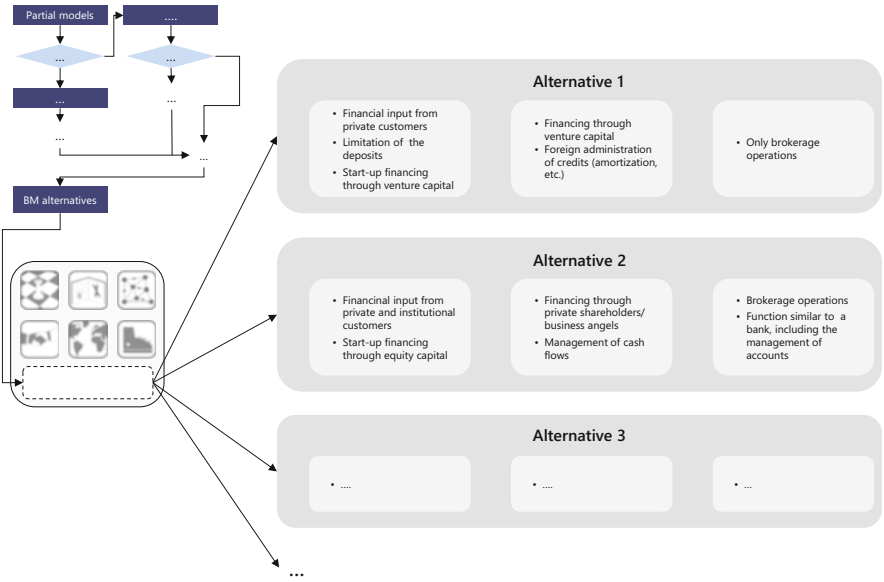

Fig. 12.10 Creation of several prototypes. Source: Wirtz (2010a, 2011, 2018a)

presents the stage of development of the partial models by the end of the feasibility analysis.

In the prototyping phase, the entrepreneur develops the value-added component to complete the business model. To a special degree, these partial models provide the company founder with a scope of action for the operational design of the business model. Regarding the finance model, the entrepreneur has several possibilities to finance the company. The entrepreneur can either provide the required capital him-/herself or seek funding from shareholders.

In the case of the value creation model, the entrepreneur can choose from several alternatives: Should a wide range of goods and services as well as intermediary activities be provided to the customer, or should the platform also offer the functionality of a bank and, for instance, provide an individual account? The various courses of action within each partial model can be combined into different alternatives which are exemplified in Fig. 12.10.

The last phase of the business model design process begins with decision-making. The entrepreneur answers the questions asked in the checklist concerning each partial model for all previously developed business model prototypes. On the one hand, this guarantees completeness, and, on the other hand, it allows to develop key aspects. After this process, the company founder chooses two alternatives which he then considers more closely.

He devises a detailed business plan for each business model alternative and performs a profitability analysis within the scope of each business case. Having carried out this analysis, the entrepreneur ultimately chooses the more profitable

alternative. Figure 12.11 shows the developed business model and thus the results of the business model design process.

These explanations 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 12.12 presents an exemplary checklist with the most important questions regarding implementation in this subject area.

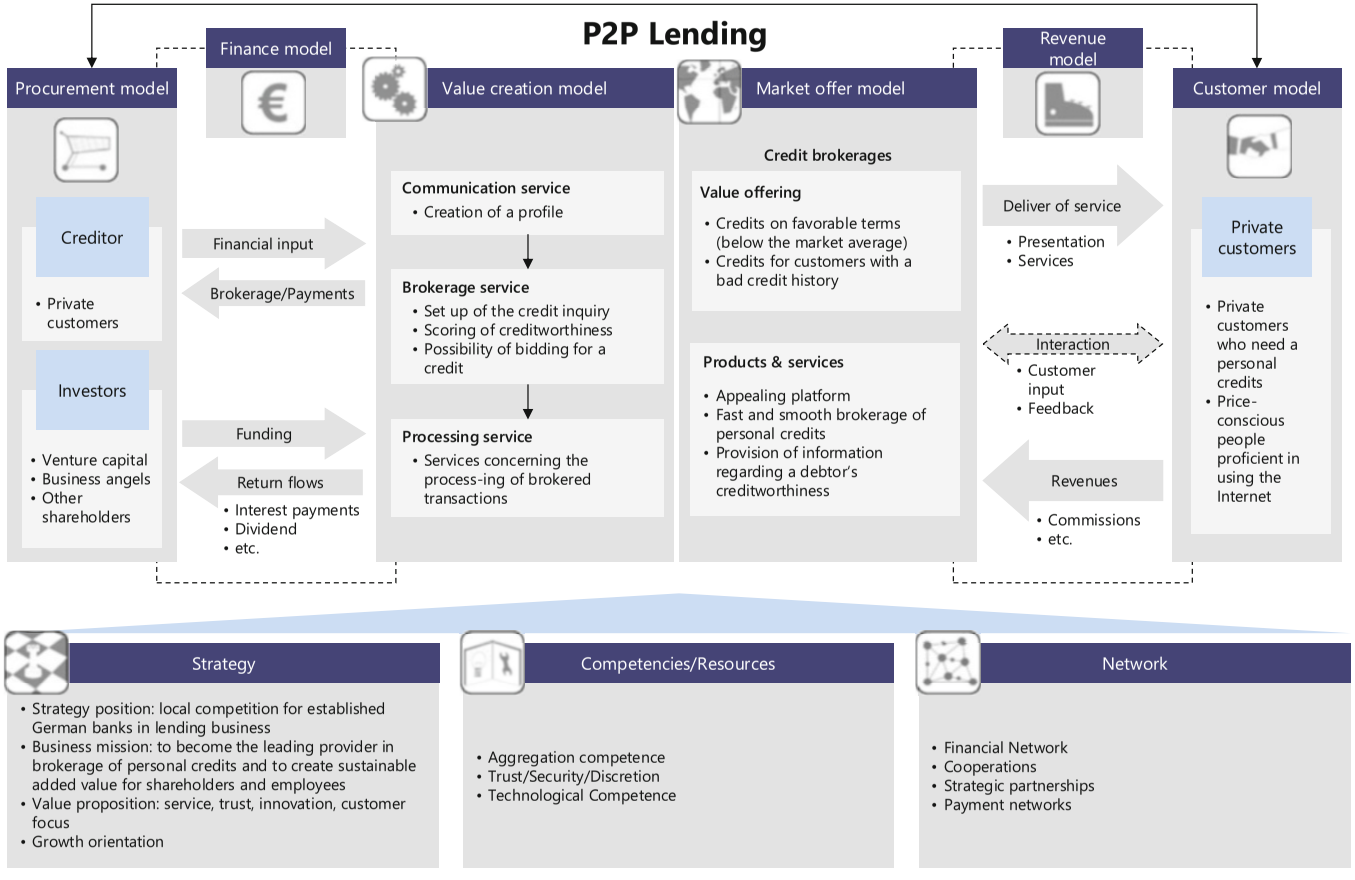

Fig. 12.11 Exemplary business model for P2P lending companies. Source: Wirtz (2010a, 2011, 2018a)

Central issues regarding the design of business models

- Is the design geared to 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 recorded 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?

Fig. 12.12 Checklist for business model design. Source: Wirtz (2010a, 2011, 2018a)

Implementation of Business Models

13

In the context of business model management, the implementation of business models follows the business model design process. The result of the design process is an integrated business model that contains all nine partial models and serves as a construction plan for implementation. Practical implementation takes place on the partial model level and ends with the complete implementation of the business model.[1]

The relevant components of a successful business model implementation encompass aspects of the strategic component, the customer and market component, and the value-added component. The goal of business model implementation is to design or combine these components in such a way that the business model and the pursued business model strategy are put into practice in the best possible way (Afuah 2004).

With this in mind, an overview of the basics of business model implementation is given first. On this basis, the individual components of implementation can be explained, and the particularities resulting from the context of business model management types can be identified. Figure 13.1 illustrates the structure of the chapter.

The process of business model implementation is interdisciplinary and cross-hierarchical. In order to coordinate this process, it is necessary to divide it into different phases, analogous to the classic implementation process. The different phases are passed through iteratively. Different approaches for dividing a project into different phases can be found in the literature on implementation management. These differ primarily with regard to their granularity, but are all based on a similar pattern of procedure. In the business model context, a division into five phases is suitable: a planning and conceptual phase, a communication phase, team building, a realization phase, and project completion (Osterwalder et al. 2005).

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_13

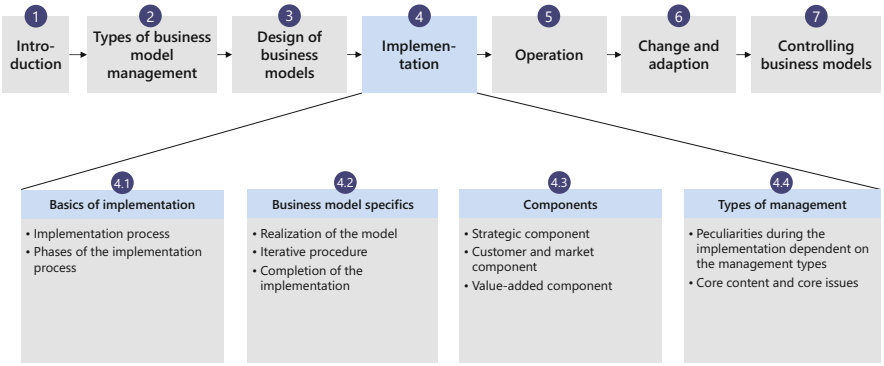

Fig. 13.1 Structure of the chapter

The project has a detailed plan: the business model as a result of the business model design process. The planning phase of business model implementation primarily deals with the estimation of expenditure factors. This mainly comprises budgeting of the implementation and creation of detailed operating plans, in which deadlines, resources, and milestones of the project are defined (Bernecker and Eckrich 2003). There are different instruments such as network plans for implementing these plans. Due to the usually high planning effort of business model projects, the concept can only be efficiently realized with IT support.

When the planning and conceptual phases are finished, a suitable communication strategy needs to be determined. Within the context of business model implementation, this means designing a communication structure within the implementation team, as well as communicating the goals and procedure of implementation. Communication at an early stage can be applied supportively in order to increase the acceptance of the business model among own employees as well as value-added partners and customers involved.

Once the fundamental structures for implementation have been created, a team needs to be assembled that is responsible for realizing the implementation plans. Putting together the right team is of particular importance as it prevents social conflicts and political risks at an early stage (Olson, Walker, and Ruekert 1995). For the team building within the business model implementation process, it is crucial that the team deliberately consists of people with different qualities. When building a team, the following qualities are therefore important (Adair 2009):

- Level of knowledge and skills: If possible, all team members should have the same level of professional productivity. Under-qualified team members are refused.
- Social competence: Sufficient social competence is required for the team members to be able to approach one another, to understand the points of view of other colleagues, and, if necessary, to openly address disagreements.

- Preference for teamwork and methodical competence: A team member is generally expected to prefer teamwork to autonomous individual work. Furthermore, basic abilities of planning and managing projects are a fundamental requirement (Albers et al. 2006).

The key process of implementation is the concrete execution of plans within the company, although this does not take place linearly. Interim results and the progress of the project must be continually examined (not only at milestone deadlines), and single sections of the project should be repeated if necessary. In this way, a business model project differs only slightly from a classic project.

Reference is therefore made to other literature on project management, in which a variety of tested instruments and techniques for implementation and monitoring is found that can also be employed in the context of business models.

Project completion constitutes the interface between business model implementation and business model operation. In addition to a smooth transition to the operating business, the goal of a successful project completion is to preserve knowledge gained during the process. In practice, however, it should be considered that project completion is carried out in a less systematic manner than the previous phases of the project (Bea et al. 2008). Above all, there is a risk of losing project experience that could be used for establishing business model management competence, although it could be easily gained, e.g., through workshops on lessons learned. Figure 13.2 displays the implementation process.

Due to the completion character of the implementation processes, a project perspective seems appropriate to determine the organizational structure. Implementation projects are characterized by a temporary organizational structure (Lundin and Söderholm 1995). Employees from various divisions and levels of hierarchy are assigned to the project for a stipulated length of time. In addition, it is possible for them to call on external advisors or service providers to assist in implementation. Alongside the official company hierarchy, a problem-solving structure is created in the project unit. In literature, three ideal-typical models can be distinguished.

These standardized organization models comprise staff project organization, matrix project organization, and pure project organization. They determine the relationship between the project and the established organizational structure and hence the organizational independence of the business model project.

The suitability of an organization type for an implementation project primarily depends on external and internal conditions. General external conditions affect all projects in the company and comprise, for example, environmental dynamics, personnel qualification, existing corporate culture (especially project culture), and the number of projects carried out simultaneously. General internal conditions, however, are directly linked to the project and should therefore be called project-specific. Among these conditions are novelty, complexity, as well as size and length of the project (Bea et al. 2008).

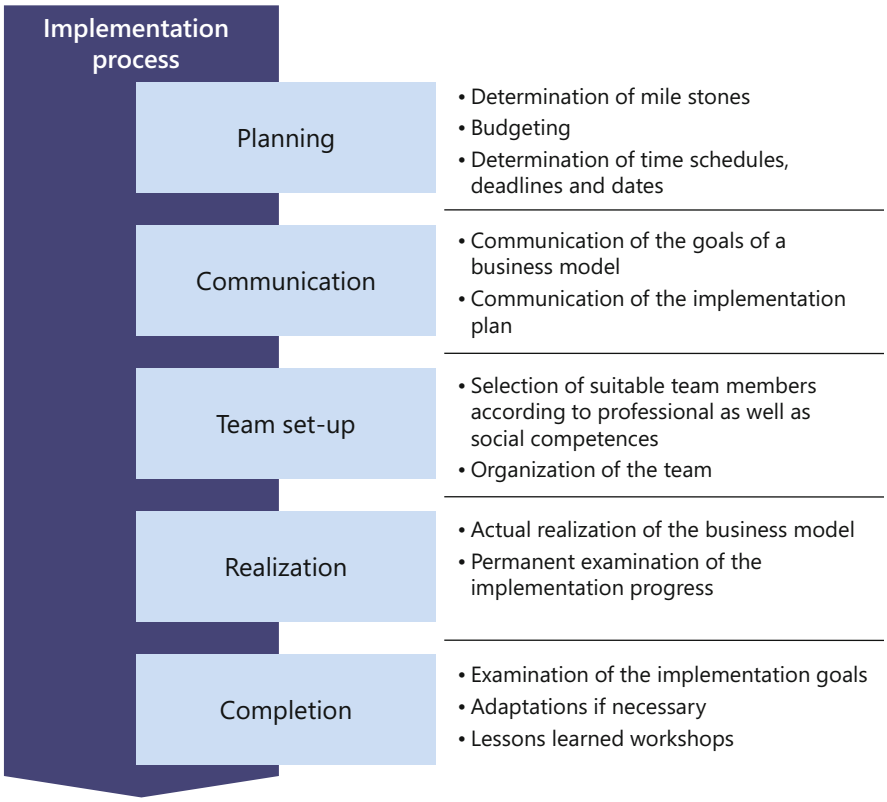

Fig. 13.2 Phases of implementation and management tasks. Source: Wirtz (2010a, 2011, 2018a)

13.1 Specifics of Business Model Implementation

The implementation of a business model strongly depends on the concrete business model, in particular the design of the individual partial models and numerous environmental factors. Nevertheless, there are essential factors and parameters for implementing business models that—provided they are known and taken into consideration—substantially increase the success of implementation. These essential features and the corresponding implications for implementation practice are explained in the following section.

The core of the implementation process is the concrete execution of the business model within a competitive company. Depending on the respective business model level, the target level may also be a competitive part of the company, such as a particular business unit. Hence, in the context of implementation, the business model can be understood as a construction plan for the corporate logic.

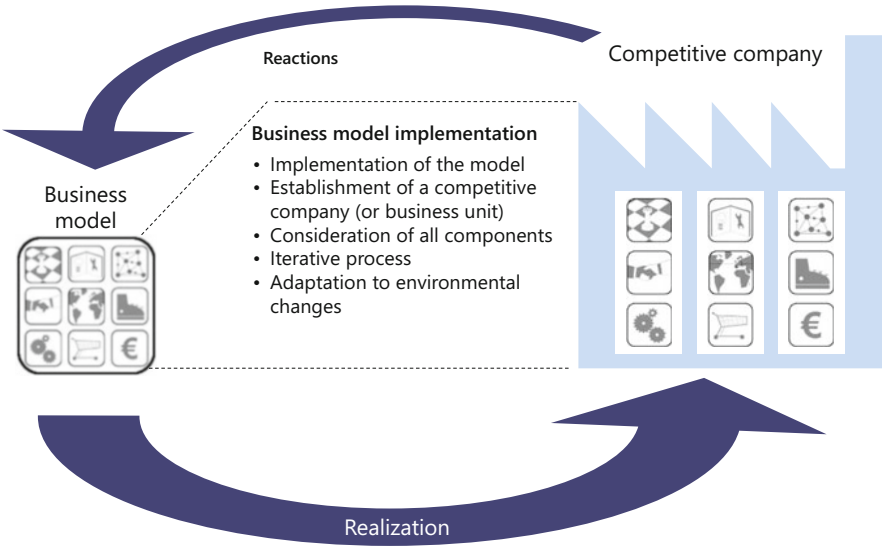

Fig. 13.3 Business model implementation. Source: Wirtz (2010a, 2011, 2018a)

The implementation process of the business model is not linear. Each business model implementation takes place in a changing environment. As a reaction to this dynamic environment, the model already needs to be adjusted during the implementation process. These adjustments can be interpreted as reactions to the underlying model. In business model implementation, the duration of implementation should therefore be included as an important factor in management considerations. The longer the implementation takes, the higher the probability that adjustments will be required.

In order to be able to react in a timely manner to changes that affect business model implementation, the task of monitoring is assigned to the management. Interim results and progress in implementation must be questioned continually, and if necessary, single steps of implementation should be repeated. This guarantees that the company can operate competitively after the implementation phase has been completed. Figure 13.3 illustrates the process of business model implementation.

The completion of the business model implementation is characterized by the full implementation of all nine partial models. Operational business usually already begins during implementation in order to guarantee the funding of business activities. Nevertheless, there is the risk of considering the implementation complete after business operations have started. In this context, the observation of partial models constitutes a procedure that guarantees complete implementation and hence prevents the implementation phase from being terminated prematurely and unsuccessful.

13.2 Partial Model-Related Implementation

Complete success in implementation requires to implement the specifications of all partial models of the business model. In the following, business model implementation will therefore be analyzed based on the partial models, and recommendations for actions will be given. First, the strategy component and its particular significance for the business model will be addressed. Subsequently, an explanation follows of how to implement the customer and market component and the value-added component.

13.2.1 Implementation of the Strategy Component

The partial models of the strategy component are also of particular importance in the context of implementation. It needs to be distinguished to what extent a partial model can be completely implemented and whether it takes a superordinate position or affects the implementation of other partial models. In the integrated business model, the strategy and the resources model occupy this superordinate function. The network model can, however, be implemented according to the classic notion and is hence assigned to the feasible partial models.

The strategy model contains information about the business model mission, the various strategy paths that can be chosen, as well as the superordinate statement about the value proposition. These factors are significant for the business model and affect all partial models. Therefore, the strategy model itself is not directly implemented, but rather its specifications manifest themselves in the implementation of other partial models.

In the context of the strategy model implementation, the main focus is to communicate strategic goals as well as to establish new thought patterns and their implementation in all parts of the company. There is a close connection with classic strategy implementation in the context of strategic management (Hussey 2007). In contrast to strategy implementation, the strategy model in business model implementation does not necessarily have to be incorporated into an existing structure; it can also form the framework for a completely new business model (Zott et al. 2011).

In order to understand the implementation of the resource model, a distinction needs to be made first. On the one hand, the resource model describes the competencies and assets that already exist in the company. In this context, the implementation aims at applying these competencies and assets to the feasible partial models in such a way that the best possible implementation result is achieved. If a company, for instance, has valuable experience in direct marketing, these marketing competencies should be considered accordingly in the customer model and focused on in its implementation.

On the other hand, the resource model may also describe resources that the company does not yet possess. In this case, the resource model strongly interacts with the procurement model. The latter serves to guarantee that the required resources are adequately incorporated into the company. In this context, a conceivable option may be, for example, to acquire additional know-how by hiring new staff

members or providing further training for employees (in special cases for the entrepreneur him- or herself).

Implementing the network model involves the execution of the planned network structures. Possible value-added partners have to be integrated, and interfaces to the corresponding partial models of the value-added domain need to be configured. Since the requirements of the cooperation partners have to be considered and adjustments are often necessary during the process, the network model is a very dynamic partial model. New opportunities for cooperation often arise in the course of implementation. In this case, the business model should be updated accordingly.

13.2.2 Implementation of the Customer and Market Component

The customer model describes the different customer groups, customer relations, and the configuration of distribution channels and therefore strongly interacts with the network model. In this context, implementation aims at implementing specific distribution channels in order to separately address the target groups identified in the business model. If necessary, intermediaries are tied to the business model, and appropriate framework agreements are made.

Furthermore, it is recommended to establish close customer contact during the implementation. This also includes communicating the business model and its mission—which is determined in the strategy model—as well as the essential value proposition to the customers. An important goal in implementing the customer model is to approach customers before starting operations. This is particularly important if the business model includes interactive forms of value creation such as open innovation or mass customization (Chesbrough 2006). In this case, the customers should be integrated into the value-adding activities early on.

Within the context of business model implementation, the market offer model can be divided into two parts. The key aspects of this model (and most of the time of the comprehensive business model as well) are the products and services offered on the market. The entire value creation and hence the value-added partial models are coordinated with the planned value offering. Therefore, the market offer model functions as a guiding principle for implementation.

The second part of the market offer model describes the market structure and the various competitors of the company. Depending on market dynamics, the starting point for business model implementation can always change. Reactions of competitors to a company's business model are an additional reason for updating the market offer model during implementation. In this way, the market offer model can serve as an indicator for adjustments within the implementation process. As a consequence, these adjustments can affect all partial models, even the offer structure determined in the market offer model.

The revenue model describes the various forms of revenue and their differentiations. The revenue model is implemented exclusively on an operational level and hence largely corresponds to the concept of the ideal-typical implementation process. In the context of business model implementation, the major challenge is

to incorporate these processes in the value creation logic. The different forms of generating revenue usually result directly from the market offer and the customer models.

13.2.3 Implementation of the Value-Added Component

The value creation model constitutes the heart of the value-added architecture of the business model. Its precise implementation is therefore very important for a company's future success. In this context, the function of the business model as a construction plan for implementation becomes particularly apparent. The production processes are specifically designed on an operational level and far exceed the model's degree of detail. With the help of process charts and workflow simulations, the value creation model can be further specified, and implementation can be simplified. All in all, however, the implementation effort strongly depends on the complexity of value creation in the business model.

The procurement model describes the structure and sources of the resources required for the production of goods and services. Therefore, the most important task of the management in implementing the procurement model is to identify procurement partners (provided that the model does not specify them) and to negotiate corresponding framework agreements. On the operational level, the model needs to be logistically linked to the production of goods and services. This linkage, in turn, has to be coordinated with procurement partners, and corresponding systems and interfaces need to be implemented, for instance, for the timely cancelation of an order.

The finance model illustrates the funding, capital, and cost structures and serves to guarantee a company's liquidity. It primarily describes the manifold cash flows within a company that reflect information and goods flows and quantifies resource flows in terms of money. Like the revenue model, the finance model forms an operational base for various value-adding activities. Another task of business model implementation is the incorporation of the finance model into the value creation logic.

Apart from the various cash flows within a company, the finance model also describes the sources of finance of the business model. While, in an established company, a business model is usually financed from internal sources, external fundraising confronts the founder of a company with great challenges. Furthermore, financing often turns out to be a variable process, because additional sources of capital, such as follow-up loans, usually need to be accessed in the course of implementation.

13.3 Effect of the Type of Management on Implementation

The implementation of a business model is an interdisciplinary and cross-hierarchical process. As a consequence, there are various requirements for the implementation of a business model depending on the management mode of the concerning company. Therefore, the following section deals with the particularities of the entrepreneurial mode in more detail and the adaptive mode and the planning mode in the context of implementation.

In the entrepreneurial mode, the business model is the basis for the formation of a company. Usually, start-ups and new companies with a very strong entrepreneur or manager are considered to be in the entrepreneurial mode. The vision of this strong leader is the guiding principle for business model implementation. Most of the time, there are not yet any fixed corporate structures in which the business model has to be incorporated. This results in a high degree of freedom for implementation. Moreover, due to very high flexibility, the entrepreneur is able to react individually to or even proactively counter problems and changes caused by the environment (Afuah 2004).

