DOCTORAL THESIS

Title	**The Dynamics of Business Model Transformation: Innovation and Internationalization**
Presented by	Margarete Barbara Bowien, geb. Kalinowski
Centre	ESADE BUSINESS SCHOOL
Department	Strategy & General Management and People Management & Organization
Directed by	Prof. Luis Vives, PhD (ESADE)

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Barcelona, 2015

To my beloved parents:

For teaching me that hard work, humility and respect toward others are the only virtues to strive for as everything else is out of our control.

To my beloved husband:

For being a living lesson of integrity, humility, patience and love for our family.

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Complexity theory teaches us that one needs the right contextual conditions to stay at the edge and not drift away towards either extreme. This dissertation has become its own complex system consisting of ideas that interact in non-trivial ways and evolve at the edge of chaos – a state between structure and chaos, where the author throws parts of the initial plan and agenda overboard to explore new possibilities but also pulls everything together to achieve the overall goal. I would have never completed this work without the help and inspiration of many people that I would like to express my profound appreciation and immense gratitude to. I would like to thank the ESADE academic community for their support in the realization of this thesis.

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ABSTRACT

In recent years, business models have gained substantial momentum in academic research. As a response to recent calls in strategic management literature for novel research, this dissertation extends the study of business models by exploring a dimension rarely considered in literature: business model transformation and its underlying dynamics. Despite the prominent role of business models in recent research, little is known about how business models transform over time and adapt to evolving ecosystems. In three essays, I address this gap by exploring the notion of business model transformation enabled through its dynamics of business model innovation and business model growth through internationalization. Advancing on the empirical findings from the three essays and the integrative insights that move the business model research agenda forward, I propose a conceptual model and introduce business model transformation as a multi-dimensional construct, which resides in the focal firm's strategic choices. These choices, in turn, are reflected by the constraints that determine the focal firm's opportunity space, which is to be realized with the objective to increase the focal firm's value creation and value capture potential. I theoretically build on strategic management research as well as on organization, institutional and internationalization theory as the three pillars of this thesis, contributing to the current debates within the strategy, innovation and international management fields. While maintaining the focus on theory development, in a semi-constructivist approach, I employ diverse research methods, such as theoretical analysis, grounded theory, and multiple case studies to develop and test various propositions, as well as establish the concept of business model transformation in literature. The thesis concludes with fruitful avenues for future research.

RESUMEN

En los últimos años, los modelos de negocio han cobrado sustancial impulso en la investigación académica. Como respuesta a las recientes peticiones de la literatura en dirección estratégica, esta tesis extiende el estudio de modelos de negocio mediante la exploración de una dimensión raramente considerada en la literatura: la transformación del modelo de negocio y sus dinámicas subyacentes. A pesar del papel destacado de los modelos de negocio en la investigación reciente, poco se sabe acerca de cómo los modelos de negocio se transforman en el tiempo y cómo se adaptan a ecosistemas cambiantes. A través de tres ensayos, esta tesis explora la transformación de modelos de negocio enfocándose en la dinámica de la innovación de los modelos de negocio y la transformación de los modelos de negocio en la internacionalización. Avanzando en los hallazgos empíricos de los tres ensayos y las ideas integradoras que impulsan la agenda de investigación modelo de negocio, propongo un nuevo modelo conceptual y presento la transformación del modelo de negocio como un constructo multidimensional, que reside en las elecciones estratégicas de la empresa. Estos, a su vez, se reflejan por las restricciones que determinan espacio de oportunidades de la empresa focal, que ha de ser realizado con el objetivo de aumentar la creación y captura de valor potencial de la misma. Esta tesis tiene como pilares la investigación en dirección estratégica así como la teoría de organización, basándose en la teoría institucional y la internacionalización, lo que contribuye a los debates actuales dentro de los campos de estrategia, innovación y dirección internacional. Mientras se mantiene el foco en el desarrollo de la teoría, en un enfoque semi-constructivista, la tesis emplea diversos métodos de investigación, como el análisis teórico, grounded theory, y varios estudios de caso para desarrollar y testear diversas proposiciones, así como establecer el concepto de transformación de modelos de negocio en literatura. La tesis concluye con potenciales vías para el desarrollo de futuras investigaciones.

RESUM

Els darrers anys, els models de negoci han experimentat un impuls notable en la recerca acadèmica. Com a resposta a les demandes recents de la literatura en matèria de direcció estratègica, aquesta tesi amplia l'estudi dels models de negoci mitjançant l'anàlisi d'una dimensió que rarament s'estudia a la literatura: la transformació del model de negoci i les seves dinàmiques internes. Malgrat el paper destacat dels models de negoci en la recerca recent, se sap poc sobre com es transformen els models de negoci en el temps i com s'adapten a ecosistemes canviants. A través de tres assaigs, aquesta tesi explora la transformació dels models de negoci centrant-se en la dinàmica de la innovació dels models de negoci i la transformació d'aquests models amb la internacionalització. Avançant en les conclusions empíriques dels tres assaigs i les idees integradores que impulsen l'agenda de la recerca sobre els models de negoci, proposo un nou model conceptual i presento la transformació del model de negoci com un constructe multidimensional, que es basa en les eleccions estratègiques de l'empresa. Aquestes eleccions, a seu torn, es reflecteixen en les limitacions que determinen l'espai d'oportunitat de l'empresa focal, que s'ha de realitzar amb l'objectiu d'incrementar la creació de valor de l'empresa focal i el seu potencial de captació de valor. Aquesta tesi té com a fonaments la recerca en direcció estratègica i la teoria de l'organització, i també es basa en la teoria institucional i la internacionalització, cosa que contribueix als debats actuals en els camps de l'estratègia, la innovació i la direcció internacional. Alhora que se centra en el desenvolupament de la teoria i adopta un enfocament semiconstructivista, la tesi utilitza diversos mètodes de recerca, com l'anàlisi teòrica, la *grounded theory*, i recorre a diversos casos per desenvolupar i demostrar diverses proposicions, i també el concepte de transformació dels models de negoci en la literatura. La tesi conclou proposant potencials vies per al desenvolupament d'investigacions futures.

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Chapter 1: General Introduction

1.1 Making Sense of Business Model Dynamics: Theoretical Introduction

In recent years, business models not only have been the focus of substantial attention from practitioners (Lindgardt, Reeves, Stalk, & Deimler, 2009; Pohle & Chapman, 2006), but they have also gained momentum in academic research (DaSilva & Trkman, 2014; Schneider & Spieth, 2013; Zott et al., 2011). Business models have been integral to trading and economic behavior since pre-classical times (Teece, 2010). Introduced by Peter Drucker in 1954 (Drucker, 1954), the business model concept became common with the advent of the Internet in the mid 1990s (Magretta, 2002). The notion of business model is used to describe diverse phenomena in different contexts, is studied from various perspectives, and has numerous uses. While there are attempts in literature at identifying common themes and a common conceptualization that unify contributions in the received literature on business models (Ghaziani & Ventresca, 2005; Morris, Schindehutte, & Allen, 2005; George & Bock, 2011; Zott, Amit, & Massa, 2011), a common theoretical ground is still to emerge (Vives & Svejenova, 2011). However, scholars emphasize different roles of business models (see Spieth, Schneckenberg, & Ricart, 2014 for an overview). Consequently, it is crucial to explain explicitly my understanding and conceptualization of the business model applied in this thesis. In its broadest sense, the business model is found to communicate the core logic of the firm (Teece, 2010), constitute the firm's architectural backbone (Shafer, Smith, & Linder, 2005), and act as critical construct for understanding the firm's value creation and value capture mechanisms (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Svejenova, Planellas, & Vives, 2010; Zott & Amit, 2010).

Despite the conceptual pluralism that has uncovered novel ways to explain what business models are and how they work (George & Bock, 2011; Spieth et al., 2014; Wirtz et al., 2015; Zott et al., 2011), scholars broadly agree on the activity-system perspective of the business model in which the business model depicts a system of interdependent activities performed by the focal firm and the stakeholders in its ecosystem, as well as the mechanisms that orchestrate the activities. Hereby an activity in the focal firm's business model describes the employment of human, physical, and capital resources of any stakeholder to the business model (Zott & Amit, 2010). The notion of business model as a reflection of realized strategy is useful to be studied as a system of activities because it combines strategic choices (Casadesus-Masanell & Ricart, 2010; Child, 1972) with the interdependency consequences (Milgrom & Roberts, 1990, 1995) that result from them (Miller, 1981, 1992; Thompson, 1967). Even though the number of scholars applying a business model lens is rather small, their research has gained momentum because of its complexity-encompassing appeal, which proposes implications for a broad range of management topics.

The majority of research, however, has taken a rather static view on business models in past literature (DaSilva & Trkman, 2014; George & Bock, 2011; Zott et al., 2011), discounting the fact that a business model may evolve over time, be subject to change, and thus, should be depicted as a dynamic concept (Demil & Lecocq, 2010; Morris et al., 2005; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010; Spieth et al., 2014). Far from being static, business models change and evolve over time to remain sustainable and innovative. They need to be adjusted over time in order to maintain viable, particularly in the context of changing environmental conditions and constraints (Amit & Zott, 2012; Bucherer et al., 2012; McGrath, 2010). However, not all business models transform over time, some disappear or become irrelevant. Business model dynamics in form of a process of change and transformation may be triggered by internal or external circumstances to the firm and the business model in place (Demil, Lecocq, Ricart, & Zott, 2015; DaSilva & Trkman, 2014). Moreover, business model dynamics are proactive or reactive in nature. Changes or transformations that are a proactive in nature are initiated and introduced by the focal firm, while the changes and transformations that have a reactive nature, arise as a response to the emergence of new circumstances that can affect the functioning or effectiveness of the focal firm's business model (Vives & Svejenova, 2011). Yet, in literature there is no clear definition of business model change available (Bucherer, Eisert, & Gassmann, 2012; Spieth et al., 2014).

Further, rapidly changing ecosystems (Casadesus-Masanell & Zhu, 2013; Teece, 2010) force firms to adapt to new conditions and transform their business models in order to exploit new market opportunities. Environmental constraints not only hinder but also help novelty-centered business model design (Sanchez & Ricart, 2010). The essence of novelty-centered business model design is the adoption of new activities, new ways of linking activities, and/or new ways of governing activities (Amit & Zott, 2014; Zott & Amit, 2010). Such development can be game changing and centers on fundamentally shifting the rules of competition in an ecosystem (Markides, 2008). Scholars acknowledge that firms do not employ and execute their business models in a competitive vacuum but instead compete through their business models (Amit & Zott, 2014; Casadesus-Masanell & Ricart, 2010; Zott & Amit, 2007, 2008). Moreover, business models do not last forever. Even the best-designed business models adapt to changes in the ecosystem in order to keep pace with shifting customer needs, markets and competitive threats (Linder & Cantrell, 2000) and to avoid becoming irrelevant and disappear.

From an evolutionary perspective (Nelson & Winter, 1982), the competitive success of the focal firm depends ultimately on its ability to transform the entire business model or the elements of its business model in rhythm with, and towards a fit with its external business environment (Siggelkow, 2002a; Tripsas & Gavetti, 2000). Predicated on the conceptualization of the business model as the core logic of how the firm creates and captures value, transformation of the business model can be defined as the change in the perceived logic of how value is created and captured by the corporation. As a consequence, a transformational approach is required that regards the business model as a tool to handle organizational change (Demil & Lecocq, 2010). However, past research often uses different terms, which are used inconsistently and interchangeably in this context. For example, scholars refer to business model innovation (Amit & Zott, 2012; Chesbrough, 2007a; Cortimiglia, Ghezzi, & Frank, 2015), business model evolution (Bohnsack, Pinkse, & Kolk, 2014; Demil & Lecocq, 2010; Doz & Kosonen, 2010), business model development (Schneider & Spieth, 2013), or business model experimentation (McGrath, 2010; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010).

While one stream of literature views business model innovation as the introduction of a fundamentally different, game-changing business model to an existing to an existing industry (Comes & Berniker, 2008; Markides, 2006; Snihur & Zott, 2014), another stream of literature emphasizes that a continues process of change that leads to business models, which are new to the firm, requires further analysis instead (Bucherer et al., 2012; Schneider & Spieth, 2013). In this context, Cavalcante and colleagues (2011) argue that not all organizational changes necessarily imply changes in the business model as otherwise the business model concept itself as a unit of analysis would be obsolete. Thus, this dissertation defines business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by enacting its opportunity space through value creation and value capture with the goal to adapt to an evolving ecosystem. In this line of thought, innovation and internationalization of the business model represent two lenses of business model dynamics that lead to and represent business model transformation. In this thesis, I define them as the enablers of business model transformation. Moreover, in contrast to Bucherer et al. (2012) who only consider deliberate changes in their definition of business model transformation, in this thesis I follow the research stream of Brea-Solís, Casadesus-Masanell and Grifell-Tatjé (2015) and Demil and Lecocq (2010) who argue that business model choices and the consequent changes in the business model can be both, intended and emerging.

In this line of thought, business model transformation can often be viewed and interpreted as a process that is driven by experimentation and trial-and-error learning (Khanagha, Volberda, & Oshri, 2014; McGrath, 2010; Sosna et al., 2010). Experimenting with new business model designs and new activity systems requires many different resources as implementing a new business model design is costly and time-consuming for an organization (Bohnsack et al., 2014; Sosna et al., 2010).

And process of change, transforming the business model is a complex and activity (Mezger, 2014; Smith, Binns, & Tushman, 2010) requiring interdependent choices and trade-offs (Porter, 1996; Siggelkow, 2001). In order to reduce the complexity of business model transformation, managers often tend to make use of prior experience and solutions they are familiar with (Gavetti & Levinthal, 2000; Maitland & Sammartino, 2014). Such decision-making processes are most often intangible and can trigger path dependency. Consequently, it is important to point out that scholars often emphasize that path dependency of firms and cognitive constraints of managers prevent organizations from transforming their established business models that have been successful in the past and trap these firms in an inappropriate or sub-optimal business model design (Chesbrough, 2010; Chesbrough & Rosenbloom, 2002).

With regard to the first enabler of business model transformation defined and discussed in this thesis, namely business model innovation, it is important to distinguish between innovation *in* the business model, in which case the business model elements and their linking and governance are transformed with different degrees of change (Vives & Svejenova, 2011; Amit & Zott, 2012), and innovation *of* the business model, whereby the change leads to transformation of the overall core logic of the focal firm (Markides, 2008; Vives & Svejenova, 2011). Business model innovation – involving changes at the system level – can be implemented by established and new firms alike (Amit & Zott, 2012). Because of the interdependencies and interconnections of the activities of a business model, changes in one or more design elements may entail further changes within the business model and lead to changes in functionalities. Scholars agree that business model innovation can be viewed as a new type of organizational innovation, distinct from product, service, process or technological innovation (Markides, 2008; Zott et al., 2011), enabling firms to enact and realize opportunities for creating and capturing value whether they are discovered or created (Bock, Opsahl, George, & Gann, 2012; Casadesus-Masanell & Ricart, 2010).

Internationalization as the second enabler of business model transformation refers to business model dynamics in terms of growth by expansion to new geographic markets. In the case of addressing the location question, it is important to account for the need to replicate and translate or adapt the existent business model to new contexts, develop a new business model in new contexts (Lessard, Lucea, & Vives, 2013; Slywotzky & Wise, 2009; Thompson & MacMillan, 2010; Vives & Svejenova, 2009), or undertake reverse innovation (Immelt, Govindarajan, & Trimble, 2009), in which innovative value propositions and delivery of value propositions are created in emerging and developing countries, rather than transferred and adapted from developed markets. For instance, firms from emerging markets not only pursue different strategies in their international expansion, but they do so with different core logic of how to operate in different institutional environments. In light of their increasing global presence and competitiveness with Western firms, the business model as a representation of firms' underlying strategic choices (Casadesus-Masanell & Ricart, 2010; Shafer et al., 2005) offers a particularly interesting insight into the context of emerging market firms' business model dynamics in terms of their internationalization to emerging and developing countries but also to advanced economies.

Despite the remarkable growth of research on business models published in recent years, there are fruitful avenues for further research in this area. The preceding discussion reveals that questions about business model transformation and dynamics as well as the fit to evolving ecosystems are of utter importance considering the significant performance consequences of the business model notion (Markides, 2006; Pohle & Chapman, 2006; Zott & Amit, 2007) and its acknowledgement in research as a key source of competitive advantage (Baden-

Fuller & Morgan, 2010; Björkdahl, 2009; Chesbrough, 2007a; Comes & Berniker, 2008; Hamel, 2000; McGrath, 2010; Mitchell & Coles, 2003; Teece, 2010; Venkatraman & Henderson, 2008). Consequently, further attention is needed to the ways in which business models transform over time in terms of business model innovation and business model internationalization. The dynamics of business models should be studied in a wider range of contexts that can highlight peculiarities while at the same time allowing unraveling of commonalities, thus enhancing the generalizability of findings (Svejenova et al., 2010).

Following this line of thought, this dissertation aims at extending research on strategic renewal by introducing and defining the concept of business model transformation through which new ventures and incumbents alike increase their value creation and appropriation potential by realizing and enacting opportunities. The purpose is to provide a fine-grained understanding of business model transformation as the notion of fit adjustment in changing and evolving business ecosystems and examine the underlying dynamics through the lenses of innovation and internationalization of business models. As such, the concept of business model transformation is taken as a common thread in this thesis.

1.2 Business Model as a Complement to Strategy

The extensive use of business models by practitioners since the 1990s (Shafer et al., 2005) has increasingly drawn attention of strategic management scholars. The business model was one of the great buzzwords of the Internet boom. The reputation of business models has followed the rise and fall of Internet start-ups, which did not need a strategy, a special competence or resources, or even any customers, but all they needed was a web-based business model

(Doganova & Eyquem-Renault, 2009; Magretta 2002). In an influential article, Porter (2001, p. 73) criticized the business model as a “loose conception of how a company does business and generates revenue” and lacks a shared and precise definition in the strategic management literature (Alt & Zimmermann 2001). In response to such criticism, scholars have attempted to stabilize the business model concept by invoking a definition thereof and establish the notion of business models as a complement to strategy.

Scholars in the strategic management field are fundamentally concerned with explaining differential firm performance (Hitt, Ireland, Camp, & Sexton, 2001; Rumelt, Schendel, & Teece, 1991;). In the search for sources of competitive advantage, two prominent strategic management theory streams have emerged: (1) the industry structure view, and (2) the resource-based view. The first theory stream – the industry structure view (Brandenburger & Nalebuff, 1996; Porter, 1980) – suggests that competitive advantage and supernormal returns are a function of the focal firm’s membership in an industry with favorable structural characteristics, thereby proposing the industry as unit of analysis. The second theory stream – the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984) – argues that differential firm performance and competitive advantage are fundamentally due to the focal firm’s heterogeneity and its ability to accumulate resources and capabilities that are rare, valuable, non-substitutable, and difficult to imitate rather than industry structure, thereby introducing the firm as the primary unit of analysis.

Although these two perspectives in strategic management have contributed to the understanding of how firms achieve above-normal returns, they do not make sufficiently allowance for the important fact that the advantages and disadvantages of a firm, and thus its ability to create value and capture part of that value created, are often linked to *how* the firm conducts its business. Thus, in this thesis I argue and join the conversation that business models are complementary to strategy in allowing firms to be competitive (Zott & Amit, 2008) and facilitate strategic transformation (Anderson & Markides, 2007; Lehmann-Ortega & Schoettl, 2005). Business models, as a system, describe how the pieces of a business fit together (Magretta, 2002), but they do not factor in competition as one critical dimension of performance. Competitive strategy, in turn, explains how the focal firm will do better than rivals. It explains how a firm will do better by being different (Casadesus-Masanell & Ricart, 2010; Magretta, 2002).

The distinction between business model and strategy is more than one of semantics; these are two different but complementary concepts that need to be distinguished (Yip, 2004). The business model thus addresses the '*how*' of providing customers and end-users with product and service offerings. It refers to the nature of the offerings that the firm provides to customers, the way it deploys resources, and the activities that it performs to deliver those offerings (Chesbrough & Rosenbloom, 2002; Magretta, 2002; Mitchell & Coles, 2003, 2004; Richardson, 2008; Santos, Spector, & Van der Heyden, 2009; Zott & Amit, 2010). While the traditional strategy frameworks such as the industry structure view (Brandenburger & Nalebuff, 1996; Porter, 1980) and the resource-based view (Barney, 1991; Wernerfelt, 1984) focus on the competitive advantage of firms, and hence on value appropriation, the complementary approach with the business model as unit of analysis is concerned with total value creation.

Value creation is at the heart of the strategic management field as it is an essential prerequisite for value appropriation (Brandenburger & Stuart, 1996; Porter, 1985). The business model communicates the firm's value creation and value appropriation logic (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; Casadesus-Masanell & Zhu, 2013; Chesbrough, 2007a; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Mahadevan, 2000; Malone, Weill, Lai, D'Urso, Herman, Apel, & Woerner, 2006; Morris, Schindehutte, Richardson, & Allen, 2006; Richardson, 2008; Santos et al. 2009; Zott & Amit 2007), the core logic of the firm and how it operates (Baden-Fuller, MacMillan, Demil, & Lecocq, 2010; Shafer et al., 2005), as well as the focal firm's objective of continuous strategic renewal (Volberda, Baden-Fuller, & van den Bosch, 2001). As such, the business model also co-determines the focal firm's bargaining power. Thus, the greater the total value created and the greater the focal firm's bargaining power, the greater the amount of value that the focal firm can appropriate (Zott & Amit, 2007).

The business model is also conceptually distinct from organizational structure (Zott & Amit, 2007) and from product-market positioning strategy (Zott & Amit, 2008), although it must be considered a fundamental complement to a firm's overall strategy. It defines how the focal firm is embedded in its business ecosystem (Adner & Kapoor, 2010); that is, in the multiple layers and networks of firms, institutions, customers, and other stakeholders that surround it, thereby determining not only possible partners that can help co-create value but also competitors. As such, the business model determines the focal firm's cooperative and competitive landscape. Consequently, the business model is one of the most fundamental strategic choices that firms need to make, in addition to deciding, which market needs in which specific customer segments to address, in which geographic markets to compete, how and when to enter these markets, and on the basis of which resources and capabilities (Amit & Zott, 2014).

Besides these mostly static perspectives on the business model, a few scholars have begun to acknowledge its dynamic aspects. A focus on the business model as an activity system – a "system that is made up of components, linkages among the components, and dynamics" (Afuah & Tucci, 2001: 4) – already implies that dynamics play an important role for the value creation and value capture potential of business models enabled by the activities. Casadesus-Masanell and

Ricart (2010) describe the virtuous cycles that certain choices and fit among the choices within a business model engender. As a reflection of realized strategy, the business model sets the stage for the tactical choices that a firm might make in order to compete (Casadesus-Masanell & Ricart, 2010; Casadesus-Masanell & Zhu, 2013), also referred to as routine strategies that are determined by the choice of business model but that do not change the underlying activity system (Casadesus-Masanell & Ricart, 2010; Yip, 2004). Thus, the business model is to be seen as a complement, not substitute, to strategy (Zott & Amit, 2008), which further emphasizes the importance of concept and the underlying dynamics.

1.3 Research Motivation, Objective, and Structure

Advancing on the introduction to this thesis, it becomes evident that research on business models is a growing and influential literature stream. The rapidly changing competitive landscape challenges firms to become more innovative. Instead of falling prey to ever-changing market forces, some firms show great agility and strategic renewal as they relentlessly change and transform their business models in terms of innovation and internationalization. Driven by a continuous quest for opportunities that put their activities and resources to better and more profitable use and allow them to create and capture more value, firms frequently and consistently introduce new value propositions, new ways of value delivery, and new ways of value appropriation. Firms’ orchestration of activities within their activity systems and transformation of their business models through innovation and internationalization to realize opportunities with the objective to increase value creation and capture is the topic of this dissertation.

Studying business model dynamics allows the examination of firm-level business model transformation by applying an activity-system perspective that views the business model as a complement to strategy and focuses on firms' orchestration of their activities to realize opportunities. Opportunity realization requires firms to collectively integrate their strategic resources and capabilities to transform them into activities. Successful realization of opportunities is not about individual activities constituting parts of different functional areas but rather their orchestration, reconfiguration and specifically their interdependencies, which link diverse activities and spur new opportunities. Thus, this dissertation brings forward a focus on firms' activities and their interdependencies, which depart from strategy literature that focuses on organizations and strategy as complex systems of interdependent choices (Milgrom & Roberts, 1995; Siggelkow, 2011; Thompson, 1967), unique set of activity choices and high levels of fit among them (Porter, 1996), whereby the degree of fit is a function of the underlying interdependencies among a firm's activities (Miller, 1981; Thompson, 1967). Research is limited in encompassing all choices a firm can make and whether and to what extent these choices are interdependent. Activity systems are appealing because of their complexity-encompassing implications for research on business models. It remains difficult to delineate business model research from other areas due to its broad implications.