However, due to much uncertainty, there usually is a high potential for risk in the entrepreneurial mode. For the most part, these risks cannot be identified to the extent that is required in classic risk management. In the entrepreneurial mode, the key focus should be on completely implementing the business model. Since the partial models are often implemented in a successive manner due to highly limited resources, there is a risk that remaining aspects of the model are neglected once operations have started.

Companies in the adaptive mode have complex structures with many stakeholders and often unclear competencies (Afuah 2004). Although these are usually established companies, these features mean that there is no clear strategic direction. The complex and unstable decision-making situation and the resulting reactivity of the decisions harbor substantial management risks in the context of implementation. The competencies must therefore be clearly defined at the beginning of implementation. The focus should be on a clear business model vision and strict implementation of the strategy model's specifications.

The implementation of a new and changed business model is usually a far-reaching and time-consuming step for the company. Another challenge results from the company's short planning horizon when implementing the business model in the adaptive mode (Afuah 2004). Although the resulting flexibility favors implementation of dynamic partial models, such as the market model, the incremental planning steps jeopardize implementation of the business model. In this context, the business model should provide the required planning security. Companies in the planning mode are characterized by stable organization and clear management structures (Afuah 2004).

The decision for implementation is the result of careful planning and elaborate analysis. Accordingly, the lowest risk potential for business model implementation occurs in this management mode. Nevertheless, it is very important to implement all partial models in the planning mode in a careful manner as well. Overall, in the

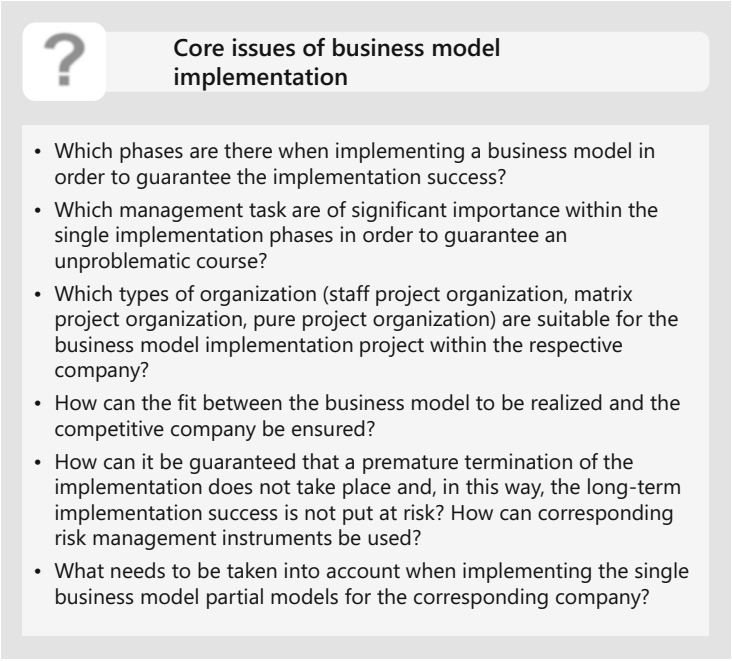

Fig. 13.4 Checklist for implementation. Source: Wirtz (2010a, 2011, 2018a)

planning mode, the danger exists of focusing too heavily on risks (Sherman et al. 2014). Therefore, the management's tasks involve dispelling concerns and putting the focus of internal communication on the goal of successful implementation.

Particularly in the planning mode, business model projects involve breaking up old, often outdated, and inefficient structures. Apart from structural and process-related implementation, it is necessary to ensure acceptance among the employees. Implementation therefore requires operational excellence and, above all, the willingness and ability to communicate the business model within and outside of the company.

On the basis of these explanations, both the opportunities and the risks of implementing a business model become apparent. A checklist based on the conceptual description of the various contents is very helpful for a successful implementation. Figure 13.4 presents an exemplary checklist with the most important questions concerning implementation in this subject area.

Business Model Operation

14

The term business model operation describes the operation of a business that is based on an integrated business model. It is the phase between the complete implementation of the business model and the beginning of the adaptation or modification of the underlying business model. The business model prototype emerged from implementation is backed up with core processes and transferred to the operational business.[1]

The main task of the business model life cycle phase is the management of business processes. In Sect. 14.1 the basic processes in the context of business model management will be introduced. The section also shows the interaction between a business model and a process layer and what needs to be taken into consideration by transferring processes into operational value-added levels. A special focus is on securing customer orientation and value orientation of an operational enterprise and aligning the processes and value proposition.

Another important task of business model operations is quality management. The aims of business model quality management are to analyze and optimize the implemented business model in an operative context. Here, a special focus is on securing operational excellence in the business model context. The practical implementation of quality management will be explained by using the example of the Six Sigma method. Section 14.2 concludes with the distinctive features of the types of business model management. Figure 14.1 shows an overview of the structure of this chapter.

In times of increasing globalization, intense competition, and growing customer demands, the efficient and effective management of business processes is indispensable. Normally, the conclusion of business model implementation offers a corporate structure that meets these requirements. Especially in the domain of operational businesses, this structure is subject to various external and internal corporate

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_14

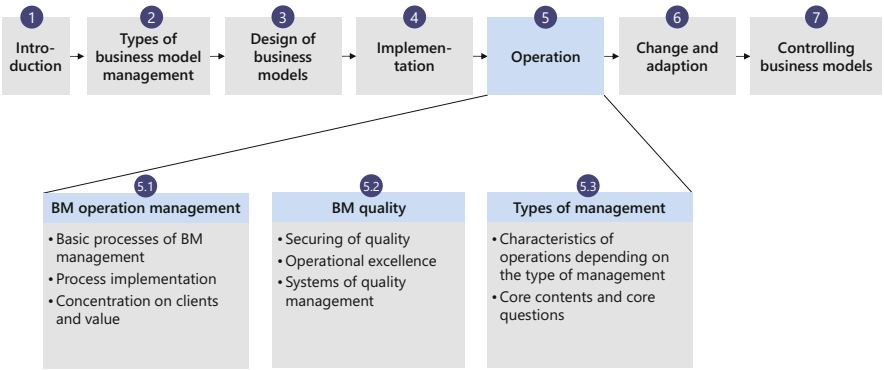

Fig. 14.1 Structure of the chapter

influences. This leads the management to implement processes and guidelines of the business model in the daily business.

The management literature describes operations management as a proven concept and a way to cope with the challenge of an operational business. Thereby, the organization, the operations, and the constant improvement of product systems that produce goods and services for a business are measured (Taylor and Russel 2006; Krajewski et al. 2007). In this context, operations management affects the entire process of producing goods and services of a business, including upstream and downstream operations (procurement and sales).

With the help of operations management, both process-related corporate structures and the quality of production processes can be optimized. Furthermore, operations management serves as a possibility to design flexible production processes (Heizer and Render 2004). Only this way it is possible to react to changes that might result from changing customer needs or modified market conditions.

Like classic operations management, business model operations management can be subdivided into two basic application areas: the organization and the operation of a production system (Heizer and Render 2004; Chase et al. 2006; Taylor and Russel 2006; Krajewski et al. 2007).

Each of these areas of application is crucial for the success of a business model within an operational business. The organization of the business model on a process-related level includes the implementation of core processes and the orientation of these processes towards strategic and value-added guidelines of the business model. Within a business, securing quality as well as operational excellence is of great importance.

The most important task of business model operations management is to establish a superordinate structure of the business model on a process-oriented level. This step is carried out after the business model has been successfully implemented and can be described as process implementation in this context. This implementation is used to specify the business model to the extent that the processes needed for value creation

can be realized. Thus, it is directly affiliated with business model implementation and continues to carry it out on an operational level.

In order to guarantee an efficient and sustainable implementation process, relevant core processes must be identified. This can be done by using partial models since a relevant core process can be assigned to each partial model. Generally valid core activities, in turn, may be assigned to core processes that can decisively support the management in realizing the process structure.

Based on the core processes implemented, downstream or supporting processes can be realized. Figure 14.2 depicts the processes of process implementation in a business model context classified according to partial models and also shows selected sub-processes.

The main management challenge in the operational element of a business model is to secure consistency between the superordinate business model and the related process level. All processes are designed to implement specifications from different partial models of the business model. This procedure is called process alignment. Business model operations management serves as the link between the various levels.

Here, a special focus is on coordinating the processes with the specifications of the strategic components. To make this adaptation possible, the value proposition of the business model—defined through the strategy model—needs to be included in the operational business and serves as a basis for all processes. Attention should also be paid to the alignment of the processes in the areas of value creation and customers. Also, here the specifications of the business model on a process level must be adapted and, if necessary, adjusted to changed market conditions and customer demands.

14.1 Business Model Quality Management

Quality management is a central part of operational management. Quality management comprises all organized measures aimed at improving products, processes, or services of all kinds and thus is one of the key tasks of the management (van Iwaarden et al. 2013). Accompanying quality management guarantees compliance with the level of quality desired by a company. In the business model context, quality management is a complex task since the quality of a business model is very difficult to determine which means that it is often not possible to measure an improvement objectively.

Business model controlling aims at monitoring the extent to which the value proposition towards the customers is put into effect. However, it is not possible to determine the actual quality of a business model by means of these indicators. Negative indicators of business model controlling can either result from the quality of the business model itself or from the quality of business model implementation and process implementation.

During business model operation, both of the above-mentioned causes for a lack of success can occur. If it is possible to create operational excellence or consistency

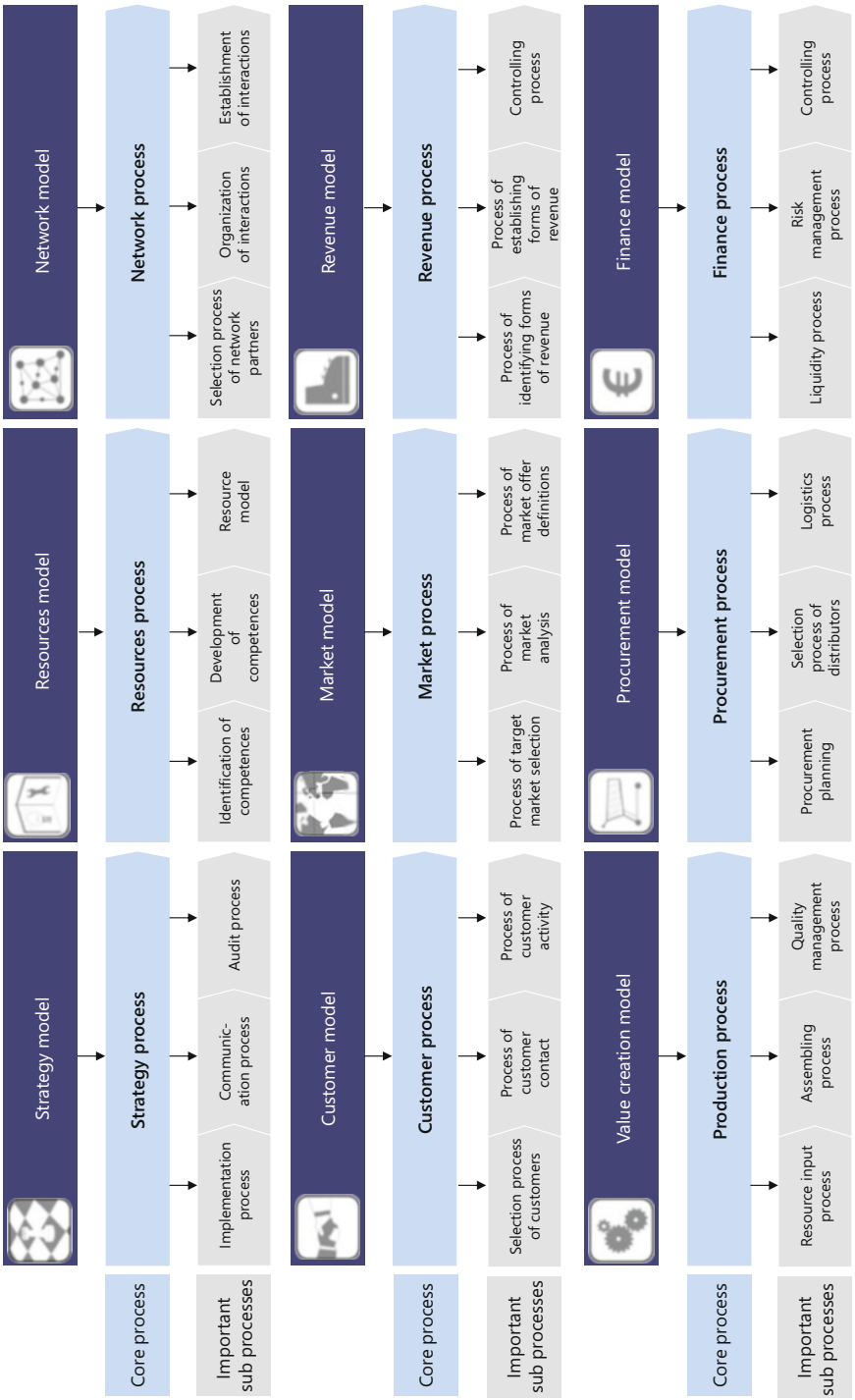

Fig. 14.2 Core processes of business model operation. Source: Wirtz (2010a, 2011, 2018a)

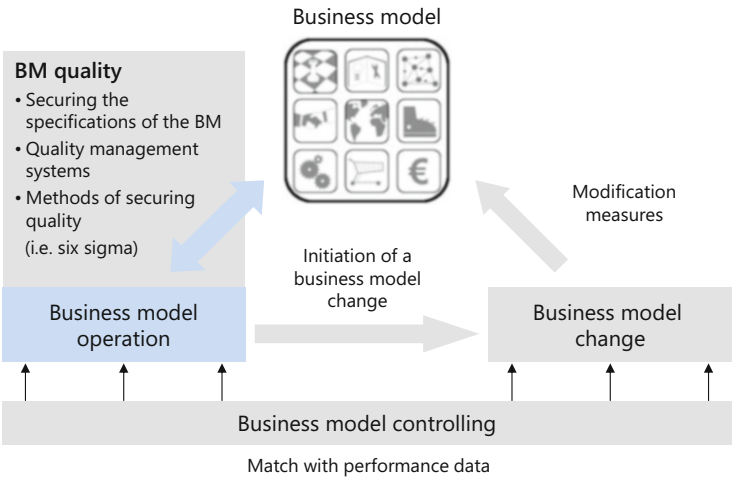

Fig. 14.3 BM quality in the context of a business model life cycle. Source: Wirtz (2010a, 2011, 2018a)

between the strategy and the business processes by constantly improving, this is a clear sign for weaknesses in the model's implementation phase. However, if during business model operation, no continuous improvement can be achieved, this suggests that the business model might be lacking in quality. Figure 14.3 shows the connection between business model quality and business model operation.

If basic deficiencies in a business model were detected during business model operation, this stage of the business model life cycle is terminated, and business model change is initialized. In order to overcome these quality deficiencies, various change measures are taken (Linder and Cantrell 2000). In the following chapter, the basic activity of business model change will be presented in more detail (adaption and modification of business models).

In quality and process management, a variety of different methods help to implement quality standards in the operational business or to improve established quality. One of the most popular methods attracting widespread application in both literature and business practice is the Six Sigma method (Toutenburg and Knöfel 2009; Pyzdek 2003). It is derived from the field of statistics and comprises a set of approved tools from various domains such as project, design, statistical, and client tools as well as their structured use (Pyzdek 2003). The Six Sigma project comprises a clearly defined role concept that also includes external experts.

The improvement process of the Six Sigma method is based on a cycle consisting of five basic phases: define, measure, analyze, improve, and control (Toutenburg and Knöfel 2009). Accordingly, the process is generally called the DMAIC cycle. This cycle can be transferred to the business model operation and provides a structured procedure for implementing a quality process in the business model quality management context. The specific use of the tools in the different phases strongly depends on the specific demands of the business. Furthermore, the Six Sigma method needs

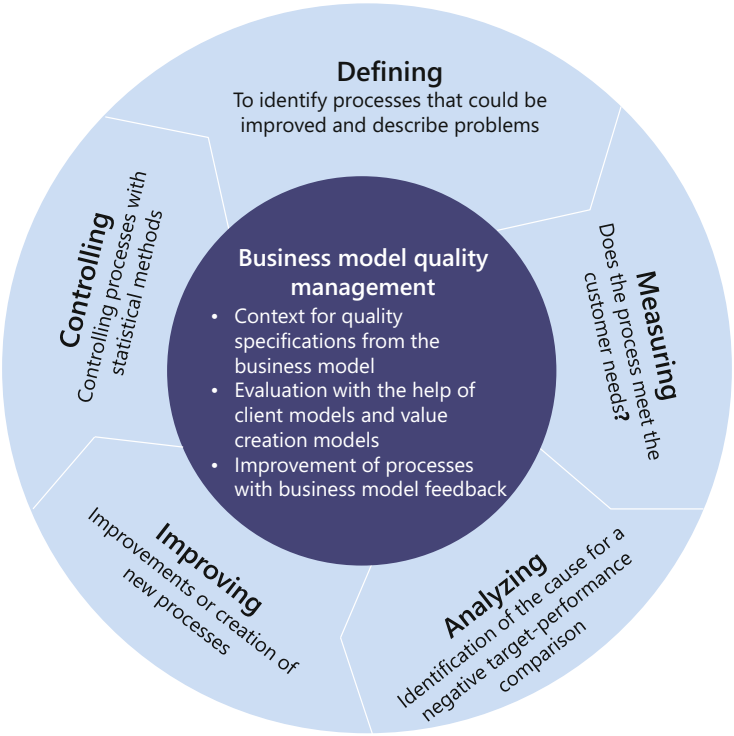

Fig. 14.4 Business model quality management and the DMAIC cycle

to be extended by a few specific business model aspects. These adaptations and the five phases of the DMAIC cycle can be seen in Fig. 14.4, which is derived from the comprehensive work of Toutenburg and Knöfel (2009).

One of the concepts significantly contributing to the implementation of the desired business model qualities of an operational business is operational excellence. Applied to the business model concept, this approach offers all essential tools for successful business model management. Operational excellence is a broad approach. Depending on the focus, it comprises different aspects of optimizing operation, i.e., quality management, process management, or support management, and can be applied to all areas of value creation. This is also the reason why various approaches to operational excellence can be found in literature (Oakland 2012).

The business model is like the architecture of an enterprise and presents the main goals and business mission by means of the strategy model. The processes of a business are included in all partial models of a business model. They are manifested in a cross-departmental function (see part A, section 3.1). In summary, operational excellence in the business model context is the effective and efficient organization of the specifications of the business model on an operational level. Securing the consistency of strategy and processes is one of the key tasks of business model

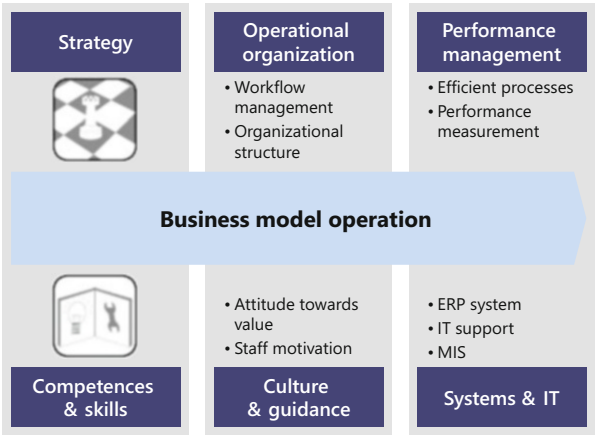

Fig. 14.5 Concept of operational excellence in a business model context. Source: Gleich (2008)

operations, in which also attention needs to be paid to the basic principles of operational excellence.

Within business model operation, there are six main areas in the context of operational excellence: strategy, operational organization, performance management, competences and skills, culture and guidance, and systems and IT (Afuah 2004). These areas serve as functional components of operational excellence in order to implement the defined processes and guidelines in the context of business model operation. Figure 14.5 illustrates the connection of business model operation with the areas of operational excellence.

The strategy model and the resources model are not only the essential determinants of business model implementation but also of business model operation. The strategy model defines the strategy and determines which goals and methods can be chosen in order to accomplish operational excellence (Gleich 2008). In addition to the operationalization of the strategy, the competences and skills of a venture are essential factors for business model operation. These resources need to be part of managerial understanding and used within an operating business. Competences and skills are directly represented within the resources model and should be applied to the operation of the business model in the business model context.

Another important area for the operational business is operational organization. In this context, a workflow management system must be established in order to secure the efficiency and effectiveness of business processes. The guidelines for the company defined in the partial models need to be implemented in processes that are as efficient as possible to enable essential cost and time advantages. Since process management can influence the organizational structure, it also needs to be included in this context.

In the area of culture and leadership, two other central aspects of operational excellence are addressed: value maintenance and staff motivation. The business mission or vision defined in the strategy model of the business model needs to be

embedded in a corporate culture in order to create a congruency between the goals of a business and the self-image of employees (Johnson et al. 2008). If employees identify themselves with their business and its business model, this has a positive influence on operations.

In the area of performance management, the efficiency of the processes is analyzed in order to be able to perform a target performance comparison between the defined goals of the business model and the established workflow. It is important not only to have an internal perspective but also to focus on other competitors in the context of best practice sharing. In doing so, the potential of operational goods and services can be identified and utilized.

The last area, systems and IT, is the basis for operational businesses. Information systems, like ERP, serve as the technical infrastructure needed to apply the guidelines and processes defined in the business model (Dubosson-Torbay, Osterwalder, and Pigneur 2002). Only on an adequate technical basis, efficient processes can be realized, and the value proposition for the client can be fulfilled.

In addition to the operations support systems, there are various information systems that are especially important for business model operations. Management information systems (MIS) that enable the management to access information on a procedural level serve as an example. In the context of business model operation, information systems thus support decision-making. The area of systems and IT must be incorporated in all areas of operational excellence; together they form the cornerstones of business model operation.

14.2 Influence of the Type of Management on Operations

Business model operation features several characteristics concerning particular types of business model management. In the case of the entrepreneurial mode, the business model operation plays rather a minor part. Initially, an entrepreneur does not focus on gaining competitive advantage through operations management. He rather aims at establishing a new business model and mainly focuses on growth (see Chap. 2.1). Especially at the beginning of a business model life cycle, the business model is subject to various modifications in order to optimize value creation and make the business economically viable. Thus, at first entrepreneurs spend relatively little time on the business model operation.

Businesses in an adaptive mode operate in an environment that is highly dynamic and complex. Accordingly, the business model operation has a higher relevance than in the entrepreneurial mode since companies are often forced to react and have to initiate a business model change early on. Because of various incremental modifications, it is of great importance to continuously check the consistency and fit between the strategy and the processes in the context of business model operation. This is the only way to guarantee an efficient and lasting adaptation to changing environmental conditions.

Businesses in the planning mode are characterized by a stable environment and a long-term planning period. This means that the business remains for a long period of

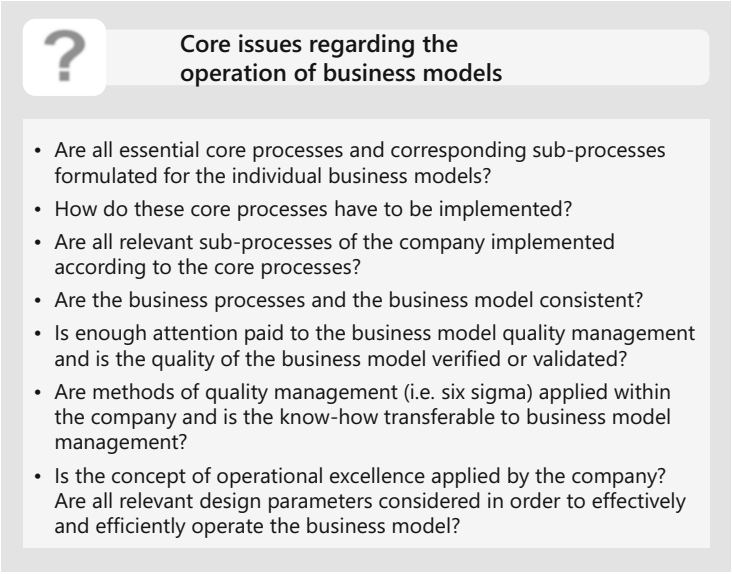

Fig. 14.6 Checklist for operation. Source: Wirtz (2010a, 2011, 2018a)

time in the phase of business model operation within the business model life cycle and modifications are rare.

The main corporate goals in the planning mode are continuous growth and especially efficiency. Thus, an optimal implementation of the business model by means of the business model operation is absolutely necessary in order to achieve a high fit between the strategy and corporate processes. As a result, business model operation is highly relevant for the planning mode.

Operating a business model and securing its quality are challenging and complex. To cope with this task, the entrepreneur needs to ask the right questions. Figure 14.6 shows an exemplary checklist with the most important questions of business model operation for implementation.