While research on agile small and medium enterprises (SMEs), start-ups, and large multinationals that combine innovative business models with technological innovation in fast-moving, highly competitive ecosystems (Amit & Zott, 2012; Zott & Amit, 2007, 2008, 2010), internet-based companies (Cusumano, 2008; Lumpkin & Dess, 2004; Rindova & Kotha, 2001; Mahadevan, 2000), ventures fulfilling needs at the bottom of the pyramid in developing countries (Anderson & Markides, 2007; Meyer & Thu Tran, 2006; Prahalad, 2006; Seelos & Mair, 2007), as well as in other contexts, such as healthcare (Hwang & Christensen, 2008), biotechnology

(Durand, Bruyaka, & Mangematin, 2008; Fisken & Rutherford, 2002; Mangematin, Lemarie, Boissin, Catherine, Corolleur, Coronini, & Trommetter, 2003; Willemstein, Van der Valk, & Meeus, 2007), open source communities (Dahlander & Magnusson, 2008), and servitization (Eggert, Hogreve, Ulaga, & Muenkhoff, 2014; Gebauer & Friedli, 2005; Kastalli & van Looy, 2013; Kastalli, van Looy, & Neely, 2013; Kowalkowski, Windahl, Kindström, & Gebauer, 2015) enriched our understanding of the value creation and capture potential of business models, our understanding of how business models are transformed over time and how they travel across borders remains scarce (Chesbrough & Rosenbloom, 2002; Zott & Amit, 2007, 2008).

The ambiguous understanding of dynamics and evolution of business models that extant literature currently provides is partly due to its inherent complexity. Extant literature on business models explains at its heart that the actual choices made by the firm and the resulting interdependency pattern among them are important to understand the performance differences among firms and their future ability to undergo strategic renewal (Casadesus-Masanell & Ricart, 2010). The re-organization of activities is particularly relevant because "changing the scope of the organization not only affects the extent to which it can capture the fruits of its innovative labor; but also the extent to which it can be innovative in the future" (Jacobides, Knudsen & Augier, 2006, p: 1201). Yet, we know little how the notion of business model transformation relates to the occurring interdependency patterns. We need to understand better how the fit adjustment is operationalized through the lenses of innovation and internationalization of business models.

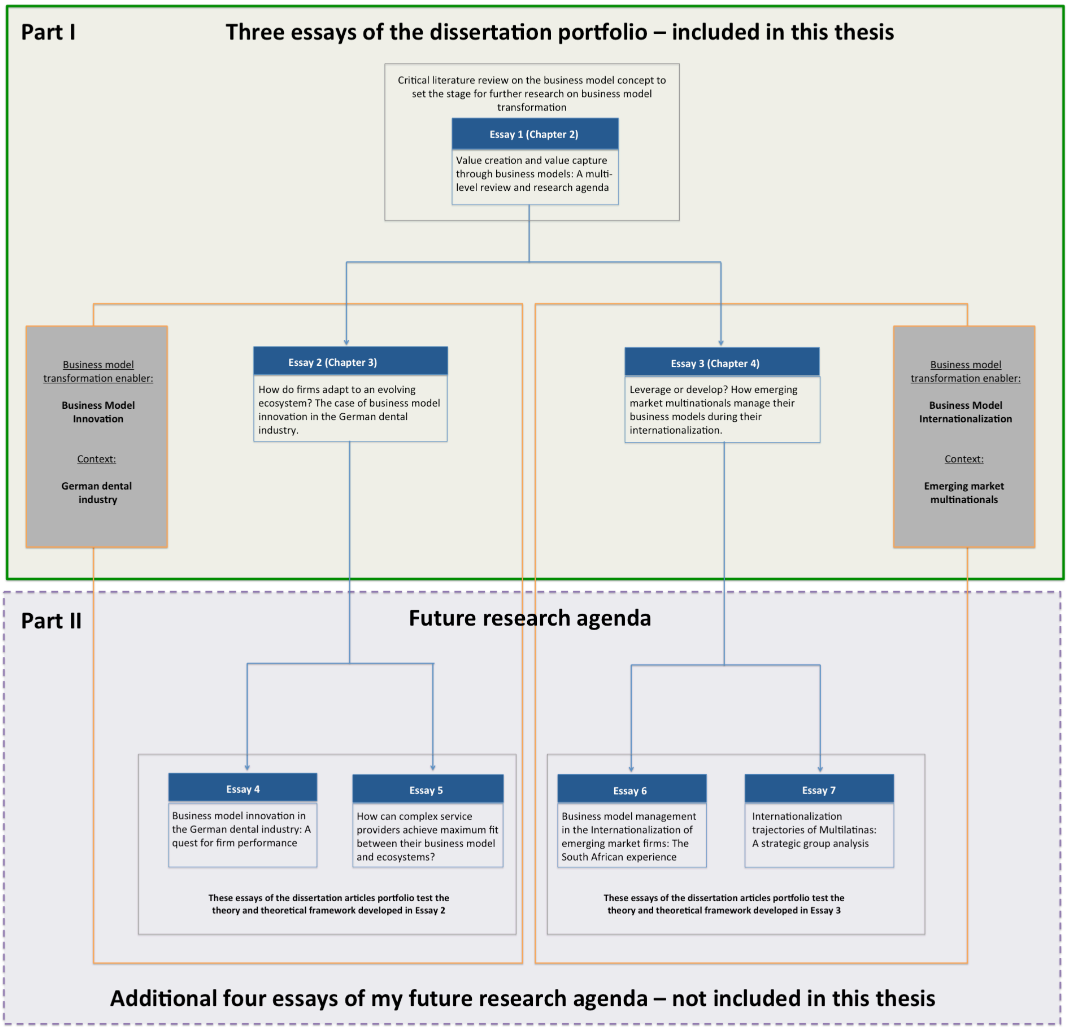
More research is needed to better understand how firms transform their business models to realize their opportunity space. In this dissertation, I define business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by realizing its opportunity space and increase its value creation and value capture potential with the goal to adapt to an evolving ecosystem, enabled by business model innovation and business model internationalization. Realization of business opportunities is defined here as a firm's exploitation and exploration of internal and external activities and resources within the business model to continuously pursue value creation and value capture. Studying business model transformation through the notion of business model dynamics allows the examination of strategy at the intersection to innovation and internationalization.

This dissertation seeks to enhance our understanding of the transformation and its underlying dynamics enabled through business model innovation and growth of business models through internationalization. I respond to the request for more research to better understand how the lenses of business model innovation and internationalization enhance and nourish value creation and value capture. The ideas presented in this thesis are anchored in my research program on business model transformation, consisting currently of seven articles, out of which three main overall essays constitute the principal chapters of this thesis, providing unique contributions to the field. Taken together these three essays in this thesis constitute an integrated contribution, which is presented in the developed final integrative framework on business model transformation in chapter 5. The three following chapters of this thesis examine first the theorizing on the business model concept in extent literature in chapter 2, and the subsequent research and theory building on the business model transformation enablers of business model innovation in the context of the German dental industry in chapter 3 and business model internationalization in the context of emerging market multinationals in chapter 4. Figure 1.1 "Structure of dissertation portfolio" presents the structure and overview of the thesis at hand and the complete PhD research program.

The three essays presented in this thesis constitute the theory building part of my overall PhD research program. Here, I intend to contribute to the theorizing and conceptualization of the business model, the constituting elements and relationships among them, which allows me to revisit and enrich existing findings as well as outline future directions to build upon. The first essay sets the stage for the subsequent research portfolio that follows. The second essay focuses on business model innovation of dental practices in Germany. Here, I build grounded theory on the antecedents of business model innovation on the firm-level and develop a framework for further testing in subsequent empirical research based on 134 cases and ten in-depth case studies. The third essay elaborates on critical literature review on the internationalization trajectories of emerging markets multinationals and builds theory and develops a conceptual framework about the different business model management and innovation strategies of firms from emerging markets illustrated by eight case studies. The presented propositions and framework are designed for further testing in subsequent future empirical research. In the fifth chapter I integrate the findings and contributions of the respective chapters and essays, and based on my preceding research I propose a conceptual framework of business model transformation.

This thesis is structured as follows. Research questions that structure this thesis and led the research are introduced, common themes are highlighted that emerged from studying business model transformation and the underlying dynamics in various contexts and a brief overview of the essays that comprise this thesis are presented in the remainder of this chapter. The subsequent three chapters of the thesis present the three essays, followed by a presentation of the final conceptual framework of business model transformation in chapter 5, integrating the preceding research, its outcomes and contributions. This final chapter discusses the overall theoretical and managerial implications of the dissertation, emphasizes its contributions, outlines the limitations, and presents the avenues for future research.

Figure 1.1: Structure of dissertation portfolio



1.4 Introduction of Research Questions

The above discussion points to business model transformation with the underlying dynamics being a fascinating and still not well-explored phenomenon worth investigating in more depth for strategy scholars interested in the drivers of growth and firm performance. Following up on these motivations, the general question this dissertation aims to answer to complement the burgeoning research in this area is:

- *What is the nature of business model transformation in evolving business ecosystems?*

A conceptual model of business model transformation is developed and presented in Chapter 5. As business model transformation is a highly complex phenomenon, this research has focused by de-structuring the phenomenon under scrutiny into different research questions addressed in subsequent chapters in this thesis. In the first theoretical part of the thesis, Chapter 1, I try to clarify the current dilemmas around the notion of the business model and the development of business model transformation in extant literature. From the theoretical discussion I conclude that, in order to further understand the dynamics of business models, we have to look into the lenses and mechanisms that constitute them. The following discussion offers a recapitulation of the research questions discussed in each chapter of the dissertation.

The first essay is a conceptual piece setting the stage and considering the nature of the business model concept. Analyzing the business model concept in depth is crucial for the subsequent understanding of the development of business model dynamics. The purpose of this essay is to contribute to greater clarity and understanding of the business model concept by distinguishing different definitions and conceptualizations in received literature and indicating ways in which researchers can use its insights. Thus, I first critically review the extant literature on business models to identify different perspectives that constitute the current views on what the business model is, and what the business model is not, and conceptualize different types of constituting elements and basic relationships between them. Each of these elements caters to different dynamics and purposes. Together they explain how dynamics of the business model come about and thereby help explain how business model transformation contributes to value creation and value capture. Theorizing about the different perspectives on the business model notion allows me to revisit and enrich existing findings as well as outline future directions to build upon. Thus, the research questions I ask in the second part of the thesis, chapter 2, are the following:

- *What is the business model?*
- *How does the business model explain value creation and value capture?*

Due to the great complexity of the business model and the underlying dynamics, I propose studying each lens of business model transformation through a set of research questions and differentiating the various business model dynamic approaches. In the second essay, therefore, I extend the theoretical milestones of business model transformation through the examination of business model innovation antecedents on the firm-level and adaptation trajectories of complex service providers in the context of the evolving and challenging ecosystems of the German dental care industry. Against this background, I build grounded theory of business model antecedents on the firm-level and ask the following research questions:

- *What are the antecedents that enable the service providers to engage in business model innovation?*
- *How do the service providers adapt their business models to an evolving ecosystem?*

The third essay contributes to the growing stream of research on the phenomenal surge in internationalization by firms from emerging markets. Here, I extend the theoretical milestones of business model transformation through the examination of business model internationalization in the context of internationalization trajectories of firms from emerging markets. Following a critical literature review on internationalization of emerging market firms, I develop a conceptual framework and illustrate it with eight case studies with the aim to answer the following research questions:

- *How do EMNEs manage their business models when they internationalize?*
- *How do EMNEs innovate their business models when they internationalize?*

Although the dissertation runs across different contexts, it advances a common focus on the notion of business model transformation and the underlying dynamics and its manifestation and role in each setting. I propose that the notion of business model transformation is important for the continuous pursuit and realization of opportunities with the objective to continuously improve and increase value creation and value capture. This will become evident in subsequent chapters that address this issue through a focus on the research questions presented above and shown in Figure 1.2. To answer these questions I examined various existing theories and perspectives prevalent in the strategic management research as well as observed the phenomenon directly in distinct contexts to see what I could learn about it first hand.

Figure 1.2: Research questions of respective chapters

Overall dissertation research question (Chapter 5)

- What is the nature of business model transformation in evolving business ecosystems?

Essay 1 (Chapter 2)

- What is the business model?
- How does the business model explain value creation and value capture?

Essay 2 (Chapter 3)

- What are the antecedents that enable the service providers to engage in business model innovation?
- How do the service providers adapt their business models to an evolving ecosystem?

Essay 3 (Chapter 4)

- How do EMNEs manage their business models as they internationalize?
- How do EMNEs innovate their business models when they internationalize?

1.5 Overview of the Essays and their Contributions

This thesis presents and discusses three essays out of my PhD dissertation research portfolio that provide unique contributions to the research field on dynamics of business model transformation. Taken together these essays constitute an integrated contribution. This dissertation pays close attention to the context in which business model transformation unfolds and its underlying business model dynamics, which is reflected in the diversity of firms, their contexts and the ecosystems they are embedded in, studied across several chapters. These firms and contexts include small and medium enterprises (SMEs) in terms of dental practices in Germany (Essay 2) and emerging markets multinationals (EMNEs) across different markets such as India, China, Brazil, Mexico and Turkey (Essay 3). This represents an attempt to highlight the contingent nature of business model transformation and how it allows firms to increase value creation and value capture through the realization of business opportunities. To set the stage for the research on business model transformation, I considered it crucial to establish a common understanding of the nature of the business model concept. Thus, Essay 1 presents the initial discussion on theorizing and conceptualization of the notion of business models. In the following I will present a brief introduction to the three essays, the overall contribution as well as the structure of this thesis.

In the first essay, I critically review the existing literature on business models, as prior research has been contradictory about the role of the business model and the position of the concept in literature. Thus, the first essay demonstrates the importance of the notion of business models as the core logic of the firm in value creation and value capture. It provides the conceptualization, terminology and general relationships among different perspectives on the notion of business models and identifies the two dominating views that dominate extant research on business models. Each of these identified perspectives and the two dominating views cater to different dynamics and purposes. Together they explain how interdependency between business model elements and the resulting conceptualizations come about and thereby help to explain competitive advantage, strategic renewal, and the evolution of the firm. Theorizing about the different perspectives, the determinants of the driving views, and the constituting elements and relationships among them allows me to revisit and enrich existing findings as well as outline future directions to build upon. Hence, the first essay's main contribution is to provide an overview of different conceptualizations and their sources as well as a consistent terminology of elements and their relationship with key concepts of strategic management. The first essay sets thus the stage for further research on business model transformation.

The second and third essay elaborate on business model transformation by diving deeper into the role of the underlying dynamics of innovation and growth through internationalization respectively. The second essay, illustrates the importance of integrating innovation in business model transformation with the objective to realize value innovation by identifying four firm-level antecedents of business model innovation in the dental industry in Germany. That is, based on grounded theory building and by applying a modularity perspective on business models, a theoretical framework of business model innovation is developed in order to answer how the identified antecedents on the firm-level, namely specialization, concentration, goal to value capture and external constraints, drive business model innovation and lead to value innovation as the outcome with the objective to adapt the business model to an evolving ecosystem. This second essay contributes to the overall research on business model transformation by taking place at the intersection of business model innovation and ecosystem evolution.

The identification of antecedents of business model innovation suggest a shift in perspective in research as it extends the locus of innovation antecedents from individual insights in innovation research (Beckman, 2006; Hargadon & Sutton, 1997; Ruef, 2002; Sinhur & Zott, 2014) to the consideration of firm-level antecedents of business model innovation. The focus on business model innovation as a lens of business model transformation emphasizes firms' orchestration of internal and external activities to enact opportunities of value creation and appropriation, whether they are discovered or created, in order to adapt to the evolving ecosystem. It further allows me to enhance strategy literature by pointing out the relevance of value innovation as a competitive trajectory of business model transformation. The context of dental service providers in Germany allows me to contribute to institutional theory by presenting the identified antecedents of business model innovation as a mechanism leading to an institutional change in the ecosystem of service providers.

Meanwhile, the third essay analyzes the internationalization trajectories of multinationals from emerging markets, offering useful insights into how the integration of the dimension of growth through internationalization in business model transformation allows us to understand how these emerging markets firms make sense of exploitation and exploration of ownership advantages through their business model management strategies. In the third essay, a theoretical model is developed in order to answer when leveraging of the traditional business model from home and when the development of a new business model inhibits and when it enables opportunity realization through internationalization. Prior literature has been contradictory about the role of internationalization of emerging markets multinationals. One line of argumentation suggests that exploitation of ownership advantages inhibits an emerging multinational from successful expansion to new markets and will require the exploration of new advantages instead, which implies the development of a new business model.

A second strand of argumentation contends that exploration of ownership advantages allow for successful internationalization and conflicts that can lead to novel solutions, which implies the leverage of the traditional business model and the consequent business model innovation. In this essay, these two perspectives are brought together and looked at in an integrated way. A multidimensional reconceptualization of internationalization strategies of emerging market multinationals into the level of institutional difference in terms of entry into emerging or developed markets, and strategic initiatives in terms of leveraging the traditional business model or developing new business model allows reconciling both lines of argumentation. The developed theoretical framework is illustrated by eight case studies of emerging multinationals. The main contribution of this essay is to argue theoretically that both, leveraging of the traditional business model and the development of new business model can enable and inhibit successful transformation through internationalization depending on the business model management strategy in place.

The interdependency of activities in the activity system of the business model as a core element of business model transformation is a common thread across the different contexts of complex service providers in Germany as presented in the second essay and emerging market multinationals in various markets in the third essay. In all these instances, variability across different dimensions of business model transformation is observed, calling for integration that reconciles tension from opportunities. The diversity of the settings explored and theories used makes it possible to draw connections across contexts, highlighting the relevance of theoretical robustness of the proposed business model transformation concept.

A recurring theme across the different contexts explored in this research is business model transformation as firms strive to attain a balance among competing demands while they pursue different opportunities. This observation underscores the importance of looking at firms' value creation and capture ability from a business model perspective. Business model transformation enablers of business model innovation and business model internationalization, reflecting broad categories of actions, are extended across different organizational types and contexts, revealing the importance of integration of these lenses and their embodied dynamics. Integration of the lenses of innovation and internationalization reflects the valuable role of business model transformation in attending to contradicting demands to collectively orchestrate the dynamics of business model transformation and smooth firms' actions in pursuit of opportunities to increase their value creation and value capture potential.

As a result, all three essays presented in the following chapters show a clear attempt to link business model transformation to the broader strategic and organization context where it transpires. This is done through incorporating relevant theoretical dimensions that help explain business model transformation through the firms' realization of innovation and internationalization of their business models to enact opportunities with the objective to increase value creation and value capture in evolving ecosystems. Transformation of the business model allows firms to attain scale and raise the threshold of viability, as well as find new market space. In this line of thought, innovation and internationalization of the business model represent two lenses of business model dynamics that lead to and represent business model transformation.

Consequently, advancing on the three essays, in chapter 5, I integrate the findings and contributions of the essays respectively, and based on the preceding research I propose a conceptual framework of business model transformation. The proposed framework integrates the lenses of business model innovation and business model internationalization. The in the research identified business model innovation antecedents as well as the strategies to grow the business model through internationalization represent the five constraints of the opportunity space of business model transformation, which is defined as being passed through to collaborative agency.

Taken together, business model transformation is a multi-dimensional construct, which resides in a focal firm's strategic choices. However, the business model transformation design is not purely given by nature but to some extent at the discretion of the firm. This thesis suggests that business model transformation is to some extent a choice by itself, for example, through organizational policies that determine whether a set of activities is supposed to interact or not as discussed in both essays two and three respectively. By taking several decisions that influence the interdependency design of the business model, firms can set the right context for system-induced recombination of activities as a source of continuous business model transformation.

1.6 Introduction to Research Methodology

This section offers an introduction to the methodological approach of this thesis. In light of the premises of critical realism, this research proposes a multi-method research design consisting of both quantitative and qualitative research methods. While the empirical study is characterized as being primarily qualitative based on different case studies in different context and an in-depth grounded theory development, however, quantitative tools are also applied to analyze and test the results of the case comparisons in the empirical research where large amounts of data were gathered. The notion of business model transformation is being studied through different lenses of dynamics in each chapter of this dissertation, such as business model innovation and business model internationalization. Therefore, the most adequate methodology is applied in different parts of the research, looking at their internal validity but also gathering as much information to achieve the set objective to understand the notion of business model transformation and its influence on value creation and value capture. Each chapter describes the methodology applied for the particular research included in that chapter. The aim of this introduction, then, is to provide a common understanding of the epistemological approach to the research.

This thesis looks at the internal determinants of the business model transformation embedded in the focal firms' strategic management. As argued above, various scholars have looked before into the phenomenon of value creation and value capture through business models (Amit & Zott, 2001; Baden-Fuller et al., 2010; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Mahadevan, 2000; Morris et al., 2006; Santos et al., 2009; Shafer et al., 2005; Svejenova et al., 2010; Zott & Amit, 2010). This research can be considered a new phenomenon, as practitioners and academics have only recently started to reflect on it; however, some theoretical background has already been developed which is used to guide the present research. Therefore, the approach of this study is semi-constructivist based on observing the focal firms' constructions of reality but based on some already defined theoretical constructs and frameworks of analysis provided by the scholars cited above. In a positivistic approach, I assume the existence of the organization and resources. This methodological approach favors interpretative methods of enquiry such as grounded theory and case studies.

Because the revision of organizational interpretative schemes that relate to business model transformation and its underlying dynamics, even when looked at through its lenses of business model innovation and business models internationalization, is typically a subtle and evolving process, traditional survey methods and quantitative analyses are less possible during the first phase of this research and when building new theories, as presented above in the structure of this dissertation portfolio. As such, research designed to investigate more interpretative schemes must be as little intrusive as possible and it must be longitudinal and capable of tracing unfolding changes (Fredrickson, 1983; Gioia & Chittipeddi, 1991; Mintzberg, 1979; Whyte, 1943). No single method can comprehend all of the subtle variations in ongoing human experience (Denzin & Lincoln, 2000). Consequently, researchers deploy a wide range of interconnected interpretative methods, always seeking better ways to make the worlds of experience they study more understandable.

Strategic management research, for instance, allows us to look at the ways in which management organizes and represents certain kinds of meanings, like business model transformation. Critical theory allows us to look at the notion of business model transformation through its lenses of business model innovation and internationalization and the diverse definitions related to the research topic. It allows us to create new concepts, and look at new emerging and old established business models and the way they evolve, change and move across borders with our critical theorist's hat on. It allows us to look at the problematic issues of business model dynamics, innovation and internationalization, and the underlying mechanisms of value creation and value capture. Other traditions such as hermeneutics and positivism, particularly in the second part of the PhD research program and my future research, which does not constitute part of this thesis, have further influenced my epistemological position.

The research methods selected to analyze the phenomenon of business model transformation are the case study method, grounded theory, and theoretical analysis in this thesis, followed by a mixed methods methodology in the second part of my research, which does not constitute an explicit part of this presented thesis but whose results do contribute substantially to the overall outcome and the overall contribution of this dissertation endeavor. To analyze the data of business model innovation and business model internationalization, I primarily apply a thematic analysis, which is recognized as an adequate method to look for replicable themes that describe types of behavior (Boyatzis, 1998; Denzin & Lincoln, 2000; Miles & Huberman, 1994; Patton, 2002).

The process of theory building is inspired and driven mainly by Glaser and Strauss' (1967) methodology of grounded theory, involving the construction of theory through the analysis of data, and on Eisenhardt's roadmap on building theory through case studies (Eisenhardt, 1989). In this research, I stress the importance of validity and reliability in the design of the underlying case study research (Yin, 1981, 1984). It is further based on the following states grounded on Lewis' theory building roadmap (Lewis & Grimes, 1999) but also inspired by scholars such as Weick, for explanations on how to build a problem statement and independent conjectures (Weick, 1989). Theory building requires rich description, the richness that comes from anecdotes (Mintzberg, 1979). The data collection methods used in my research vary from in-depth interviews to secondary, archival data from the firms observed, their websites, company reports, and my active participation in corporate meetings of the focal firms.

1.7 Theory Development form Different Traditions

Despite growing use of the concept, business model research is still in its early stages. This thesis looks at the introduction of business model premises in the theory of the firm and strategic management. It pretends to jointly study two distinct fields: strategic management, mainly through activity system, strategic renewal and fit theories, and the notion of business models, in particular using the dynamics approach. These two main fields of strategy and business models are further supported by three additional distinct fields, namely organization theory, innovation, and internationalization in the specific context of emerging market multinationals, which are reflected in the three main essays that represent the three chapters of this thesis, specifically as the research of the notion of business models, and the enablers of business model transformation interpreted as business model innovation and business model internationalization respectively.

Differences in paradigms and languages have determined not only the way scientific communities understand the phenomenon of business models but also the way practitioners apply their tools and solve the day-to-day problems in business model design, management, and change and in strategic management. The joint study of business models and strategic management is an effort to learn from both fields, which have not been developed to the same extent in terms of their analytical content (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; George & Bock, 2011; Spieth et al., 2014) and never fully reconciled (Porter, 2001). The goal of identifying a business model and strategy theory paradigm, although important, does not undermine the importance of this study of the field. On the contrary, the aim of studying the notion of business models in conjunction or contextualized by strategy management theories creates a need to develop joint theories that clarify the existing complementary and competing constructs.

In this research on business model transformation, I refer to different theories in the fields of business models, strategic management, innovation, internationalization, strategic renewal, emerging market multinationals and institutional theories to interpret my observations. I look at how the phenomenon in question can legitimately be subject to various theories yet remaining a related class phenomenon. Moreover, in this thesis, I propose different frameworks integrating the study of the phenomenon of business models, thereby embedding the notion of business model in the innovation process and internationalization trajectories of emerging market firms respectively without losing the particularities of the business model concept while primarily applying the strategic management theory as guidance. The integrating frameworks are the results of combining current strategic management and business model theories in a dialog, enhancing them with the innovation and internationalization theories, and supported by institutional theories. Together, the theories help to better understand the notion of business model transformation despite having different theoretical assumptions regarding corporate objectives and the importance different aspects have in defining firm behavior.

Chapter 2: Multi-Perspective View on Value Creation and Value Capture through Business Models: A Review and Research Agenda

This paper provides a broad review of extant literature on business models in which the authors examine the sources of differences, commonalities, shared dimensions, antecedents and levels of analysis of the concept through multilevel lenses. With the objective to shed light on the ambiguity in research, the authors identify three existent perspectives on business model research permanent in received literature – strategic perspective, organizational perspective, and normative perspective – and outline how these perspectives reveal value creation and appropriation mechanisms. The authors conclude with fruitful avenues for future research, which could serve as a catalyst for a more unified study of business models independent of the phenomena or context at hand.

2.1 Introduction

In recent years, business models not only have been the focus of substantial attention from practitioners, but they have gained momentum in academic research and became the subject of extensive conceptualization and empirical research. Business models have been integral to trading and economic behavior since pre-classical times (Teece, 2010). Introduced by Peter Drucker in 1954 (Drucker, 1954), the business model concept became common with the advent of the Internet in the mid 1990s (Magretta, 2002). The business model addresses the 'how' of providing customers and stakeholders with offerings. In its broadest sense it is found to communicate the core logic of the firm and how it operates, constitute the firm's architectural backbone (Shafer, Smith, & Linder, 2005), and act as critical construct for understanding the firm's value creation and appropriation (Amit & Zott, 2001; Baden-Fuller, MacMillan, Demil, & Lecocq, 2010; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Mahadevan, 2000; Morris, Schindehutte, Richardson, & Allen, 2006; Santos, Spector, & Van der Heyden, 2009; Shafer et al., 2005; Svejenova, Planellas, & Vives, 2010). The various conceptualizations of the business model in received literature imply that choosing a particular business model means choosing a particular way to compete, a particular logic of the firm (Casadesus-Masanell & Zhu, 2013). Business models provide means to describe and classify businesses, and to operate as sites for empirical research, thereby pending between the real world consisting of many firms that behave and are organized in different ways, and theories of the firm behavior that tend to be very general (Baden-Fuller & Morgan, 2010).

Scholars of business models emphasize the holistic approach of the concept in explaining how firms operate, they share the view of the concept as new emerging unit of analysis, and they agree that activities, resources and their organization play a crucial role in diverse conceptualizations that are being proposed in received literature (George & Bock, 2011; Zott et al., 2011). However, despite growing use of the concept, little convergence has emerged in the definitions, in large part, due to the breadth of scholarly communities studying the concept with different meanings and applying the terminology of business models to different domains (Morris et al., 2005). Consequently, literature on business models is developing largely in silos, according to the phenomena of interest of the respective scholars (Gioia & Pitre, 1990; Zott et al., 2011). Moreover, as the business model concept stems from managerial practice, scholars often fail to explicitly clarify the theoretical underpinnings of the concept (George & Bock 2011; Schneider & Spieth 2013). It is apparent that scholars need a common understanding of the multiple facets of the business model construct and a common language to draw effectively on the proposed research.

This variation and lack of consensus have created a conceptual pluralism that has uncovered novel ways to explain what business models are and how they work. Moreover, the conceptual pluralism reveals two impediments to research on business models: on the one hand, it is over-abstraction, driven by too broad definitions of the concept, and on the other hand, it is conceptual ambiguity, which occurs when researchers use different labels to describe the same business model construct or the same labels to describe different constructs. Over-abstraction and conceptual ambiguity create compartmentalization of definitions that do not enrich each other and produce isolated lines of research (Gioia & Pitre, 1990). These challenges substantiate the need for structured and rigorous research to achieve stronger convergence in definitions and better understanding of the business model concept (George & Bock, 2011; Santos et al., 2009; Schweizer, 2005; Shafer et al., 2005; Svejenova et al., 2010; Zott et al., 2011).

The purpose of this paper is to contribute to greater clarity and understanding of the business model concept by distinguishing different definitions and conceptualizations in received literature and indicating ways in which researchers can use its insights. The structure of the paper is as follows. First, we review extant literature and present an overview of the state-of-the-art in the research addressing business models. We reveal sources of differences but also commonalities and shared dimensions in the various business model definitions that act as a catalyst toward more convergence in the research of business models. Second, based on the in-depth literature review, we identify three perspectives on business models that seem to prevail in extant research: (1) the strategic perspective that views the business model as an abstraction of strategy and focuses on the business model as the dynamic interplay of strategic choices a firm makes and the consequences that arise from the choices with the focus on better understanding the mechanisms of value appropriation; (2) the organizational perspective that views the business model as an activity system, a bundle of resources and interdependent activities that transcend the focal firm and span its boundaries thereby emphasizing value creation; and (3) the normative perspective that acts a guideline on what components constitute the business model and how these building blocks should be organized with value capture as the main concern.

Although viewed from different perspectives, the business model concept is recognized as a crucial source of value creation and appropriation for the firm

(Amit & Zott, 2001; Anderson & Markides, 2007; Chesbrough, 2010; Johnson, Christensen, & Kagermann, 2008; Mitchell & Coles, 2003, 2004; Svejenova et al., 2010; Teece, 2010; Zott & Amit, 2010). Thus, third, we advance the conceptual framework and explore how the three identified perspectives conceptualize value creation, appropriation and capture as the core logic of the business model. The paper concludes with fruitful avenues to be pursued in future research to further advance our understanding of the business models concept.

2.2 Multi-Level Review of the Business Model Concept

To conduct this critical multi-level literature review we followed a multi-step process. First, we used the EBSCO Business Source Complete database as a starting point (Certo, Holcomb, & Holmes, 2009; Laplume, Sonpar, & Litz, 2008). We searched the database using the terms "business model" or "business models" only in the title, abstract, or keywords as the term has often been used non-specifically in various contexts. Hereby we focused on academic articles published from 1st January 1954 till 31st December 2009 in peer-reviewed journals. As a result of this search we obtained 6,302 articles as an initial sample. An initial cursory analysis performed by reading the titles, abstracts and journal names eliminated articles that would not be useful for this review, as the business model concept did not seem to represent the subject of analysis. Consequently, in order to focus stronger on the business model concept as the subject of analysis, in the consequent step the research has been narrowed down to only those articles that include the term "business model" in the their title. As a result, we obtained a sample of 81 articles, which strongly deal with the business model concept.

By reviewing the articles in depth we complemented our sample by additional books and other articles that did not constitute the initial sample. We also extended the time period to include articles from the years 2010 till 2012 in an additional review process. We also included relevant working papers that were not initially revealed by the research. Furthermore, our careful review of the articles also allowed us to eliminate articles that did not treat the business model concept on the micro-level as centered on the business organization or used the concept in a trivial way, or simply did not use the concept a center of analysis despite using the term in the title. As a result we obtained a final sample of 41 articles that deal specifically with the definition and conceptualization of the business model construct, which is the focus and goal of our research. We apply a concept-centric approach to our analysis and critical literature review (Levy & Ellis, 2006; Webster & Watson, 2002; Wirtz, Pistoia, Ullrich, & Göttel, 2015). Our careful reading of the articles suggested some important common ground among them.

While some researchers have used the business model term without an explicit definition taking its meaning for granted (Amit & Zott, 2001; Bouwman, Haaker, & de Vos, 2008; Govindarajan & Trimble, 2011; Malone, Weill, Lai, D'Urso, Herman, Apel, & Woerner, 2006; Nunes & Breene, 2011; Richardson, 2008; Schweizer, 2005), others explicitly define the business model (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Svejenova et al., 2010; Teece, 2010; Timmers, 1998; Zott & Amit, 2010), while another group focuses on the enumeration of its components (Lehmann-Ortega & Schoettl, 2005; Mahadevan, 2000; Morris et al., 2005; Osterwalder, Pigneur, & Tucci, 2005; Richardson, 2008; Yip, 2004), and yet other researchers refer to the definitions of other scholars (Baden-Fuller & Morgan, 2010; Calia, Guerrini, & Moura, 2007; Gambardella & McGahan, 2010; Hedman & Kalling, 2003; Seddon et al., 2004). We further observe that that the ubiquity of the term and the glut of its uses imply that scholars have defined the business model concept on different dimensions, and the various contexts in which business models have been studied span diverse domains. Table 2.1 presents a summary of the various conceptualizations, dimensions, and domains identified in extant literature that cause a proliferation of definitions and ambiguity in understanding of the business model concept.

Table 2.1: Proliferation of definitions

Conceptualizations	Study
Architecture	Dubosson-Torbay et al., 2002; Timmers, 1998
Opportunity facilitator	George & Bock, 2011
Structural template	Amit & Zott, 2001
Statement	Stewart & Zhao, 2000
Representation	Morris et al., 2005
Cognitive link	Fiet & Patel, 2008
Pattern	Brousseau & Penard, 2006
Set of activities, resources, and organizing	Svejenova et al., 2010
Activity system	Zott & Amit, 2010
Framework	Afuah, 2004
Method	Afuah & Tucci, 2001
Conceptual tool	Osterwalder, 2004; Teece, 2010
Recipes	Slywotzky & Wise, 2003
Process	Chesbrough & Rosenbloom, 2002
Story	Magretta, 2002
Business logic of the firm	Osterwalder, Pigneur, & Tucci, 2005
Organization's core logic for creating value	Linder & Cantrell, 2001
Simple way of organizing a firm	Mitchell & Coles, 2003
Description	Appelgate, 2001; Weill & Vitale, 2001
Transactive structures	Mahadevan, 2000
Dynamic capability	Eden and Ackerman, 2000
Market device	Doganova & Eyquem-Renault, 2009
Dimensions	**Study**
Individual	Svejenova et al., 2010; Wirtz et al., 2010
Organization	Amit & Zott, 2001; Baden-Fuller & Morgan, 2010; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Santos et al., 2009; Zott & Amit, 2010
Industry	Sabatier et al., 2010
Society	Thompson & MacMillan, 2010; Yunus et al., 2010
Domains	**Study**
Strategy	Casadesus-Masanell & Ricart, 2010; Zott & Amit, 2010
Organization theory	Svejenova et al., 2010
Entrepreneurship	Amit & Zott, 2001; Morris et al., 2005
Technology and innovation	Chesbrough, 2003; Chesbrough & Rosenbloom, 2002
Biotechnology	Durand et al., 2008; Fisken & Rutherford, 2002; Mangematin et al, 2003; Sabatier et al., 2010; Willemstein et al., 2007
Health care	Hwang & Christensen, 2008
Information systems	Hedman & Kalling, 2003
Internet and e-commerce	Afuah & Tucci, 2001; De Reuver et al., 2009; Lumpkin & Dess, 2004; Mahadevan, 2000; Timmers, 1998; Van der Vorst et al., 2002; Wirtz et al., 2010
Open source communities	Dahlander & Magnusson, 2008
Customer integration	Plé et al., 2009
Emerging markets	Eyring et al., 2011; Williamson, 2010
Social networks and knowledge sharing	Chung, Yam, & Chan, 2004
Bottom-of-the-pyramid challenges	Prahalad, 2006; Seelos & Mair, 2007; Thompson & MacMillan, 2010; Yunus et al., 2010

Table 2.2a: Business models: Past conceptualizations

Study	Conceptualization of the Business Model	Business Model Components	Level of Analysis	Context	Theoretical Perspective	Method	Sample	Contribution to Research on Business Models
Timmers (1998)	Business model as an architecture for the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; and descriptions of sources of revenues.	Product, service, information flow architecture / business actors and their roles / actor benefits / sources of revenue / marketing strategy	Organizational (micro)	Internet / e-commerce	Value chain, e-business	Inductive study, multiple case studies	The Inventory of European electronic commerce related projects.	List of eleven specific e-business models.
Venkatraman & Henderson (1998)	Business model as a coordinated plan to design strategy along customer interaction, asset configuration and knowledge leverage dimensions.	Customer interaction / asset configuration / knowledge leverage	Operational	Entrepreneurship / Strategy	Value chain, customer management, knowledge-based view	Conceptual	-	Business model architecture framework.
Hamel (2000)	Business model is formed of a spectrum of modules, including customer interface, core strategy, strategic resources and value network. The customer interface and the value network indicate linkages to the buyer and supplier side, while core strategy shows the mission of the company and the scope of the products offered.	Core strategy / strategic resources, assets, capabilities, activities / value network / customer interface	Operational	Strategy	Resources-based view, customer management	Conceptual, empirical illustration by examples	-	Business model as a business concept that has been put into practice.
Mahadevan (2000)	A business model is a unique blend of three streams that are critical to the business: (i) the value stream, which identifies the value proposition for the business partners and the buyers; (ii) the revenue stream, which is a plan for assuring revenue generation for the business; and (iii) the logistical stream, which addresses various issues related to the design of the supply chain for the business.	Value stream - value proposition / revenue stream - revenue generation / logistical stream - design of supply chain	Operational	Internet / e-commerce	Value streams, transaction cost economics, e-business	Conceptual, empirical illustration by examples	-	Framework that can help practicing managers understand the notion of business model in the Internet context.
Afuah & Tucci (2001)	Business model as a system that is made up of components, linkages between the components, and dynamics.	Customer value / scope / price / revenue / connected activities / implementation / capabilities / sustainability	Organizational (micro)	Internet / e-commerce	Activity system	Conceptual	-	Framework consisting of components to answer the question "How to make money in my industry?"
Amit & Zott (2001)	A business model depicts the content, structure, and governance of transactions designed as to create value through the exploitation of business opportunities.	Transaction content / transaction structure / transaction governance	Organizational (micro)	Entrepreneurship	Value chain, Schumpeterian innovation, transaction cost economics, strategic networks, resource-based view, e-business	Grounded theory approach: inductive case studies, structured questionnaires	30 US and 29 European e-business companies that went public between 1996 and 1999	Business model as unit of analysis in value creation in the e-commerce context; architectural confguration of the components
Linder & Cantrell (2001)	Business model is the organization's core logic for creating value.	Pricing model / revenue model / channel model / commerce process model / Internet-enabled commerce relationship / organizational form / value proposition	Operational	Management	-	Inductive studies, qualitative questionnaires, secondary research	70 company executives and analysts	Business model framework as list of components.
Petrovic et al. (2001)	The business model is a description of how a firm makes money and can sustain itself by providing more value to its clients than competitors.	Value model / resource model, production model, customer relations model, revenue model, capital model, and market model	Operational	Internet / e-commerce	system dynamics, activity systems	Conceptual, methodology development	-	Conceptual framework of the business model.

Table 2.2b: Business models: Past conceptualizations

Study	Conceptualization of the Business Model	Business Model Components	Level of Analysis	Context	Theoretical Perspective	Method	Sample	Contribution to Research on Business Models
Rappa (2001)	A business model is the method of doing business by which a company can sustain itself - that is, generate revenue.	Brokerage / Advertising / Infomediary / Merchant / Manufacturer (Direct) / Affiliate / Community / Subscription / Utility	Operational	Internet / e-commerce	e-business	Conceptual	-	Taxonomy of eight business models observable on the web.
Weill &Vitatle (2001)	An e-business model is a description of the roles and relationships among a firm's consumers, customers, allies, and suppliers that identifies the major flows of product, information, and money, and the major benefits to participants.	Strategic objectives, value proposition, revenue sources, success factors, channels, core competencies, customer segments, and IT infrastructure	Operational	Internet / e-commerce	e-business	Conceptual, empirical illustration by examples	-	Systematic and practical analysis of eight atomic e-business models. Every one of these models is analyzed according to its strategic objectives and value proposition, its sources of revenue, its critical success factors and its core competencies.
Chesbrough & Rosenbloom (2002)	Business Model mediates between technology and economic value, selecting and filtering technologies and packaging them into particular configurations to be offered to the market.	Value proposition / target markets / internal value chain structure / cost structure and profit model, value network / competitive strategy	Organizational (micro)	Technology / innovation	Technology, contextual rationality, cognition	Inductive studies, multiple case studies	35 technoogy spin off companies that commercialized technology	Framework as a description of the logic of a business system for creating value that lies behind the actual processes.
Magretta (2002)	Business model as stories that explain how the enterprise works; a variation of the generic value chain underlying all businesses.	Business activities associated with making something / business activities associated with selling something	Operational	Strategy	Value chain	Conceptual, empirical illustration by examples	-	Understand difference between business model and strategy.
Hedman & Kalling (2003)	The business model integrates firm-internal aspects that transform factors to resources, through activities, in a structure, to products and offerings, to market.	Customers / competitors / offering / activity and organization / resources / supply of factor and production inputs / management	Organizational (micro)	Information Systems	Value chain, industrial organization, resource-based view, e-business	Conceptual, empirical illustration by examples	-	Generic business model with focus on IS.
Mitchell & Coles (2003, 2004)	Business model as a simple way of organizing a company to permit it to serve its customers in an effective way.	Who / what / when / where / why / how / how much	Organizational (micro)	Strategy	Value chain	Qualitative interviews	in 1992, 100 companies above a minimum size whose stock prices had grown	Continues business model innovation as process to leapfrog ahead of competition.
Yip (2004)	Business model as transformation and distribution processes of the firm.	Value proposition / nature of inputs / how to transform inputs (including technology) / nature of outputs / vertical scope / horizontal scope / geographic scope / nature of customers / how to organise	Operational	Strategy	Strategy, value chain, activity system	Conceptual, empirical illustration by examples	-	Business model framework with emphasis on the transformation and the distribution processes of the firm.
Morris et al. (2005)	Business model as a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture and economics are addressed to create sustainable competitive advantage.	Value proposition / customer / internal processes and competencies / economic factors / competitive strategy / growth and time objectives	Operational	Entrepreneurship	Value chain, resource-based view, strategy, transaction cost economics	Conceptual, methodology development	-	Framework for characterizing a business model; representation of firm specific aspects of the six components of the business model

Table 2.2c: Business models: Past conceptualizations

Study	Conceptualization of the Business Model	Business Model Components	Level of Analysis	Context	Theoretical Perspective	Method	Sample	Contribution to Research on Business Models
Osterwalder et al. (2005)	A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams.	Value proposition / target customer / distribution channel / relationship / value configuration / core competency / partner network / cost structure / revenue model	Operational	Information Systems / e-commerce	e-business	Conceptual, ontology	-	Business model framework as list of components.
Schweizer (2005)	The business model defines the value chain constellation and defines how the company is positioned, it determines where the competitive advantage / market power of the company comes from, and it describes through the revenue model how the company makes money.	Value chain constellation / market power of innovators vs. owners of complementary assets / total revenue potential	Operational	Strategy	value chain, resource-based view	Conceptual	-	Typology of different business models and description of their change over time.
Shafer et al. (2005)	Business model as a representation of a firm's underlying logic and strategic choices for creating and capturing value within a value network.	Strategic choices / creating value / capturing value / value network	Strategic (macro)	Strategy / Management	-	Conceptual	-	Identification and classification of the components of business models.
Lecocq et al. (2006)	Business model describes and synthesizes the way of creating value in a business; it leads managers to conceptualize the different activities led by a company to generate value for customers and shareholders.	Resources and competences / internal and external organization / value propositions	Organizational (micro)	Strategy / Management	Resource-based view, activity system	Conceptual, methodology development	-	Business model dynamics framework: RCOA model
Malone et al. (2006)	Operational definitions of 12 different business models based on combination of two dimensions: (1) types of rights being sold: creator / distributor / landlord / broker and (2) asset types: physical / financial / intangible / human	Two dimensions: (1) What types of rights are being sold and (2) asset types	Operational	Management	Resource-based view, transaction cost economics	Conceptual	-	Typology of 12 different business models and description of their differences in performance.
Bouwman et al. (2008)	Business model describes how a company or network of companies intends to make money and create consumer value.	Service component / technological component / organizational component / financial component	Operational	Information Systems / e-commerce	e-business, innovation, technology	Conceptual, empirical illustration by examples	-	Conceptual business model framework - STOF model; practical approaches on business model design for electronic and mobile service innovations.
Johnson et al. (2008)	Business models consist of four interlocking elements, that, taken together, create and deliver value: customer value proposition, profit formula, key resources, key processes.	Customer value proposition / profit formula / key resources / key processes	Operational	Strategy	-	Conceptual, empirical illustration by examples	-	Conceptual business model framework
Richardson (2008)	Business model organizes the components of strategy and execution around the idea of value creation and value appropriation.	Value proposition / value creation and delivery system / value capture	Operational	Strategy	Strategy formulation and execution, value chain, activity system, resource-based view	Conceptual	-	Business model framework to link the firm's theory about how to compete to its execution.