Adaptation and Modification of Business Models

15

According to classical organization and strategy theory, business modification is an essential part 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 will be described that may initiate a change in the business model. Additionally, the question will be addressed of what specific processes need to be implemented by a business in order to guarantee the success of business model change.[1]

The specific business model change process required is presented in single stages, and five business model change models are identified, showing the potential for change of a business model. Finally, it will be discussed how the sustainability of a business model can be secured. In this context, three generic strategies will be presented. Figure 15.1 shows the structure of the chapter.

15.1 Change Management Process

Our increasingly globalized and interconnected world involves growing competitive pressure on businesses. These must adapt to the constantly changing environmental conditions to survive in a highly competitive environment. A change process can be initiated due to external as well as internal influences and impacts the business model in either case.

Change can be small or radical and can either affect only parts of the components concerning strategy, customers, market, and value creation or all partial models at the same time. Business model change may be a danger or an opportunity for a business (Afuah 2004). On the one hand, change can diminish existing competitive

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_15

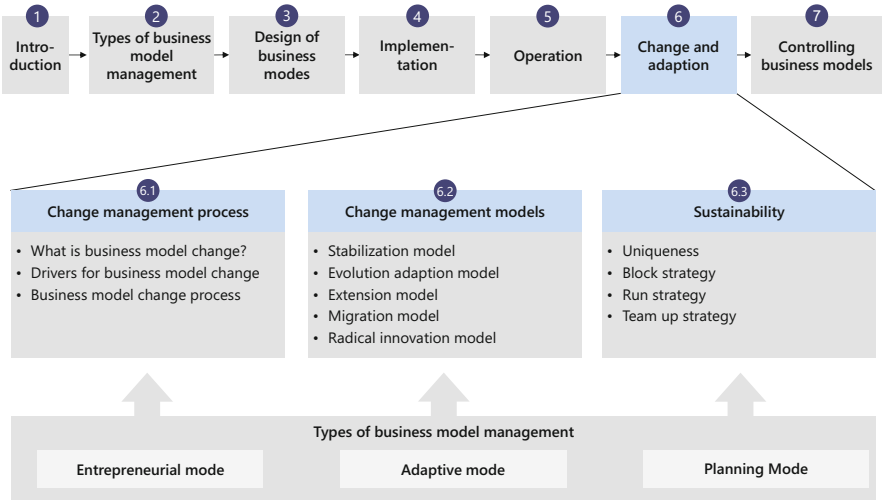

Fig. 15.1 Structure of the chapter

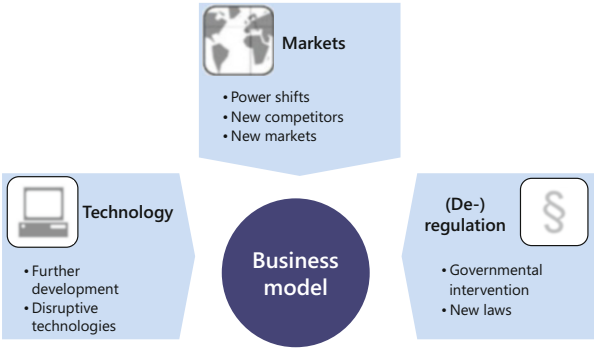

Fig. 15.2 Drivers of business model change. Source: Wirtz (2010a, 2011, 2018a)

advantage; on the other hand, it can be a possibility to generate new competitive advantages.

Business model change is highly important in business practice. A survey questioning CEOs showed that 83% report that their business could anticipate a change process within the next three years (IBM Global CEO Study 2008). The increasing importance of this issue for daily business management can also be ascribed to the increasingly competitive dynamic. Altogether, the following drivers of business model change can be identified: market, technology, and regulation (Bouwman and MacInnes 2006). Figure 15.2 shows the drivers of change and their influence on business models.

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 sufficiently, dramatic competitive disadvantages can occur. Not only

evolutionary developments need to be taken into account in the respective business models, but so do so-called disruptive technologies.

Disruptive technology is characterized by worse performance features than established technology in the beginning (Christensen and Overdorf 2000). However, it is characterized by new performance features, and continuous development may help eliminate initial performance deficits. Thus, established technology can be made obsolete in the long run. A good example of this is digital photography and its destructive effect on the classic business models of manufacturers of analog camera systems and films. A central factor was the possibility to save and select pictures digitally before transferring them to physical media.

Other drivers of business model change are 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 became a competitor to classic mail order companies. 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.

(De)regulation is another driver of change. Governmental intervention and regulation can influence the competitive environment and change existing basic legal conditions. On the one hand, this means that a business model can lose its entire foundation, but, on the other hand, a basis for new business models can be created. The deregulation of telephone networks in Europe, for instance, led the former state-owned monopolies 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. While in the beginning the costs of Internet usage were mainly determined by the time spent online, later flat rates were established.

The influence of these drivers increasingly forces businesses to initiate business model changes. However, such changes also involve the risk of weakening the competitive position. Thus, professional change management is crucial to strategically carry out a change process and increase the probability of successful business model change (Doz and Kosonen 2010). The course of a change process follows 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, there are various particularities that should be considered in the business model context (Lindinger and Goller 2004). Figure 15.3 (content based on Lindinger and Goller (2004)) outlines those particularities based on the consideration of Lindinger and Goller (2004).

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

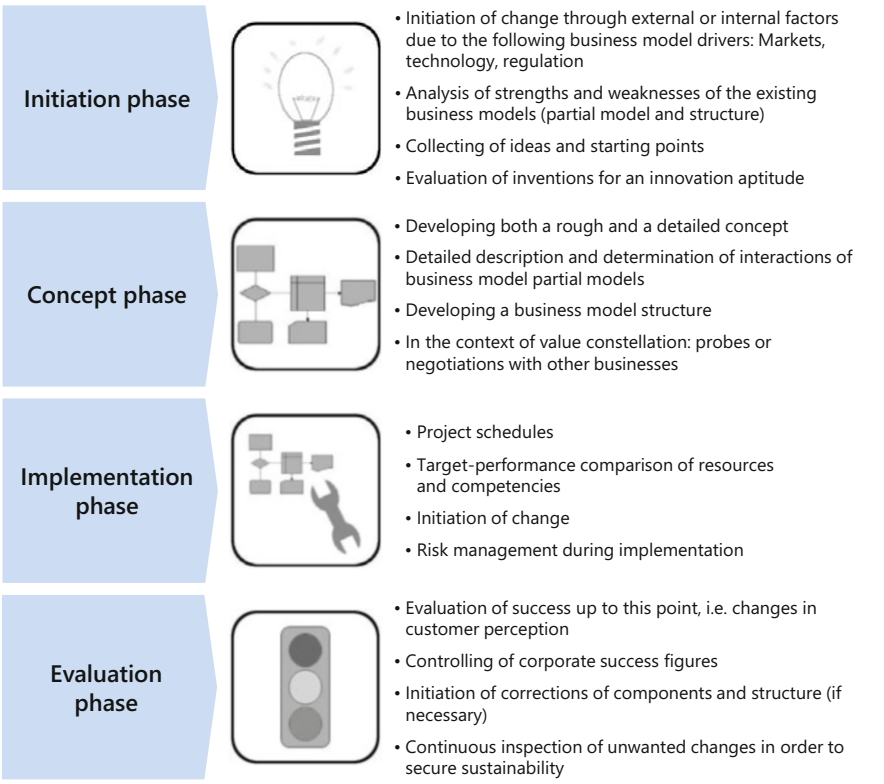

Fig. 15.3 Business model change process

internal inventions, their suitability for business model innovation has to be checked, and the prospects of success have to be assessed.

In the concept phase, ideas are specified in a basic notion. Here, the new partial models of the business model and possibilities for interaction are described in detail, which significantly influences the structure of the new business model. Within a company, a top-down as well as a bottom-up procedure can be used in developing the concept (Smeds et al. 2003).

If modifications of the value constellation are planned within the change process, a first investigation must be made, or negotiations with potential partner companies need to be conducted. By doing this, the feasibility of the concept developed can be guaranteed.

Once the concept has been developed and decided on, the implementation phase of the business model change can be initiated. For this purpose, first of all a project plan needs to be made that defines single milestones. At the same time, a risk management needs to be established 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—the existing

organization needs to be changed significantly. After the structural cornerstones have been defined, the process of changing the organization can be initiated.

Finally, the implementation of the business model and the goal achievement so far are evaluated during the evaluation phase. Based on these analyses, it is possible to identify potential for improvement and, if necessary, to initiate adjustments. By means of the key performance indicators of a business, a change controlling is established, making the effect of change constantly measurable. This is a way of guaranteeing sustainability and detecting undesired changes at an early stage.

When examining business model change, three types of management need to be taken into consideration. Particularly the drivers of business model change have some special characteristics. In the entrepreneurial mode, drivers of change are less relevant. By using new technologies or market shifts, businesses in the entrepreneurial mode can cause change in established enterprises.

The adaptive mode has the greatest influence of drivers on companies. These companies behave reactively 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 (Afuah 2004).

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 often market-dominant businesses like Microsoft that dominate the global software market. This position enables the business to introduce market entry barriers or lock-in effects, so that the market becomes less important (Varian 2003).

In contrast to this, the Microsoft example shows that the drivers of technology and regulation may significantly influence the business model of an enterprise in the planning mode. The market-dominant position of the Windows operating systems, for instance, led to a close monitoring by the European competition regulation. In the past, bundling the operating system and the media player or browser (Internet Explorer) resulted in several conflicts and financial penalties for Microsoft.

15.2 Change Management Models

The change of a business model can be accomplished to a variable extent. During this process, it is only possible to either focus on one part of the business model, i.e., a partial model, or 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 that illustrate the different levels of business model change, thus creating a structural context (Linder and Cantrell 2000). Figure 15.4 shows these five change models and the corresponding implied development paths and contexts.

The stabilization model mainly exists in businesses operating in industries that are characterized by a low intensity of competition. These industries are also

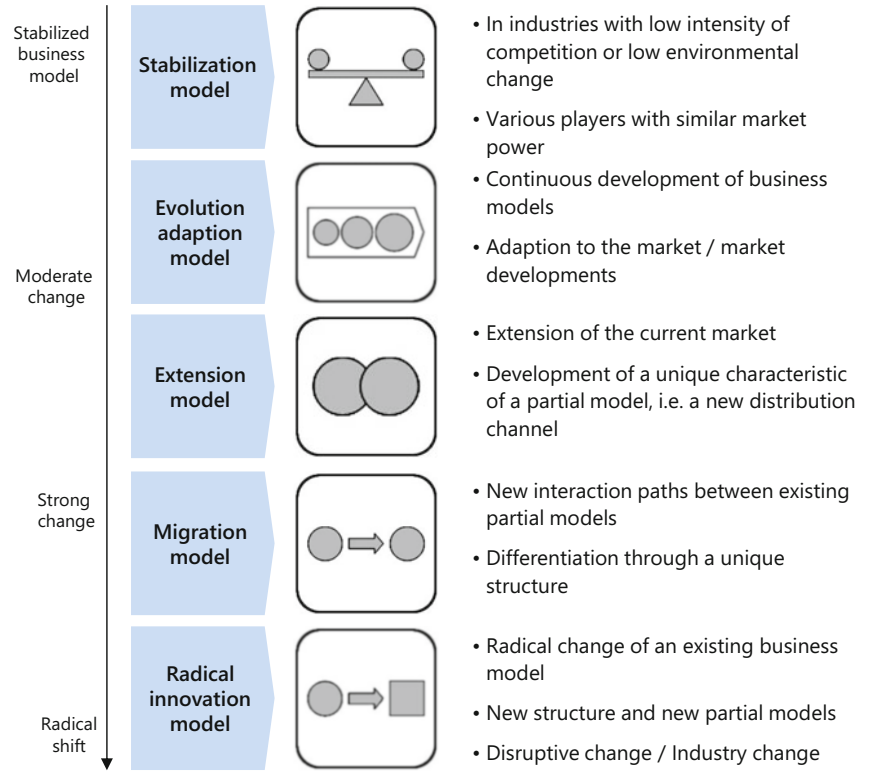

Fig. 15.4 Change models as development paths for business models. Source: Wirtz (2010a, 2011, 2018a)

characterized by a stable environment with changes only taking place slowly. Competitors have similar market power, and major changes to the structure or the partial models of the business model are not performed due to the low impact on success. Examples of the application 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 the same. Due to various marketing strategies, the customer model is the only model in which differences can be observed.

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

An example of this change model is the business model development of the American semiconductor manufacturer Intel. This company constantly develops innovative products in the domain of computer processors in order to keep up with competition. In doing so, the company tries to offer a higher value in the market offer

model than its competition. Intel was the first company to introduce large-scale production of efficient dual-core processors for private users into the market.

The extension model extends the present business model and is characterized by a high degree of change in the partial models. However, the degree of change in the overall model is only small to medium. This change model is also characterized by the new development of or significant change in one or more partial models of the business model. This can be initiated by disruptive technology. In doing so, the basic structure of the business models usually remains the same; only a partial model or functionality like a new distribution channel (online distribution) is added.

An example of an extension model can be found in the airline industry, where various heterogeneous business models exist (Zins 2001). In 1971, Southwest Airlines faced a huge crisis that laid the foundation of many of these business models. The company completely reworked their strategy model and invented the principle of low-cost carrier. In contrast to other airlines, Southwest Airlines positioned itself as an airline that doesn't provide any extras and therefore can offer customers very cheap flights. Today, Ryanair and Eurowings are famous European examples of this model.

In the migration model, the interactions between the partial models of a business model are redefined. Due to a unique structure or new interactions between structural components, a business can distinguish itself positively from its competitors and can even gain competitive advantages (Zott and Amit 2007). This change model is characterized by a high degree of business model modification but only a small degree of partial model change.

A well-known example of a business using a migration model is IKEA. The multinational furniture corporation has overcome classic value creation in its domain by involving the customer in the assembly of the furniture, by designing furniture suitable for the mass, and by offering low prices (Normann and Ramirez 1993). By systematically redefining roles, relationships, and processes within the organization, IKEA is able to keep the costs and prices of the products at a low level.

The radical innovation model is characterized by a complete change of the existing business model, in which a new structure and a new unique form of the partial models is created (O'Conner 2006). In this context, the extent to which the model and the partial models were changed is very high. This explains why this change model implies the biggest change of a business model.

The best known example of 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 only less important. It was not until 1992 that Nokia decided to fully focus on telecommunication networks and cell phones. Their radical business model change helped them to become temporarily the world's largest manufacturer of mobile devices, holding by far the biggest market share.

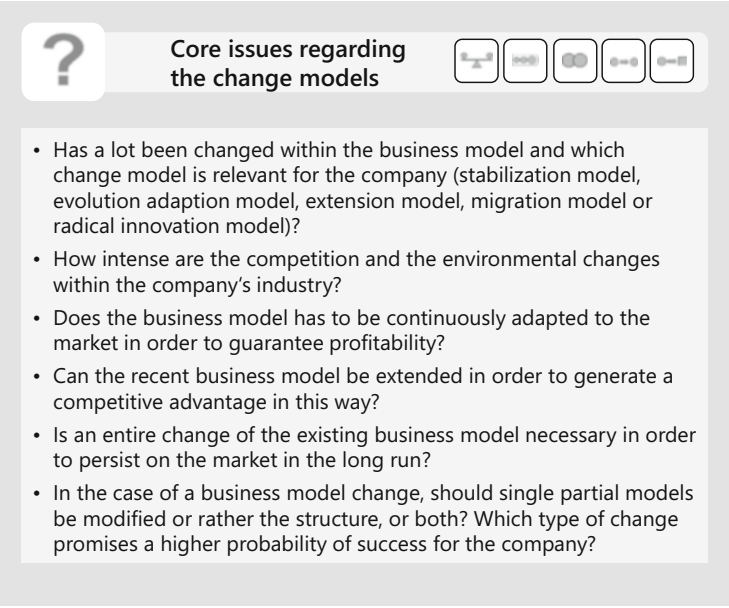

Fig. 15.5 Checklist for a change model. Source: Wirtz (2010a, 2011, 2018a)

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 15.5 shows an example checklist with the most important questions for implementation.

15.3 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 advantage over competitors can be maintained or extended. Sustainability is highly important in management practice (Benn et al. 2014). A unique business model can create higher customer value due to its differentiation from the market. Since the market is constantly observed by competitors, a new business model does not remain hidden for very long, leading to corresponding market reactions.

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 (Afuah 2004). Figure 15.6 gives an overview of these.

When an enterprise uses the block strategy, it attempts to create barriers in order to hinder competitors from imitating its business model. Measures of blocking are,

	Block strategy	Run strategy	Team up strategy
Content	• Creation of barriers • Securing of patents • Generation of unique capabilities • Establishing a copyright	• Adoption of the role as an innovator (flight forward) • Possible cooperative development due to limited resources	• Conclusion of strategic alliances • Exchange of competences and resources • Creation of a business model network
Advantages	• Imitations are made difficult • Existing competitive advantages can be defended	• High brand image as an innovator • Competitive advantages over other competitors	• Economies of scale and scope • Protection against smaller companies
Disadvantages	• Created barriers can be made obsolete by new technologies	• Numerous resources are necessary for the constant development of innovations • Success of the innovations is not guaranteed	• Creation of bigger companies & networks • Increased demand of coordination • Low flexibility

Fig. 15.6 Sustainability strategies for business models. Source: Wirtz (2010a, 2011, 2018a)

for instance, patents, unique capabilities, or copyright (Keen and Qureshi 2006). However, this strategy can be problematic as artificially created barriers may become obsolete due to technological advancements. In contrast to the block strategy, the run strategy has completely opposite objectives. By using the run strategy, a company assumes that permanent barriers and long-term protection of a business model are impossible.

Instead of hiding behind barriers and enabling competitors to equalize competitive advantages, the company attempts to assume the role of an innovator and to introduce innovations into the business model consistently. However, due to restricted resources, this is very difficult for a company on its own. For this reason, a company should consider joining a network of affiliated companies.

Another possibility is the team-up strategy by which a company seeks to form strategic alliances. This enables a company 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 may result in a win-win situation for all parties involved. Table 15.1 shows the connection between the strategies for sustainability as well as the different types of business model management.

The entrepreneurial mode does not focus on sustainability strategies. Since the entrepreneurial mode is characterized by proactive behavior, it corresponds with the highly innovative run strategy. The team-up strategy is also an option because particularly smaller companies look for partnerships that enable them to offer

Table 15.1 Relevance of sustainability strategies depending on the type of business model management. Source: Wirtz (2010a, 2011, 2018a)

Sustainable strategies	Entrepreneurial mode	Adaptive mode	Planning mode
Block strategy	◔	◑	●
Run strategy	●	○	◔
Team up strategy	◕	◑	◑

Legend: ○ no relevance; ◔ low relevance; ◑ average relevance; ◕ high relevance; ● significantly high relevance

added value to their customers, for instance, via mashups in the case of Internet companies. Even though there is no special emphasis placed on the block strategy in the entrepreneurial mode, a company will still try to protect its innovation by using patents.

Due to the purely reactive behavior of an enterprise in 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, there are no advantages of one over the other. The situation in the planning mode is quite different, however.

For an established company that shows both proactive and reactive behavior and seeks long-term decision horizons, a block strategy might be the best alternative in the adaptive mode. However, since large established companies also have the option to reinforce their business model with the help of commercial partnerships, the team-up strategy needs to be taken into consideration as well. Even the run strategy is promising, especially in dynamic industries. Figure 15.7 shows a conclusive overview of the chapter Adaption and Modification of Business Models.

Based on the conceptual depiction of the various contents, a checklist can be used for successful implementation. Figure 15.8 shows an example checklist, including the most important questions concerning implementation in this subject area.

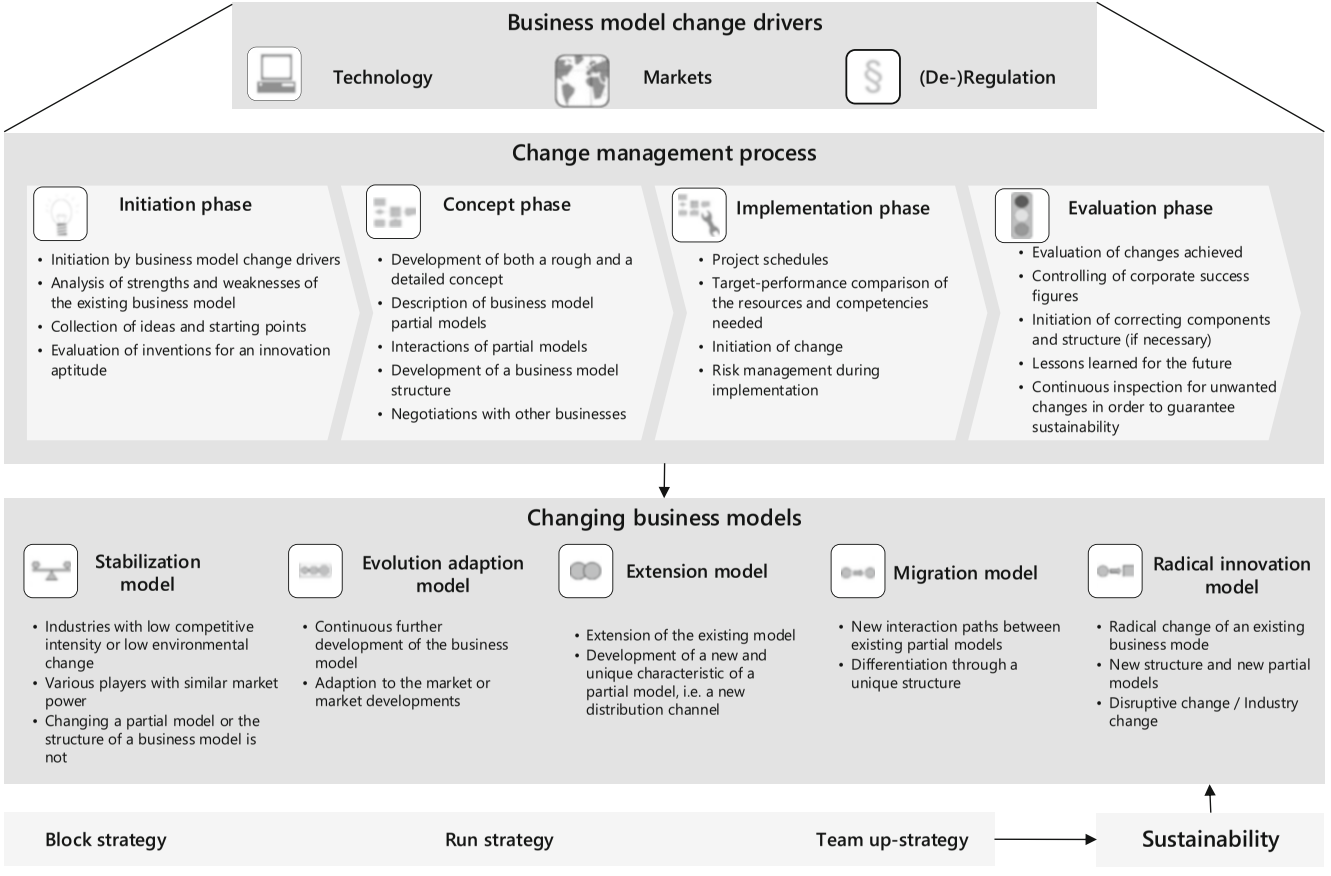

Fig. 15.7 Summary of the chapter Adaption and Modification of Business Models. Source: Wirtz (2010a)

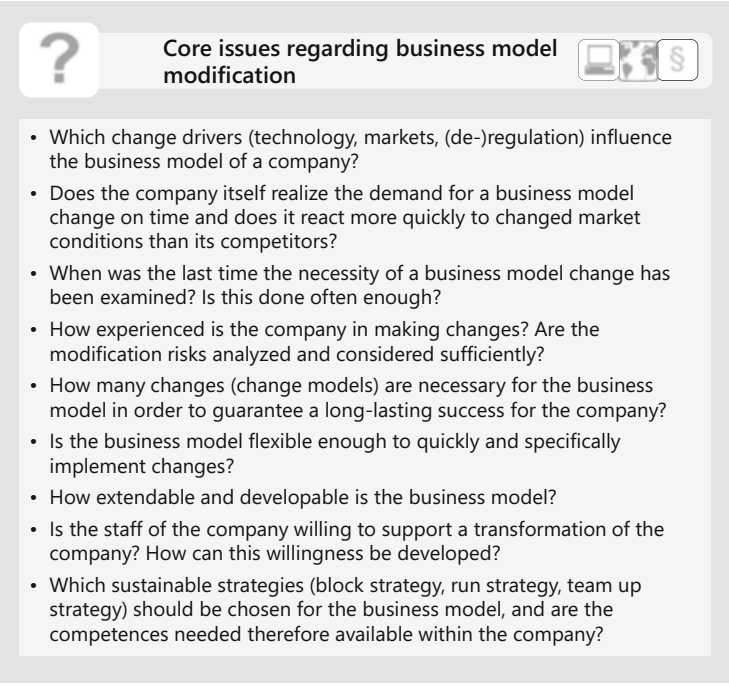

Fig. 15.8 Checklist for business model change. Source: Wirtz (2010a, 2011, 2018a)

Controlling Business Models

16

The superordinate goal of a business model—the creation and protection of competitive advantage—may serve as a starting point for the conception of business model controlling. For this reason, the essential task of business model controlling is to ensure the superordinate goal by using planning and controlling tools.[1]

Thus, this chapter is divided into sections discussing the single components that create competitive advantages through business models. Accordingly, Sect. 16.1 discusses controlling and the realization of the promise of services, Sect. 16.2 discusses controlling the satisfaction of customer needs, and finally, Sect. 16.3 discusses controlling the profitability of a business model.