Table 2.2d: Business models: Past conceptualizations

Study	Conceptualization of the Business Model	Business Model Components	Level of Analysis	Context	Theoretical Perspective	Method	Sample	Contribution to Research on Business Models
Björkdahl (2009)	The business model is defined as the logic and the activities that create and appropriate economic value, and the link between them.	Customer value / customer segment / offering / revenue model / sourcing / distribution, selling	Organizational (micro)	Technology	Technology diversification	Inductive study, multiple case studies	Three MNEs	Conceptual framework to show how technology cross-fertilization needs to be accompanied by business model changes in order to achieve increased economic value.
Santos et al. (2009)	Business models a configuration of activities and of the organizational units that perform those activities both within and outside the firm designed to create value in the production (and delivery) of a specific product/market set.	Activities / organizational units / linkages / governance mechanisms	Organizational (micro)	Strategy / Management	Activity system, resource-based view	Conceptual, empirical illustration by examples	-	Theory of business model innovation within incumbent firms.
Storbacka & Nenonen (2009)	The business model is configuration of interrelated capabilities, governing the content, process and management of the interaction and exchange in dyadic value co-creation.	Content of exchange & interaction / process of exchange & interaction / management of exchange & interaction	Organizational (micro)	Strategy / Management	Resource-based view, strategy, customer management, marketing	Conceptual	-	Conceptual framework of the business model that investigates business models as a broader conceptualization of value co-creation and not just value creation.
Casadesus-Masanell & Ricart (2010)	A business model consists of a set of choices and a set of consequences arising from those choices; that is, how the business model is assembled and how the different elements work together.	Choices (policies, assets, governance) / consequences (flexible, rigid) / theories	Strategic (macro)	Strategy	Strategy, fit and choices	Conceptual, empirical illustration by examples	-	Conceptual framework to separate and relate business model and strategy.
Demil & Lecocq (2010)	Business model represents the way activities and resources are used to ensure sustainability and growth.	Resources and competences / internal and external organization / value propositions	Organizational (micro)	Strategy / Management	Resource-based view, activity system, fit and choices	Conceptual, methodology development	One case study: football club Arsenal FC	Framework on business model dynamics.
Doz & Kosonen (2010)	Business model as set of structured and interdependent operational relationships between a firm and its customers, suppliers, complementors, partners and other stakeholders, and among its internal units and departments (functions, staff, operating units, etc). It stand as cognitive structure providing a theory of how to set boundaries to the firm, of how to create value, and how to organise its internal structure and governance.	Customers, suppliers, complementors, partners, other stakeholders / units and departments / internal structures and governance / organizing / value creation / boundaries	Organizational (micro)	Strategy / Management	Resource-based view, activity system	Conceptual, empirical illustration by examples	12 companies that were reconceiving their business models.	Understand concrete leadership actions enabling the meta-capabilities needed to accelerate the renewal and transformation of business models.
Gambardella & McGahan (2010)	Business model is a mechanism for turning ideas into revenue at reasonable cost, and incorporates assumptions about how it will both create and capture value.	Activities / resources	Organizational (micro)	Technology / innovation	Activity system, resource-bsed view, technology licensing, innovation	Conceptual, empirical illustration by examples	-	Conceptual framework of business model innovation for licensing of general-purpose technologies.
Itami & Nishino (2010)	A business model is a profit model, a business delivery system and a learning system.	Business system / profit model	Organizational (micro)	Strategy / Management	Resource-based view, knowledge-based view	Conceptual, empirical illustration by examples	-	Business model framework
McGrath (2010)	Defines two core components of a business model: 'basic unit' of business (refers to what customers pay for) and process or operational advantages (choices of process steps, specifically which sets of activities are employed to sell 'basic units' of business).	Unit of business / key metrics of process or operational advantages for delivering superior performance	Operational	Strategy / Management	Discovery driven strategy, experimentation, choices	Conceptual, empirical illustration by examples	-	Discussion on how the business model concept offers new ideas for strategy formulation and discovery driven strategic thinking.

Table 2.2e: Business models: Past conceptualizations

Study	Conceptualization of the Business Model	Business Model Components	Level of Analysis	Context	Theoretical Perspective	Method	Sample	Contribution to Research on Business Models
Sabatier et al. (2010)	The business model is at the cross roads of competence and consumer needs. Portfolio of business models as the range of different ways a firm delivers value to its customers to ensure both its medium term viability and future development.	Level of promise (lag between investment and revenues, level of risk and expected returns) / Interdependencies with other organization	Strategic (macro)	Biotechnology / Biopharma	Resource-based view, activity system, consumer management	Inductive study, multiple case studies	Expert insights and business model case studies of four European biotechnplogy firms	Concept of a business model portfolio.
Smith et al. (2010)	A business model is the design by which an organization converts a given set of strategic choices - about markets, customers, value propositions e into value, and uses a particular organizational architecture e of people, competencies, processes, culture and measurement systems - in order to create and capture this value.	Choices / organizational architecture	Strategic (macro)	Strategy	Choices anf fit, activity system	Conceptual, empirical illustration by examples	-	Identification of several types of complex business models that seek value by supporting paradoxical strategies, including ambidextrous organizations, social enterprises and learning organizations.
Svejenova et al. (2010)	Business model as the set of activities, organizing, and strategic resources that transform an internal drive for business creation into distinctive value proposition, which alows a firm to create and capture value.	Drive (alertness, creativity, intent) / activities / resources / organizing / value creation, appropriation, slippage	Organizational (micro)	Entrepreneurship / strategy	Resource-bsed view, activity system, organizational theory	Inductive study, one in-depth case study	Case study: Ferran Adria	Framework of multi-level, multi-period theoretical perspective of business model evolution.
Teece (2010)	Business model describes the design or architecture of the value creation, delivery, and capture mechanisms it employs. The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit.	Technologies and feature of product, service / benefits / market segments / revenue stream / design mechanisms to capture value	Operational	Strategy	Economic theory, value chain	Conceptual, empirical illustration by examples	-	Understand the significance of business models and explore their connections with business strategy, innovation management, and economic theory.
Williamson (2010)	A cost innovation business model offers advantages in radically new ways meaning more for less.	Cost innovation capabilities	Organizational (micro)	Emerging markets	Technology innovation, Reverse innovation, strategy	Conceptual, empirical illustration by examples	-	Framework for cost innovation business models.
Wirtz et al. (2010)	A business model reflects the operational and output system of a company, and as such captures the way the firm functions and creates value.	Sourcing domain / value generation domain / value offering domain / distribution domain / revenue domain	Operational	Internet / Strategy	Resource-based view, e-business	Conceptual, empirical illustration by example	-	Web 2 framework that delineates four basic types of prototypical Internet business models: Content, Commerce, Context and Connection.
Yunus et al. (2010)	A business model is a value system plus a value constellation.	Value proposition / value constellation / profit equation	Operational	Emerging markets / entrepreneurship	Corporate social responsibility (CSR), social business	Inductive study, one in-depth case study	Case study: The Grameen Group	Framework of social business model as business model innovation.
Zott & Amit (2010)	Business model as a system of interdependent activities that transcendents the focal firm and spans its boundaries.	Content of an activity system / Structure of an activity system / Governance of of an activity system	Organizational (micro)	Strategy / entrepreneurship	Activity system	Conceptual, empirical illustration by example	-	Concept of business model as activity system.

The reasons for studying the business model on multiple levels of analysis lie in the characteristics of the business model phenomenon itself. Business models are designed, developed, employed and have effects on different levels and in different domains simultaneously. Scholars have contributed to increasing our understanding of the business model by invoking different levels of analysis, such as the strategic level, organizational level, and operational level. A detailed summary of past definitions and conceptualizations, the levels of analysis, dimensions and domains is presented in Tables 2.2a-e above. The following paragraphs highlight the levels of analysis that have been identified and illustrate the richness of approaches.

2.2.1 Strategic level of analysis

On the strategic level of analysis, the business model is defined as a representation of a firm's underlying logic and strategic choices for creating and capturing value within a value network (Shafer et al., 2005). At the cross roads of competence and consumer needs it represents different ways a firm delivers value to its customers to ensure both its medium term viability and future development (Sabatier et al., 2010), the design by which an organization converts a given set of strategic choices about markets, customers, value propositions into value, and uses a particular organizational architecture of people, competencies, processes, culture and measurement systems in order to create and capture this value (McGrath, 2010; Smith et al., 2010).

Definitions on this level of analysis, driven by contingency theory, build on insights and concepts of strategy, such as choices and choice structures (Siggelkow, 2002a; Simon, 1962), fit between choices (Chandler, 1962), their interaction and complementarities. The components of choices and fit driving the business model definitions have their roots in Wright's (1931) notion of a fitness landscape, the further elaborated NK model introduced by Kauffman (1993) and other related fitness landscapes discussed by Gavetti (2000), Levinthal (1997), and Rivkin (2000), which in turn underpin the dynamics of the business model concept that occur through the interaction between choices, consequences, and new choices (Casadesus-Masanell & Ricart, 2010; Govindarajan & Trimble, 2011). The business model concept permits exploration of the nuances of choice structures (Siggelkow, 2002a, 2002b) and helps move the strategy field beyond rhetorical appeals regarding the relative importance of linkages, choices, and fitness. Moreover, on this strategic level, definitions imply the nature of competition through business models as an important aspect and emphasize the overall direction in the firm's market positioning, interactions across organizational boundaries, and growth opportunities whereby competitive advantage and sustainability are of main concern.

2.2.2 Organizational level of analysis

On the organizational level of analysis definitions build on organization theory in terms of organizing and configuration by adopting the resource-based view for business model conceptualization (Priem & Butler, 2001) and Penrose's (1959) view of the firm as bundle of resources and capabilities, rather than contracts or transactions. Some scholars apply the resource-based view to explain the business model concept through resource acquisition and allocation (Garnsey, Lorenzoni, & Ferriani, 2008) predicated on the assumption that firms acquire and deploy resources in parallel to the implementation of new business models (Hamel, 1998). In light of the resource-based view the business model is interpreted as a bundle of activities, a "complex set of interdependent routines that are discovered, adjusted, and fine-tuned by ‘doing’” (Winter & Szulanski, 2001: 731). McEvily, Das, and McCabe (2000) advance this concept and suggest that the transactive element of market need is connected by some variants to the key business activities and consequently, business model elements are discovered experientially and evolve without managerial agency.

In its broadest sense the business model is defined as a system that is made up of components, linkages between the components, and dynamics (Afuah & Tucci, 2001; Afuah, 2004). On this level of analysis, scholars make conceptions of the business model operational by defining the business model as a way activities and resources are organized and employed to ensure sustainability and growth (Demil & Lecocq, 2010), configuration of interrelated capabilities, governing the content, process and management of the interaction and exchange in dyadic value co-creation (Storbacka & Nenonen, 2009), and as an architecture for the product, service and information flows, including a description of the various business actors and their roles (Timmers, 1998). Other scholars define the business model as a system of interdependent activities that transcendents the focal firm and spans its boundaries (Zott & Amit, 2010), as depicting the content, structure, and governance of transactions designed as to create value through the exploitation of business opportunities (Amit & Zott, 2001), and as a set of activities, their organizing, and strategic resources to transform business opportunities into a distinct value proposition (Svejenova et al., 2010).

Another stream of research conceptualizes the business model along the value chain concept (Porter, 1985) whereby the business model is defined as a configuration of activities and the organizational units that perform those activities both within and outside the firm designed to create value in the production and delivery of a specific product/market set (Santos et al., 2009), or as integrating firm-internal aspects that transform factors to resources, through activities, in a structure, to products and offerings, to market (Hedman & Kalling, 2003). The review of past research implies that on the organizational level of analysis scholars, implicitly or explicitly, support the notions of activities and their configuration in their definitions of the business model concept.

On this level of analysis the business model is rooted in the configurative approach and acts as a structural construct that captures the firm's architecture of transactions and activities with external parties within the firm's value network (Zott & Amit, 2008). The definitions further operationalize the business model as a dynamic concept driven by the interaction of the activities and resources in the transformation of business opportunities on the organizational dimension and passion and interest on the individual dimension (Svejenova et al., 2010) into value creation. Definitions involve the integration and coordination of the various activities needed to design, manufacturer, deliver, and support the product or service offering of each business within the corporate portfolio (Porter, 1980; Hambrick, MacMillan, & Day, 1982).

2.2.3 Operational level of analysis

On the operational level of analysis, definitions are driven by ontology and scholars focus on the analysis of individual elements that constitute a business model. In a prescriptive way, they present the business model as a static concept in terms of a rigorous framework identifying elements as building blocks of the business model. Ontology helps identifying and understanding the relevant elements in a specific domain and the relationships between them (Morecroft, 1994; Ushold & King, 1995), and the formalized business model allows the firm to communicate and share its understanding among other stakeholders (Fensel, 2001). While the elements act as building blocks, the various conceptualizations offer guidance on the creation of new business models and allow the comparison of existing ones (Lehmann-Ortega & Schoettl, 2005).

Researchers define the elements a priori based on the phenomenon at hand. Elements are not consistent and vary widely. While some researchers define the elements very broadly (Hamel, 2000; Johnson et al., 2008; Mahadevan, 2000; Morris et al., 2005; Lehman-Ortega & Schoettl, 2005; Teece, 2010), others enumerate them in more detail (Morris et al, 2005; Yip, 2004), or adopt a rigorous modeling approach (Osterwalder & Pigneur, 2002). For example, Johnson et al. (2008) define the business model as consisting of a customer value proposition, a profit formula, key resources, and key processes, whereby the four elements are interrelated. Following a similar approach, Hamel (2000) conceptualizes the business model as a spectrum of modules, including customer interface, core strategy, strategic resources and a value network, while Venkatraman and Henderson (1998) define it as a coordinated plan to design strategy along customer interaction, asset configuration and knowledge leverage components. Other scholars applying the normative perspective define the business model as an integrative framework for strategy formulation and execution, organized around the idea of creating superior value and capture a greater amount of that value than competitors (Perkman & Spicer, 2010; Richardson, 2008).

Groups of conceptualizations show consistency across the strategic, organizational, and operational level of analysis respectively. Some researchers view the business model through strategy and competition lenses and relate their conceptualizations to competitive strategy, positioning, and the nature of competition with different business models (Shafer et al., 2005; Casadesus-Masanell & Ricart, 2010), other scholars place their focus on resources and activities configurations (Svejenova et al., 2010; Zott & Amit, 2010), while yet another group of researchers relates to the origins of entrepreneurial activity and opportunity recognition and exploitation, and thus place the focus on the ontological dimension and guidelines on what elements constitute the business model concept (Morris et al., 2005, 2006; Osterwalder et al., 2005). Based on our findings we identify three perspectives on the business model concept prevailing in research, which we will discuss in the following section.

2.3 Revisiting: Three Perspectives on Business Model Conceptualization

The multi-level review on extant research on business models reveals that scholars implicitly apply different perspectives on the business model concept. We synthesize the various conceptualizations and definitions from past research by applying different theoretical lenses, notions of strategy, ontology, resource- and activity-based views, and opportunity exploitation. We identify three prevailing perspectives scholars apply to define the business model concept: the strategic perspective, the organizational perspective, and the normative perspective. The perspectives have their sources in the strategic, organizational, and operational level of analysis on which scholars study the concept, are influenced by different theories and concepts, place emphasis on different outcomes in terms of value creation, appropriation, and capture, and imply different levels of activeness. The name assigned to each perspective represents its primary focus. The three perspectives are not independent, however, for present purposes they will be treated according to their independent descriptions identified from extant research. Table 2.3 presents a summary of the three perspectives.

Table 2.3: Business models: Past conceptualizations

Attributes of comparison	Strategic Perspective	Organizational Perspective	Normative Perspective
Conceptualization	Business model as a set of choices, reflection of strategy	Business model as an activity system	Business model as model
Summary of perspective	System of interaction between choices and the consequences derived from the choices; determined by fit among choices.	System of activities, resources, and their organizing; determinded by fit among linkages between activities.	Guidance on what elements and sub-elements a business model should consist of; framework of building blocks.
Representative definitions	Business model as a representation of a firm's underlying logic and strategic choices for creating and capturing value within the value network (Shafer et al. 2005; Casadesus-Masanell & Ricart 2010; Smith et al. 2010)	Business model as a system of interdependent activities that transcedents the focal firm and spans its boundaries (Zott & Amit 2010); a set of activities, resources, and organizing that transforms external opportunities into a distinctive value proposition and allows the firm to capture part of the value created (Svejenova et al. 2010); a system that is made up of components, linkages between the components, and dynamics (Afuah & Tucci 2001)	Business model as a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture and economics are addressed to create sustainable competitive advantage (Morris et al. 2005); elements of the design and architecture of the value creation, delivery and capture mechanisms (Teece 2010)
Representative studies	Seddon et al. (2004); Shafer et al. (2005); Casadesus-Masanell & Ricart (2010); Sabatier et al. (2010); Smith et al. (2010); Casadesus-Masanell & Zhu (2013)	Timmers (1998); Appelgate (2000); Mahadevan (2000); Afuah & Tucci (2001); Amit & Zott (2001); Chesbrough & Rosenbloom (2002); Hedman and Kalling (2003); Mitchell & Coles (2003); Ammar (2006); Santos et al. (2009); Chesbrough (2010); Demil & Lecocq (2010); Svejenova et al. (2010); Zott & Amit (2010)	Venkatraman & Henderson (1998); Hamel (2000); Magretta (2002); Delmar & Shane (2003); Yip (2004); Lehmann-Ortega & Schoettl (2005); Morris et al. (2005); Johnson et al. (2008); Richardson (2008); Doganova & Eyquem-Renault (2009); Baden-Fuller & Morgan (2010); Baden-Fuller et al. (2010); McGrath (2010); Teece (2010)
Key components	Choices, consequences, feedback cycles	Activities, resources, relationships	Various elements as building blocks
Activeness	Dynamic	Dynamic	Static
Antecedent	Strategic (macro) level of analysis	Organizational (micro) level of analysis	Operational level
Theoretical lenses	Strategy, choices and fit, contingency theory, fitness landscapes	Resource-based view, configuration theory, organizational theory, value chain	Opportunity exploitation / exploration, bureaucracy as theory of the firm
World view	Agentic world	Agentic world	Determined world
Idiosyncracies	Interpretive	Interpretive	Prescriptive
Value creation	Alignment to goal, reinforcement, virtuousness, robustness (internal fit among the choices and the external fit with the environment)	Novelty, complementarities, lock-in, efficiency (configurations of activities, resources, and linkages that determine different business model architecture design themes)	Consistency between elements - the building blocks (value chain, activity systems, and value networks aspects as structural sub-elements of value creation mechanism)
Value appropriation	Barriers to threats to the isolating mechanisms	Complex architecture as isolating mechanism	Revenue model and profit formula
Focus of value	Value appropriation	Value creation	Value capture (revenue generation)

2.3.1 Strategic perspective: Business models as set of choices

The strategic perspective on business models views the business model as a set of choices and takes thereby a contingency approach to describe the relationship between firm's strategic choices and the environment. Here, the business model is viewed as a system of interdependent choices representing the business model as an abstraction of strategy (Ammar, 2006), a reflection of the realized strategy (Baden-Fuller & Morgan, 2010; Casadesus-Masanell & Ricart, 2010; Smith et al., 2010). Viewed from this perspective, the firm converts a given set of choices about markets, customers, value proposition into value through the business model, and uses a particular organizational structure of people, competencies, processes, culture and measurement systems in order to create and capture this value (Smith et al., 2010). Choices the firm makes define the architecture of the business model, and expansion paths develop from there on out (Lecocq, Damil, & Warnier, 2006). The choices and the arising consequences are mutually supportive and internally consistent (Shafer et al., 2005), whereby the internal fit between choices as well as the external fit between choices and the firm's environment are of crucial importance (Siggelkow, 2001).

Explicit choices, which characterize the firm, are made both intentionally and by default (Morris et al., 2005; Porter, 1996). They yield consequences and cause voluntary actions by the firm, however, such choices may also have unexpected emerging consequences (Demil & Lecocq, 2010). The strategic perspective is characterized by trade-offs in making choices, just as strategy is determined by trade-offs in competing (Porter, 1996). Without trade-offs, there would be no need for any choice and hence no need for strategy and the business model. Fit among choices, a fundamental idea in strategy and a central component of competitive advantage, plays an essential role in the concept of business models viewed from this perspective because discrete choices often affect one another and fit amplifies trade-offs (Porter, 1996; Prasad, 2010; Siggelkow, 2002a).

Choices can be partitioned into autonomous, influential and contingent choices. Autonomous choices are disconnected from others, and if wrong, cannot be compensated for by contingent choices. They can be made independently of an overarching choice in the business model and therefore have the quality of operational policies, or also referred to as tactical choices (Casadesus-Masanell & Ricart, 2010; Porter, 1996). Contingent choices are more influenced than influential and they can be either advantage-seeking or disadvantage-mitigating. Influential choices are interrelated with other choices and are more influential than influenced. However, less contingent choices are also less influential (Ghemawat & Levinthal, 2008). It is important for a firm to parse out the separate effects of influential, contingent, and autonomous choices in the business model design in order to distinguish the strategic choices, and understand the implications for the business model of such choices being specified correctly or incorrectly (Casadesus-Masanell & Ricart, 2010; Ghemawat & Levinthal, 2008; Siggelkow, 2002a, 2002b).

Some choices condition other choices. Such interactions among choices can be either cross-sectional – tightly linked, complementary choices across a firm's full array of operational possibilities (Porter, 1996) – or longitudinal – characterized by firms' resource stocks, strategic commitments or capability development trajectories (Ghemawat, 1991; Teece & Pisano, 1994; Wernerfelt, 1984) with emphasis on temporal interactions among choices (Ghemawat & Levinthal, 2008). Distinguishing between cross-sectional and longitudinal interactions among choices is important to understand the arising consequences in the business model. Strategic positions of firms are determined by the choices made in the business model and are followed by local search over tactical choices

(Casadesus-Masanell & Zhu, 2013; Ghemawat & Levinthal, 2008). Tactical interaction refers to firms affecting each other by competing within the horizontal and vertical boundaries (Barney, 1999; Santos & Eisenhardt, 2005) set by their business models (Casadesus-Masanell & Ricart, 2010; Casadesus-Masanell & Zhu, 2013).

Viewed from the strategic perspective, the business model is intrinsically dynamic due to the interplay between choices and consequences, which occur over time. The arising consequences of the choices a firm makes lead to new choices thereby creating virtuous or vicious cycles. Virtuous cycles are feedback loops that, with every iteration, strengthen the value of the components of the model, further develop valuable resources, and lead to higher value creation for target users, while vicious cycles have the contrary effect and weaken the value creation and capture ability of the business model by reducing the value its components (Casadesus-Masanell & Ricart, 2010; Demil & Lecocq, 2010; Govindarajan & Trimble, 2011; Lecocq et al., 2006; Shafer et al., 2005).

2.3.2 Organizational perspective: Business models as activity-systems

The organizational perspective views the business model as an activity system and takes thereby a configurative approach to describe the internal relationship among activities and resources in a business model. Scholars following this perspective conceptualize the business model as a system of interdependent activities with a strong focus on value creation. Here, every business model implies a different set of activities and resources, as well as their organizing, the linkages between the activities, resources and the value network to perform them through cooperation with partners, suppliers or customers (Santos et al., 2009; Svejenova et al., 2010; Zott & Amit, 2010). Activity systems as the essence of the business model are embedded in the concepts of strategy (Porter, 1996) and competitive advantage (Siggelkow, 2001, 2002a,b), but also organizational design, where the role of managerial agency in determining organizational structures resonates with the configuration of firm products, activities, and markets (Hunt, 1970). They refer to any number of practices that allow the business model to better utilize its inputs and achieve excellence in individual activities, resources and the overall business model architecture (Hedman & Kalling, 2003; Santos et al., 2009; Zott & Amit, 2010). Here, the business model includes activities performed outside the focal firm's boundaries by partners, customers, suppliers, and other stakeholders, which allow the firm to have access to external strategic resources and capabilities through the business model design. In some instances entire key activities are shifted outside the firm, but they remain a central part of the focal firm's business model (Chesbrough, 2003, 2007a, b; Santos et al., 2009; Zott & Amit, 2010).

While Milgrom and Roberts (1990, 1995) emphasize the complementarity among activities, Porter and Siggelkow (2008) note that interdependency among activities also takes the form of substitutability of activities when the presence of one activity decreases the marginal benefit of another one, which implies the contextual nature of interaction (Blackler, 1993). Interdependencies and configuration of activities are central to the concept of an activity system and go beyond coordination and cooperation (Stieglitz & Heine, 2007). They enable the evolution of a focal firm's activity system over time as its competitive environment changes (Siggelkow, 2001, 2002). When the competitive landscape changes, firms adjust their activity systems and reconfigure the sets of activities within the business model (Siggelkow & Levinthal, 2003).

Activities condition other activities and the architecture can be of cross-sectional nature – tightly linked and complementary – (Porter, 1996; Siggelkow, 2001) or longitudinal nature – path dependent – (Ghemawat, 1991; Teece &

Pisano, 1994; Wernerfelt, 1984). Internal fit among activities ensures that the business model has a coherent organizing of activities, while external fit refers to the appropriateness of the configuration of activities given the environmental conditions affecting the business model. Fit among the activities in the business model is of crucial importance to the firm since environmental changes can affect the external and/or the internal fit (Siggelkow, 2001), which in turn will affect the business model architecture and the resources employed. Positions built on activity systems are far more sustainable than those built on individual activities. Business models, by their very nature, are difficult to untangle from outside the firm and therefore hard to imitate.

Fit among business model components means that poor performance in one component will degrade the performance in others, so that weaknesses are exposed and more prone to get attention. Conversely, improvements in one component of the activity system will pay dividends in others (Ghemawat & Levinthal, 2008; Porter, 1996). Higher value creation and appropriation grows out of the entire system of activities (Zott & Amit, 2010). The competitive value of individual activities, resources and/or their organizing cannot be decoupled from the business model, which emphasizes the importance of the system-level design of business models, as opposed to partial optimization of a particular activity (Porter, 1996; Santos et al., 2009; Zott & Amit, 2010).

2.3.3 Normative perspective: Business models as models

The normative perspective takes a conceptual and taxonomical approach. Researchers applying this perspective represent business models through textual, verbal, and graphical representations (Amit & Zott, 2002; Baden-Fuller & Morgan, 2010; Weill & Vitale, 2001), provide a business model ontology, which appears to be a formalization of a list of elements the business model should consist of, as well as the underlying relationships, vocabulary, and semantics of a business model (Osterwalder, 2004). Such ontological formalization and conceptualization is structured into multiple levels of decomposition with increasing depth and complexity (Johnson et al. 2008; Morris et al., 2005; Teece, 2010). The normative perspective implies bounds on what building blocks constitute a complete business model and considers a priori business model elements and categories. It offers guidance on the creation of new business models and allows the comparison of different business models along the conceptual framework consisting of specified individual elements. It provides a static view of the business model and does not consider interaction and dynamics between the individual elements. The business model acts as a conceptual framework, serves prescriptive functions, and provides useful standards to evaluate the form, completeness, and tightness of specific elements of the business model.

Rooted in the theory of the firm as bureaucracy (Weber, 1969) and driven by scholars who emphasize the model aspect in the business model (Osterwalder & Pigneur, 2002) the conceptualizations refer to the way a firm conducts business. They intend to reduce the complexity to an understandable level proposing meta-models that consist of elements and relationships that reflect the complex entities that they aim to describe. Here, the main role of the business model is to find and design a promising business concept (Delmar & Shane, 2003; Johnson et al., 2008; Morris et al., 2006; Osterwalder et al., 2005) based on "the job that needs to be done" in a particular market (Eyring, Johanson, & Nair, 2011). Having a business model conceptualization at hand that describes the essential building blocks and their relationships makes it easier for the firm to design and operationalize a business model. Equally, when a firm decides to adopt a new business model or change an existing one, capturing and visualizing this model improves planning, change and implementation (Petrovic, Kittl, & Teksten, 2001). The business model design determines the identity of market segments to be targeted, the benefit the firm will deliver to the customer, the technologies and features that are to be embedded in the product and service, how the revenue and cost structure of a business is to be designed to meet customer needs, the way in which technologies are to be assembled and offered to the customer, and the mechanisms and manner by which value is to be captured, and competitive advantage sustained (Gambardella & McGahan, 2010; Teece, 2010).

In the next section we advance our conceptual framework and elaborate on how the three perspectives on business models interpret and incorporate value creation, appropriation and capture, as well as value slippage, as mechanisms of the business model concept.

2.4 The Notion of Value Creation and Value Capture

2.4.1 Strategic perspective

Value creation. Viewed from the strategic perspective, value creation is driven by the internal fit among the choices and the external fit with the environment (Siggelkow, 2001, Ghemawat & Levinthal, 2008) and emerges from four distinct value drivers: alignment to goal (choices delivering consequences that move the firm towards achieving its goals and objectives), reinforcement (choices complementing each other and creating internal consistency), virtuousness (presence of positive feedback loops that strengthen business model elements), and robustness (ability of the business model to sustain effectiveness over time). Virtuousness refers to a dynamic version of reinforcement and internal consistency since business models creating virtuous cycles that lead to better fulfillment of objectives imply growth, which occurs when rigid consequences directly related to goals become stronger with every iteration. Virtuous cycles help the firm to create increased value over time (Casadesus-Masanell & Ricart, 2010). Vicious cycles, on the hand, have the opposite effect and diminish value created.

Value appropriation. Value appropriation, on the other hand, is determined and increased by identifying threats to the isolating mechanisms that prevent value slippage through competitors' replication of the focal firm's business model and hence increase the potential of value appropriation. One of the main threats to the business model that reduces value appropriation ability of the firm is imitation (Ghemawat, 1991). The barrier to imitation is strong when rigid consequences are part of virtuous cycles that spin quickly. Reinforcement is another barrier to imitation since a competitor intending to replicate the business model must copy many choices simultaneously for them to have a comparable effect to that observed in the focal firm (Casadesus-Masanell & Ricart, 2010). The pure complexity of a business model serves as a barrier and increases the firm's value appropriation potential. Causal ambiguity may lead imitators to wrong choices and deficient imitation.

Another threat reducing value appropriation potential of the firm is holdup. Holdup refers to members of the firm's value network capturing value created by the focal firm through the exercise of bargaining power. Organizational complacency is a threat to robustness, which a firm can protect itself against by the right mix of business model choices addressing incentives. With wrong incentives value created by the firm can slip away to the employees who receive a greater share than deserved. Substitution refers to decreased value perceived by customers because of the presence of other products, which leads to lower value appropriation and lower value capture (Ghemawat, 1991; Casadesus-Masanell & Ricart, 2010).

2.4.2 Organizational perspective

Value creation. Business models as activity systems create value through configurations of activities, resources, and linkages. Value is created through activities that affect the value of resources, leading to their appreciation or depreciation (Jacobides et al., 2006); by leveraging resources and activities in the business model and investing in external strategic resources (Jacobides et al., 2006; Sirmon et al., 2007); and by opening up the business model to external innovation activities (Chesbrough, 2007b; Chesbrough & Rosenbloom, 2002). Activities and resources as the elements of the business model are organized in ways to complement one another and create real economic value. Fit among the elements is crucial source of value creation (Siggelkow, 2001, 2002a). The transformation of opportunities into a distinctive value proposition for the customer, stakeholders, and the value network is determined by the internal and external fit of the resources and activities and their organization in the business model.

Zott and Amit (2010) introduce such fit among activities and resources as business model design themes, which orchestrate and connect the selection of activities, structure and governance in form of novelty (adoption of new activities, new ways of linking activities, or new ways of governing activities), complementarities (bundling of activities within the business model creates more value than independent activities), efficiency (reduction of transaction costs), or lock-in (switching costs, network externalities that derive from the business model architecture) with the objective to increase value creation for the focal firm and the firm's stakeholders within the value network. The four value creation drivers are mutually reinforcing; that is, the presence of each value driver can enhance the effectiveness of any other value source (Amit & Zott, 2001). The business model does not involve a linear mechanism for value creation from suppliers to the firm to its customers; rather it is determined by a complex, interlinked and interdependent set of exchange relationships and activities among multiple stakeholders (Zott et al., 2011).

Value appropriation. Value appropriation also depends on the firm's unique strategic resources, capabilities, activities and their organizing (Chesbrough & Rosenbloom, 2002; Svejenova et al., 2010). The four defined drivers of value creation implicitly act as enablers of higher value appropriation. The better the fit among the activity system elements, the stronger is the value creation ability of the firm, and the stronger is the ability of the focal firm to appropriate more value. Value appropriation depends on factors such as switching costs of other business model stakeholders, the firm's ability to control information, the ability of other stakeholders to take unified action vis-à-vis the focal firm, and the replacement costs of other stakeholders (Zott & Amit, 2007). In the context of innovation, value appropriation is about protecting and leveraging that innovation (Jacobides et al., 2006), while in the open innovation context, value appropriation is about opening the business model by actively searching for and exploiting external ideas and by allowing unused internal technologies to flow to the market and create new revenue streams which contribute to value appropriation (Almirall & Casadesus-Masanell, 2010; Chesbrough, 2007a).

Internal and external fit (Siggelkow, 2001) among activities increases value appropriation and reduces the risk of value slippage, where part of the value created is captured by third parties (Lepak et al., 2007). Value is destroyed if an activity is overdesigned or underdesigned for its use (Porter, 1996). A business model with many interacting activities and resources and strong linkages is difficult to understand and replicate, imitate or substitute (Ghemawat, 1991), which increases the focal firm's ability to appropriate more of the value. Changing the scope of the activity system not only affects the extent to which it can capture the value created; but also the extent to which it can be innovative in the future (Itami & Nishino, 2010; Jacobides et al., 2006).

2.4.3 Normative perspective

Value creation. Viewed from the normative perspective, value creation is a key component of the business model design. It describes how the firm's theory on how to compete is put into action by focusing on the organization and architecture of the firm that creates and delivers the value proposition (Richardson, 2008). The value creation process is concerned with the question what problem needs to be solved or what need should be fulfilled for the target customers. The offerings satisfy the problem or fulfill the need, but the firm must further define how the offerings are being sold and to who (Johnson et al., 2008). The sub-elements offer guidance as on what building blocks contribute to the value creation processes and what aspects should the firm consider when designing a business model (Johnson et al., 2008; Nunes & Breene, 2011; Teece, 2010). Consistency, reinforcement and comprehension of the business model elements are the main value drivers viewed from the normative perspective. Inconsistency can manifest itself both in terms of poor fit among decision areas within a given component as well as the fit between components.

Value appropriation. With respect to value appropriation, the business model articulates a viable structure of revenues and costs for the firm delivering value. The frameworks on business models put forward by the normative perspective emphasize the importance of an aligned profit formula consisting of a revenue model, a cost and margin structure (Johnson et al., 2008; Morris et al., 2005; Richardson, 2008), and a commercialization strategy (Teece, 2010) which implicitly implies value capture, revenue generation, as the main focus of the business model. Thus, viewed from the normative perspective, the core element of the firm's business model is its economic model (Linder & Cantrell, 2000). The economic model provides a consistent logic for earning profits. Value capture in normative frameworks focuses on economic sub-components that provide coherent logic for earning revenue and profits, such as: operating leverage or the extent to which the cost structure is dominated by fixed versus variable costs; the firm's emphasis on higher or lower volumes in terms of both the market opportunity and internal capacity; the firm's ability to achieve relatively higher or lower margins; and the firm's revenue model, including the flexibility of revenue sources and prices (Morris et al., 2005; Osterwalder & Pigneur, 2002; Richardson, 2008).

An element of the business model that plays a crucial role in the process of value appropriation is the revenue model. While the business model allows the firm to transform business opportunities into value creation, the revenue model represents the firm's strategic intent and determines how much of the total value the firm can capture (Itami & Nishino, 2009). A revenue model refers to the specific modes in which a business model enables revenue generation. In the normative perspective, the business model design is concentrated on the value capture method of the firm (Magretta, 2002; Teece, 2010).

2.5 Discussion

We have presented the business model as a crucial concept in management literature. The purpose of this paper was to distinguish different foundations and roots of business model conceptualizations prevailing in current research and identify commonalities among researchers' views, analyses and perspectives with the objective to contribute to greater clarity on the concept and extant research on business models. The review of received literature allows us to understand the existent ambiguity and diversity of the business model concept, the sources of differences but also commonalities and shared perspectives in business model conceptualizations that act as a catalyst toward more convergence in the research of business models. Our review of extant literature summarized in Tables 2.2a-e shows that research on business models has developed in isolated fashion within silos, according to the phenomena of interest of the researchers and their respective viewpoints, in different contexts, and on different levels of analysis.

This lack of definitional and conceptual consistency promotes dispersion rather than convergence thereby impeding cumulative research progress on business models (Zott et al., 2010). However, the research summarized in Tables 2.2a-e also indicates an implicit consensus of the business model as a new unit of analysis that spans traditional levels of analysis; of the meaning, role, and outcome of the business model as the core logic of how the firm operates indicating a holistic approach toward explaining how firms conduct business, how value is created for the firms' stakeholders, and how firms appropriate and capture part of the value created; of how choices, activities and resources, their organizing, and business model elements play a crucial role in the definitions of the business model. Further, we identify sources of commonalities and consistency in definitions and conceptualizations, indicating a move toward convergence in business model research.

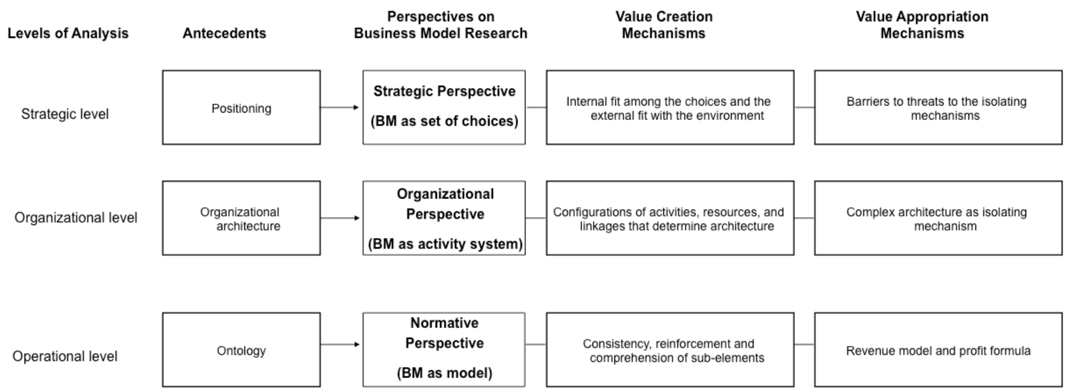
Based on the literature synthesis, we develop a theoretical model of the different levels of business model conceptualizations. Together the three perspectives offer a comprehensive view of the business model and allow space for interpretation of the concept by different schools of thought. The perspectives are not independent and exclusive, but rather they complement each other. In all three perspectives, the business model acts as a design of organizational structures to enact a business opportunity and transform it into a distinct value proposition (George & Bock, 2011; Svejenova et al., 2010; Teece, 2010), thereby transcend the firm and span its boundaries (Zott & Amit, 2010). There is an implicit consensus among the three perspectives of the meaning and role of the business model as the core logic of how the firm operates, how it creates value for its stakeholders, and how it allows the firm to appropriate and capture part of the value created (Amit & Zott, 2001; Anderson & Markides, 2007; Chesbrough, 2010; Johnson, Christensen, & Kagermann, 2008; Mitchell & Coles, 2003, 2004; Svejenova et al., 2010; Teece, 2010; Zott & Amit, 2010). The differences exist in the various conceptual approaches, theoretical roots, antecedents and the level of analysis scholars apply.

From the review of received literature we have identified three perspectives on business models prevailing in current research as presented in Table 2.3: the strategic perspective, which views the business model as a set of choices, the organizational perspective, which views the business model as an activity system, and the normative perspective, which views the business model as a model of the firm. Together they offer a comprehensive view of the business model and allow space for interpretation of the concept by different schools of thought. The perspectives are not independent and exclusive, but rather they complement each other. In all three perspectives, the business model acts as a design of organizational structures to enact a business opportunity and transform it into a distinct value proposition (George & Bock, 2011; Svejenova et al., 2010; Teece, 2010), thereby transcend the firm and span its boundaries (Zott & Amit, 2010). Table 2.3 further illustrates that there is an implicit consensus among the three perspectives of the meaning and role of the business model as the core logic of how the firm operates, how it creates value for its stakeholders, and how it allows the firm to appropriate and capture part of the value created.

The differences exist in the various conceptual approaches, theoretical roots, antecedents and the level of analysis scholars apply. Figure 2.1 below summarizes the relations and presents the conceptual model on the three perspectives on business model research. Derived from the strategic level of analysis in past research, the strategic perspective views the business model as the reflection of strategy, makes fit among choices (Casadesus-Masanell & Ricart, 2010; Ghemawat & Levinthal, 2008) the core driver, and emphasizes value appropriation in the conceptualizations. It is rooted in the research stream on competitive strategy examining positioning of firms in product markets and has the nature of competition through different business models at its core. The organizational perspective, derived from the organizational level of analysis, enriches the pure strategy focus with organization design aspects and views the activities and resources configurations in the business model as the architectural backbone of the firm (Shafer et al., 2005) with fit among activities as a crucial aspect of value creation (Siggelkow, 2001). The strategic and organizational perspectives both imply dynamics in the business model concept and are closely related since the choices a firm makes influence the firm's architecture, activities and resources configuration.

While viewed from the strategic perspective the dynamics in the business model occur through the feedback loops between choices and their consequences, thereby creating virtuous or vicious cycles, the organizational perspective conceptualizes the dynamics in the business model as the continuous interdependence and interaction between the activities and resources. These cycles and interactions, when aligned with the firm's goals, reinforce value creation and appropriation and thus the competitive advantage (Casadesus-Masanell & Ricart, 2011). Identified from the operational level of analysis, the normative perspective, in turn, conceptualizes the business model as a static concept and places the focus on the application of the business model. Researchers applying this perspective represent business models through textual, verbal, and graphical representations (Amit & Zott, 2002; Weill & Vitale, 2001), provide a business model ontology, which appears to be a formalization of a list of elements the business model should consist of, as well as the underlying relationships, vocabulary, and semantics of a business model (Osterwalder, 2004). Such ontological formalization and conceptualization is structured into multiple levels of decomposition with increasing depth and complexity, whereby value capture is the main focus (Johnson et al. 2008; Morris et al., 2005; Teece, 2010).

Figure 2.1: Three perspectives on business model conceptualization



Source: Own creation

The identified perspectives capture a broad range of theoretical assumptions regarding antecedents, drivers, and mechanisms of value creation and appropriation, and increase the precision with which scholars can explore the nature, mechanisms, and outcomes of value creation, appropriation and capture of business models. The choices a firm makes are directed at value creation, hence, the strategic perspective emphasizes fit among the choices as the main value driver, while value appropriation of the firm is increased by creating barriers against the threats to isolating mechanisms (Ghemawat, 1991; Casadesus-Masanell & Ricart, 2010). The organizational perspective suggests design themes (Amit & Zott, 2001), as determined by the interaction and fit among activities, as the source of value creation (Santos et al., 2009; Svejenova et al., 2010; Zott & Amit, 2010), while value appropriation is driven by a firm's unique strategic resources, capabilities, activities and their organizing, and position in which it enjoys a competitive advantage (Zott & Amit, 2010). The normative perspective stresses the consistency and reinforcement of the business model ontology and the components as building blocks as the main sources of value creation since inconsistency leads to suboptimal business model design and diminishing value creation ability by the firm (Morris et al., 2005 Osterwalder et al., 2005). The revenue model is explicitly put forward as crucial element of the business model to capture value, consisting of the profit model, cost and margin structure, as well as velocity of resources (Johnson et al., 2008).

Despite the plethora of its meanings, business model theory-building and empirical research appears to develop from established management topics such as strategic choice, resource accumulation, activity systems, and strategic planning (George & Bock, 2011). It is the interplay between different points of view and levels of analysis that allows for a more comprehensive understanding of business models because any one definition invariably offers only a partial account of a complex concept. The juxtaposition of different theoretical perspectives brings into focus contrasting and complementary views of the business model construct.

Based on this research, we propose differentiating between two cognitive views that characterize business model conceptualizations: agentic view and determined view. The agentic view refers to the business model as a complement to strategy and defines it as a system of activities determined by strategic choices and their fit, thereby implying its dynamics and ability to change and evolve over time. The determined view, by contrast, is prescriptive and sees the business model concept as a static model of the firm, defines it by its ontology of a priori defined elements, and considers it as restricting strategy. Here, only the business model as a model is allowed to exist next to the concept of strategy. The two views are operationalized with different theories of the firm, definitions and assumptions, types of shared stories, symbols and forms of engagement of the business model with its stakeholders. Yet, our argument is that both views are necessary to advance research in business models.

Working out the relationships between such seemingly divergent views and definitions provides opportunities to develop new theory that has stronger and broader explanatory power of the business model concept. Given the vibrancy and breadth of interest in business model research in management science, the paper's main contribution is to provide coherence to the growing field of research on business models and makes this essay particularly timely. Proposing the business model as a unit of analysis and a potential source of competitive advantage, I seek to create interest in future research on business models.

2.6 Avenues for Future Research

The business model is a multifaceted phenomenon that cuts across many disciplinary boundaries as we have learnt from extant literature. Empirical researchers argue that the inability to agree upon common definitions hampers the research progress (Gartner, 1985a; Vesper, 1983). The phenomenon of the business model is intertwined with a complex set of contiguous and overlapping constructs in management science, such as strategy, revenue model, strategic planning, innovation, and many others. Table 2.4 below presents distinct concepts on business models and illustrates what is not a business model.

As a next consequent step, future research should focus on the analysis of discriminant validity of the business model concept and demonstrate that the concept is sufficiently different from other related concepts of value creation and appropriation used in management research. The objective should be to determine the business model boundaries, as opposed to firm boundaries (Santos & Eisenhardt, 2005), and develop a convergent construct that will reduce confusion and help reconcile conflicting empirical results in business model research. Because of the range of approaches available for the study of business models, some common ground is needed upon which to synthesize the insights of diverse approaches of inquiry.

First, there is a need for an overall, common purpose that will forge some unity among research on business models. Past research either lacks clarity of purpose or the specified purpose is of little consequence. It is confined largely to reporting the occurrence of business models with little attempt to uncover causal relationships. The failure to clearly specify the purpose of the research combined with the lack of common ground for synthesizing research findings and proposing generalizations does hinder the progress in business model research. The field will advance if a more specific purpose of research is explicitly linked to a more fundamental, overall purpose such as explaining and facilitating the role of the business model in creating and appropriating value. This fundamental purpose is wide in scope yet delineates boundaries of inquiry within which multi-disciplinary research may be built.

Table 2.4: What is not a business model

Concept different from a business model	Study	Domain
Balanced scorecard	Kaplan & Norton (1992)	Strategy
Marketing model or strategy	Timmers (1998)	Internet / IS
Strategy maps	Kaplan & Norton (2000)	Strategy
Network structure	Tapscott et al. (2000)	Internet / IS
Revenue model / Cost structure	Amit & Zott (2001); Dubosson-Torbay et al. (2002)	Internet / IS
Pricing model / pricing strategy	Rappa (2001)	Internet / IS
Technology	Chesbrough & Rosenbloom (2002)	Technology
Business processes	Osterwalder & Pigneur (2002); Shafer et al. (2005)	Internet / IS; Strategy
Network innovation / Open innovation	Chesbrough (2003); Miles et al. (2006)	Technology
Market adoption strategy	Ojala & Tyrväinene (2006)	Strategy
Management teams	Patzelt et al. (2008)	Technology
Corporate strategy	Richardson (2008)	Strategy
Product market strategy / Business strategy	Richardson (2008); Zott & Amit (2008)	Strategy
Policy	Johnson & Suskewicz (2009)	Technology
Incentive system / mechanisms / policies	Casadesus-Masanell & Ricart (2010)	Strategy
Senior leadership team processes and structures	Smith et al. (2010)	Strategy
Value Proposition	Dubosson-Torbay et al. (2002)	Internet / IS

Source: Own creation

Further, future research on business models will benefit from the specification of theoretical fundaments. Scholars recognize that the business model is an integrative concept with various theoretical underpinnings that unifies aspects of value creation and appropriation from different fields and theories rather than considering the business model concept as an isolated theory of value creation and appropriation. However, the theoretical development in business model research is still weak. How do business models exist? Do they exist in the particular or in the general? Future research should consider additional theoretical perspectives, avoid unstated assumptions and instead carefully examine and clearly state theoretical assumptions, propositions and hypotheses, which can then be tested and elaborated on with the objective to advance theory development in the research field. In the same line of thought, future research should focus more on systematic studies and research designs that develop a priori hypotheses, subject to formal testing, and work toward a coherent development of theory. Future methodologies should be less descriptive and instead more explanatory, theory driven, and consisting of multiple methods.

2.7 Conclusion

This paper opens up new possibilities for seeing and appreciating the different pathways to business model conceptualization. In this paper, we have synthesized research pertaining to the business model construct and developed the logic of three different perspectives on business model conceptualization identified from past research. We provided a conceptual framework to help understand the business model concept and its core logic of value creation and appropriation through the lenses of the three perspectives. Given the vibrancy and breadth of interest in business model research in management science, the proposed conceptual framework brings coherence to the growing field of research on business models and makes this paper particularly timely. Proposing the business model as a unit of analysis and a potential source of competitive advantage, we seek to create interest in future research on business models. “Strategy has been the primary building block of competitiveness over the past three decades, but in the future, the quest for sustainable advantage may well begin with the business model” (Casadesus-Masanell & Ricart, 2011: 101).

Chapter 3: How Do Firms Adapt to an Evolving Ecosystem? The Case of Business Model Innovation in the German Dental Industry.

In this article we respond to recent calls in the strategic management literature for novel research on the intersection of business models and ecosystems. Employing a grounded theory approach, we theorize and identify four firm-level antecedents of business model innovation, namely goal to value capture, specialization, concentration, and environmental constraints, which lead to value innovation through business model innovation. We further explore how value innovation acts as the adaptation trajectory to an evolving ecosystem. We highlight that progress in business model innovation is greatest if the multiple antecedents advance together as they are interdependent and mutually reinforcing. Inductively drawing from in-depth analysis of dental service providers in Germany, the article proposes a model of antecedents and outcomes of business model innovation. In our research we emphasize the challenges of business model innovation in a service industry setting.