Considering the single components, their interdependence should be taken into account. This means, for example, that a change in the area of realizing the service commitment also affects the satisfaction of customer needs and profitability and vice versa. Figure 16.1 shows the structure of the chapter controlling business models.

16.1 Realization of the Service Commitment

The first component that should be considered in protecting or creating competitive advantages in the context of controlling business models is the realization of the service promise. Since strictly controlling the key performance indicators is unsuitable in this domain, it is recommended to realize the control by applying a business model audit.

By using the most objective criteria possible, a specific business model audit makes it possible to evaluate all measures and activities that are performed to achieve the superordinate goal. In doing so, an audit aims to identify weaknesses, opportunities, and risks as soon as possible and to suggest solutions.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

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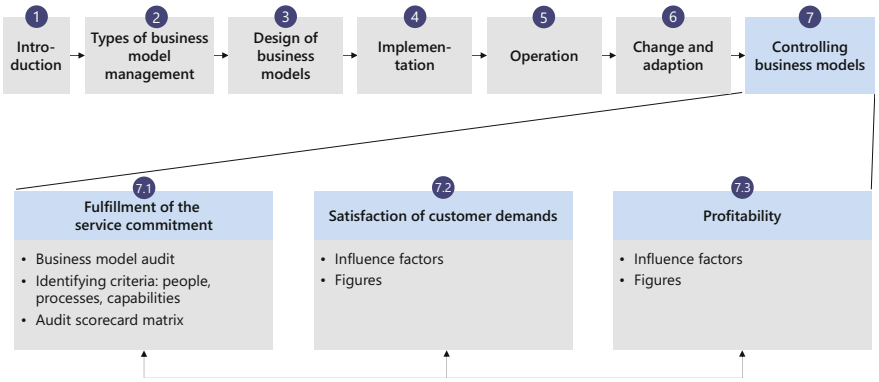

Fig. 16.1 Structure of the chapter

Table 16.1 Audit criteria for the evaluation of measures needed to realize the service commitment of a business model. Source: Wirtz (2010a, 2011, 2018a)

People	Processes	Capabilities
Optimization of staff performance	Optimization of end-to-end processes	Extension of core assets and core competencies
Improvement of communication and integration of employees	Improvement of network connections or supplier relationships	Improvement of information management
Optimization of employee satisfaction		Improvement of the technical infrastructure

When developing a business model audit, relevant criteria need to be developed first that can be included in the evaluation of measures. When evaluating measures that aim to realize the service promise, it makes sense to use criteria from the domains of people, processes, and capabilities, since these have a significant impact in this context (Salama et al. 2009).

In the domain of people, the following goals can be pursued: optimization of staff performance, improvement of communication, integration of employees, and optimization of employee satisfaction (Witcher and Sum Chau 2008). The domain of processes can be subdivided into the following components: optimization of end-to-end processes, improvement of network connections, and the supplier relationship (Dubosson-Torbay et al. 2002; Witcher and Sum Chau 2008).

The domain of capabilities comprises subcriteria, such as extension of core assets and core competencies, improvement of information management, and improvement of the technical infrastructure (Dubosson-Torbay et al. 2002; Alexopoulos and Theodoulidis 2003). Table 16.1 shows an overview of the audit criteria for evaluating measures necessary to realize the service commitment of a business model.

Building upon the audit criteria, measures for realizing the service promise are evaluated. For this evaluation, a pre-specified scheme is recommended, ranging, for

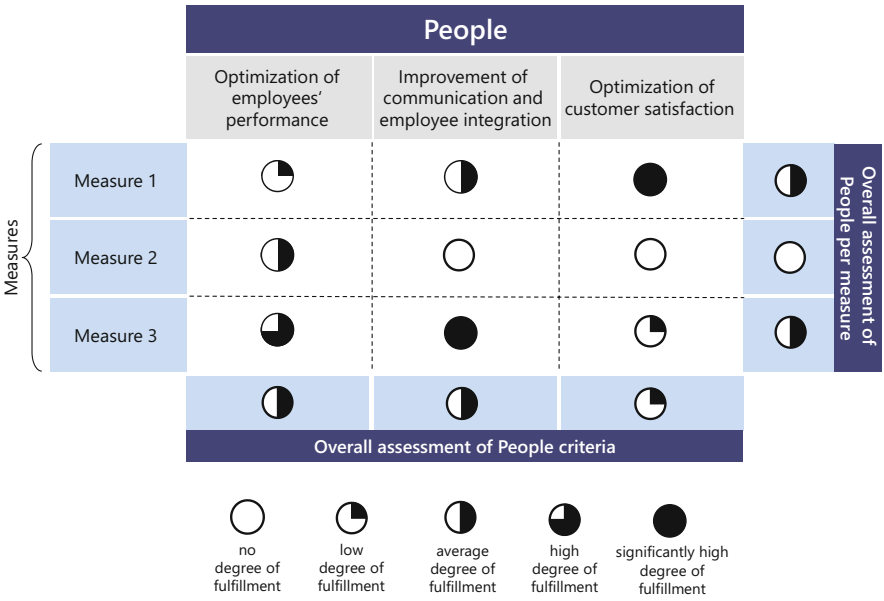

Fig. 16.2 Audit-scorecard-matrix for people. Source: Wirtz (2010a, 2011, 2018a)

instance, from very good to very poor. The characteristics reflect the degree of compliance. Depending on the resources available, it should be determined whether certain measures should be evaluated all at once or if single measures should be examined separately. A separate examination, though, means that comparability is only possible to a limited extent.

When evaluating single measures, it is possible to use a management tool scorecard. With the help of a scorecard, deficits in the planning of measures and pursuit goals can be detected within a neatly arranged matrix, in order to initiate appropriate countermeasures (Witcher and Sum Chau 2008). In an aggregate form, Fig. 16.2 shows an example of a scorecard for the domain of people. The single measures are shown horizontally, the evaluation criteria for the domain of people are illustrated vertically. The same procedure is to be conducted analogously for the domain processes and capabilities.

16.2 Satisfaction of Customer Needs

According to the gratification principle, potential customers acquire a service offered only when they expect to benefit from it. This benefit can generally be viewed as the extent to which their needs are satisfied by the acquisition of a service (Schneider and Bowen 1999). The more their needs are satisfied by the acquisition of services, the more content the customers will be. Since long-term satisfaction of customer needs is supposed to ensure corporate goals, it is very important to analyze key

influencing factors and figures in order to secure or generate competitive advantage. This is why in the following section, the most important influence factors and key figures of controlling the satisfaction of customer needs will be discussed.

An essential factor affecting the satisfaction of customer needs are the customer needs themselves. Only if there is customer demand for a certain service, it is possible to create a benefit for the customer and thus to satisfy customer needs by acquiring this service. Depending on the fit of customer needs and the benefit that is created by the acquisition of a service, the satisfaction of customer needs can be high or low.

Further factors influencing the satisfaction of customer needs are the cost-benefit ratio, general standards or expectations concerning quality and service, and proper after-sales service. Furthermore, the satisfaction of customer needs is likely to be influenced by brand affinity generated on the customer side or by the development of customer loyalty tools according to customer relationship management (CRM).

In order to influence the satisfaction of customer needs by means of key performance indicator (KPI) monitoring, it makes sense to focus on simple key customer performance indicators in the beginning. Usually it is relatively easy to compile key performance indicators regarding customer base, customer growth rate/migration rate, buying frequency, and repurchasing rate. Such information concerning the number of customers and sales is usually available in the marketing management systems of a business.

However, a convincing image of the satisfaction of customer needs requires an in-depth analysis. This especially includes customer surveys regarding the satisfaction of the business model's performance, in order to create an index for customer satisfaction. Further key performance indicators in this connection are recommendation rates and repurchasing rates.

In addition to purely concentrating on the business model and its customers, it is important to examine key performance indicators in relation to the competition (Afuah 2004). This is the only way to secure competitive advantages over the long term and to remain competitive. Figure 16.3 summarizes essential factors of influence and the key performance indicators that support the controlling of customer satisfaction.

16.3 Profitability

The last component necessary for creating and securing competitive advantages is long-term profitability. In addition to purely concentrating on revenues and costs, it is also necessary to generate and analyze key performance indicators of profitability (Malone et al. 2006). In the following section, the impact factors and key performance indicators of the revenues and costs of a business model will be presented. Single key performance indicators necessary for evaluating the profitability of a business model will then be discussed.

When addressing the profitability of a business model, a basic condition regarding the degree of detail of the data needs to be taken into consideration. In order to

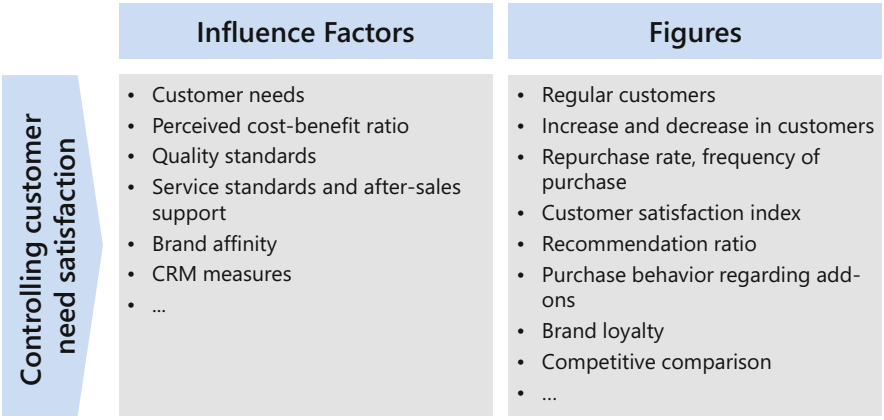

Fig. 16.3 Controlling of the satisfaction of customer needs. Source: Wirtz (2010a, 2011, 2018a)

determine all the specified key performance indicators of a specific business model, the business has to perform business model-specific allocation. If the business does not provide such in-depth information on accounting, business model-specific KPIs can only be approximated. For publicly owned businesses, this requirement is usually met by the obligatory international financial reporting standards (IFRS).

Considering the revenues of a business model, the essential influencing factors are the products and services that the business model offers. The services and products of a company only achieve high sales figures when the customer perceives an added value. For a business model to achieve long-term revenues, both the business model itself and its performance must be unique and difficult to substitute.

In terms of costs, the business model strategy pursued, and the related business model performance quality are particularly influential factors. For instance, the classical low-cost provider has a completely different cost strategy than a differentiator. Additionally, the use of synergy effects can have a significant impact on the cost strategy of a business model in terms of savings. Figure 16.4 shows the influencing factors and key performance indicators necessary for controlling the revenues and costs of a business model.

Based on the controlling of revenues and costs, it is possible to determine the profit of a business model. In order to provide reliable information on business model performance, it is necessary to use further KPIs. In practice, the most common KPIs of profitability that are used to determine performance are EBIT (earnings before interests and taxes) and ROI (return on investment). EBIT can be used to evaluate the earnings situation of a business model and is calculated by subtracting taxes and interests from the annual net profit. Advantages of this KPI are not only the simplicity of the calculation but also the possibility for international comparison.

By using ROI as a KPI, the return on the capital employed can be determined. The ROI is calculated as follows: revenue divided by total assets. Apart from EBIT and ROI, there are various other KPIs of profitability that can be used according to requirements. Figure 16.5 outlines the most common KPIs of profitability in the

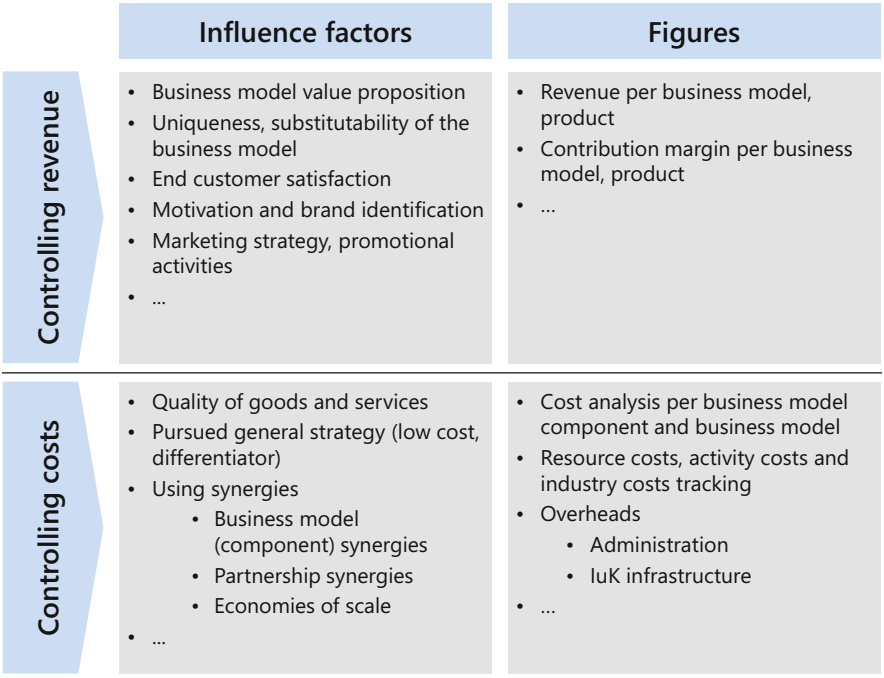

Fig. 16.4 Controlling revenues and costs of a business model. Source: Wirtz (2010a, 2011, 2018a)

business model context. In addition, it shows the validity of the individual KPIs and how they are calculated.

The KPI evaluates the success of a business model. Thus, the KPI is an important tool for the controlling of business models. In conclusion, Fig. 16.6 shows a summary of the chapter controlling business models.

Based on the conceptual presentation of the various contents, a checklist is helpful to achieve a successful implementation. Figure 16.7 shows an example checklist with the most important questions for implementation.

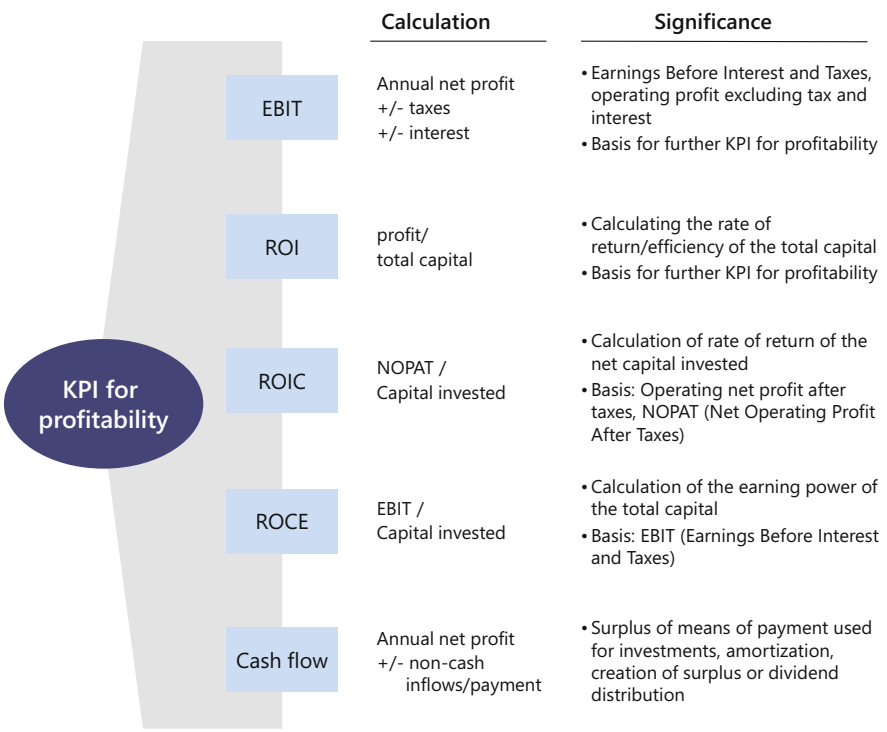

Fig. 16.5 KPIs of business models. Source: Wirtz (2010a, 2011, 2018a)

Component of controlling	Key contents	Key questions
Controlling the implementation of the value proposition	• Goal: Controlling all measures and activities carried out in order to implement a value proposition • Development of a business model audit; operating controlling with a scorecard matrix	• What are the measures that were carried out in order to implement a value proposition? • What are the weaknesses, opportunities and risks that can be identified? • To what extent do the measures interdepend on one another?
Controlling the satisfaction of customer demands	• Goal: permanent satisfaction of customer needs • Analysis of simple KPIs (buying frequency, rebuy rate etc.) • Development of an index for customer satisfaction	• What are the demands of customers form other business models? • Which factors influence customer satisfaction? • How can customer satisfaction be increased?
Controlling profitability	• Goal: securing long-term profitability of a business model • Continuous controlling of sales volume and costs • Development and analysis of KPIs of business models • Necessary business model-specific allocation	• What are the business model products that generate the highest profit? • What are the essential cost drivers of the business model? • Are there synergy effects that have not yet been used? • What are the most useful KPIs for profitability for the business model?

Fig. 16.6 Summary of the chapter controlling business models

Core issues regarding the controlling of business models

- What are the measures carried out to implement the value proposition?
- What are the strengths and weaknesses / opportunities and risks of the business model?
- Which components of the business value generate the highest added value?
- What are the essential cost drivers of the business model?
- Are there synergy effects of the business model that have not yet been used?
- What are the most useful KPIs for profitability for the business model?
- What are the critical factors for success of the business model and which KPIs can be used to control the achievement of a certain goal?
- Which „soft factors" – apart from the KPIs – must be controlled and how can this be done?
- What are the factors influencing the satisfaction of customer needs?
- How can customer satisfaction be increased?

Fig. 16.7 Checklist for controlling business models. Source: Wirtz (2010a, 2011, 2018a)

Part IV

Business Model Case Studies

Introduction

17

A business model helps to sustain a company's competitive advantage. Therefore, a business model is first and foremost understood as a practice-oriented concept that describes and manages all relevant corporate activities. After establishing a basic understanding of business models and business model management, this chapter deals with applying business models within the scope of business activities. For this reason, one business model in each of the following fields is discussed: E-business, financial services, the automobile industry, and media.[1]

Apart from presenting general company information and development paths, the aggregated business model of each case is described, and the individual partial models are presented in detail. Furthermore, the success factors and competitive landscape of each company are clearly defined in order to emphasize their particular position. Figure 17.1 presents the structure of Part IV.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

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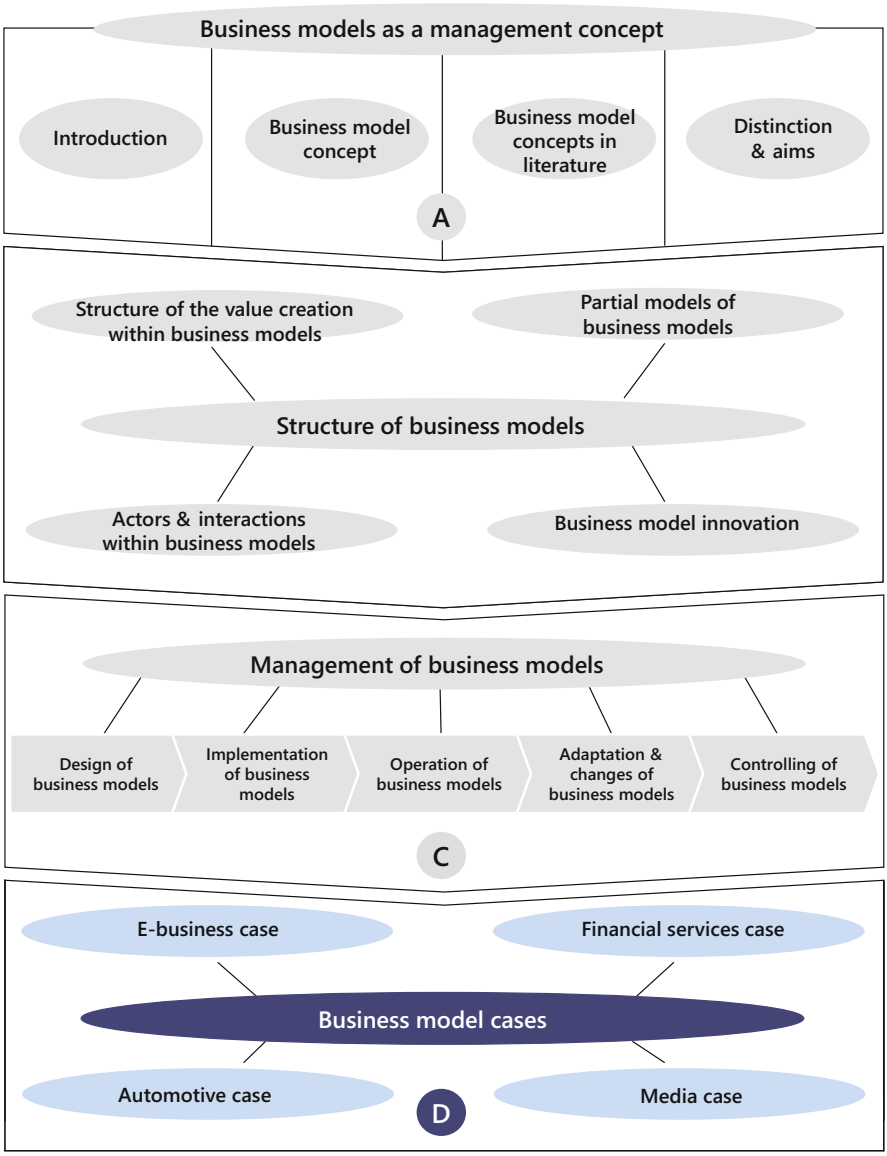

Fig. 17.1 Putting the section into context

E-business Model

18

18.1 The Development of Google

In 1998, Lawrence Eduard Page and Sergej Michailowisch Brin founded the corporation Google while attending Stanford University. Initially, they participated in a research project about data mining and developed a search engine called BackRub, the precursor of the search engine Google. At this time, BackRub was the only search engine that was capable of analyzing cross-references of a website.[1]

Despite receiving recognition from academic society, Page and Brin were not able to find an Internet portal that was willing to use the search engine. Therefore, Page and Brin founded Google Inc. on September 7, 1998. As seed capital, they resorted to 1.1 million USD collected from family and friends. In addition, they received venture capital funding from Andreas von Bechtolsheim, the co-founder of Sun Microsystems.

On Google's day of foundation, the corporation also launched the trial version called Google Beta. A few months later, the soon to be prospering organization moved its five employees into their first office in Palo Alto, Silicon Valley, close to Stanford University, and their present headquarter. Already in February 1999, Google had eight employees and 500,000 search requests per day. In September 1999, Google established a partnership with AOL and Netscape. As the number of search requests per day increased to three million, they finalized the testing phase.

After officially finishing the test phase, Google concentrated on broadening its range of services. In June 2001, the Google search engine gained market leadership with one billion pages stored by the Google Index. Already by the end of the year 2001, Google recorded more than three billion page views. In the course of expanding their service chain, Google took over Blogger.com in February 2003. Moreover, in the year 2004, Google offered a free email service called Gmail.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_18

As part of its expansion strategy, Google acquired the world's leading online video portal YouTube for 1.8 billion USD at the end of 2006. One year later, Google bought the company DoubleClick for 3.1 billion USD. With this acquisition, Google gained access to DoubleClick's competency in graphic design of advertisement on websites and to its well-established and well-financed customer base.

Ever since its foundation, Google has been expanding its operations and service spectrum continuously. The 4C net business model typology provides an analytical framework to classify Google's services. This typology is used for classifying business models on the Internet, comprising the dimensions' content (compilation, display, and provision of content on own platforms), commerce (initiation, negotiation, and/or settlement of business transactions), context (classification and systematization of the information that is available on the Internet), and connection (creation of information exchange in networks).

Within the area of context, services such as Google Catalogs, Google Image Search, Google Toolbar, Google Book Search, and Google Scholar exist. Likewise, the services Google Mail, Google Talk, and Google Voice are part of the connection segment. Regarding the commerce segment, Google AdWords, Google Checkout, and Google Product Search constitute an important supplement to Google's services. Lastly, Google Groups, Google News, Google Maps, and Google Earth represent services in the content area. Overarching this typology, there are services that correspond to more than one section like Picasa, YouTube, or Google Plus.

At the end of 2007, the Open Handset Alliance (OHA) was founded, aiming to develop open standards for mobile devices, especially Android, an open-source mobile phone platform. This alliance includes members from various network providers (T-Mobile, Telefónica), software companies (eBay), manufacturers (Samsung, LG), marketing service providers, and companies from the semiconductor industry (Texas Instruments, Broadcom, Nvidia). At the same time, Google expanded its operations in the mobile phone industry and was able to align already existing services with the upcoming mobile segment. Consequently, the Android market offers manifold mobile applications like those from Google but also from many other providers and software developers.

The mobile market became increasingly more important for Google's strategic positioning. Google's acquisition of Motorola's segment called Motorola Mobility for 12.5 billion USD in 2011 highlighted the importance of gaining access to the mobile market. This acquisition granted Google access to one of the largest portfolios of patents within the mobile sector, especially to capacities to produce smartphones based on Google's operating system Android. In the third quarter of 2011, Android dominated the market with a market share of 52.3% and with approximately 180 million devices sold. At this point in time, Google had a broad range of services at its disposal. Nevertheless, changes took place in Google's top management.

In April 2011, Larry Page replaced Eric Schmidt and took over as Google's CEO, while Eric Schmidt became executive chairman of the board of directors. Because of a simultaneous strategic modification, Google started to reduce its spectrum of services in order to focus on those segments most efficient in terms of costs and

benefits. Hence, Google removed 20 services from their offers including, among others, Google Notebook and Google Desktop. In this respect, Larry Page stated: "We have to make tough decisions about what to focus on."

Since Google's initial public offering in 2004, it has tremendously grown and developed. Within a few years, Google evolved from a start-up company to the largest Internet service provider worldwide. Nowadays, Google employs around 70,000 employees and is market leader in the areas of online search and text-based advertisement. Due to the high name recognition of its identically named search engine, Google has become an established worldwide brand. This development is reflected in Google's increasing revenue and profit.

The increasing diversification of its portfolio eventually led Google to found an umbrella company called Alphabet on October 2, 2015. Now, Alphabet serves as a multisector holding that allows its subsidiaries to act more freely than within one company, which was necessary for Google to stay fast and innovative.

18.2 The Business Model of Google

Even though the holding cooperation is called Alphabet, its core brand and most of its Internet-related ventures are keeping the name Google, which is why this case study also uses this name, as it focuses on those areas of activity. In the context of e-business models, the classification of Google's services with the help of the 4C net business model typology offers insight into the formal structure of the corporation. Although the search engine was previously associated with the context model, its broad service spectrum suggests a highly diversified business structure.

Therefore, one may categorize Google's business model as a hybrid business model, as its service range embraces all four dimension of the 4C net business model. In order to depict Google's hybrid business model, a detailed overview of various business model components will be presented. Especially the market supply (competitors, market structure, and value offering/product and services) and the revenue models (revenue streams and differentiation) serve as the foundation for analyzing the business model at hand.

In general, Google strategically aims to provide, organize, and systematize existing information worldwide by means of the Internet. With this, Google formulates a clear mission that is an integral part of its corporate strategy and thus also of the respective strategy model (business model mission, strategic position and development paths, as well as business model value proposition). This way, Google grew to become an integrative Internet player and one of the most important gatekeepers of access to information throughout the Internet in recent years. In this context, the term "gatekeeper" describes the opportunity for the operator of a search engine to influence what information users find and can actually access.

Due to the vast amount of existing information and the recent developments in user behavior, providers increasingly rely on the transparency of the Internet in order to be easily found by all users. Consequently, as one of the largest providers of a search engine, Google drew attention to its growing market power.

Google's value proposition mainly rests upon its gratuitous compilation, organization, and representation of the immense variety of information on the Internet. Importantly, the value proposition remained the same throughout Google's organizational development and is characterized by a high recognition value and user-friendliness. Google achieves a higher customer retention through their complementary service offerings. Private users can make free use of email, digital photo or image management, and text processing programs, and they will probably do so repeatedly. Moreover, the high coverage Google promises with regard to advertising purposes attracts business users.

From a resource-based view, Google's manifold competencies and resources are extensive. One major core asset emerges from Google's highly specialized technological infrastructure that is characterized by its high amount of redundancy, efficient load balancing, and a predominantly software-based system. Another core asset is Google's corporate brand and simultaneous product brand, which have been manifested through the process of creating a generic trademark. This means it became common to use the term "Google" to search the Internet.

One essential competence of the company is its comprehensive contextualizing competence. Notable in this respect is the criteria-specific localization, classification, and systematization of the search engine as well as Google's extension of its services when it comes to illustrating context. Particularly after the year 2004, the company expanded its competencies in content and connection-related areas. This was mainly possible by intensifying business relations and through acquisition activities. Further core competencies of the enterprise are its technological competence, competence at content creation and search, as well as a fully developed competence at promoting advertising efforts.

The network model of Google is characterized by a far-reaching cooperation network, as well as an extensive business-to-business and business-to-customer network. The free supply of the Google search engine is particularly important. Google AdSense enables both companies and individuals to add a search box to their own website, giving them a share in profits when other Internet users click on one of the advertisements that appear on the search engine results page.

Without an innovative network of business partners and profitable business-to-business cooperation, Google would not be as successful and powerful as it is today. Nevertheless, the company has established an extensive network and tremendous user base in the customer area, which especially profited from a digital word-of-mouth effect after the foundation of the company. Users that were happy with the search algorithms personally recommended them to family, friends, and acquaintances.

Google's creation of goods and services follows a clear and linear structure. The first step of creating content is to gather, systematize, and classify information in order to save it as results for on-demand inquiries and make them available through the search engine. This content creation process is particularly based on the supply of information from third parties or oneself. In comparison, the connection supply is characterized by a strong interdependency between user interaction and communication management.

The company receives most of its input from communities, content suppliers, and news agencies. Therefore, the transmission of information and interaction follows a simple process, i.e., Google checks websites and registered content and either adds them to the index and utilizes them or classifies them as irrelevant and therefore rejects them.

Another partial model of Google's business model is the revenue model. The AdSense partner program generates one of the most important revenue flows, which unlike the AdWords program places context-dependent advertising on an external website. Within this system, the owner of the website receives a certain amount of remuneration when a user clicks on the advertisement. Simultaneously, Google attains more traffic from partner websites. The fees or portion of ad revenues Google pays to such advertising partners that run Google ads or services on their websites are called traffic acquisition costs (TAC).

Another fundamental subcomponent of Google's business model is the market offer model that consists of context, content, and connection offers. The aspects of the company that matter most for industrial customers are the wide-ranging offers of well-developed technical functions and the high number of users. The latter is associated with the great recognition value and the high usage of the search engine. The free usage of various online services offered by Google is highly appealing to private customers. However, the foundation of Google's business model is still its search engine that offers information via the Internet by means of an intuitive search tool. At this point, Page's and Brin's PageRank algorithm evaluates the relevance of the website according to the links it incorporates.

The introduction of PageRank revolutionized those search engines that evaluated websites according to their search terms in texts and meta tags. Today, Google includes over 200 different evaluation criteria for the ranking of websites. With the recent update of the search algorithm called "mobile-friendly 2," Google rolled out another ranking signal boost to benefit mobile-friendly sites on mobile search.

In terms of the 4C net business model typology, the context model with the search engine as its core service builds the foundation of Google's integrated business model. Due to a continuous and innovative revision and extension with specialized search services for images, news, and geographic information, Google is the most frequently used search engine worldwide. Further services within the context segment are, for example, Google Catalogs, Google Images, Google Toolbar, Google Books, Google Scholar, Google Reader, Google Blog Search, Google Now, and most recently Google Home.

One of the first services besides the search engine was Google Catalogs that offers users the opportunity to look at different print catalogs online. However, Google turned down this service in August 2015. Google Images allows to search for distinct pictures online by means of special search criteria like color, format, or the right of use. Google Toolbar is a toolbar for the web browser that allows the user to quickly access the Google search engine and other Google services without changing to the main page. Figure 18.1 presents Google's business model.

The applications Google Books, Google Scholar, and Google Blog Search enable to search the Internet for books, academic publications, or blogs. Google Reader, a

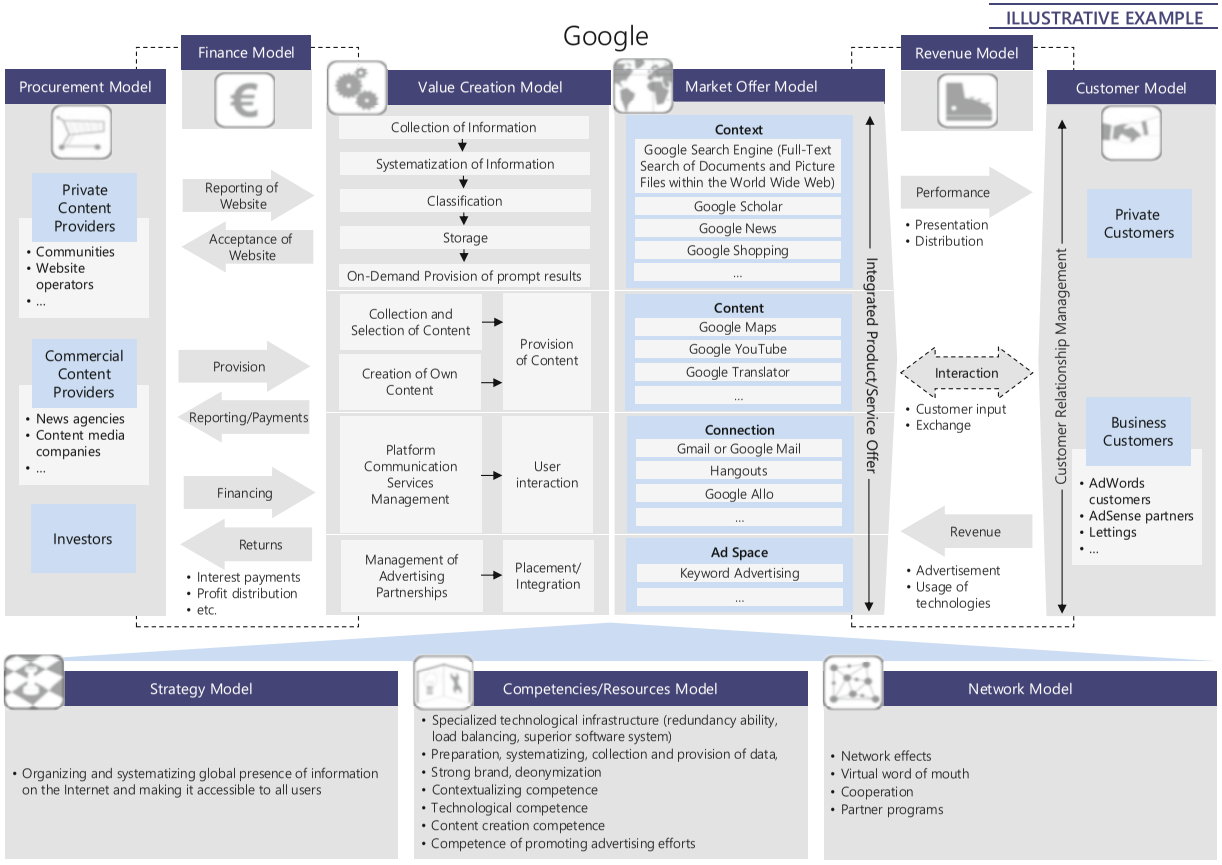

Fig. 18.1 Google's business model. Source: Wirtz (2019a) and own analyses and estimations

web-based feed reader, informs users automatically about new contributions to their favorite homepages. However, Google turned down this service in July 2013. With the takeover of the software producer ITA in 2007, Google expanded its context segment with the analysis of flight information. This feature presents airfares in a comparable way. The user benefits from these various context services in terms of time saving and information procurement.

In 2012, Google introduced the service Google Now as an extension of the Google Search app. Google Now is an intelligent personal assistant with voice search and a command feature. In 2016, Google launched its smart speaker Google Home that is able to receive acoustic commands via an integrated microphone and serves the user as personal digital assistant at home. Basically, it transfers the functionalities of the personal assistant Google Now to the home environment and enables the user access to Google services such as Google Play Music, YouTube, or Chromecast via voice commands.

Another major sector of the market supply is the content segment that is characterized by the provision, preparation, and aggregation of multimedia content. This sector contains services like Google Groups, Google News, Google Maps, Google Earth, Google SketchUp, Google Text and Tables, iGoogle, Google Merchant Center, and YouTube. Google extended or merged many of the older services in order to offer the user a broader range of services. For example, Google Local was integrated into Google Earth and Google Maps.

The first content service was Google Groups. This online service allows users to establish or to search for different groups of interest and to publish own content. Here, the connection aspect is also highly important because the service rests upon the Usenet and therefore offers a foundation for interactive communication.

After introducing Google Groups, Google launched a news service called Google News, a platform that automatically creates content in over 35 languages. Google Earth presents a digital globe that uses satellite aerial views and geographical data to create a digital model of the earth. In doings so, it allows users to search for addresses or places and to calculate distances and routes.

Moreover, Google SketchUp is a software used to construct a three-dimensional model that allows to create pictures and animations. Google Text and Tables is another online service that offers online access to a word processing and table program. The successor to Google Base, Google Merchant Center, allows retailers to deliver product information to Google in order to integrate it into the Google Product Search.

The most important content service today is the online video channel YouTube. YouTube enables users to watch, upload, and publish videos. To do so, they can make use of different channels or individual YouTube websites, through which they can use or offer other information besides those videos. The number of companies using this channel for marketing purposes is rapidly increasing. YouTube is the most popular platform for this kind of video material.

In 2016, YouTube had over 1.3 billion users worldwide, who altogether uploaded more than 300 hours of video to YouTube every minute (Statistic Brain 2016b).

Recent content offers of Google include Chromecast, a line of digital media players, as well as the virtual reality platform Google Daydream.

The services belonging to the connection business model distinguish themselves by allowing to exchange network-based information. In this segment, Google presents itself with services like Blogger, Google Groups, Google Mail, Google Talk, Google Voice, Google Latitude, Google Plus (Google+), Google Drive, Google Hangouts, and most recently with the instant messaging app Google Allo and video chat app Google Duo.

The social network Google+, for instance, is the consequent attempt to extend Google's business model in the connection segment. Launched in September 2011, it counted more than 375 million active members in 2016 (Statistic Brain 2016a). Google+ incorporates various old and new connection services but still struggles to compete with the largest social network Facebook.

With regard to the initiation, negotiation, and settlement of business transactions of the commerce business model, the most important services Google offers are AdWords and AdSense. These two services will be presented later on in the context of Google's revenue model. In the commerce segment, Google has rather few services to offer. Google's payment service Google Checkout is primarily used for payment handling in the Android market, whereas its payment service Google Wallet allows users to pay via mobile phone with NFC (near-field communication).

Google has been extending this segment by product search engines, product presentation, and price comparisons primarily for its services Google Product Search or Google Shopping. Moreover, Google is starting to compete with other classic online retailers, particularly through its service Google Merchant Center. Recently, Google has also acquired FameBit a leading marketing platform that connects brands to creators for branded content creation.

Other services are part of more than one segment at once. For example, the photo community Picasa allows different users to share their photos worldwide and to interact with one another. According to this, Google combines both the content and connection segments in one service.

Since 2008, Google has been following business units outside of the 4C net (content, commerce, context, and connection). For this purpose, it has developed information technologies like the mobile operating system Android, as well as own mobile consumer electronic devices, like the Google Nexus series and its next generation Google Pixel. Recently, Google has also introduced its augmented reality glasses Google Glass and its virtual reality glasses Google Cardboard. Moreover, it has acquired Nest Labs, a producer of smart appliances for home automation, which now works with the Google Home. Figure 18.2 highlights the development of Google's business model and service offers.

Another central component of Google's business model is the revenue model through which multiple income streams are introduced and analyzed. The most important revenue streams are advertising revenues generated through integrated advertising solutions and keyword advertising by AdWords. The customer chooses various keywords that describe the product or service advertised, so that these products or services appear in the search results. Furthermore, the client determines

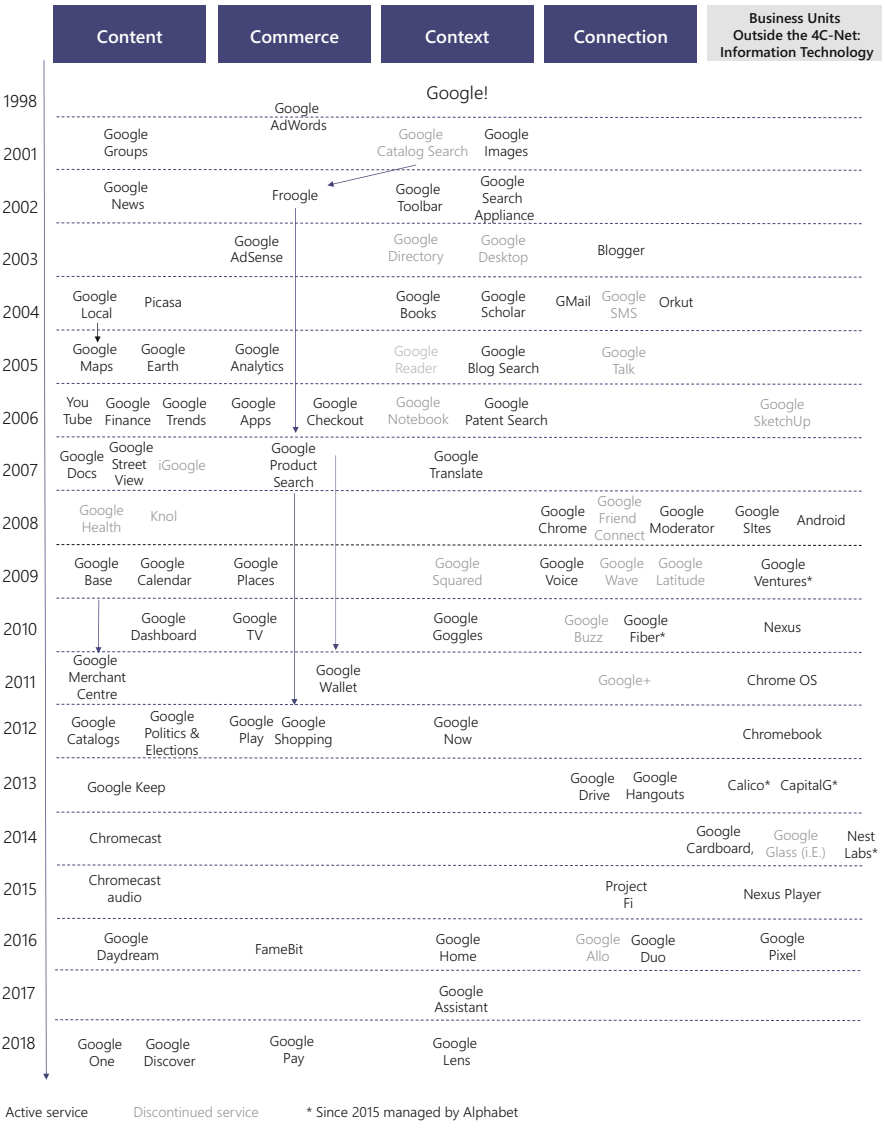

Fig. 18.2 Development of Google's hybrid business model. Source: Wirtz (2019a) and own analyses and estimations

the maximum price that one has to pay for every click on the advertisement. Combining the cost per click (CPC) with the quality of the keyword or product provides a basis to assess the advertising and thus the priority with which Google advertises it. Moreover, the customer defines a monthly budget and is able to change some settings regarding the networks or languages.

Besides the basic search page (google.com), possible advertising networks are Google Search Network and Google Display Network. The Google Search Network contains websites that have licensed Google's search function as an independent toolbar. The Google Display Network comprises a large number of different websites that disseminate the display advertising. Nevertheless, considerably high costs in the form of traffic acquisition costs (TAC) emerge.

Furthermore, Google has expanded keyword advertising also to other services such as Google Product Search and Google Mail. Besides the classic text display, other forms of multimedia like videos or images are also possible. In addition, location data can be integrated to combine the advertising with services like Google Earth or Google Maps.

Besides the huge amount of advertising revenues, the second revenue stream originates from royalties for the usage of software, as Google offers various software solutions in the form of fee-based versions with extended usability for professionals. Such programs are, for example, SketchUp Pro, Google Earth Plus, and Google Earth Pro. In this extended version, Google Earth Plus offers the integration of GPS and a program to virtually construct buildings.

Moreover, Google sells the server hardware Search Appliance that companies can utilize for their document management and indexation. Google is also active in the mobile market with its smartphones (e.g., Nexus 5X and Nexus 6P) produced by LG and Huawei but only generates comparably low sales revenue in this market. However, according to Google, Nexus devices are not primarily intended to drive revenue but are rather an experimental bearer for Google's innovation for Android (Fortune 2015). Google also receives revenue over the Android market, where developers of fee-based applications earn a transaction fee of 30% on the sales price.

18.2.1 Strategy Model

By its own account, Google pursues the superordinate strategic goal of organizing, systemizing, and making the worldwide available information accessible on the Internet to all Internet users (Google 2014). With this, the company formulates a clear business mission which constitutes an important part of the strategy model. The Google Search Engine is the main business segment of the company. Google commercializes the usage of this service by displaying context-sensitive advertisement which is balanced in the pay-for-performance model. In this system, the advertising client only pays for the services directly provided, that is, the ad banners clicked on.

Over the years, Google has become an integrative Internet player and one of the most important gatekeepers of information on the Internet. In this context, the term gatekeeper describes the possibilities search engines have to control which offers can be found. Due to the vast quantity of information and user behavior on the Internet, most content providers are dependent on being findable via search engines. Google is by far the largest search engine provider and therefore has the strategic position as

the most important digital gatekeeper, which many critics and competitors view as too powerful.

Until 2004, Google primarily focused on collecting information without communication, but in 2004, the company changed its strategy to an integrated service offering with a marketplace revenue model. Previously established streams of users and relationships were channeled into new product offers and were later specifically monetized. Combining separate services into bundles enabled Google to break into new business fields. This strategy shows a strong tendency towards interaction and is called 4C integration with tried and tested revenue streams (keyword advertising) and new revenue streams (transaction fee, pay for call, etc.).

The value proposition of Google lies particularly in the free compilation and organization of the variety of online information as well as in its clear representation. Since the website design has barely changed over the years, it has a high recognition value. In addition, users are bound to the company through free application programs available on the Google homepage, such as email and picture or word processing programs. The basic value proposition for commercial customers lies especially in the extensive range achieved through advertisements on the Google website.

18.2.2 Competencies and Resources Model

Google has wide-ranging competencies and resources at its disposal. The company's core asset is primarily its specific technological infrastructure, which is characterized by the ability to avoid redundancy, good load balancing, and a superior software system. Another crucial asset of the company is its strong brand "Google" that has been mainly manifested through deonymization. Deonymization is the transition of the brand name Google to a synonym for the term Internet search engine in everyday usage.

One of the most important core competencies of the enterprise is its comprehensive context competence. In this respect, the criteria-specific localization, classification, and systematization of the search engine are notable, as well as the numerous extensions of their services when it comes to illustrating context.

18.2.3 Network Model

The network model of Google is particularly characterized by a far-reaching cooperation network as well as an extensive network in the areas of business to business and business to consumer. A highly effective service is the free supply of the Google search engine for third parties. Google AdSense thus enables both enterprises and individuals to add a search window to their own webpage. They are even given a share in the profits when other Internet users click on one of the advertisements that appear on that webpage.

Without an innovative network of business partners and profitable business-to-business cooperation, Google would not be as successful and powerful as it is today.

Even in the consumer area, the enterprise has an extensive network which especially benefited from the virtual word-of-mouth effect shortly after the foundation of the company. Users that were happy with the search algorithms personally recommended them to friends.

18.2.4 Market Offer Model

Another fundamental subcomponent of the Google business model is the market offer model, which is further subdivided into context, content, and connection offers. The most important aspects of the company for industrial customers are the wide-ranging offer of well-developed technical functions and the high number of users. The latter is associated with great recognition value and the frequent use of the search engine. The free usage of various online services offered by Google is highly appealing to private customers.