3.1 Introduction

In recent years, business models did not only catch substantial attention from practitioners (Lindgardt et al., 2009; Pohle & Chapman, 2006) but they have also gained momentum in academic research (DaSilva & Trkman, 2014; Schneider & Spieth, 2013; Zott et al., 2011). In its broadest sense the business model is found to communicate the core logic of the firm (Teece, 2010), constitute the firm's architectural backbone (Shafer, Smith, & Linder, 2005), and act as critical construct for understanding the firm's value creation and capture mechanisms (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Magretta, 2002; Svejenova, Planellas, & Vives, 2010; Zott & Amit, 2010). The majority of research has taken a rather static view on business models (Zott et al., 2011), discounting the fact that a business model may evolve over time, be subject to change, and thus, should be depicted as a dynamic concept (Demil & Lecocq, 2010; Morris, Schindehutte, & Allen, 2005; Spieth, Schneckenberg, & Ricart, 2014; Sosna, Trevinyo-Rodríguez, & Velamuri, 2010).

Further, rapidly changing ecosystems (Casadesus-Masanell & Zhu, 2013; Teece, 2010) force firms to adapt to new conditions and innovate their business models in order to exploit new market opportunities. Such development can be game changing as it shifts the rules of competitive rivalry in an ecosystem (Markides, 2008). Therefore, questions about the antecedents, trajectories and outcome of business model innovation, as well as the adaptation to evolving ecosystems, are of utter importance especially when considering the significant performance consequences of business model innovation (Markides, 2006; Pohle & Chapman, 2006; Zott & Amit, 2007) and its acknowledgement in research as a key source of competitive advantage (Baden-Fuller & Morgan, 2010; Björkdahl, 2009; Chesbrough, 2007a; Comes & Berniker, 2008; Hamel, 2000; McGrath, 2010; Mitchell & Coles, 2003; Teece, 2010; Venkatraman & Henderson, 2008).

While research on agile small and medium enterprises (SMEs), start-ups, as well as large multinationals that combine innovative business models with technological innovation in fast-moving, highly competitive ecosystems enriched our understanding of the value creation and value appropriation potential through business model innovation (Amit & Zott, 2012; Zott & Amit, 2007, 2008, 2010), our understanding of the antecedents, trajectories, outcome of business model innovation and their adaptation to service-driven ecosystems with relatively low rate of technological innovation, high extent of complexity and regulations, low levels of competition and economically recession-proved idiosyncrasies remains scarce. The objective of this paper is to participate in closing this identified research gap by extending the theoretical milestones of business models through the examination of business model innovation antecedents and adaptation trajectories of complex service providers in such challenging ecosystems that host them. The German dental care industry, for instance, represents one such challenging and underexplored setting of complex service providers.

Two important characteristics of the dental care industry make it an interesting context for our study of business model innovation and ecosystem adaptation. First, the German dental care industry was depicted by a high dispersion of small, individual, personal dental practices, named after the resident practitioner, offering an unconsolidated market opportunity. However, during the past ten years the landscape of dental practices in Germany has been changing significantly. Suddenly, large and anonymous dental practices and large centers appear on the horizon. This observed phenomenon of an institutional change from small personal dental practices to large anonymous centers and its subsequent consequences indicate a significant change in the ecosystem of dental service providers. Second, in general, the dental profession by nature is defined as very service intensive. Very little research exists that describes the complexity of the dental industry and the relationship between the stakeholders and the dental professional. Researchers describe the dental profession as monopolistic as its market behavior reflects a simple monopolistic model because the dental service providers act in their own interests instead of those of their consumers (Kushman & Scheffler, 1978; Kushman, Scheffler, Miners, & Mullers, 1978).

Against this background we build grounded theory and ask the following research questions: *(1) What are the antecedents that enable the service providers to engage in business model innovation? (2) How do the service providers adapt their business models to an evolving ecosystem?*

With this research we follow a call by Demil et al. (2015) who explicitly stress out the need for further research focusing on business model innovation and change process in established firms. Additionally, our research also sheds light on "how path dependency constraints future changes in a business model" (DaSilva & Trkman, 2014, p. 387) and by attending to the question also pointed out by George and Bock (2011, p. 85) that "… questions of business model path dependence remain unresolved". To answer these under-explored research questions, we applied an inductive, theory-building approach relying on methods that prescribe iterating between theory and data. Given that little research exists about the antecedents of business model innovation on the firm-level and the adaptation of the business model to the evolving ecosystem, we believe this topic will benefit from a qualitative research design (Eisenhardt, 1989; Eisenhardt & Graebner, 2007) to build testable mid-range theory from rich and replicable evidence. Multiple, comparative case studies allow for replication logic and result in an enriched understanding of the dynamics at play (Yin, 1994).

Indeed, by analyzing a set of 147 dental practices in Germany 10 years after the introduction of the last major health reforms and data from overall 90 interviews, 10 in-depth case-studies, as well as secondary data, overall we deduce that business model innovation acts as an enabler of the focal service firm to adapt to the evolving ecosystem and is driven by increasing concentration of relations among actors, increased specialization of core activities, and value mechanisms of goal to value capture and value creation. Further, we postulate that environmental constraints of the evolving ecosystem also act as an antecedent to business model innovation thereby creating a reinforcing loop. Based on our research findings we develop a unique conceptual model for further empirical testing.

The study aims to make several contributions. To the best of our knowledge this is the first paper to empirically examine the antecedents of business model innovation at the firm-level, thereby complementing research on innovation that emphasizes factors of innovation on the individual level. We hereby also contribute to institutional theory by presenting the identified antecedents of business model innovation as a mechanism leading to an institutional change in the ecosystem of service providers. We further contribute to the literature on business models and strategy by highlighting the central role of business model innovation in value appropriation and the need for specialization and concentration of different actors in the ecosystem. In our focus on business model innovation, we emphasize firms' orchestration of internal and external activities to enact opportunities of value creation and appropriation whether they are discovered or created. We further respond to recent calls in the strategic management literature for the integration of the business model and ecosystem dimensions (Zott & Amit, 2013) by providing a more systemic perspective that emphasizes the interdependencies and complementarities between a firm and its stakeholders within the ecosystem. We also emphasize the need for research in the service industry setting.

The remainder of the paper is organized as follows. The next section reviews the relevant literature on the theoretical underpinnings of the business model concept, business model innovation research, ecosystems, and antecedents of innovation identified in past research. It is followed by a description of the dental industry in Germany and its pertinence as an interesting research setting for the study of business model innovation of complex service providers. A subsequent section on methodology outlines the research method, the sample and data collection and the data analysis. We then report our findings and present a conceptual model for further empirical testing. We conclude by drawing implications to theory and practice and offering directions for further research.

3.2 Theoretical Background

Business models have been integral to trading and economic behavior since pre-classical times (Teece, 2010). Introduced by Peter Drucker in 1954 (Drucker, 1954), the business model concept became common with the advent of the Internet in the mid 1990s (Magretta, 2002). Despite a conceptual pluralism that has uncovered novel ways to explain what business models are and how they work, a standard definition of this concept has not been developed yet (Bowien & Vives, 2013; George & Bock, 2011; Spieth et al., 2014; Wirtz et al., 2015; Zott et al., 2011). However, a consensus emerged that business models provide an understanding of how firms do business through the mechanisms of value creation and value delivery to stakeholders (Casadesus-Masanell & Ricart, 2010; DaSilva & Trkman, 2014), as well as the capture of the value generated (Chesbrough, 2007a; Teece, 2010).

Scholars broadly agree on the activity-system perspective of the business model in which the business model depicts a system of interdependent activities performed by the focal firm and the stakeholders in its ecosystem, as well as the mechanisms that orchestrate the activities. Hereby an activity in the focal firm's business model describes the employment of human, physical, and capital resources of any stakeholder to the business model (Zott & Amit, 2010). The firm's business model as an activity system, depicting the design elements of content, structure, and governance of activities, may transcend the focal firm and span its boundaries, but it will always remain firm-centric to enable the focal firm to create value with its stakeholders but also to capture a share of the value created itself through the exploitation of business opportunities (Amit & Zott, 2001; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Pisano & Teece, 2007; Svejenova et al., 2010; Teece, 2007; Zott & Amit, 2010).

Building on the activity-system view of the business model, we follow the definition of business model innovation as describing the design and implementation of an activity system that is new to the market in which the focal firm competes and/or new to the focal firm (Amit & Zott, 2012; Snihur & Zott, 2014). In this context, elaborating on Amit and Zott (2012), business model innovation is depicted as a new activity system, which refers to 'new' in terms of content, structure and/or governance; that is, a new activity system is designed by adding, changing, or eliminating: (a) some or all of the existing activities common to other firms in the industry (change of content), (b) some or all of the linkages between the activities or linking the activities in novel ways (change of structure), and (c) one or more parties performing the activities (change in governance). Business model innovation involves changes at the system level and can be implemented by established and new firms alike. Radical business model innovation involves the change of at least two design elements of the business model, which leads to novelty at the entire activity system level. The more radical business model innovation is the more wide-ranging are the activity system level changes. Incremental business model innovation, on the other hand, involves changes in only one design element, which leads to only incremental change of an activity system and does not necessarily imply novelty at the activity system level (Amit & Zott, 2012; Sinhur & Zott, 2014). Because of the interdependencies and interconnections of the activities of a business model, changes in one or more design elements may entail further changes within the business model and lead to changes in functionalities.

Scholars agree that business model innovation can be viewed as a new type of organizational innovation (Zott et al., 2011), enabling firms to enact opportunities for creating and capturing value whether they are discovered or created (Bock, Opsahl, George, & Gann, 2012; Casadesus-Masanell & Ricart, 2010). Extant research contributions on business model innovation center around diverse aspects such as business model innovation as strategic change (Doz & Kosonen, 2010), risks associated with new business models (Girotra & Netessine, 2011), general barriers to business model innovation (Bouchikhi & Kimberly, 2003; Chesbrough, 2010), notion of business model innovation in the broad context of sustainability (Massa & Tucci, 2013), structure and the challenges associated with the business model innovation process (Frankenberger, Weiblen, Csik, &

Gassmann, 2013), business model innovation as part of firms' intellectual property (Bonakdar, 2015; Desyllas & Sako, 2012; Rappa, 2001; Rivette & Kline, 2000; Zott et al. 2011), business model innovation as a dynamic managerial capability (Amit & Zott, 2014), path dependency of business model innovation (Laudien & Daxböck, 2015), as well as links between business model innovation and technology innovation (Chesbrough 2010; Gambardella & McGahan. 2010). Extant literature, however, is silent on the antecedents of business model innovation.

Research elaborating on the idea of ecosystems claims that the success of an innovating firm often depends on the activities performed by third parties in its environment (Adner & Kapoor, 2010; Power & Jerjian, 2001). An ecosystem is "the community of organizations, institutions, and individuals that impact the enterprise and the enterprise's customers and suppliers" (Teece, 2009: 16). It is within such ecosystem that the competitive game unfolds, involving multiple players that differ in strategies, capabilities and resources. Thus, the concept of the ecosystem is closely related to the business model because it is also boundary-spanning and adopts a systemic perspective that emphasizes interdependencies and complementarities between a firm and its stakeholders in order to properly understand how value is created and captured. However, as opposed to the business model concept, the ecosystem is not firm-centric and not anchored on a focal firm. This implies that different firms with different business models can share the same ecosystem (Zott & Amit, 2013).

3.3 Research Setting: The German Dental Industry

To understand the antecedents of business model innovation of dental practices in Germany as well as their adaptation to an evolving ecosystem, a brief account of the German dental industry and the ecosystem is necessary. Overall, dentistry – the dental profession – in general can be defined as the branch of medicine that is involved in the study, diagnosis, prevention, and treatment of diseases, disorders and conditions of the oral cavity, commonly in the dentition but also the oral mucosa, and of adjacent and related structures and tissues, particularly in the maxillofacial (jaw and facial) area (American Dental Association, 2014). The ecosystem of the dental service providers in Germany consists of several main players. On the supply side, dental service providers are well organized and integrated. Through their different local, state, and national associations dentists try to influence laws, standards, and industry behaviors by lobbying for policies that benefit the profession and its members (Lipscomb & Douglass, 1982). Dental technical labs, as other participants in the ecosystem, work closely with the dentists and produce dentures required for treatment. They act as an intersection between manufacturers and suppliers of dental technology and dentists in the dentures treatment.

On the demand side, patients constitute another important group of the German dental ecosystem. Dental providers segment their patients based on patients' willingness to invest in their dental treatment and their teeth. It is very important to distinguish this type of segmentation from patients' socio-economic and income levels or possibilities to pay for treatment. Patients who have the explicit desire to invest in their teeth receive more time and attention by the dentists and consequently better and more dedicated service. On the other hand, patients who are not willing to invest in their dental treatment the their dental health, despite high-income levels and/or good health plans, receive less time and less attention by their dentist and consequently they receive only standard treatment. Patients' willingness to invest in their teeth and their dental care is one of the main drivers identified in the German dentistry providers' ecosystem as it determines the value creation for the patient and the value appropriation for the dentist. Patients have low bargaining power over their dentists as all prices are based on the factoring and the rating scales provided by the public and private health insurances to account for the appropriate fee structures. Only privately accounted for services are subject to significant differences in fees.

The value appropriation aspect of dental practices leads to another group of important players in the ecosystem, namely the public and the private health insurances, which represent the institutional platform between the supply and demand side. The German dental fee factoring system by which dentists are being paid for the delivery of their services consists of two pillars: (a) public health insurance, which accounts payments to the dentists for the service delivery based on the highly regulated and institutionalized public dental health insurance fee rating scale called BEMA (Bewertungsmaßstab zahnärztlicher Leistungen) in form of quarterly billing; and (b) private health insurance and private add-on dental insurance plans (in connection with public health insurance only), which account the payments to the dentists for the service delivery based on its private heath insurance fee rating scale called GOZ (Gebührenordnung für Zahnärzte). Both dental fee regulatory rating scales prescribe in detail in respective catalogues by what exact factors diverse treatments have to be calculated and the corresponding prescriptions in terms of material to be used, instruments to be applied, time a certain treatment can be accounted for, and quality standards. There are significant differences between the public and the private dental services fees regulatory rating scales. BEMA, however, does not include all services and consequently does not pay all fees for the work performed. Services, which are not included in the BEMA rating scales catalogue must be paid by the publicly insured patients themselves, either through an add-on private dental plan or privately out of the pocket. Patients have the choice if they wish to receive these treatments privately or not. The private GOZ fee regulatory covers all services and treatments and requires significantly higher quality standard treatments, which are, in turn, awarded by higher fees.

Like most areas of the healthcare industry, the field of dentistry is rapidly changing. New technologies and innovative materials are constantly impacting the work performed by clinicians and laboratory technicians alike, making processes easier, materials stronger and more esthetic, and deepening the relationship between all members of the ecosystem. Many factors influence recent trends in the ecosystem. The first factor is the mass digitization. As more dental providers and laboratory technicians transition to digital processes and procedures, communication between everyone in the ecosystem becomes faster and more critical, restorative dental outcomes more precise, and patient treatment more effective and efficient. The second factor is the state of the economy. The German dental industry is fairly resistant toward any economic recession (Landeszahnärztekammer Baden-Württemberg, 16 June 2013). The basic premise is that people treat their teeth no matter what economic conditions apply. Perhaps they invest more in their teeth during flourishing times, but even during economic recession customers still go to the dentist to treat any problems that may occur, even though solutions may be more restorative and cost-effective during such times.

Finally, the third factor impacting the ecosystem is the major shift of public health insurance companies to push the financial bonus away from dentists seeking ways to lower dental care costs. Dental service providers experience pressures from all directions, and the public health insurance companies try to cut costs on all dimensions and implement caps on treatments provided and the corresponding fees. At the same time, dental service providers constantly look for new and better ways to appropriate more value. While ten years ago public health insurances paid for most of the treatments provided without many major restrictions, today the situation looks very different and dentists are forced to focus more on the private health insurance regulatory (GOZ) in order to secure a higher level of value appropriation. Thus, they try to offer more services that account as private dentistry services. This, however, requires a different level of quality treatment. Many dental providers continue to offer the same refined levels of treatment like they used to in the past while their compensation, and thus their value capture, is decreasing with their overheads remaining the same. The brief description of the German dental ecosystem presents an evolution and implies the necessity by dental providers to innovate their business models in order to adapt to the changing economic environment. But the question remains what drives their business model innovation and how do they adapt to the evolving ecosystem.

3.4 Methodology

3.4.1 Sample selection and data collection

Given that little research exists on the antecedents of business model innovation and the adaptation of the business model to an evolving ecosystem, we believe this topic will benefit from a qualitative research design (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 2003) to build testable mid-range theory from rich and replicable evidence. Moreover, prior research on business model innovation and change often uses case studies (Bohnsack et al., 2014; Khanagha et al., 2014; Koch, 2008, 2011; Van Driel & Dolfsma, 2009) and shows that case studies help gain valuable insights into the research context of business model innovation. Inductive, qualitative research is well suited for studying processes and "how" questions (Creswell, 1998; Langley, 1999) and is aligned with our interest in answering our research questions on how business models of service providers adapt their business models to the evolving ecosystem and what are the antecedent of the business model innovation. Multiple, comparative case studies were chosen to allow for replication logic and incite an enriched understanding of the dynamics at play (Yin, 1994).

To comply with the aim of our research, we employed a purposeful sampling procedure, where the dynamics of interest are more transparent (Patton, 2002; Yin, 2009), and which in comparison to selecting cases randomly allowed us to access information-rich cases from which we could discover "a great deal about issues of central importance to the purpose of the evaluation" (Patton, 1987: 52). In order to analyze how dental practices in Germany adapt their business models to the evolving ecosystem we focused on incumbent as opposed to new firms. Predicated on the assumption that firms innovate their business models in order to adapt to an evolving environment we sampled on the outcome and studied firms that excel in business model innovation. To identify cases of business model innovation we sampled widely but within a confined geographical area in order to minimize variation due to environmental factors while at the same time enabling variation in terms of backgrounds. In a European comparison of dental service providers, Germany excels in the field of dentistry, which offers the highest standards of treatment and is in a recession-proved position (Bundespressekonferenz, 3 March 2015).

Germany is constituted by 16 states, and we focused with our sample on the city-state of Hamburg. Industry experts, top executives of the Association of the German Dental Industry and the corresponding regional and local associations confirmed that cases from the wider Hamburg area are representative for Germany as the regulatory framework is national. The phenomenon observed in

Hamburg can be observed across the rest of Germany. Specifically, we identified dentists who are members of the regional Association of the German Dental Industry in Hamburg. The membership is voluntary, but as it is very advantageous for dentists to be members most dentists are members of this main association. The association had 1.411 self-employed dentists as their members in 2013. Out of the 1.411 self-employed dentists, we identified 1.086 individual practices (one-man-show dental practices) and 325 collective joint practices. Out of these 325 joint dental practices we eliminated 178 joint dental practices consisting only of two practitioners. Thus, we initially screened a total of 147 dental practices consisting of three or more practitioners. We focused these large, collective dental practices, as this is the phenomenon we observed in the market, namely the transformation from individual, personal dental practices toward anonymous, large dental practices with more than three practitioners.

We performed a second-step theoretical sampling, thereby relying on theoretical rather than statistical reasons to select the most suitable cases for further investigation (Glaser & Strauss, 1967). We followed Eisenhardt's (1989) advice to choose four to ten extreme cases in order to build theoretical categories and provide polar-type examples of business model innovation. Multiple cases in each category allow for replication, thereby enhancing generalizability, robustness and reliability of results (Eisenhardt, 1989). In order to choose the extreme cases (Eisenhardt, 1989), we first classified the remaining 147 dentistry providers into the two categories of low and high business model innovation. Based on the definition of business model innovation we presented, a firm is considered to be pursuing radical business model innovation when at least two of the three design elements of the business model (content, structure, and governance of activities) were changed. If the dental practice merely introduced a new service or just changed the name without any further changes, this innovation was not sufficient to classify as business model innovation.

In order to check our identification of the business model innovation for robustness, we followed the increasing use of panelists in management research (Iansiti & Clark, 1994; MacCormack, Verganti, & Iansiti, 2001; Rubio, Berg-Weger, Tebb, Lee, & Rauch, 2003; Schiefer, 2014; Zott & Amit, 2007, 2008) and we engaged four industry experts to rate the business models of our initial sample of 147 collective joint practices for their novelty by examining secondary data such as practice websites and any other publicly available information about the business model of each firm. The dental practices that did not fulfill the requirements of business model innovation as per our definition were eliminated from the sample. Following this sample design, we identified 33 extreme cases from the initial sample of 147 collective joint dental practices with more than three practitioners. The remaining 114 cases were classified as not having introduced any business model innovation. Out of these 114 dental practices, 59 had changed the name of the practice to an anonymous one, however, no change of content, structure or governance took place. We conducted first-round interviews with the 33 identified dental practices between March and October 2014. During the first round, we conducted 33 interviews, which lasted from one to two hours and involved the partner/owner of the dental practice. The interviews were semi-structured for comparability purposes across cases and based on open-ended questions. Our interview outcomes were coded with respect to their fit with the broad categories defined in literature. During the second coding, new subcategories were allowed to emerge. After an analysis of the first-round interviews, we zoomed in on ten cases that displayed extreme variation in our sample of 33 dental practices with respect to business model innovation.

Focusing solely on these ten selected dental service providers, we conducted a second round of interviews between November 2014 and May 2015. In this second round of interviews, we also included other important stakeholders for the chosen dental practices, such as partners, employed practitioners, and top executives of the association familiar with the dental practices, as well as technical labs. This approach allowed us to collect richer information and enabled us to triangulate various data sources (Jick, 1979; Yin, 2009). The interviews during the second round lasted between one hour and three hours. Table 3.1 below presents the ten in-depth case studies and summarizes the characteristics of the dental practices as well as their main facts and histories, incorporating a total of 57 interviews with founders and stakeholders of the ten dental practices as well as archival data about them.

3.4.2 Data analysis

Our unit of analysis is the business model. Our chosen research design centers on variation in the outcome (dependent variable), that is business model innovation, followed by the subsequent analysis of the various causes (or independent variables) that could have led to this outcome variation (Brown & Eisenhardt, 1997; Ozcan & Eisenhardt, 2009; Snihur & Zott, 2014).

As mentioned above, we applied the case replication method, which implies that findings from one case are replicated (or not) to either confirm or reject the emerging theoretical insights (Eisenhardt, 1989). We iterated along separate case history analysis, cross-case comparison, and cross-category comparison between instances of incremental and radical business model innovation (Eisenhardt, 1989; Miles & Huberman, 1994; Yin, 2009). Firstly, we wrote individual case histories, describing the business model of each dental practice based on the three theoretical business model design elements (business model content, governance, and structure) introduced in the theory section above and coding the emerging themes from each case. Secondly, we based these case histories on information obtained during the interviews and personal observations, and accessed from archival data, as presented in Table 3.1. Any missing or unclear details were clarified through subsequent interviews and conversations. Table 3.2 presents our coding scheme for identifying new business model content, governance, and structure, including our definitions and supportive illustrative quotes. Elaborating on our synthesis, Tables 3.3a-c present the summary of each dental practice's business model innovation based on the coding scheme presented in Table 3.2.

After obtaining an in-depth understanding of business model innovation taking place in our ten case studies, we did proceed to pair-wise cross-case comparison, with the goal of detecting similar and divergent themes in all cases (Eisenhardt & Graebner, 2007; Glaser & Strauss, 1967). We compared several constructs across cases and groups of cases (Miles & Huberman, 1994). We also formed tentative relationships between constructs from the emerging coding schemes, which were later refined via the replication logic, revisiting each case to verify the occurrence of specific constructs in the interviews with the dentists and other stakeholders. As the theory started to become clearer, we included references to and informed the received literature, when available, to sharpen the emerging insights from our findings. We finally engaged in an iterative process of comparison across data, emerging theory, and the received literature until theoretical saturation was reached (Eisenhardt, 1989; Glaser & Strauss, 1967). Focusing on the ten most extreme cases enabled us to reach theoretical saturation, and when re-analyzing data from the other 23 dental service providers we had originally interviewed during the first round of the initially identified 33 cases, we were unable to come up with any new theoretical categories, while at the same time finding more evidence consistent with our conclusions.