In addition to the most frequently used service, the full-text information search on the Internet, users are also offered a wide-ranging selection of services. Some of the most important ones are Google Image Search, Google Video or YouTube, Google Scholar which specializes in scientific publications, and Google Group consisting of a large archive of newsgroup articles.

Moreover, other functions are made available to the user, for instance, the email service Gmail or Google Mail, the translation program Google Translator, and Google News. Furthermore, Google offers software which needs to be installed on the clients' computers and doesn't use the browser to access search functions. One example is Google Chrome.

18.2.5 Value Creation Model

The creation of goods and services by Google follows a clear and linear structure. When it comes to context offers, information is first collected, systematized, and classified and later saved. The results are made available to users that have on-demand requests. Content offers, in contrast, are characterized by the collection and systematization of content created by the company itself or by third parties that is then made available after appropriate preparation. As with context and content offers, the creation of goods and services is, apart from a few exceptions, coordinated in a linear way and without any correlation. The typical process starts with suppliers (i.e., news agencies), is followed by preparation by the company, and later on reaches the user. Connection offers, by contrast, are characterized by a significant interdependency between user interaction and the communication services management.

18.2.6 Revenue Model and Customer Model

With regard to the revenue model and the customer model, one needs to distinguish between commercial customers and private consumers that are not a direct source of revenue for the company. The interaction between the enterprise and private consumers is mainly unilateral, consisting of the provision of information. Interaction between private consumers and the enterprise is restricted to services like Google Labs that enable customers to contribute to the further development of the Google's technologies. Most interactions between Google and commercial customers happen in the field of financial transactions and the transmission of performance.

The financing of the various services constitutes another key submodel of the Google business model. These services are free for users and the financing is mostly ad-financed. These advertisements are displayed according to the respective search request, conforming to the same principle as a free newspaper. The difference, however, is that the search engine is personalized and can easily estimate the user's interests by his data entries.

Regarding the management of search engine advertisements, one can distinguish between the AdWords program and the AdSense partner program. With the help of the AdWords program, commercial customers can place target-oriented advertisements on Google and within the Google advertising network. This means that texts containing specific search terms are linked and placed next to the list of search results. However, the AdSense partner program focuses on context-dependent advertising on external websites that don't belong to Google. That way, the website owner gets paid when a user clicks on a specific ad. Further profits are made by selling licenses of the Google search technique to external companies who use it for proprietary intranet services.

18.2.7 Resources and Finance Model

The enterprise gets most of its resources from communities, content suppliers, and news agencies, whereby the transmission of information and interaction follows a simple structure. Websites and content are either registered and, after being checked, added to the index and utilized by Google, or they are classified as irrelevant and are therefore rejected. Google receives further input from media enterprises that are responsible for coordinating external communication in some kind of interplay.

18.3 Google Success Factors

So far, the Google enterprise has successfully defended its position as a powerful market leader in the domain of online search engines and complementary services. The name of the brand has even entered common parlance. The main success factor of the business is the technologically well-engineered search algorithm that is

subject to continuous development. Whereas in the beginning, only websites were searched for accurate results, searches have been extended to PDF files, newsgroups, and images. The search algorithm may be rapidly updated, and it may be quickly reacted to user demands especially due to a distinctive technological competence. The low latency or the generally low response time is one of the key success factors of all Google services. Google is only able to achieve this due to its very special server network, which has been unique in the market since the beginning of its services. The comparatively favorable server hardware and a special server operating system are essential drivers of Google's value proposition.

Many of Google's competitors have made the mistake of extending their own search engines—their original core business—too quickly and broadly to include services such as auction, shopping, and chat. Examples are Altavista, Lycos, and Yahoo. Google, on the other hand, has focused on its core business for a long time before slowly extending its services. In addition, the user interface of the search engine has remained the same. Unlike competitive websites, Google is not packed with a multitude of other services.

Another essential success factor of the company is the network effect. The benefit of a product or service increases with the number of users and its associated attainability of a large critical mass. Market leadership, brand awareness, and a wide range of users promote the development of the company. Until now, Google has been the market leader in the Internet search engine market. It has crushed strong competitors such as Yahoo, Lycos, and the market leader in the late 1990s, Altavista, and has established itself as a pioneer in the market.

Because of this market leadership, Google can achieve substantial economies of scale and economies of scope for its services and IT Infrastructure. As a global company, Google offers its specific services in all countries of the world. Due to the globality of their services, Google's data centers can be utilized efficiently and effectively all over the world. Particularly noteworthy is the very good load balancing, which enables the global distribution of load peaks. Without the worldwide stationed server farms, Google would need significantly more IT resources for a similar high availability.

Finally, the brand management is an additional crucial success factor. The high prevalence and acceptance of Google's search engine have made Google the dominant company in the area of search engines. Google uses its position until today, to generate a clear and unique company profile within the context of brand management.

Because of the brand management, users transfer the strengths of the search engine (e.g., the low response time, high quality, free availability, and ease of use) to other services of the company. Overall, Google has dominated the Internet landscape significantly and will maintain its prominent position in the international market provided that it can further develop its core competencies. Figure 18.3 summarizes Google's strategic orientation.

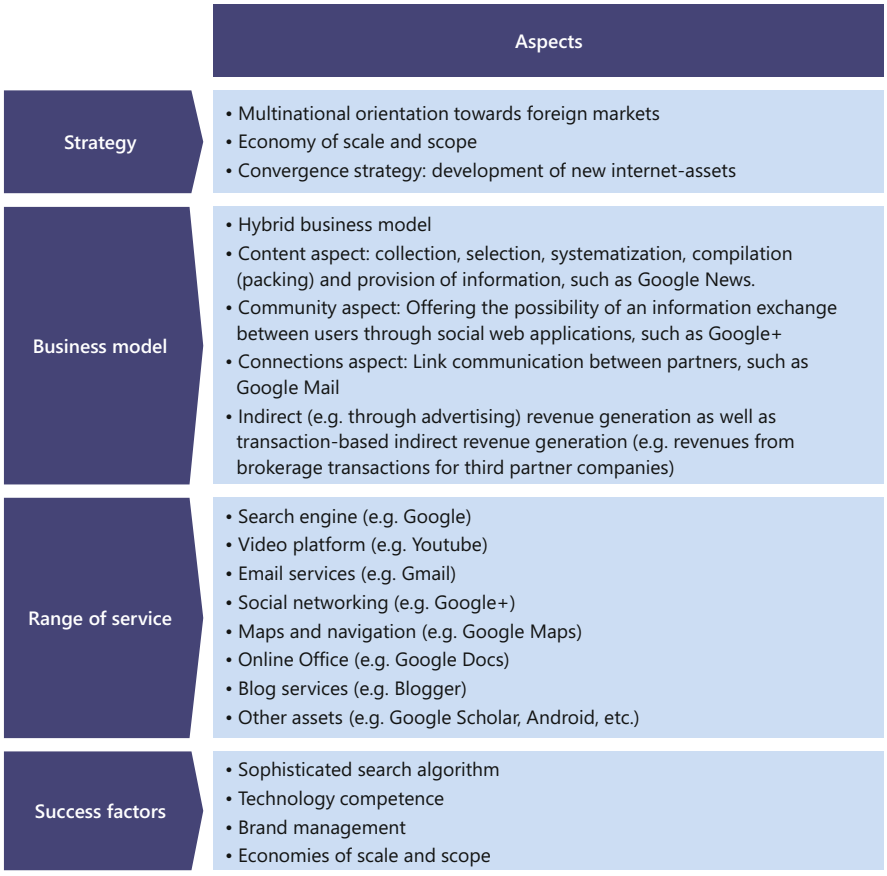

Fig. 18.3 Strategic orientation of Google. Source: Wirtz (2011, 2018a)

Banking Business Model

19

19.1 Business Development of Deutsche Bank

Deutsche Bank is one of the leading banks in Europe. The corporation offers financial services to companies and private clients that range from payment processing to the entire spectrum of corporate financing services and support with IPOs as well as advice on acquisitions and mergers. In addition, Deutsche Bank stands out due to its dominant position in the fields of international foreign exchange as well as bond and stock trade and is represented in many emerging markets (Deutsche Bank AG 2019b).[1]

Deutsche Bank was founded under the direction of Adelbert Delbrück in Berlin in 1870 (Deutsche Bank AG 2019a). Initially, the main purpose of the financial institution was to support and finance German foreign trade in Europe and overseas with the aim of emancipating itself from the then market-dominant English banks. The venture succeeded, and Deutsche Bank opened its first foreign branches early in the 1870s, including offices in London, Yokohama, and Shanghai. In addition to flourishing international business, Deutsche Bank was strongly involved in advancing industrialization, for instance, making a significant contribution to the setup of the German electrical industry.

During World War I, the international business of German banks largely collapsed, and many holdings had to be sold. As a result, the landscape of German banking was consolidated in the post-war period, from which Deutsche Bank emerged as the strongest financial institution. In the Weimar Republic, Deutsche Bank decisively participated in founding large German companies and mergers. For example, the financial institution was involved in the founding of the German Lufthansa in 1926 and played an important role in the merger of Daimler-Motoren-Gesellschaft with Benz & Cie. to form Daimler-Benz AG.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_19

The downfall of the Weimar Republic and the banking crisis of 1931–1932—in which Deutsche Bank had to deposit one-third of its equity with the state-owned Golddiskontbank—marked the beginning of the most difficult period in the history of the bank. This period continued during National Socialism, when Deutsche Bank was exploited by the government and culminated in the closing of the headquarters and almost all branches due to the war.

In the post-war period, Deutsche Bank was broken up by the Allies into several banks. In 1957, these were merged into the Deutsche Bank Corporation with its legal base in Frankfurt am Main. At the end of the 1950s, Deutsche Bank increased its product policy involvement and entered the area of private banking by introducing small loans. With the overall economic upswing, Germany turned from a debtor into a creditor nation. As a result, the international business of the Deutsche Bank Corporation also gained importance again. Since 1970, Deutsche Bank has increasingly expanded abroad by opening numerous foreign branches. Since the mid-1980s, numerous acquisitions have been added, among which were the Banca d'America e d'Italia in 1986, Morgan Grenfell Group (London) in 1998, the Crédit Lyonnais in Belgium in 1998, and—important for their business in the USA—the New York investment bank Bankers Trust, which opened access to the American market for Deutsche Bank AG (Deutsche Bank AG 2019a).

The more recent history of the financial group is characterized by restructuring of the organization and offer structures. For example, in 1995, "Bank24," a direct bank without a branch network, was established. This was later renamed "Deutsche Bank 24." In 2002, it merged with maxblue, an in-house online broker in the field of private and business clients. With the launch of the Chinese private banking business in 2007, Deutsche Bank recently took another step forwards in terms of the international orientation of its personal banking. In today's investment sector, Deutsche Bank is not only a leader in Germany and Europe but is also present in China, India, Russia, and other emerging regions.

Today, Deutsche Bank is a universal bank with a broad range of financial services offered, inter alia, worldwide in 1994 branches (Deutsche Bank AG 2019c). At the moment, the market capitalization of Deutsche Bank is around 15.82 billion (Bloomberg 2019).

19.2 Deutsche Bank Business Model

Deutsche Bank has a business model that adequately describes the complex structure of the company. The model differs only slightly from those of other banks in its comprehensive structure, which can be put down to the fact that credit institutions have only a limited scope of action regarding the variation of their business model. There are two reasons for this: the guidelines inherent in the banking business model in the value creation sector and the structures determined by external regulation.

Deutsche Bank Corporation mainly distinguishes itself in its business model from other banks by a broad market offer. This offer is represented by the two superior business divisions Corporate and Investment Bank and Private Clients and Asset

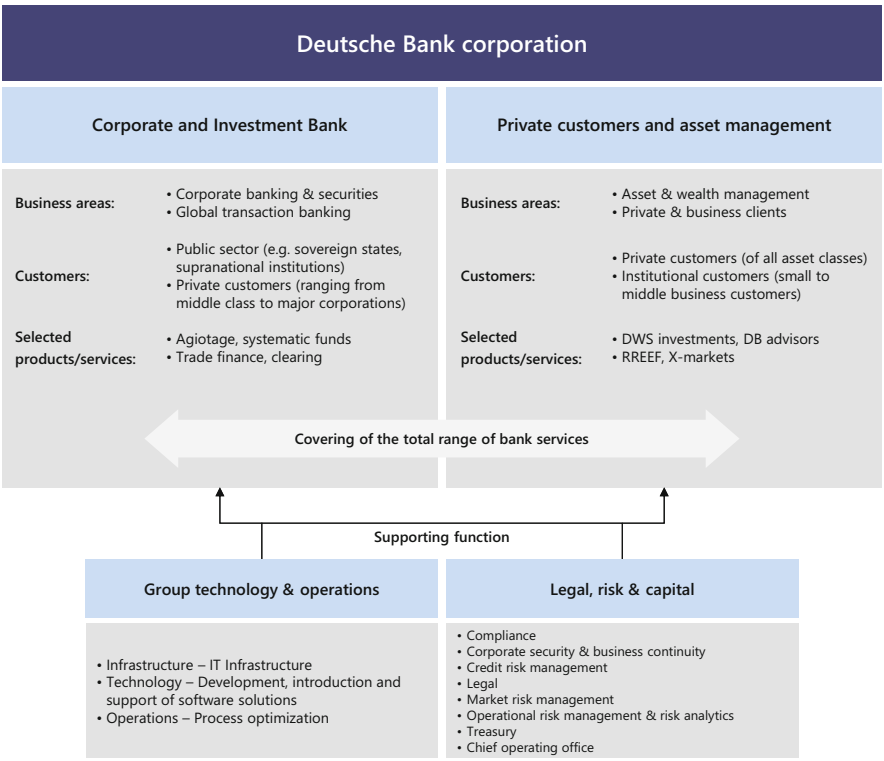

Fig. 19.1 Areas of offers of the banking business model of Deutsche Bank Corporation. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

Management (Deutsche Bank AG 2016). Hence, Deutsche Bank is strongly represented in both investment and private banking business and—due to the resulting range of banking services—can be referred to as a universal bank. Figure 19.1 illustrates the relevant subdivisions of the Deutsche Bank Corporation's banking business model and, in addition to the core divisions of investment and private banking, also characterizes the supporting departments of Group Technology and Operations and Legal, Risk and Capital.

The Corporate and Investment Bank, or CIB, division of the Deutsche Bank Corporation is subdivided into Corporate Banking and Securities and Global Transaction Banking. These comprise the group's capital market business including origination, sales, and trading of capital market products such as shares, bonds, and other securities. Furthermore, the sector covers the areas of advising and lending as well as transactions. In the past years, Deutsche Bank has specifically expanded its investment division and is therefore among the world's most successful banks in this business field. The market offer is directed towards institutional customers from both the public sector, including states and supranational institutions, and the private

sector, ranging from medium-sized companies to major, globally active corporations.

The Deutsche Bank corporate's Private Clients and Asset Management, or PCAM, division can be subdivided into Asset and Wealth Management and Private and Business Clients (Deutsche Bank AG 2016). Key aspects are the investment management area and traditional banking for private clients and small- to medium-sized companies. Investment management is subdivided into the sector Asset Management—which comprises the area of mutual fund business of the subsidiary DWS Investments as well as alternatives and asset management for small institutional investors and insurance—and the sector Private Wealth Management. Here, Deutsche Bank offers individual financial services for wealthy private clients who constitute an important customer group in the comprehensive banking business model. Deutsche Bank speaks of an "integrated business model for demanding private and institutional clients" (Deutsche Bank AG 2011).

Deutsche Bank operates in eight European and Asian countries in the traditional private client business. A wide network of branches as well as numerous financial advisers and cooperation partners are required for attending to and advising more than 60 million private and business clients in Europe alone (Deutsche Bank AG 2014a). Services in the private client business include, among others, foreign exchange trade, stock conception, real estate management, investment strategy development, and numerous services in the classical business of branch banks. This business field therefore complements the investment business for larger institutional clients in many ways and turns the Deutsche Bank's corporate banking model into a universal model. An example of this is the foreign exchange trade that Deutsche Bank provides for both its institutional clients in investment and its private clients. As a result, it is no. 1 in foreign exchange trade.

By combining a strong investment division with a broad private banking business, Deutsche Bank covers the full range of banking service. The resulting range of offer forms the core aspect of the Deutsche Bank's business model and is one of the most important factors for the global success of the financial group. Nowadays, Deutsche Bank pursues the strategy of developing and focusing on both business sectors in a parallel manner. The success and the competitive advantages resulting from this banking business model are examined in detail in Sect. 19.3.

The two sectors of Group Technology and Operations and Legal, Risk and Capital mainly function as support for the core fields of the banking business model. The main tasks of Group Technology and Operations are process optimization, software development and management, as well as the operation of the IT infrastructure. In the banking sector, the indispensable security and the smooth procedure at the process level are closely connected with the efficiency of information technology systems and are therefore of major importance in this context. The sector Legal, Risk and Capital mainly deals with the management of the numerous risks inherent to the finance business in many cases.

As a credit institution, Deutsche Bank acts in a relatively strongly regulated market and therefore has a somewhat smaller scope of action compared to their international competition. Within these confined limits, the major task of business

model management is to support the management at the component and detail levels. Deutsche Bank has the high operational competence necessary to act successfully in the international banking sector. Therefore, Deutsche Bank Corporation's business model is a perfect example of effective business model management through purposeful business model operation.

The most important aspect of operational business model management is to pursue operational excellence. In management, corporate growth, the central strategic orientation of the Deutsche Bank Corporation, and operational excellence are closely connected with one another (Deutsche Bank AG 2013). Business model management provides the key elements for developing and implementing this excellence.

In this process, the business model functions as a superordinate basis of decision-making for the implementation of operational specifications at the process level. Above all, the core processes crucial for success benefit from this. Hence, the Deutsche Bank Corporation's continual pursuit of operational excellence forms the basis of the value-oriented corporate philosophy (Deutsche Bank AG 2013).

Deutsche Bank AG's business model is an integrated one. It comprises all relevant submodels that are closely connected with one another. Figure 19.2 illustrates the business model of the Deutsche Bank Corporation.

19.2.1 Strategy Model

The strategy model plays a central role in the comprehensive business model since it constitutes the interface to the long-term strategic specifications for development of the management. Therefore, it has a lasting influence on all other components. Deutsche Bank uses the business model to define its strategic position and potential development paths as well as a concise business mission. Deutsche Bank "compete [s] to be the leading global provider of financial solutions, creating lasting value for [its] clients, [its] shareholders, [its] people and the communities in which [it] operate [s]" (Deutsche Bank AG 2015). Furthermore, the Deutsche Bank Corporation formulates concrete corporate values which taken together constitute the company's value proposition.

The core aspect of the business model of the Deutsche Bank Corporation is medium-term growth at all business levels. The strong interaction of the strategy model with the other components of the integrated business model guarantees that the strategic specifications are consistently implemented in the various dimensions of corporate activities. Therefore, Deutsche Bank Corporation's growth plays an important role in both value creation and market components. This corresponds with the specifications of operational excellence: to implement the operational specifications on both the company's input and offer sides (Deutsche Bank AG 2013).

Another important strategic position and long-term development target are the internationalization of the Deutsche Bank Corporation. Internationalization is rooted in the corporate tradition and was stipulated when the company was founded. This

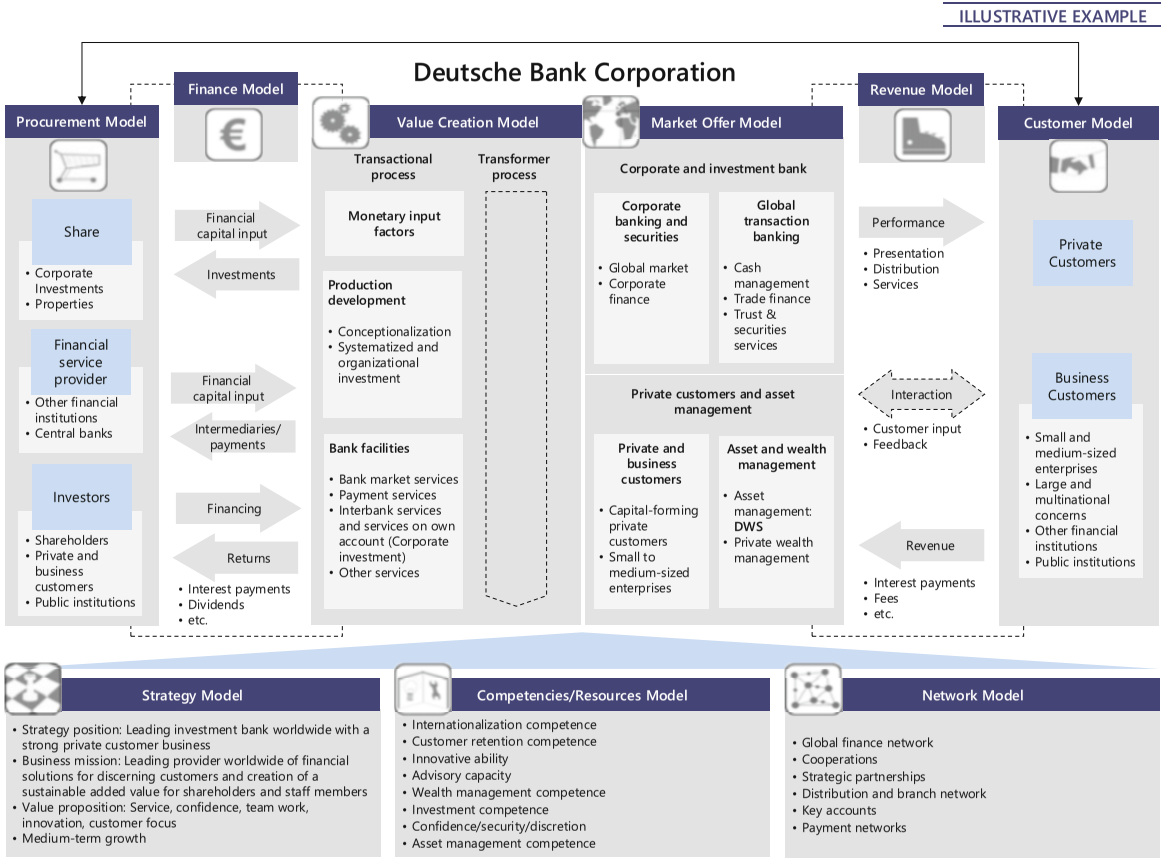

Fig. 19.2 Business model of the Deutsche Bank Corporation. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

orientation is particularly vital at present. Especially in modern investment banking, a strong international orientation is necessary to be able to survive in the fiercely competitive global market. Furthermore, the Deutsche Bank Corporation's international strategy involves private banking business offers. By starting private banking in China, Deutsche Bank taps one of the world's largest and fastest-growing markets and thus initiates further risk diversification.

All in all, the strategy model forms the structural frame of the integrated business model. Particularly the growth strategy of Deutsche Bank Corporation makes clear how the strategy influences the other components and submodels. To achieve growth, however, focus on different levels of management as well as implementation at the operational level is necessary. Therefore, the strategy model not only specifies the structural frame of development but is also concretely reflected in the detailed design of value-adding processes and market activities of the company.

19.2.2 Resources Model

The resources model of the Deutsche Bank Corporation describes the competencies and core competencies as well as the assets and core assets that the company has for implementation of strategic specifications and for sustainable value creation. The internationalization competence of the Deutsche Bank Corporation plays an important role in this context. Over the years, the company strengthened this competence by purchasing numerous companies and founding foreign branches. Many in-house resources are closely linked to the experience of the Deutsche Bank Corporation in the area of a broad range of offers. Among these resources are competence of wealth and asset management as well as investment competence. In this context, the Deutsche Bank's general corporate competence of creating an innovative supply of banking services should be pointed out.

Particularly important in the banking business—and hence also an important meta-competence of the Deutsche Bank corporation—is the competence of building confidence through security and discretion at all levels of transactions. Confidence building is also crucial for attracting and retaining customers through advisory capacity in the international banking business. Correspondingly, the ability to obtain customer loyalty should be mentioned here as well. This competence is one of the strengths of the Deutsche Bank Corporation, especially in its relationship with customers in the area of private wealth management.

19.2.3 Network Model

The networks of the Deutsche Bank Corporation with its domestic and foreign customers, investors, and its own subsidiaries are described in the network model. As a globally acting universal bank, the Deutsche Bank Corporation is part of numerous networks and cooperations. Particularly among banks, there exists a broad spectrum of interactive relationships. This spectrum ranges from international

distribution and payment networks to strategic partnerships to connections with central banks. This is the only way the complex monetary flows which characterize the banking sector can be maintained. Therefore, intensive network management—which can be effectively supported through business model management in the network model—is crucial for success in the banking sector.

19.2.4 Market Offer Model

In the integrated comprehensive model of the Deutsche Bank Corporation, the market offer model gives an overview of the various market services of the company. These services can be divided into two categories: Corporate and Investment Bank (CIB) and Private Customers and Asset Management (PCAM). The former can be subdivided into the sectors of Corporate Banking and Securities and Global Transaction Banking and the latter into the sectors of Asset and Wealth Management and Private and Business Clients (Deutsche Bank AG 2016).

Within these different areas, Deutsche Bank offers its customers a very broad spectrum of financial services. Due to the strong focus on the two core areas of the banking model, this spectrum exactly matches the needs of the corresponding group of customers. Hence, Deutsche Bank presents a strong market and customer orientation that can be clearly structured in the market offer model.

19.2.5 Value Creation Model

The basic structure of the value creation model of Deutsche Bank is based on the bank's generic, process-oriented system of producing goods and services. The process of producing goods and services can be divided into a transactional and a transformational process (Lee et al. 2011). The transactional process describes the bank's value creation processes that primarily consist of product development, distribution, and processing. For this reason, financial products are developed from input factors that, in the case of a bank, are mainly of a monetary nature. Afterwards, these products are distributed as banking services. In this context, post-sale activities play an important role as well. At the same time, a transformational process takes place which influences the transactional process at all stages and describes the active control mechanisms for the production of goods and services on the part of the bank.

Therefore, the special accomplishment of the Deutsche Bank Corporation can be primarily found at the individual stages of the process of producing goods and services. In developing and transforming financial products, Deutsche Bank stands out due to operational excellence. This excellence is apparent not only in the broad spectrum of services but also in a high degree of innovation of the various financial products. In the distribution of banking services, the value creation model corresponds with the network model. Deutsche Bank has a large distribution and consulting network. With the aid of this network, the production of goods and

services can be guaranteed to be in line with the market. The distribution channels are adjusted to the special needs of the various private and corporate customers.

19.2.6 Revenue and Customer Model

The combination of revenue and customer model describes, on the one hand, the customer structure of Deutsche Bank and, on the other hand, the channels through which the financial institution interacts with these customers. From the perspective of Deutsche Bank, the most important forms of interaction are the delivery of goods and services and the generation of revenue. Within the frame of the banking business model, revenue is generated in various ways, such as through interest payments or fees. The monetary added value resulting from the financial service for a customer is part of the delivery of goods and services of the bank, because the revenue model merely describes the revenue flows of the company.

The customers of the Deutsche Bank Corporation are composed of private and institutional customers. In the private banking business, the financial institution provides services for customers of all classes of wealth. The group of institutional customers consists of state-owned institutions and private sector companies of all sizes. Hence, Deutsche Bank covers the entire spectrum of possible recipients of financial services. It should be noted that through the procurement model, customers also act as a resource for monetary input factors. Therefore, procurement and the customer model interact strongly with one another within the frame of the banking business model.

19.2.7 Finance and Resources Model

The finance model describes the financing, capital, and cost structure of a company. In the case of a bank, the finance model forms a kind of structural frame for the integrated banking business model because it is not only closely connected to the procurement and the value creation model, but it also presents numerous other interaction paths. Since central processes in banks are always directly connected with capital flows, the finance model significantly determines the value-adding activities of the company at the lower process level. At the business model level, the capital and cost flows between the Deutsche Bank Corporation and its procurement partners listed in the procurement model play a particularly important role.

The central resources in the procurement model are internal corporate shareholders, financial service providers, and investors. These procurement resources provide the monetary input factors required by the bank to produce goods and services. Within the area of corporate investment, Deutsche Bank itself acts as a customer in the market. Therefore, in the business model, this part of the company is primarily captured by the procurement model. This shows the close connection between the procurement and the value creation models of a bank. Other

resources or procurement partners include other financial service providers—mostly in the form of banks—and investors.

19.3 Success Factors of Deutsche Bank

Due to the financial crisis at the end of 2008, the banking sector dealt with considerable pressure on a global scale. The consequences included sweeping government interventions, consolidation of prominent banks, and even insolvencies of large credit institutions. In addition to banks with a focus on mortgage banking, banks chiefly active in the investment sector were also hit hard by the crisis. In comparison, the conservative private banking business proved to be more stable. As a result, the banking business model and the configuration of the model components—especially on the strategy and market component levels—became the critical factor that could determine a bank's continuing existence.

Banks with a solid business model and sustainable business model management were able to recover more quickly and achieve competitive advantages over other banks. Deutsche Bank was among these banks and emerged strengthened from the financial crisis. The reasons for this were mainly the diversification of its banking model into the two complementary key components of investment banking and private banking as well as the international orientation of the corporation. Hence, Deutsche Bank operates a very broad range of financial services without suffering a loss of competencies in any individual business division. Both in private banking and the investment business, the Deutsche Bank Corporation recently achieved great success and consistently promotes the parallel development of both business areas.

In recent years, the Corporate and Investment Bank division has established itself as the driving force behind the growth of Deutsche Bank and—despite great pressure due to the financial crisis—was able to significantly contribute to the success of the company in 2008 as well. This shows the international competence of the Deutsche Bank Corporation: its Global Transaction Banking division was able to achieve above-average success on both the domestic European and the Asian growth markets (Deutsche Bank AG 2010). In 2008, despite the difficult market situation, Deutsche Bank was able to achieve growth in the prime services sector for hedge funds as well as in commodity trading and foreign exchange transactions. This helped Deutsche Bank to further develop its strong position in the investment sector and to compensate the losses in other sectors, such as the area of credit products.

The private banking business, a stabilizing element during the crisis, has proven to make a substantial contribution to the good market situation of the Deutsche Bank Corporation. Correspondingly, after the financial crisis, the division Private and Business Clients was among those of the group who achieved the most revenues (Deutsche Bank AG 2014b). An extensive strategic program envisions the medium-term expansion of the branch and advisory networks in the core markets. Deutsche Bank strengthens its involvement on an international level as well, for instance, by opening Chinese branches for private customers and by receiving a Chinese universal banking license (Deutsche Bank AG 2014b). By diversifying its business fields,

	Aspects
Strategy	• Internationalization strategy and multinational orientation towards foreign markets • Wide range of market services, such as investment and retail banking • Growth strategy
Business model	• Hybrid business model • Strong market position in the B2B and B2C business. • Comprehensive services from one single source (private banking, business banking, asset and wealth management, insurance, etc.) • Depending on the segment: direct transaction-based revenue generation as well as transaction-based indirect and direct revenue generation
Range of service	• Comprehensive consulting services • Private capital investment • Business Investment • Investment and Asset Management • Insurance Services / broker • Payment transactions • Customer Touchpoint local and on the Internet
Success factors	• Diversification • Operational Excellence • Extensive network of consultants • Up-/cross selling ability

Fig. 19.3 Strategic orientation of Deutsche Bank Company. Source: Wirtz (2011, 2018a)

Deutsche Bank nowadays has a considerably more stable market position than many of its specialized competitors.

Another success factor of the Deutsche Bank Corporation in business model management is its capability for operational excellence. This excellence has a substantial influence on the value-adding activities of the financial group. The basis of this is formed by high process reliability and an efficient IT infrastructure guaranteed by Deutsche Bank in the Group Technology and Operations division. In conclusion, Fig. 19.3 shows the strategic orientation of the Deutsche Bank.

Automotive Business Model

20

20.1 Volkswagen Corporation

The Wolfsburg-based Volkswagen Group is Europe's largest automobile manufacturer and one of the leading carmakers worldwide (Volkswagen AG 2019b). Today, the corporation's portfolio consists of 12 brands: Audi, Seat, Skoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Nutzfahrzeuge, Scania, MAN, and various service companies, particularly in the sectors financial and insurance service sectors. Nowadays, the Volkswagen Group offers its vehicles in more than 153 countries (Volkswagen AG 2019d).[1]

The history of Volkswagen can be traced back to the early twentieth century. Inspired by the achievements of the American carmaker Ford, the idea of an inexpensive vehicle for the German mass market arose. The people's car project was not concretized until around 1938, when the Volkswagen Ltd. was founded and a Volkswagen factory was built in Wolfsburg following the American value creation model (Volkswagen AG 2019d). When the World War II broke out, the production was completely changed to military equipment. The history of several of today's group companies—particularly Bugatti, Audi (formerly Horch), and Scania—is even longer, and they are regarded as belonging to the pioneers in the production of passenger cars and trucks.

At the end of the war, the Volkswagen factory served the Allies as a repair facility as well as for the production of civilian vehicles for purposes of occupation. Therefore, the long-planned "people's car" was not produced until 1945. In 1946, the first so-called Käfer (German for Beetle) was delivered. At the instigation of the British troops, the extensive export of the Volkswagen within Europe began in the 1940s, and the production capacity increased to 4000 vehicles per month.

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_20

Consequently, Volkswagen entered the upswing of the post-war period as one of the leading car manufacturers.

In subsequent years, VW further expanded in Europe and also expanded its business to South and North America as well as Africa. Within Germany, the VW Beetle became a symbol for the economic miracle. In August 1960, the Volkswagen GmbH was turned into the Volkswagen AG and had a market share of 33% in Germany.

In the years to come, the pressure of competition forced VW to broaden its product range. Among other things, this was achieved by acquiring the Audi Union Ltd., which was later consolidated into Audi. In 1974, the production of the VW Golf introduced a new generation in product policy. In addition, VW was increasingly involved in the commercial vehicle sector and expanded its range of commercial vehicles.

In the 1970s and 1980s, the corporation's international companies substantially contributed to further positive development of Volkswagen. The Volkswagen Group saw tremendous growth, especially in South America, South Africa, and, since 1985, also China. VW also further expanded within Europe and entered new markets by purchasing the Seat and Skoda brands. These purchases as well as involvement in the current companies of the corporation led to a notable expansion of its product portfolio.

At the end of the 1990s, the corporation expanded its brand portfolio to the Italian sports car manufacturer Lamborghini, the British luxury brand Bentley, and the exclusive French sports car manufacturer Bugatti. VW also expanded its product range in the commercial vehicle sector by acquiring shares in the Swedish truck manufacturer Scania. Today, the Volkswagen Group has the broadest brand and product portfolio of all manufacturers worldwide and got involved with MAN (2011) and the Italian motorbike manufacturer Ducati (2012).

The Volkswagen Group has industrial facilities in various European and in American, Asian, and African countries. The Group's research is conducted for all brands at its headquarters in Wolfsburg, Germany. The company employs almost 664.496 people that produce 10.8 vehicles. In 2018, the company's total sales amounted to 236 billion euros (Volkswagen AG 2019d).

20.2 Business Model of the Volkswagen Corporation

Due to its long and eventful corporate history, the Volkswagen Group's business model has evolved historically. This model was continually adapted to changing conditions. Hence, the company changed from the provider of a single inexpensive volume model into a group with different brands which offers vehicles in all sectors. Therefore, the business model of the Volkswagen Group illustrates that it is necessary to continually question an existing business model and develop it through the action parameters of business model management.

Furthermore, Volkswagen's business model is highly connected to the aims of the overarching Group strategy. The business model is sufficiently established to serve

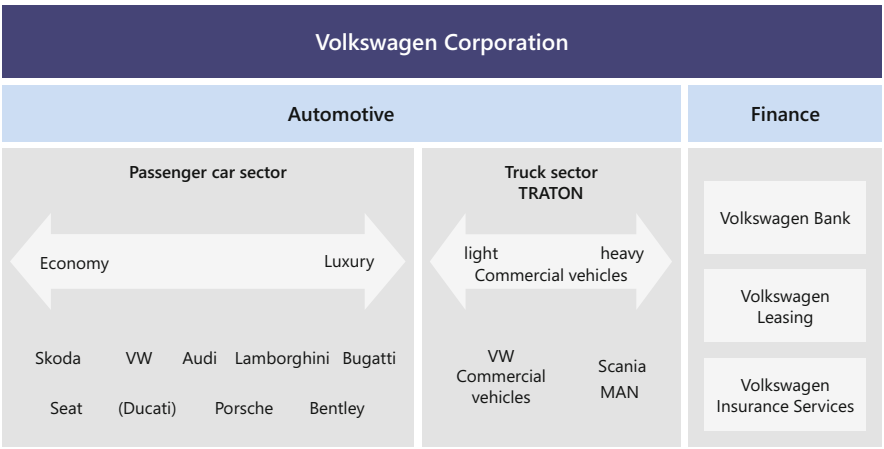

Fig. 20.1 Range of products and services of the Volkswagen. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

as a basis for further planning or analysis on the business process level. Moreover, observation of individual companies within the Group shows that the business model is implemented on various levels. Hence the brand Bugatti, for example, has a completely independent business model. However, this does not mean that Bugatti isolates itself from the overall model view.

Within the framework of Volkswagen's business model, the broad market offer and the resulting strategic and operational competitive advantages for the Group should be emphasized. The Volkswagen Corporation's automotive division covers the entire range of vehicles in both the passenger car and truck sectors—this is unique in this form in the international automotive market. Figure 20.1 illustrates the variety of brands of the Volkswagen subdivided by the automotive division; the brands are categorized according to quality.

The automotive division of the Volkswagen Corporation can be divided into a passenger car and a truck sector. Since this division constitutes the core business of the company, it is of superior importance to the entire Group. Both sectors of the automotive business model are characterized by a broad range of products. In the following, this range is to be specified in more detail.

With its business model, the Volkswagen AG serves nearly the entire market of the passenger car sector ranging from economy vehicles to luxury class vehicles. It should be noted that some of the Group's brands have a broad range of vehicles. Therefore, the individual brands cannot be classified selectively but need to be classified according to the comprehensive positioning of brands and the focal points of the offer. For example, the core brand Volkswagen alone offers vehicles ranging from the Fox, an economy subcompact car, and the Passat, a middle-class vehicle.

The Czech brand Skoda has to be positioned on the left edge of the scale of brands and therefore chiefly in the economy sector of the Group. In terms of price, the vehicles always rank beneath their platform equivalents from Volkswagen and Seat.

Today, the Spanish brand Seat is the Group's young, sporty brand and offers a range of vehicles similar to Skoda.

The core brand Volkswagen focuses on the compact class and lower middle-sized class. With Audi, the Group has a brand that offers premium vehicles in almost every class. Audi's product range covers all classes: from the compact car, the A1, to the super sports car, the R8. However, the brand mainly focuses on the middle-sized and upper middle-sized class with the models A4 and A6.

In contrast to many other automotive groups, the Volkswagen Corporation has a broad luxury sector and is therefore able to position independent brands on the market in this sector. The sports cars of the Italian brand Lamborghini are characterized by aggressive design and uncompromising sportiness. Despite similar exclusiveness, these models serve a different sector than the clearly distinguished models of the British brand Bentley. The traditional brand Bugatti constitutes the upper end of the range of brands from the Volkswagen Corporation and therefore of modern automotive engineering. With the Veyron, Bugatti produces only one single luxury sports car that is among the world's most exclusive vehicles.

The second pillar in the automotive business model of the Volkswagen Corporation is the commercial vehicle sector TRATON. Here, the Volkswagen Corporation offers small- and medium-sized carriers as well as special-purpose vehicles through the Volkswagen brand. The Scania and MAN brand completes the range of commercial vehicles of the Volkswagen Group. Apart from heavy trucks, the Swedish manufacturer Scania also produces buses and large-engine vehicles. Hence, the Volkswagen Group also covers the majority of the market in the truck sector with its automotive business model.

In the automotive industry, high costs and development pressures are obstacles to broad diversification. The Volkswagen Corporation deals with this tension between standardization and differentiation by consistently pursuing a platform strategy. In the automotive industry, a platform is a bundle of elements and structures (Marschner 2004). It is comprised of numerous important functional groups, among them the power train, front and rear axles, braking and steering system, and exhaust system.

These platforms are produced in large quantities. In the next step, they are adjusted to special product requirements and combined with the remaining elements of the vehicle such as the body. On the one hand, the use of platforms substantially reduces the time needed to develop individual products; on the other hand, the spreading of costs on all levels of value creation makes it possible to realize economies of scale. Due to the large number of similar models and model variants, the Volkswagen Group profits immensely from using the platform strategy.

Overall, the business model of the Volkswagen Corporation is an integrated model. It comprises all relevant submodels and components which are closely connected. The components interact with one another and form a network that adequately represents the structure and value creation logic of the company. Figure 20.2 illustrates the business model of the Volkswagen Corporation. The individual business model components are also explained in more detail.

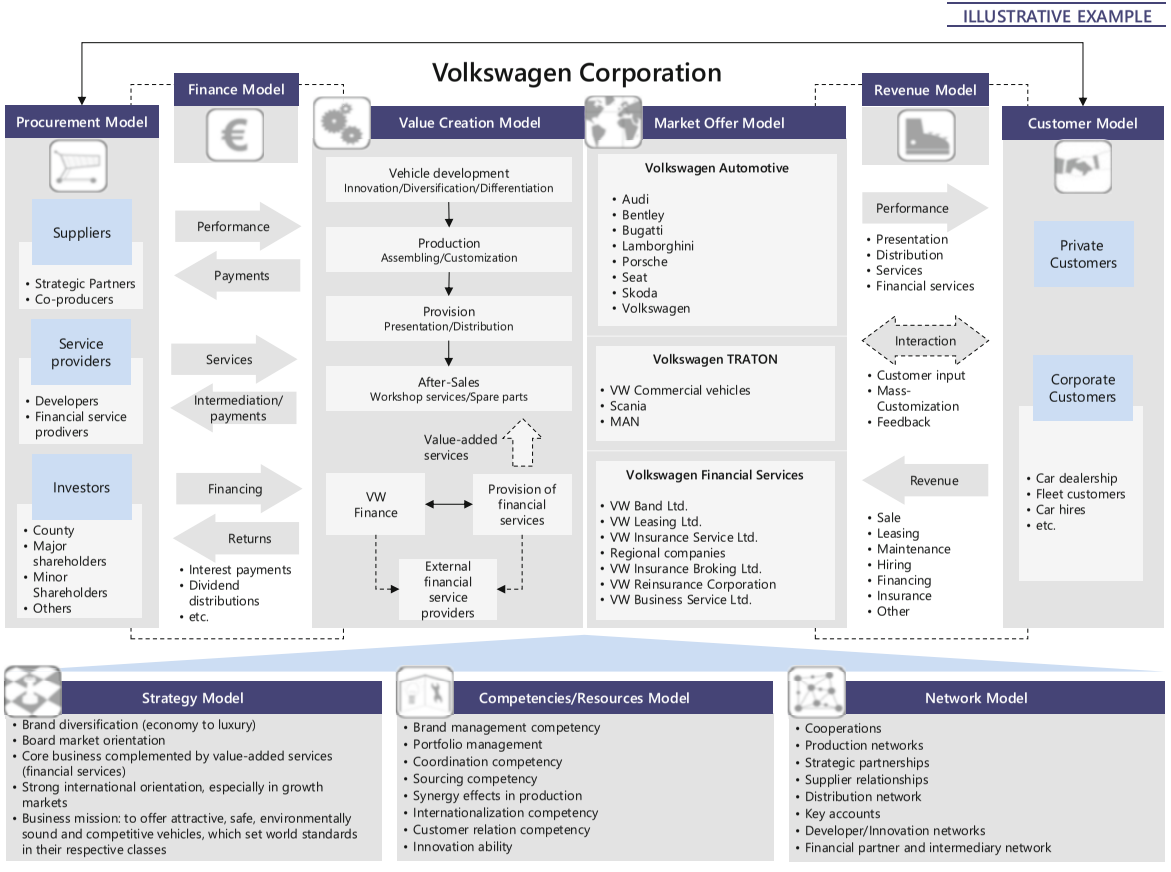

Fig. 20.2 Business model of the Volkswagen Corporation. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

20.2.1 Strategy Model

In the comprehensive model, the strategy model is of particular importance because it is the interface to the Group's strategy and therefore influences many other components in the long run. Among other things, the strategy model contains Volkswagen's business mission: "to offer attractive, safe and environmentally sound vehicles which are competitive on an increasingly tough market and which set world standards in their respective classes" (Volkswagen AG 2019d). This business mission defines an abstract objective for other strategic aspects and determines important parameters of the value proposition.

The central point of the Volkswagen Group's strategy model is the diversification of brands. The Volkswagen Group unites nine brands with completely independent brand presences. The individual brands highly complement one another. This is how the Volkswagen Group achieves market coverage unique to the automotive sector. The strategy model also guarantees that the strategic aims of the numerous Group companies are consistent. Hence, the financial services that the Volkswagen Group offers should always be seen in close context with the core business. They primarily serve to supplement the offer in the form of value-adding services.

Another aspect of Volkswagen's strategy model is the formulation of global orientation. Even though the Group is already highly internationalized, further expansion on an international level is one of its strategic aims. The aspect of internationalization is closely connected with the corporate history and has been rooted in the company for a very long time. This shows that the strategy model describes not only strategic objectives but also strategic positions and development paths. These can serve as a basis for future strategic objectives and allow the derivation of core competencies.

20.2.2 Resources Model

The Volkswagen Group has a number of core competencies, meta-core competencies, and resources. The competency model displays these and therefore substantially contributes to the visualization of company-specific resources. The most important meta-core competency of the Volkswagen Corporation is brand management competency, which in turn entails other competencies. Among these are well-developed portfolio management and high coordination competency.

Other core competencies of the Group are innovation competency, competency of long-term customer retention, and competency of using synergy effects in production. In this context, the Group-wide application of modularity plays a particularly important role which is reflected in strong economies of scale. With the competency of internationalization, the company has a meta-competency that reflects itself in all stages of the value creation process—from international procurement to the establishment of an international distribution network.

20.2.3 Network Model

The Volkswagen Corporation is globally active in various networks that connect the company with its value creation partners and customers. These networks are mainly procurement, development, production, and distribution networks as well as close relationships with key accounts. Furthermore, the Volkswagen Group has strategic partnerships and cooperates with other car manufacturers. An example of this is their cooperation with the Porsche AG on various business levels.

In addition, there is a complex network between the different companies within the Volkswagen Group. Such a network is necessary for using economies of scale that are possible in the areas of procurement, production, and distribution. Due to their connection to the automotive sector, financial services are also included in this network.

20.2.4 Market Offer Model

The market offer model includes all products and services offered by the Volkswagen Corporation. The degree of observational detail strongly depends on the level of examination of the business model; at Group level, it covers the various companies. The market offering of the Volkswagen Corporation can be subdivided into the divisions of Volkswagen Automotive and Volkswagen Financial Services.

Volkswagen Automotive comprises the companies Volkswagen, Audi, Seat, Skoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Nutzfahrzeuge, Scania, and MAN. These constitute the core business of the Volkswagen Corporation (Volkswagen AG 2019c). Financial Services comprises all additional financial services of the Group, such as the Volkswagen Bank Ltd., Volkswagen Leasing Ltd., and Volkswagen Insurance Services Ltd. as well as various regional companies. Additionally, the Volkswagen Corporation acts as an insurance intermediary.

20.2.5 Value Creation Model

In the value creation model, the Volkswagen Corporation's value generation is schematically and abstractly illustrated. Process planning then deals with these processes in more detail. In the production of goods and services of Volkswagen, a differentiation must be made between value creation in the automotive sector or the service sector. In the automotive sector, goods and services are produced according to the classical value chain: after developing the product, a centralized and lengthy process in the case of a vehicle, it is produced and provided to the customer. The after-purchase activities follow and are of substantial importance for customer loyalty and retention.

In the case of financial services, there are two different types of production for goods and services. On the one hand, the Volkswagen Corporation acts directly as

the provider of bank and insurance services; on the other hand, through its intermediary company, the Group acts as a distributing body for insurance services from other providers. Financial services are mostly linked to the automotive product and function as value-adding services. Among these, for example, are financing and leasing offers as well as automobile insurance.

20.2.6 Customer and Revenue Model

The customer model describes the recipients of the company's products and services as well as the distribution of these goods and services to the recipient. In this context, a distinction should be made between private and corporate customers. Both groups can be recipients of the Group's automotive or financial services. For the final consumers, automobiles are distributed either via a Volkswagen branch or via "Autostadt"—an exhibition complex and theme park created especially for this purpose—in Wolfsburg, where the Group's headquarters are located (Volkswagen AG 2019c). Regarding the corporate customers, it must be distinguished whether they are intermediaries, such as car dealerships, or final consumers. Examples for large companies as final consumer are car rental agencies or fleet customers.

Another part of the customer model is value creation for the customer through the company's products and services. Through the performance of services, the customer model is closely connected to the market offer model and the value creation model. Performance of services includes presentation and physical distribution of the products as well as delivering financial and other services. Customer orientation is central within the Volkswagen Corporation. Interaction channels allow communication with the customer and the use of customer input for the value creation and strategy components.