Table 3.1: Case descriptions

Practice	Practice 1	Practice 2	Practice 3	Practice 4	Practice 5	Practice 6	Practice 7	Practice 8	Practice 9	Practice 10
Business description	General dentistry, spezialized in implantology and oral surgery	General dentistry, additional privat practice spezialized in implantology, oral surgery	General dentistry, specialized in endodontics, periodontology, implantology	General dentistry, specialized in implantology, oral and maxillofacial surgery	specialized in oral and maxillofacial surgery, implantology	specialized in endodontics, dental aesthetics, implantology and prosthodontics	specialized in dental aesthetics, oral and maxillofacial surgery	specialized in implantology periodontology, CMD and prosthodontics	specialized in implantology, oral surgery, orthodontics	general dentistry, specialized in implantology
History	in 2005 a specialization in oral surgery and implantology took place by the copartnership of another dentist; in 2015 another business innovation took place by employing two more specialists in dental aesthetics and endodontics respectively	in 2012 one partner established an only privat practice in corporation with an implantologist	in 1997 a specialization in endodontics took place by the copartnership of another dentist in 1998 a specialization in periodontology and implantology took place by the copartnership of another dentist	in 2000 a specialization in endodontics took place by the copartnership of another dentist in 2010 a specialization in oral and maxillofacial surgery and implantology took place by the copartnership of another dentist	3 already specialized dentists specialized from the very first day in implantology	4 already specialized dentists founded a joint practitioner practice to cover 4 branches of dentistry	2 already specialized dentists founded a joint practitioner practice to cover 2 branches of dentistry	4 already specialized dentists founded a joint practitioner practice to cover 4 branches of dentistry	specialized from the very first day to cover 3 branches of dentistry	being a general practitioner, specializing in the year 2000 in implantology
Founding year	1974	1987	1975	1978	1999	2007	2011	2006	2005	1989
Number of founding partners	3	2	2	3	3	4	2	4	12	5
Number of partners in 2015	2	3	4	4	3	7	8	10	1	2
Number of employed dentists in 2015	1	6	6	6	3	5	2	6	9	3
Number of employees in 2015	9	23	11	28	10	18	10	14	21	12
Business Model Innovation	2005	2012	1997 and 1998	2000 and 2010	2007	2011	2013	2011	2009	2000
Number of interviews	11	9	9	10	4	3	3	4	4	3
Informants (number of interviews)	founder (1), current partner (2)	founder (2), current partner (3)	founder (0), current partner (2)	founder (1), current partner (1)	founder (2), current partner (2)	founder (1), current partner (1)	founder (2), current partner (2)	founder (1), current partner (1)	founder (1), current partner (1)	founder (1), current partner (2)

Table 3.2: Coding scheme for identifying business model elements

Construct	Definition	Illustrative quotes	Sources
BMI - New *content* of the business model design	Adding, changing, or eliminating some or all of the existing activities	* *In the past our work was all about drill and fill, all very general. There was no time and no space for other treatments. We still perform the general drill and fill treatments but only by one of our employees. With our parents retireing we had the chance to restructure the practice entirely. With my brother, his wife and my wife joining the practice we could expand our portfolio of treatments. We moved away from drill and fill to endodontics, implantology, paradontics and oral surgeries.* (Practice 3) * *In our first practice we even had our own lab. We employed seven dentists yet we still did not provide oral surgeries because the practice grew in general dentistry. I opened the new practice together with a partner just focusing on oral surgery. It was crucial for us to offer oral surgery and implantology to our main patients so we did not have to send them to other oral surgents and could keep everything and everybody in house.* (Practice 2) * *We grew the practice progessively with the objective to offer all possible treatments in our practice. We hired more stuff and added more and more expertise to our team and more and more treatments to our portfolio. Today, there is nearly nothing that we do not offer. We restructred the practice venue-wise and time-wise. We work in shifts in order to offer our expanded portfolio of treatments.* (Practice 8)	Interviews with a main partner (Practice 3) and two founding partners/owners respectively (Practice 2 and Practice 8)
BMI - New *structure* of the business model design	Adding, changing, or eliminating some or all of the linkages between the activities or linking the activities in novel ways	* *Instead of depending on different labs we do evrything in our own lab. It is faster and we are more flexible. Our technicians work in shifts which allows us to prepare all work on time almost instantly. This was important for us. We had too much work to give it to external labs. It is cheaper for us to do everything under our roof.* (Practice 2) * *With our specialists we hired we do not have to refer our patients to other external specialist and take the risk of eventually loosing patients to other dentists. Now, we offer the most specialized treatment, the most important and valuable treatments. We move patients between us in the practice and do not send them away to others. A*ll patients are being charged by private invoicing schema. (Practice 9) * *Before I ran between five rooms and I could not do what I wanted to do. Now, upstairs on the first floor, in two rooms, I perform only surgeries. It is like a factory.Only surgeries. Downstiars in the practice we perform endo in two rooms, dental hygiene in another two rooms, and protetics and geneal stuff in the remaining two rooms. By dividing up the work we are more efficient and we actually manage more patients per day.* But the key is that now we invoice privately all new treatments of surgery and implantology and not through the public health insurances. (Practice 1)	Interviews with two new partners who joined the founders respectively (Practice 1 and Practice 9) and with a founding partner/owner (Practice 2)
BMI - New *governance* of the business model design	Adding, changing, or eliminating one or more parties performing the activities	* *We had to open two new practices in order to expand our portfolio. We move patients between the practices depending on their needs. While general treatments are performed in the old practice, implantology we perform in a small practice just for private patients. The third pracitce is for larger projects and more complex oral surgeries. But we had to do it with two partners. We provide the mass on patients from the core pracitce while our new partners offer their expertise. We had to. Somebody still has to take care of our main pracitce.* (Practice 2) * *I just do now what I always wnated to do. I love endo and aways wanted to do nothing else but endo. I can't be bothered with other work. But of course, I needed a partner and we employed three more dentists to do the rest of the work. And we had to restructure the entire practice. We all have now our own areas. And I live not just of our own patients in need of endo therapy but I enjoy the referrals of patients from other practices. I live of referrerals from collegues. We are now four partners in charge of our own areas. Before it was just me alone. One the one had side, life was easier. I made my own decisions but I also had to do work I did not really like. By getting my partners on board I can finally focus just on my area and they can manage their work and their parts of the practice.* (Practice 3) * *I started the practice together with my partner. We wanted to specialize on two areas of dentistry, namley oral surgery and aethetics. But with the time we invited six more partners to join our practice in order to expand. We further developed in our specialization areas and needed partners to take over certain treatments. While I only focus on implants, my partner does only paradontics. Another partner of ours specializes on dental aestetics, meaning no dentures, while another partner does exactly th eopposite, namely only prosthetics and dentures. It was impossible for the two of us to cover all areas with the same dedication and consequently we needed support. But instead of hiting dentits and specialists we had to invite partners to ensure dedication and sistainability in our practice and also for financial reasons.* (Practice 7)	Interviews with two founding partners/owners (Practice 2 and Practice 7) and a new partner/owner who took over the pratice from old owners (Practice 3)

Table 3.3a: Summary of business model based on coding scheme

Case	BMI - New *content* of the business model design	BMI - New *structure* of the business model design	BMI - New *governance* of the business model design
Practice 1	Oral surgery and implantology activities were added to the practice's portfolio of activities while maintaining the existant activities. To perform the new activities, the practice had to train their dental assistants in treatment assistance and in accounting and invoicing. The new activities had to be linked to the exisitng practice structure and the IT structure.	The new activities of oral surgery and implantology treatments changed the sequence of treatments being performed in the practice. The new activities are being perfromed in parallel to other general treatments being performed in the practice. Further, the practice shifted these new treatments to become the core activities in the practice and not just peripheral ones performed on an occasional basis. Moving the surgery and implantology activities to seperate venues of the practice where only these activities are being performed further supports their importance to the practice.	In order to incorporate and be able to offer the new activities of oral surgery and implantology treatments the practice had to invite a new partner to join. The new partner specializes and performs only the new activities. The founding partner focuses on the general dentisry treatments that were offered before. In addition, the practice hired another dentists to focus exclusively on another range of activities, namley dental aesthetics and endodontics.
	New BM content: ☑	New BM structure: ☑	New BM governance: ☑
Practice 2	Oral surgery and implantology activities were added to the practice's portfolio of activities in a new seperate practice venue while maintaining the existant activities in the old practice venue. To perform the new activities, the practice had to hire and train new dental assistants in treatment assistance and in accounting and invoicing. The new activities had to be linked to the exisitng practice structure and the IT structure. A new practice was created where these two new activities take place, which required new resources and created new interdependencies and transactions between the two practices. A thrid practice was created as part of the main practice and it incorporates all activities, new and old ones.	The new activities of oral surgery and implantology treatments changed the sequence of treatments being performed in the practice. The new activities are being perfromed in parallel to other general treatments being performed in the old practice venue. Because the practice created three venues to incorporate all activities, all three practices have different core activities. While the old practice still has general dentisry as its core activity, the new practice focusing on oral surgery and implantology has these two new activities as its core activities while other treatments shifted to be peripheral activities while being charged privately only. The third venue also shifted its core activities to be oral surgery only, while other activities that are being performed in the venue are peripheral now and not core anymore.	In order to incorporate and be able to offer the new activities of oral surgery and implantology treatments the practice had to invite a new partner to join. The new partner specializes and performs only the new activities. The founding partners focuses on the general dentisry treatments that were offered before, one founding partner per venue and the third capital partner runs the third venue. In addition, the practice hired two more dentists for the first main venue to support the general dentistry activities, which are core there.
	New BM content: ☑	New BM structure: ☑	New BM governance: ☑
Practice 3	In addition to general dentisry activities that were initially offered, mainly just drill and fill treatments, all new activities were added to the portfolio in order to offer all treatments, the main focus, however, is on the endodontics treatments, which constitute the core acitivites of the new business model. In addition to new treatments that are offered, the practice expanded its venues, its IT strucutre, its treatment structure, and hire more dentists and support staff. The practice has three main core activities today: endodontics, implantology, and periodontology. All other activities performed shifted to be peripheral activities.	The entire structure was redesigned. By adding all the new activities to the portfolio the sequence of activities was changed. With four partners focusing on the core activities of endodontics, implantology, periodontology and general dentistry treatments supported by two more hired dentists all activities are being performed in paralell and independent of each other. Every partner is in charge of hos or her own area. The practice shifted entirely its core, pheriperal and supportive activities. In order to incorporate the new soft struture the practice had to create a new hard strucure and expand the practice venue, create more treatment rooms, IT structure and train more staff. The entire organization of the practice changed.	With the two founding partners retirering, four new partners jointly took over the practice and restructured it. The four partners focus on their core activities of endodontics, implantology, periodontology and general dentistry treatments, which are supported by two additional hired dentists. While two partners are capital partners with a say in the practice, two other partners are not capital partners and have no vote in the practice - the structure is comparable to A type shares and B type shares in a company.
	New BM content: ☑	New BM structure: ☑	New BM governance: ☑

Table 3.3b: Summary of business model based on coding scheme

Case	BMI - New *content* of the business model design	BMI - New *structure* of the business model design	BMI - New *governance* of the business model design
Practice 4	Endodontics, oral and maxillofacial surgery and implantology activities were added to the practice's portfolio of activities while maintaining the existant activities. To perform the new activities, the practice had to train their dental assistants in treatment assistance and in accounting and invoicing. The new activities had to be linked to the exisitng practice structure and the IT structure.	The new activities of endodontics, oral and maxillofacial surgery and implantology treatments changed the sequence of treatments being performed in the practice. The new activities are being perfromed in parallel to other general treatments being performed in the practice. Further, the practice shifted these new treatments to become the core activities in the practice and not just peripheral ones performed on an occasional basis. The new activities are being performed in seperate treatment rooms respectively which further supports their importance to the practice.	In order to incorporate and be able to offer the new activities of endodontics, oral and maxillofacial surgery and implantology treatments the practice invited two new partners to join. While one new partner specializes on endodontics only, the other new partner focuses only on surgeries and implantology. The two founding partners focus on the general dentisry treatments that were offered before, while one founding partner retired entirely.
	New BM content: ☑	New BM structure: ☑	New BM governance: ☑
Practice 5	The three founding partners designed the business model already new to the industry from the beginning on. They eliminated all general dentistry activities and instead they specialized in oral and maxillofacial surgery and implantology only.	By specializing in oral and maxillofacial surgery and implantology activities only from the beginning on the practice did not have to change the structre. The core activities remain the core activities, there is no shift in importance and sequence of activities.	The core activities of oral and maxillofacial surgery and implantology are performed by the three partners equally. The main change to other practices in the industry is that this new business model is designed to focus exclusively on private patients only due to the specialization structure; that is, the treatments are accounted for by the private insurance scheme only and the practice has no relationship with the public health insurance companies. It is a new governance design. Further, the practice relies and lives of referrals from other practices that do not perform these activities of oral surgery and impantology. The practice does not need to develop relationships with the patients as they only come for the particular treatments and then return to their own dentists for further treatment.
	New BM content: ☑	New BM structure: ☒	New BM governance: ☑
Practice 6	The four founding partners designed the business model already new to the industry from the beginning on. They eliminated all general dentistry activities and instead they specialized in endodontics, dental aesthetics, implantology and prosthodontics. However, as a collective they offer all general dentistry activities but not on an individual level.	By specializing on the four core activities of endodontics, dental aesthetics, implantology and prosthodontics performed by the four founding partners respectively the strucutre of the practice is new to the classic practice structure in the industry. Every partner performs only his / her specialized activities and nothing else. All four activities are core activities while any other peripheral activities are eliminated.	The core activities of endodontics, dental aesthetics, implantology and prosthodontics are performed by the four partners equally. The main change to other practices in the industry is that this new business model is designed to focus exclusively on private patients only due to the specialization structure; that is, the treatments are accounted for by the private insurance scheme only and the practice has no relationship with the public health insurance companies. It is a new governance design. Further, the practice relies and lives of referrals from other practices that do not perform these activities in such a specialized ways. The practice does not need to develop relationships with the patients as they only come for the particular treatments and then return to their own dentists for further treatment. Five more dentists werre hired to support the activities in addition to three more partners who joined the core team.
	New BM content: ☒	New BM structure: ☑	New BM governance: ☑
Practice 7	The two founding partners designed the business model already new to the industry from the beginning on. They eliminated all general dentistry activities and instead they specialized in oral and maxillofacial surgery and dental aesthetics only.	By specializing in oral and maxillofacial surgery and dental aesthetics activities only from the beginning on the practice did not have to change the structre. The core activities remain the core activities, there is no shift in importance and sequence of activities.	The core activities of oral and maxillofacial surgery and dental aesthetics are performed by the two founding partners respectively. The main change to other practices in the industry is that this new business model is designed to focus exclusively on private patients only due to the specialization structure; that is, the treatments are accounted for by the private insurance scheme only and the practice has no relationship with the public health insurance companies. It is a new governance design. Further, the practice relies and lives of referrals from other practices that do not perform these activities of oral surgery and dental aesthetics in such a specialized way. The practice does not need to develop relationships with the patients as they only come for the particular treatments and then return to their own dentists for further treatment. The practice invited six more partners to join the core team and perform the specialized core activities and hired two more dentists to support the activities. The practice turned into a very specialized center.
	New BM content: ☑	New BM structure: ☒	New BM governance: ☑

Table 3.3c: Summary of business model based on coding scheme

Case	BMI - New *content* of the business model design	BMI - New *structure* of the business model design	BMI - New *governance* of the business model design
Practice 8	The four founding partners designed the business model already new to the industry from the beginning on. They eliminated all general dentistry activities and instead they specialized in four core activities they added to their portfolio: implantology, periodontology, CMD and prosthodontics.	By specializing in four core activities only from the beginning on the practice did not have to change the structre. The core activities remain the core activities, there is no shift in importance and sequence of activities.	The four core activities are performed by the four founding partners respectively. The main change to other practices in the industry is that this new business model is designed to focus exclusively on private patients only due to the specialization structure; that is, the treatments are accounted for by the private insurance scheme only and the practice has no relationship with the public health insurance companies. It is a new governance design. Further, the practice relies and lives of referrals from other practices that do not perform these activities in such a specialized way. The practice does not need to develop relationships with the patients as they only come for the particular treatments and then return to their own dentists for further treatment. The practice invited six more partners to join the core team and perform the specialized core activities and hired six more dentists to support the activities. The practice turned into a very specialized center.
	New BM content: ☑	New BM structure: ☒	New BM governance: ☑
Practice 9	The twelve founding partners designed the business model already new to the industry from the beginning on. They eliminated all general dentistry activities and instead they specialized in three core activities they added to their portfolio: implantology, oral surgery and orthodontics. During the process one founding partner bought out the other partners and turned into a CEO and let the other partners go, but the content offered did not change with the governance change.	The twelve founding partners focused on the three core activities respectively from the very beginnning on. Even with the change in governance the core activities remain the core activities, there is no shift in importance and sequence of activities.	The three core activities were initially performed by the twelve founding partners respectively. The main change in governance was when one partner bought out the other partners and let them go. He became the CEO of the dental center and hired nine dentists out of which some were the former partners. As a CEO the partner turned into a sole decision maker in charge of all activities. An additional change to other practices in the industry is that this new business model is designed to focus exclusively on private patients only due to the specialization structure; that is, the treatments are accounted for by the private insurance scheme only and the practice has no relationship with the public health insurance companies. It is a new governance design. Further, the practice relies and lives of referrals from other practices that do not perform these activities in such a specialized way. The practice does not need to develop relationships with the patients as they only come for the particular treatments and then return to their own dentists for further treatment. The practice turned into a very specialized center.
	New BM content: ☑	New BM structure: ☒	New BM governance: ☑
Practice 10	Implantology activities were added to the practice's portfolio of activities while maintaining the existant activities. To perform the new activity, the practice had to train their dental assistants in treatment assistance and in accounting and invoicing. The new activity had to be linked to the exisitng practice structure and the IT structure. Further, out of the five founding partners only two partners remain and three more dentists were hired to support the general dentistry activities.	The new activity of implantology changed the sequence of treatments being performed in the practice. The new activity is being perfromed in parallel to other general dentistry treatments being performed in the practice. Further, the practice shifted this new activity to become the core activity in the practice and not just a peripheral one performed on an occasional basis. Now all other activities of genral dentisry shifted to be perhiperal and supportive activities only. Moving the implantology activity to seperate venues of the practice where only this activity is being performed further supports its importance to the practice.	In order to incorporate and be able to offer the new activity of implantology the practice eliminated three partners and two remaining parters took over the management and decision making. The two partners specialize and perform only the new activity of implantology. For the general dentistry activities the practice hired three dentists who perform just the perhiperal activities and have no decision making power.
	New BM content: ☑	New BM structure: ☑	New BM governance: ☑

3.5 Findings

The previous data analysis of the case studies allowed us to identify overarching patterns affecting the business model innovation of the dental providers in Germany. We identified four antecedents that differ in how they affect the business models and lead to change. When comparing the patterns of business model innovation in our cases, three main differentiating themes emerged from the data: goal to value capture, specialization, and concentration. In addition we define environmental constraints as a translation of the evolving ecosystem as the fourth antecedent of business model innovation. Table 3.4 summarizes the four antecedents of business model innovation identified in our in-depth case studies. In Table 3.4 we further provide the definitions of the constructs and support the identified constructs with illustrative quotes from the interviews. We discuss each identified antecedent in more detail below and present further evidence supporting our findings.

Table 3.4: Antecedents of business model innovation

Antecedents of business model innovation	Definition	Illustrative quotes
Goal to value capture	Degree of value appropriation, the mechanism that allows to retain part of the value created as profit and increase revenues.	* It is the only way to make money. We have a large practice that covers all areas already. But our catchment area where the practice is located is not rich. People don't have the money to spend on expensive treatments and we mainly provide standard solutions. But we have the mass. We treat many more patients that other practices. And we have our own lab. But we the other practice just focusing on private patients we earn more in comparison. It is more lucrative. We focus just on implantology there. And it is like a factory. (Practice 2) * I don't have the time to do everything. I can only make money when I focus on my area. I do just that. And because I am known for endo I can charge so much. My time is simply expensive. I have to cover my cost. (Practice 3) * I was fed up with the system and with working the long hours for nothing. My budget was being cut and cu and cut. I wanted to dig into the private health plans but I had to choose one area and become one fo the best in order to make the moeny. And so I did. I don't feel bad for wanting to cover private patients only because all my patients receive excellent work and they are all very happy. But I had to look out for myself. And our system does not allow to earn too much. (Practice 10) * 80% of what we offer is covered only by the private insurances only. It takes the pressure of us. This was our objective when we founded the practice. (Practice 9)
Specialization	Extent to which the firm's employees are individually focused on particular technological areas; in this case, the extent to which the dentistry providers are individually focused on particular dental areas.	* I just do now what I always wanted to do. I focus on endo and don't have to bother with drill and fill. My partners cover the other areas. I am just happy that I don't have to bother with that. (Practice 3) * I restructured and refurbished the entrie practice in order to be able to focus excusively on oral surgery. I don't do anything else. And I don't want to do anything else. For that I have a team. They are downstairs on a different floor and focus on their respective fields. I check their numbers but I have my freedom upstairs. And of course, what I do is lucrative. It is not a secret. But we need the battle field downstairs in order for me to have patients. (Practice 1) * We are ten partners. We all focus on our respective areas and we don't mix. Of course, when soembody is not available and it is important we jump in and cover each other. Even our assistants are specialized in particular areas. For instance, our assistants specialized in dental prophylaxis do have their own three prophylaxis rooms where that do just that. We don't ask them to assist us in our work. For that we have other assistants. And we all have our own assistsnts speciliazed in our respecitve areas. It is much more efficient this way. The girls are faster and have deeper knowledge of what we do. They assist better and they know how to prepare the room for each treatment. (Practice 8)
Concentration	Degree of horizontal integration of activities meaning the combining of similar activities - increasing the range of services being offered by dentistry practices, e.g. change of opening hours of a practice and the introduction of shift work due to concentration of practitioners in one practice.	*By operating a large practice with different specialist under one roof we offer patients better service and more flexibility. Patients don't have to wait that long, they are directed to the right person straight away, we are able to treat more patients per day, and of course, we too have more flexibility in our working hours and the treatments we provide. (Practice 9) * Even though we are all specialized in our areas we share many patients. We discuss many cases, agree on the best treatment, safe time for everybody involved. We collaborate in a very efficient and very effective way. I can't even imagine how to work any differently now. We are productive on all dimensions. And the figures speak for itself. (Practice 7) * We provide the turnkey solutions. It is like one stop shopping for our patients. We don't have to send any patient away to another colleague since we provide all services at our practice. (Practice 6) * We treat so many more patients per day now than we used to do in the past before we changed our strucutre. (Practice 1)
Environmental constraints	Extent to which economic, legal, socio-political, regulatory, technological, and cultural conditions, as well as industry norms and requirements impose on the ecosystem participants externally; that is, on the dental practices and their ecosystem partners.	* You can't stnad still. You continuesly have to change and be aware of changes if you want to stay in the game. The reforms don't change too often, but our technology changes, threre are always new ways for accounting, new methods for treatments, new materials. I hired a new collegue in order to be able to offer new ways of tooth prevention in form of dental aesthetics. (Practice 1) * Patients are not as naive as they used to be. They know what thy can expect and they want the best treatment. They will not stick around for 30 years, now they go where they receive the best treatment and the best service. It is a myth that patients don't like to travel too far. Nowadays they do so. (Practice 4) * You can't change your approach and your service if you don''t invest in people, equipment, technology, and furter education. The money is in private services, but it takes some effort. (Practice 10)

3.5.1 Goal to value capture

The ecosystem of dental practices in Germany is evolving, mainly driven by significant changes and differences between the public and private health insurance fees payment structures (BEMA and GOZ) and the innovation in dentistry technology, materials, and treatment processes. Dental service providers adapt to the evolution of the ecosystem by changing the mechanisms of value appropriation in their business models. The goal to value capture is one of the antecedents of business model innovation and we define it as the degree of value appropriation, the mechanism that allows the dental practice to retain part of the value it creates as profit and increase revenues. The degree of value appropriation determines the activities of the dental practice's business model and its resource management, as well as its unique strategic resources and the way they are organized.