In the customer model, revenue constitutes the counterflow to service performance. The Volkswagen Corporation's possibilities to generate revenue are as manifold as the goods and services offered by the company. The company generates a rather large portion of revenue with its numerous after-purchase activities, including maintenance, repair, and the supply of spare parts.

20.2.7 Procurement and Finance Model

The procurement and the finance model describes the procurement side of the Volkswagen Group. The procurement model identifies procurement partners and the various forms of service performance between the Group and the components of the procurement model. The finance model describes the Group's cost and financial structure as well as the resources for obtaining funds; in the procurement model, these resources are investors. This clearly shows that the models are closely connected with one another and interact in many ways.

The most important procurement partner of the Volkswagen Group is its large group of suppliers. Among these are conventional suppliers that deliver the physical

input factors for the production of goods and services as well as production partners and the Group's own companies that deliver components, for example. This group of service providers consists of people who render services in connection with the production of automotive goods and services, such as external developers, but also of financial service providers, whose offers are distributed by the Volkswagen Corporation as an intermediary.

The flow of input factors exists contrary to numerous cash flows that form a part of the Volkswagen Corporation's complex finance model. The finance model can be further subdivided into the financing model, the capital model, and the cost structure model. Due to their complicated structures that are difficult to examine, these submodels can only be briefly outlined here. The Volkswagen Group's investors constitute the external resource for the finance model. In this case, the financing flow is contrary to return flows in the form of interest payments or dividends, for example.

20.3 Success Factors of the Volkswagen Corporation

The automobile market is one of the world's most competitive. The consequence of the most recent financial crisis and considerable overcapacity is a critical market situation, which in turn can lead to insolvencies and substantial government interventions. Shifts in the market are expected to substantially change both the significance of national and international markets as well as the competitive landscape. New competitors, especially from Eastern Europe, China, and India, put additional pressure on the established automotive groups. Therefore, the Volkswagen Corporation also faces a number of new challenges.

In this competitive environment, business model management constitutes a central success factor in the Volkswagen Group. The ability to innovate business models, which is rooted in corporate history and culture, gives the Group crucial competitive advantages.

One of the most important success factors of the Volkswagen Corporation is the strong brand diversification and the resulting variety of models. The concept of a business model substantially contributes to coordinating these. By covering a broad range of brands and models, Volkswagen succeeded in diversifying its merchandising risks more consistently than other competitors. In addition, a broad market offer enables the Group to react more flexibly to economical, ecological, or cultural shifts in demand. A current example of this is the increased demand for compact and subcompact cars, which the Volkswagen Group can satisfy with its brands Volkswagen, Seat, and Skoda. At the same time, the fundamental brand identity in the premium and luxury sector does not have to be undermined.

In addition to brand management, the strong international orientation of the Volkswagen Group is one of its major success factors. This orientation is deeply rooted in the company's tradition and is therefore integrated in the business model. The Volkswagen Corporation has a wide and well-developed distribution and supplier network and consequently also the know-how to serve fast-growing markets.

	Aspects
Strategy	• Platform strategy and brand diversification in the field of passenger vehicles and commercial vehicles • Economy of scale • Strong international focus, particularly on growth markets
Business model	• For every passenger vehicles division and commercial vehicles division its own distinctive brand • All brand are combined in one business model • Value-added service (e.g. financial services) • Comprehensive economies of scale in procurement (because of market power)
Range of service	• Passenger cars (economy to luxury class) • Commercial vehicles (light to heavy) • Value added service • Leasing (leasing Volkswagen) • Insurance companies (Volkswagen Insurance Services)
Success factors	• Business model innovation ability • Diversification of risk • Global orientation and networking • Modular system • Brand integration expertise

Fig. 20.3 Strategic orientation of Volkswagen. Source: Wirtz (2011, 2018a, 2018b)

In this context, the South American and the Chinese markets should be pointed out. In 1985, Volkswagen was the first international automotive Group to open up the Chinese market, and it has been able to maintain its outstanding position to this day. The globalization strategy and accompanying networking do not only create major growth potential but also give Volkswagen a competitive advantage over competitors that are less active on an international level.

Within the framework of the components of value creation in Volkswagen's business model, there are other factors that are responsible for the Group's success. The Volkswagen Corporation embedded the modular principle in its value creation model like no other manufacturer. From the mid-1970s, the Group has been using assemblies for all models and in all companies. In this way, Volkswagen has been realizing massive cost advantages in development, production, and procurement (Volkswagen AG 2019a). Figure 20.3 shows the strategic orientation of the Volkswagen Group.

Media Business Model

21

21.1 FOX Corporation Business Development

The FOX Corporation is a spin-off of the 21st Century Fox formerly known as News Corporation (News Corp.) and still one of the world's largest media conglomerates. The internationally active company employs approximately 55,000 people and is listed on the New York, London, and Australian stock exchanges (see in the following (Wirtz 2013d)). Rupert Murdoch, the founder, chairman, and chief executive officer of FOX Corporation, started his career in the newspaper industry. He created a business empire worth billions by expanding business fields and applying a targeted internationalization strategy.[1]

Today's FOX Corporation has its origin in the inheritance of the company's chairman and founder of the News Corporation, Rupert Murdoch, from his father's estate in 1952, namely, the Australian daily newspapers *The News* and *Sunday News*. Murdoch set the weakened papers back on their feet with the concept of tabloid stories of sex, crime, and human interest along with aggressive marketing measures and price reductions. Murdoch successfully used this strategy in a modified form in other media sectors.

After establishing other newspapers in Australia, Murdoch purchased the Adelaide-based TV channel Channel 9 and expanded his business onto other continents as well. At the end of the 1960s and the beginning of the 1970s, for purposes of a successive international concentration as a market presence strategy, Murdoch bought the then moderately successful tabloid newspapers News of the World and The Sun in Great Britain. Furthermore, presence in the TV market was expanded by buying Twentieth Century Fox Film Studios in 1985 and the Metromedia TV chain (known today as Fox) in 1986. The company successfully consolidated its presence on the television market by turning the Metromedia TV

[1] See also for the following chapter Wirtz (2010a, 2018a, 2019a).

B. W. Wirtz, *Business Model Management*, Springer Texts in Business and Economics, https://doi.org/10.1007/978-3-030-48017-2_21

chain into the fourth US network, Fox TV, and by founding the Fox News channel in 1996.

At the beginning of the 1990s, the strategic orientation of the sector shifted from print to electronic media. In 1990, for example, Murdoch bought the satellite television stations Sky TV and British Satellite Broadcasting and merged them into BSkyB. Other satellite television stations followed, for example, Star TV, Latin America SkyB, America SkyB, and Japan SkyB, which multiplied the concept of success on the international market in subsequent years. As the largest shareholder of the pay-television channels Sky Deutschland (formerly Premiere) and Sky Italia, News Corporation expanded its share in the European market.

For a long time, News Corporation did not have strategically valuable shares in the convergence industries of telecommunications and information technologies. At the beginning of 2000, Murdoch first set his sights on the Internet. Today, News Corporation's Internet portfolio contains, among other things, IGN, a computer game website; Photobucket, an online photo sharing site; and Myspace, a social networking website. In order to further expand this portfolio, the company first showed interest in taking over Yahoo at the end of 2007 in the form of merging it with the Internet platform Myspace. However, the talks failed in 2008 when Microsoft showed interest as well.

Due to expansion, News Corporation underwent a financial crisis at the beginning of the 1990s. The company stabilized itself through profit-yielding and strategically targeted direct investments. In 2012, News Corporation generated revenue of 33.7 billion US dollars (News Corporation 2013). As a consequence, the company is the third largest media conglomerate, outperformed only by Time Warner and Walt Disney. The largest shareholder is the founder Rupert Murdoch. In 2013, News Corporation was split into two publicly traded companies, one oriented towards media (21st Century Fox) and the other towards publishing (News Corp). Eventually the largest part of 21st Century Fox became part of Disney—only the news section became FOX Corporation.

21.2 FOX Corporation Business Model

FOX Corporation competes in the media industry, which includes film and video and constitutes the major portion of the business and the industry of telecommunication services, in particular cable and satellite services. Figure 21.1 provides an overview of the companies that belong to the individual segments.

In the media, communication, and Internet sectors, more recent developments aim at integration as a form of coordination. The market offer and portfolio of FOX Corporation's companies make clear that the Group propelled intensive integration at both the level of the value chain—in other words, on the level of value-added components—and the level of the comprehensive business model. Since the mid-1980s, the company has been pursuing integration on the value-added level through horizontal cross-media orientation by acquiring the American film studio 20th Century Fox as well as seven US American TV stations. Furthermore, FOX

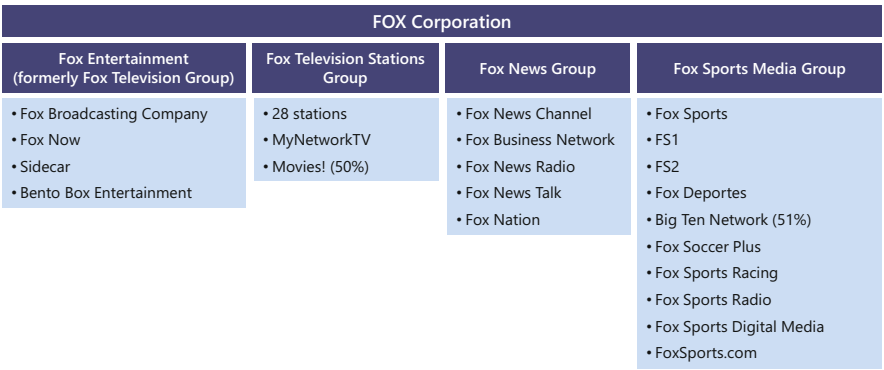

Fig. 21.1 Market offer and companies of FOX Corporation. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

Corporation succeeded in incorporating other upstream and downstream business areas. As a result, the company covers all levels of the multimedia value chain.

Moreover, FOX Corporation specifically relies on expanding the traditional core business through investments and acquisitions in innovative multimedia business areas. The company increasingly added previously unused characteristics of business models to its existing business model. The orientation of the implemented business models therefore became more and more hybrid and multifunctional. In this context, it should be emphasized that the Internet is integrated into the media business model.

It becomes clear that integration is of superior significance in the business model management of FOX Corporation. Particularly on the level of individual components, integration requires complete business model observation and a comprehensive understanding of the concept. This is superbly reflected in the business model on the level of the overall corporation. Figure 21.2 illustrates FOX Corporation's integrated business model as well as important interaction paths.

21.2.1 Strategy Model

FOX Corporation's strategy model contains two main strategic positions: the expansion of Internet assets within the scope of a convergence strategy and the protection of competitive advantages through economies of scale. From these, strategic development paths can be deduced. Furthermore, the company defines group-wide value propositions: to provide entertainment and/or information to their customers as well as to achieve networking and perseverance in competition. The positions and development paths from the strategy model serve as a frame of reference for the business model and strongly influence all other components.

In the context of media, convergence describes the merging of various services and content (Wirtz 2013d). For several years, the convergence of old and new media

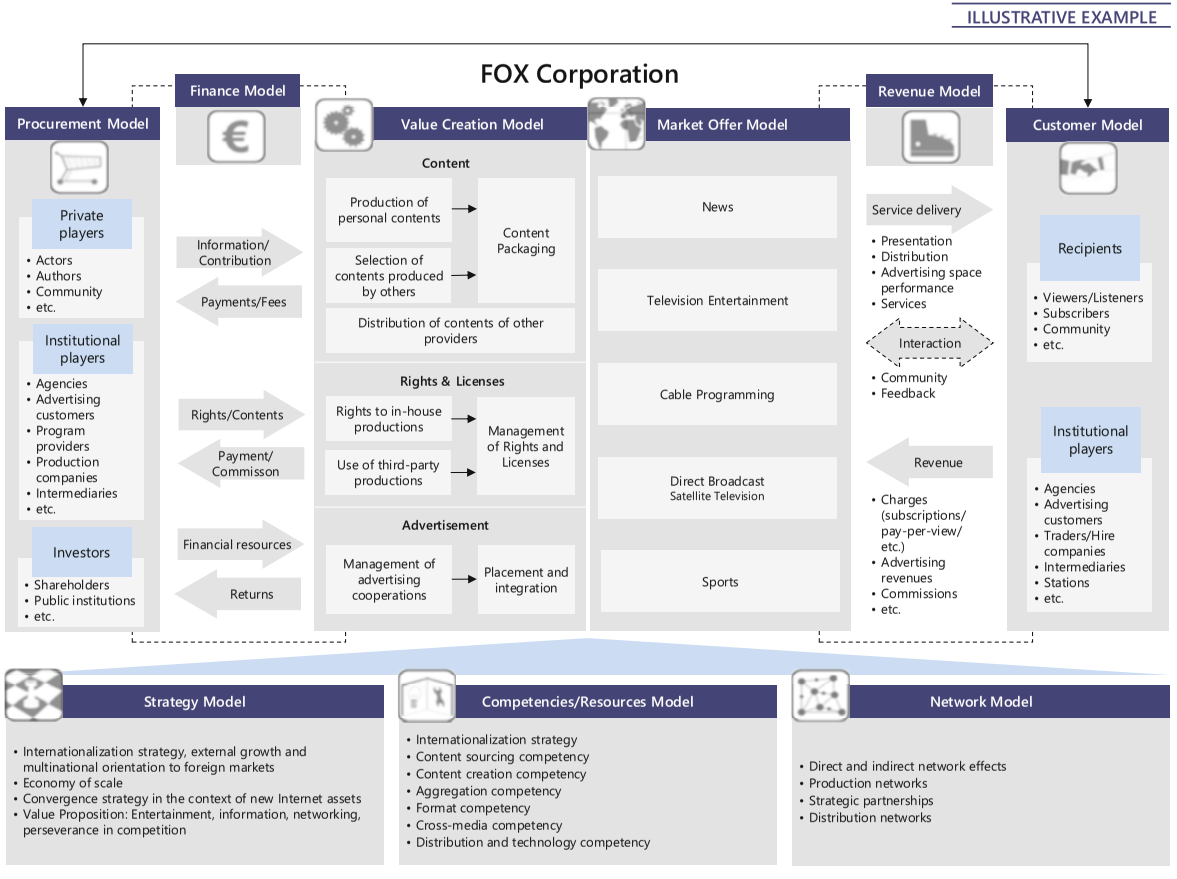

Fig. 21.2 News Corporation's business model. Source: Wirtz (2010a, 2011, 2018a) and own analyses and estimations

has been posing a particularly large challenge to established media companies worldwide. This advancing product convergence affects the FOX Corporation in particular due to its broad range of media. Therefore, the company incorporated convergence into its strategy model and consistently integrates new media into its business model. In this way, on the one hand, economies of scale can be realized, and on the other hand, new innovative products are created by recombining individual features of existing offers from various business fields.

21.2.2 Resources Model

Core assets and core competencies are of great importance for the long-term success of a media company. FOX Corporation's core assets are those tangible and intangible assets that play a central role in the production and marketing of goods and services. These assets include the globally well-known corporate trademark and the reach of the various mediums. A central core asset of the FOX Corporation is its network structure, which is explained in more detail in the section dealing with the network model.

Core competencies complement these core assets. These competencies describe the company's capability of combining its assets and core assets in such a way that a particular customer benefit is created. Examples of the core competencies of FOX Corporation are outstanding editorial and program planning competencies as well as a cross-media marketing competency (Wirtz 2013b). In addition, FOX Corporation has many years of experience in international management and therefore has a pronounced internationalization competency. These core assets and core competencies give companies a long-term competitive advantage in the media market, which is dominated by large companies (Wirtz 2013b). Hence, identifying and managing core assets and core competencies is particularly important.

21.2.3 Network Model

In the media landscape, which is characterized by complex international and intermediate interrelations, media companies face the challenge not only of building a bridge between journalism, economy, and technology but also of overcoming boundaries of other nations and therefore of other cultures, laws, and environmental factors. Therefore, networks and the associated direct and indirect network effects play an important role in all media sectors of FOX Corporation. Printing can be mentioned as an example here: alliances and joint ventures enable the printing of relevant works abroad and hence the minimization of transportation costs.

FOX Corporation has complex networks that are linked to different stages of the value-adding process. For example, networks serve to gather information in order to provide input for creating content. In many media sectors, production networks consist of specialized actors, and in distribution, certain channels are accessible only via networks (Wirtz 2013b). These networks require intensive maintenance and

often personal involvement, characteristics which particularly describe FOX Corporation's CEO Rupert Murdoch.

FOX Corporation's networks have developed over the course of history and are therefore highly diversified and hard to imitate. Hence, FOX Corporation has a key competitive position due to the limited number of potential network partners in international media. Because of their great relevance for the production of goods and services as well as protection of the group's differentiation and cost advantages, networks constitute one of FOX Corporation's core assets.

21.2.4 Market Offer Model

FOX Corporation's market offer model comprises the goods and services the company offers on the market and is therefore strongly connected with the value creation model. FOX Corporation is active in all relevant areas of the media market and is increasingly involved in the areas of today's new media and E-business. The group operates in the segments of entertainment, television, cable programming and information services, and other assets.

21.2.5 Value Creation Model

The goods and services produced by FOX Corporation constitute a bundle made up of information and entertainment (content) services as well as advertising space. Moreover, FOX Corporation produces market output by distributing and managing rights and licenses. The various partial goods and services are traded on different markets. For this reason, the value creation model depends on the type of good or service and is closely connected to the customer model.

The consumer and recipient markets are particularly relevant for generating content. In contrast, advertising space is traded on advertising markets within the advertisement-driven economy. However, it cannot be rendered separately from the goods and services on the recipient market. Furthermore, media companies do not usually produce the content of their goods and services bundle all by themselves. FOX Corporation also purchases, selects, and utilizes content and licenses produced by third parties and incorporate them into their process of producing goods and services.

21.2.6 Revenue and Customer Model

In the media sector, numerous forms of revenue are possible. Therefore, within the scope of business model observation, the various forms of revenue of FOX Corporation need to be differentiated and systematized. On recipient markets, this can be done through access fees, transaction-dependent or transaction-independent user fees, or other revenues. FOX Corporation generates further revenue on the legal

Fig. 21.3 Forms of revenue of FOX Corporation in the media market. Source: Wirtz (2013d, 2019b)

and advertising markets by dealing with licenses and rights or advertisement. Figure 21.3 displays the various forms of revenue of FOX Corporation. State-related revenues are irrelevant here and are only mentioned for the sake of completeness.

In the customer model, consumers or recipients need to be differentiated from institutional customers. The markets on the consumer side differ in the way that recipients acquire media content. With its broad range of media, FOX Corporation reaches viewers as well as readers and listeners and thus covers all kinds of recipients. FOX Corporation's institutional customers are, for example, agencies, advertising customers, distributors and lenders of movies, or third media companies that purchase rights and licenses of FOX Corporation.

21.2.7 Procurement and Finance Model

The finance model shows which financial resources are supplied to the company and which forms of refinancing are available to FOX Corporation. In this context, the sources from which the capital used for financing activities comes from are vitally

important. Therefore, this model is closely connected to FOX Corporation's forms of revenue. In this way, the Group acquires rights and content from other production companies but, at the same time, sells content it produced itself. Payments, commissions, and fees to the numerous procurement partners constitute another important cash flow.

The FOX Corporation's diverse range of media is reflected in a correspondingly heterogeneous procurement structure. Depending on the media sector, FOX Corporation interacts with both private and institutional players. Online communities are becoming increasingly important in the overall Group and therefore in the procurement model. On the Internet, especially in Web 2.0, the conventional boundaries between provider and demander of content are blurred.

Furthermore, three basic alternatives can be differentiated in FOX Corporation's international procurement management (Wirtz and Elsäßer 2012): procurement from the respective local markets, purchase from third countries in which the company does not have any production facilities of its own, and purchase from within the corporate network. If the offerings of a media company are represented in a foreign market, it often has to make use of local content, especially due to cultural differences from the domestic market (Wirtz 2013b). In this case, content is procured in the respective local procurement markets. Apart from these local markets, media companies have to largely make use of the content and information from third countries in which they may not yet be represented with either production facilities or offers of goods and services.

21.3 Success Factors of FOX Corporation

For several years, the situation in international media markets has been characterized by a process of structural change. On the one hand, the competitive landscape of conventional media companies has been changing substantially as new market players from the computer or telecommunications industry enter the media markets. On the other hand, it is becoming more and more difficult to distinguish between the relevant markets due to blurring boundaries between media, computer, and telecommunications products. The most important determinants of this convergence are digitalization, deregulation, and users' changing preferences (Wirtz 2013b).

Although FOX Corporation responded comparatively late and hesitantly to these radical changes, by adding new offerings from the Internet and multimedia sector to already established print and television products, the Group is now more broadly diversified (Sjurts 2005). Rupert Murdoch, the founder, chairman, and chief executive officer, says that development is not yet complete and emphasizes the necessity to cover the entire range of media: "We have and must continue to create content that consumers increasingly want across the whole spectrum of media" (News Corporation 2008).

FOX Corporation laid the foundation for this through numerous purchases and mergers and knew how to link the corporation's various sectors in an integrated business model. Therefore, FOX Corporation is regarded as a prime example of the

implementation of horizontal and vertical integration strategies at the level of the value chain in the media market. In this way, the media company realized the possibilities of integration to increase sales at an early stage, for example, by extending the commercialization chain for media content.

Despite the diversification that can be seen in strategic areas, such as internationalization or the integration of new media, FOX Corporation traditionally pursues the generic strategy of cost leadership. This, in turn, is strongly characterized by Rupert Murdoch, who consistently followed through with this strategy (Sjurts 2005). The company achieved these cost advantages, on the one hand, by concentration on mass markets with a complementary program and, on the other hand, by the Group's size and global expansion.

Economies of scale result from the structure of production costs of media, which are characterized by a high percentage of fixed costs. When a media product, such as a movie, is created for the first time, considerable costs accrue for technology and staff as well as for rights of use (Wirtz 2013b).These so-called first-copy costs are necessary for creating the first copy of the media product and are independent from the number of subsequent users of the media.

Economies of scope of internationally active media companies especially arise from having potential that can be used flexibly. This chiefly results from the fact that international presence enables the companies to respond flexibly to shifts in the environment of a specific foreign market. By realizing these economies of scale, particularly effective structural barriers to market entry can be created in media. To this day, these barriers protect large media companies in the classic business from new competitors.

Another important factor for the success of Fox's business model is its international competency. News Corporation traditionally pursued the consistent implementation of a multinational strategy: business activities are geared towards the respective national market and the strategy is adapted to each culture. Since the beginning of the 1970s, this local differentiation of media content has been an integral part of News Corporation's internationalization strategy which was realized chiefly through numerous acquisitions.

On the whole, FOX has accepted the challenges of the changing media landscape and—if it increases its commitment to new media—will assert its prominent position in the international media landscape. Figure 21.4 shows the strategic orientation of FOX Corporation.

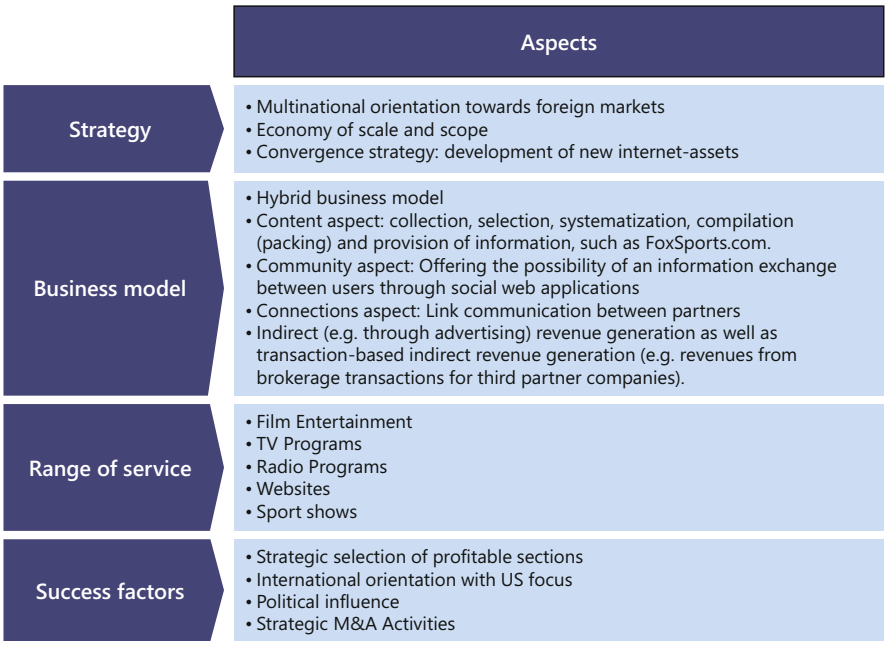

Fig. 21.4 Strategic orientation of FOX Corporation. Source: Wirtz (2011, 2018a)

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