Dental service providers do not have the incentive anymore to provide standard treatment and get paid only by the public health insurance regulatory body BEMA that regularly tries to reduce the fees and introduces caps and limitations to treatments. As a consequence, they change their traditional business models by offering services that are accounted for by the private GOZ regulatory, which is much more lucrative for dental service providers as there are no caps, no limitations to treatments, and higher fees factoring. However, GOZ provides very strict and detailed descriptions of what accounts as a private service and how it is supposed to be delivered, with what instruments, and in what time frame. The quality required in order to be able to calculate with GOZ fees is very high and requires a proved high level of expertise and time. Thus, dental service providers are forced to specialize their services and activities. As a specialized dentist explained (Practice 3):

“You can only make real money when you go private. But you can only achieve this by focusing on the private treatments, and for that you need time. Without my partners I would not be able to do what I do. And it is not easy to charge privately. And patients are more demanding too, even if their private insurance covers it all. They want the best.”

The classic business model of a small, individual, personal dental practice is not sustainable nowadays. The former business model used to focus on generic practitioners. However, dentists usually cannot maintain this business model if they want to increase their value capture potential and reach the private GOZ fees because the treatments prescribed by GOZ are much more quality, time, and cost intensive. Thus, with limited resources and activities, dentists cannot offer general and specialized treatments equally. The activity choice is a matter of trade-off. Accordingly, dental service providers further attract publicly insured patients and try to reach their private pockets by offering more and better treatments factored by the private GOZ. A large pool of publicly insured patients allows the dental service provider to maintain a sustainable base of potential patients that might receive privately accounted for treatments in the future. An employed dentist (Practice 1) explained:

“We provide a new specialization of dental aesthetics, which allows us to offer higher standard of treatment that is not covered by BEMA. It is a purely private service. However, patients gain from the tooth preservation service. And we cut external lab costs.”

Specifically, in their pursue of increased value capture through private fees factoring by GOZ, dental service providers employ resource management by taking actions that structure and re-structure their activity portfolios, bundle activities to build specialized capabilities, and leverage the specialized capabilities to exploit market opportunities. By doing so, dental service providers can simultaneously exploit and capture value as well as create value for customers. Driven by their goal to value capture, dentists implement innovations in techniques, tools and materials and pass them on to their patients, thereby increasing their value creation. Patients benefit from higher quality service. In sum, the goal to value capture increases value creation and triggers business model innovation of dental practices that leads to new content, new structures and sometimes also new governance.

3.5.2 Specialization

Specialization is another antecedent of business model innovation and closely related to the goal to value capture. We define specialization as the extent to which the firm’s employees are individually focused on particular technological areas. Specialization of labor increases output by increasing productivity of labor. This in turn leads to increasing returns to scale, which is reflected in the decreasing costs of the dental practices in our case studies despite of their investments in specialization. Dental providers specialize in areas of their interest, gain more expertise in those particular fields, and consequently increase the value creation potential of their business models through the effects of the experience curve. At the same time, the increase in expertise allows the specialized dentists to charge higher private fees specified GOZ. Our findings further support Adam Smith’s (1776) theory that places specialization predominantly at the core of economic aspirations and makes egoism the fundamental motive of all behavior. As one dental provider (Practice 5) explained:

"Now we finally do what we always wanted to do. I enjoy performing surgeries only. I'm happy I don't have to deal with other things. Drill and fill can be boring. And it costs you time to do anything else. My partners feel the same. This is why we founded our specialized practice. We don't get headaches over others things."

Dental service providers innovate their business models by either hiring dentists specialized in areas that may compliment their portfolio of offerings or they collaborate with partners by specializing in particular areas and create new portfolio of offerings. Most practices in our case studies are specialized in diverse areas in addition to general dentistry, which is the main generator of patients for future specialized treatments. Our findings imply that having a more specialized dentistry workforce without the offering of general dentistry causes higher spending for the dental practice and less efficient dental care for the patients. The new, large, anonymous practices create and maintain a large base of own patients by providing general dentistry treatments as the underlying activity of the practice. The more own patients a practice has the larger is the potential for future patients requiring specialized services. Practices with a large base of patients and with the offering of general dentistry are not dependent on the referrals of patients from other practices. They can decide how they treat patients without any intervention or prescription by the referring dental providers, and they increase their own sustainability. One founding partner of Practice 1 explained:

"I couldn't survive without my own patients. Oral surgery and implantology is all I do. No other dentist would refer patients to my practice out of fear that I would keep them as we are a full-fledged practice covering the key areas with myself as a specialist in oral surgery. I need our patients to safe our future. Every

patient who comes for a check up constitutes a potential future patient for privately accounted for services that we offer."

Specialization is the response to the evolving ecosystem and the cuts in fees by the public health insurances. This ecosystem development, in turn, encourages patients to loose their loyalty and instead of visiting one particular dentist of their confidence, patients explore different providers based on the best treatment they can obtain. Specialization drives the most radical business model innovation as all three design elements of the business model are changed. This identified trend of specialization is further supported by the increase in the number of recognized dental specializations, which are certified by specialization boards and associations. Moreover, specialization acts as the basis for a new way of collaboration among dentists. The complexity of institutional change in the German dentistry care is such that dynamics of change at one level (increased specialization among forms in the organizational field) run hand in hand with the dynamics at another level (increased specialization within organizational forms). We therefore reiterate the business model innovation of dental practices, implying that the general trend toward greater specialization of organizational forms involves an increase in large, anonymous, specialist versus small, personal, general dental practices. The widely observed trend toward specialization involves the creation and rapid proliferation of new types of specialized organizations, competing with, but differing from general, classic dental practices.

3.5.3 Concentration

Concentration is another antecedent we identified in our research. During the past ten years, activities of dental service providers have become more concentrated. This theme emerges among both individuals and organizations alike. Individual dentists are less likely to operate as independent individual practitioners in small, individual, personal practices instead they prefer and aim at an organizational in form of independent larger group practices. However, on the organization level, dental practices do not desire to operate as component units of larger systems, like it is common with medical centers and hospitals, which often operate as members of some type of a larger administrative system. A shift in the relations among actors; that is, the concentration among individuals and organizations is one antecedent of business model innovation defined by the evidence of institutional change. One of the partners of Practice 8 explained:

"We are a center covering all areas. We are much more efficient and profitable by putting all specializations under one roof. We decrease our costs and we earn more. And of course, patients prefer large professional centers. Also, other colleagues refer their patients to us."

Concentration of activities leads to changes of the scale on which activities are delivered. It refers to the horizontal integration of activities – the combining of similar activities – and it drives the efficiency-based theme of business models. In the large, anonymous dental practices, dentists work together regularly as a team toward a common goal of maximizing the patient's overall outcomes as efficiently as possible. They are all experts in their respective fields, know and trust one another, and coordinate easily to increase efficiency in terms of time and minimize waste of resources. They discuss cases frequently and review data on their own performance. They further innovate their business models by establishing new protocols and develop more efficient ways to engage their patients.

Concentration facilitates communication, collaboration, and efficiency for customers and leads to higher value innovation. It allows dental service providers to adapt better to the evolving ecosystem by increasing the range of services being offered, change of opening hours and the introduction of shift work due to concentration of practitioners in one dental practice. Further, concentration leads to better cost sharing and therefore more cost efficiency, as well as knowledge sharing. A shift in the concentration among individuals and organizations, that is, relations among dentists and dental practices, is one of the ways in which institutional change is evident in our research. Concentration is the response to the cooperation dimension of the ecosystem. It leads to changes in all three elements of the business model as it changes the content of the business model, the way the activities are structured and the way they are governed and organized by policies.

3.5.4 Environmental constraints

We define environmental constraints as the evolving ecosystem, that is, the extent to which economic, legal, socio-political, regulatory, technological, and cultural conditions, as well as industry norms and requirements impose on dental service providers. The evolving ecosystem has an impact on the internal constraints of dental practices in terms of available resources and capabilities to innovate the business model. Predicated on the assumption that the focal firm adapts to the evolving ecosystem, the implication is that the evolving ecosystem itself is an antecedent of business model innovation. Elaborating on our findings, dental practices adapt to health reforms imposed by the government and the changing regulations by health insurances. Focusing more on the private health insurance regulatory, while at the same time bypassing the cuts in fees by the public health insurances, requires changes in the content delivery of dental practices, as well as changes in the business model structure and governance. It also impacts the value appropriation mechanism of the traditional business model.

While increasing value appropriation, services paid by private health insurances require different standards and performance measures than public health insurances; this again has a negative impact on the cost drivers, investments, and time of dental service providers. Not all dental practices, however, have the capabilities and/or the resources to adapt to such environmental changes and innovate their existing business models. For example, a dental practice may respond to cuts in fees by the public health insurances by specializing its services. Yet, in order to do so, it needs to employ one or more specialized dentists and change the practice's structure and governance. If the practice premises, however, do not provide the necessary space for additional practitioners, this constitutes an internal constraint to the intended business model innovation. One partner of Practice 8 explained:

"You have to find work-around-mechanism. Private treatments pay more so we provide only these services. We specialized in three areas crucial for us in order to bypass any changes taking place in general dentistry. We don't have to deal with other institutions anymore."

Further, in Germany, the number of new dental practices has been decreasing during the past ten years and instead the number of employed dentists has been increasing. This development indicates the progress of larger dental practices with more dentists employed, which, in turn, implies higher levels of specialization and concentration of dental practices. Moreover, technological developments in the ecosystem lead to higher investments in technology of dental practices, such as digitalization and the technological progress in tools, materials, and techniques. Practices that do not invest in new technology are not able to provide services of the highest standard and therefore loose out on collaboration options with other partners and higher private fee payments, and in the worst case they loose out on reputation and loose patients to other dental practices. Cultural and societal changes further enable the change from small, individual, personal dental practices into large, anonymous dental practices as patients are no longer loyal to just one dental service provider of their confidence but instead they opt for different dental practices where they obtain the best treatment possible. One of the partners at Practice 7 explained:

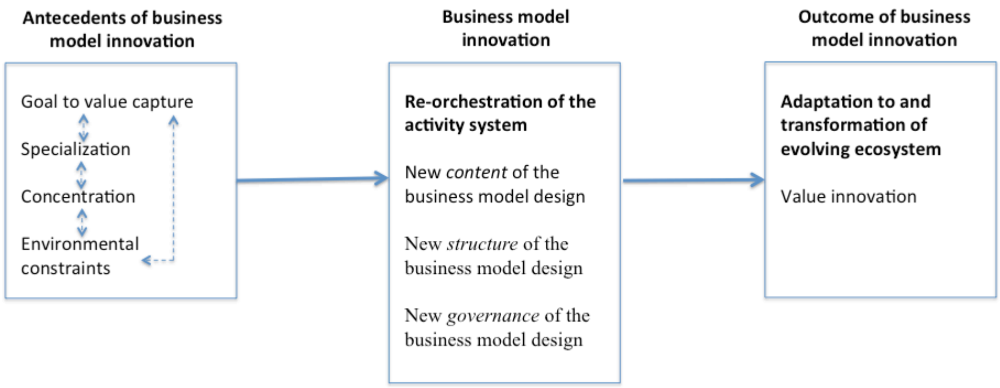
"Patients become more and more demanding. They know that they are not dependent on one dentist anymore. They go where they can get the best treatment. It's not like it used to be. You have to offer the best service."

The distinction between external and internal environmental constraints is necessary and useful at the same time. On the one hand, our findings show how external ecosystem factors constrain and influence dental practices and individual dental service providers. On the other hand, dental practices are not the passive pawns of external constraints, allowing environmental constraints to freely change them, but instead dental service providers take steps to challenge these constraints, thereby innovating their business models.

3.6 Discussion

Based on our findings described above, in the following we advance a framework that has been synthetized from our research. Figure 3.1 presents the framework developed as an outcome from our grounded theory research undertaken and the resulting findings. This model connects the four identified innovation antecedents of goal to value capture, specialization, concentration, and environmental constraints to business model innovation and to its outcome, which is reflected as value innovation of service providers. The discussion further indicates how firms adapt their business models to an evolving ecosystem by pursuing business model innovation.

Figure 3.1: Model of business model innovation



Source: Own creation: Model of antecedents and outcomes of business model innovation based on findings.

Business model innovation, in terms of novelty generation, contributes to the re-shaping of the firm's activities necessary to realize and address the envisioned external disruption of the ecosystem. Sanchez and Ricart (2010) note that environmental constraints not only hinder but also help novelty-centered business model design. When focused externally, business model innovation can be channeled towards envisaging changes in an industry's architecture (Jacobides, Knudsen & Augier, 2006) and the ecosystem (Teece, 2009). Industry architecture denotes the evolving relationships among value chain participants and other stakeholders and determines how labor and surplus are divided among the types of players involved (Jacobides et al., 2006). This architecture facilitates those interactions that allow firms to identify opportunities for and constraints to radical business model innovation. Knowledge of this architecture is essential to identifying who does what and to what norms. The business ecosystem usually incorporates architecture across multiple industries. Attending to industry architecture and the business ecosystem (Moore, 1993; Teece, 2007) expands the firm's playing field beyond the boundaries of its industry value chain. By interacting with various existing players in its ecosystem (e.g., customers, partners, suppliers and other stakeholders) and proactively seeking new players (e.g., boundary disruptors) (Santos & Eisenhardt, 2005), a firm can transform an ecosystem in addition to its adaptation to the evolving ecosystem.

Ecosystems continuously evolve and never stand still (Kim & Mauborgne, 2005). Interdependencies and configuration of activities are central to the concept of a business model and go beyond coordination and cooperation (Stieglitz & Heine, 2007). They enable the evolution of a focal firm's activity system over time as its ecosystem changes (Siggelkow, 2001, 2002a,b, 2011). When the ecosystem evolves, firms adjust their activity systems and reconfigure the sets of activities within the business model (Siggelkow & Levinthal, 2003). Internal fit among activities ensures that the business model has a coherent organizing of activities, while external fit refers to the appropriateness of the configuration of activities given the ecosystem affecting the business model. Fit among the activities in the business model is of crucial importance to the firm since environmental changes in the ecosystem can affect the external and/or the internal fit (Siggelkow, 2001, 2002a,b, 2011), which in turn will affect the business model architecture and the resources employed. The re-organization of activities is particularly relevant because "changing the scope of the organization not only affects the extent to which it can capture the fruits of its innovative labor; but also the extent to which it can be innovative in the future" (Jacobides et al., 2006, p: 1201). Adding, changing or eliminating activities is about scope choices and reveals an entrepreneur's theory of how to make money (Svejenova et al., 2011). Most of the received literature on business models, however, places the emphasis on the value creation and value delivery dimensions of the business model concept and less on the value capture aspect (Desyllas & Sako, 2012). Value capture is, however, the focus of business model innovation (Amit & Zott, 2012).

According to institutional theory (DiMaggio & Powell, 1991; Hargadon & Douglas, 2001; Hargadon & Sutton, 1997; Scott, 2008), environmental constraints affect the extent and sustainability of business model innovation. Driven by the antecedents of goal to value capture, specialization and concentration, they influence how activities are re-organized and orchestrated within the activity system and thus how the content, structure and governance of the new business model are changed and re-designed. Specialization is associated with the division of labor and allows employees to specialize in certain niches, thereby leading up to productivity and innovation and further to growth of the firm (Smith, 1776). It affects how service providers search for new technologies and what type of knowledge they acquire (Eisenhardt & Tabrizi, 1995; Katila & Ahuja, 2002). Concentration of activities is essential if integrated service providers are to form and value innovation is the desired outcome. It is among the most difficult steps for many firms, because it can threaten both prestige and service providers' turf. Yet the benefits of concentration can be game-changing (Porter & Lee, 2013). Concentration depends on densities of production in the areas specializing in the production of different products and services (Aiginger & Rossi-Hansberg, 2006).

At this stage it is important to emphasize the endogenous role of the business model concept. The endogeneity idiosyncrasy of the business model implies that antecedents of business model innovation can be the drivers of innovation at one point in time, but they can develop into parts of the business model as the business model is about making choices. For example, while specialization and concentration are identified as the antecedents of the business model, with the time they turn and develop into crucial elements of the business model. By adapting to evolving ecosystems, service providers create novel business models. These findings support recent work on institutional theory that highlights institutional entrepreneurship and describes how institutional entrepreneurs construct new markets, become dominant players in those markets, and simultaneously legitimize business model innovation by attracting new stakeholders of the ecosystem (Battilana, Leca, & Boxenbaum, 2009; Hwang & Powell, 2005; Santos & Eisenhardt, 2005). Evolving ecosystems act as stimuli and creative challenges that enable firms to deal with them by creating novelty rather than imitating and following existing business models (Amit & Zott, 2015).

Thus, we argue that business model innovation enables firms to continuously enact upon opportunities of value creation and appropriation during the evolution of the ecosystem. We further claim that an interplay takes place between the evolution of the ecosystem and business model innovation of firms within the ecosystem. The novelty of a new business model opens up new strategic directions and transforms the ecosystem. Thus, firms become adept at experimenting with a repertoire of strategic alternatives that my spur game changing strategies (Huber, 1991; Miller & Chen, 1996) toward other stakeholders in the ecosystem and may transform the ecosystem itself. Such business model innovation that orientates itself on the evolution of the ecosystem refers to a focal firm's way to improve the odds and out-smart other players in pursuit of profit and growth (Lafley & Charan, 2008).

At the core of the business model innovation of the dental practices in our case studies lies the objective of maximizing value for patients, that is, achieving the best patient outcomes at the lowest cost. These dental practices undertake large-scale changes involving multiple components, driven by the identified antecedents of business model innovation, which result in remarkable improvements in outcomes and efficiency, and growth in market share. Dental service providers in our case studies create stronger positions, increase their bargaining power, and improve their standing and reputation by dramatically improving the efficiency and effectiveness of providing their services. They grow their market share by improving the outcomes of their dental service consumers. Focus on goal to value capture, specialization, concentration and environmental constraints allows service providers to become most competitive by innovating and increasing the value they provide. Business model innovation leading to value innovation requires a different competitive mind-set and a systematic way of looking for opportunities (Kim & Mauborgne, 1997).

In line with value innovation theory, service providers in our research do not use competition as their benchmark, but instead they follow the logic of value innovation, which is about moving beyond the existing market boundaries by creating a leap in value for customers and for the focal service providers who leave the competition behind instead of matching and beating their competitors in the existing market space (Hamel, 1998; Kim & Mauborgne, 2005). The dental service providers focus on the willingness of patients to invest in their teeth. This focus allows them to see what is most important to customers. Further, they do not look at business opportunities through the lenses of their existing assets and capabilities and do not allow their business model innovation to be constrained by where they are at a given moment. The identified business model innovation antecedents enable the dental service providers to replace the fragmented system of small, individual practices with a system in which dental services are concentrated in large, anonymous dental practices, thereby allowing the dental service providers to offer their customers services they highly value while reducing their own costs – this is the logic behind the business model innovation, which leads to value innovation (Hamel, 1998; Kim & Mauborgne, 1997). Service providers that increase value will be most competitive (Porter & Lee, 2013). By innovating their business models, dental service providers move away from a supply-driven dental care system toward a patient-centered system around what customers need, with a focus on patient outcome. Dental consumers expect the service to be delivered in a qualitative, honest, and compassionate environment. When patients make the decision to accept the dental treatment they actually make the decision to accept the dentist. Although patients go to dentists for health reasons, the choice of a dentist is related to value (Griffith & Abratt, 2013).

Simply co-locating dentists in the same premise, or simply putting up a sign indicating a large, anonymous dental practice, will have little impact. Dental service providers that progress rapidly in business model innovation with the goal of value innovation reap vast benefits, even if regulatory change is slow. As the patients' outcomes improve, so do their reputations and, therefore, their patient volumes. With the tools to manage and reduce costs, dental providers are able to maintain economic viability even as fee payments stagnate and eventually decline. Dental practices that concentrate volume of patients drive a virtuous cycle, in which specialized dental providers improve value more rapidly – attracting still more patients (Porter & Lee, 2013; Porter & Teisberg, 2006). Only dental service providers can put in place business model innovation that is needed to improve value, because value is ultimately determined by how dentistry is practiced. This business model innovation involves the creation of a new game by envisioning and realizing a new playing field and related system of roles, rules, relationships, and outcomes. This, however, requires mobilization of collective action across a range of stakeholders, within and outside the ecosystem, as well as lobbying efforts at the institutional level to legitimize the new game (Aldrich & Fiol, 1994; Porter & Lee, 2013; Porter & Teisberg, 2006). It also demands careful sequencing and timing of orchestration and negotiation activities so that new industry architecture and ecosystem can come into being (Jacobides et al., 2006; Teece, 2007).

Our research contributes to the new research at the intersection of business models and ecosystem as a response to the call by Zott and Amit (2013) and answers the important questions about how firms adapt their business models to an evolving ecosystem and what are the antecedents of business model innovation in this context. We hereby contribute to the literature on business models and strategy in several novel ways. First, we shed light on business model innovation antecedents and trajectories by mapping the specific role of business models, as well as their pivotal role in its integration and embeddedness within the focal firm and the ecosystem in the context of complex service industry setting. We empirically examine the antecedents of business model innovation, a new form of innovation that is receiving increasing attention in strategy literature. Our identification of antecedents of business model innovation and our delineation of their mechanisms for sparking business model innovation as a way to adapt to evolving ecosystems suggest a shift in perspective in research as we extend the locus of innovation antecedents from individual insights in innovation research (Beckman, 2006; Hargadon & Sutton, 1997; Ruef, 2002; Sinhur & Zott, 2014) to the consideration of firm-level antecedents of business model innovation.

Second, we provide a more systemic perspective that emphasizes the interdependencies and complementarities between a firm and its stakeholders within the ecosystem in order to better understand how value is created and captured. In our focus on business model innovation, we emphasize firms' orchestration of internal and external activities to enact opportunities of value creation and appropriation, whether they are discovered or created, in order to adapt to the evolving ecosystem. Third, we enhance strategy literature that points to the relevance of value innovation as a competitive trajectory of business model innovation. We hereby emphasize the important role of business model innovation in value appropriation and the need for specialization and concentration of service providers. Fourth, we also contribute to institutional theory by presenting the identified antecedents of business model innovation as mechanism leading to institutional change in the ecosystem of service providers. On a managerial side, our research presents a rare to find unconsolidated market opportunity with the ability to buy highly profitable units and extract synergies.

3.7 Limitations and Directions for Future Research

Our current focus on antecedents of business model innovation emphasizes the importance of ecosystems and how service providers adapt to the evolving ecosystem and transform it through business model innovation. Thus, we enrich the discussion on industry and ecosystem emergence and evolution by highlighting the focal firm's role in initiating institutional change through business model innovation. This role should be further empirically tested and documented in future research. Our conclusions are based on a sample of initial 147 case studies, out of which we identified 10 in-depth and 23 supportive case studies in a specific industry in one geographic region. The purpose of grounded theory building is to generate and inspire new ideas (Glaser & Strauss, 1967). Consequently, more empirical work is needed to validate and examine whether our findings hold across a larger number of firms and a wider range of industries and geographies. Future research should also focus on the process of business model innovation and its impact on performance outcomes and differentiation considering the significant performance consequences of business model innovation (Markides, 2006; Pohle & Chapman, 2006; Zott & Amit, 2007) and its acknowledgement in research as key source of competitive advantage (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Teece, 2010).

Future research could also explore which parts of the adaptation process of business model innovation to an evolving ecosystem are planned, and which parts are emergent, and how can the best fit between the new business model and the ecosystem be achieved. Further, taking the identified antecedents of business model innovation, future research could explore the best timing for business model adaptation predicated on the assumption that further changes the ecosystem will occur. Following evolutionary theory, future research could analyze the differentiation between intentional change and unintentional change of business models in an evolving ecosystem. We approach the current research setting from the business model innovation and strategy perspective, however, future research could explore the research setting from the institutional theory perspective exploring if the individual, small, personal dental practices are no longer accepted in the ecosystem. Future research could also analyze the network effects in the research setting and how the new emerging business models of large, anonymous dental practices compete with the traditional, small, personal ones. Last but not least, future research could approach business model innovation of dental service providers from the customer perspective.

3.8 Conclusion

In this article, we build grounded theory on the antecedents of business model innovation as a means of goal to value capture, specialization, concentration and environmental constraints for value innovation of service providers in their adaptation to the evolving ecosystem. Progress in business model innovation is greatest if the multiple antecedents advance together as they are interdependent and mutually reinforcing. We emphasize the importance of value innovation as an outcome of business model innovation and a response to an evolving ecosystem. We further highlight the particular challenge of business model innovation in a service industry setting characterized by relatively low rate of technological innovation, high extent of complexity and regulations, low levels of competition and high economic recession protection. With this work at hand we respond to recent calls in literature for new research at the intersection of business models and ecosystems.

Chapter 4: Leverage or Develop? How Emerging Market Multinationals Manage their Business Models during their Internationalization.

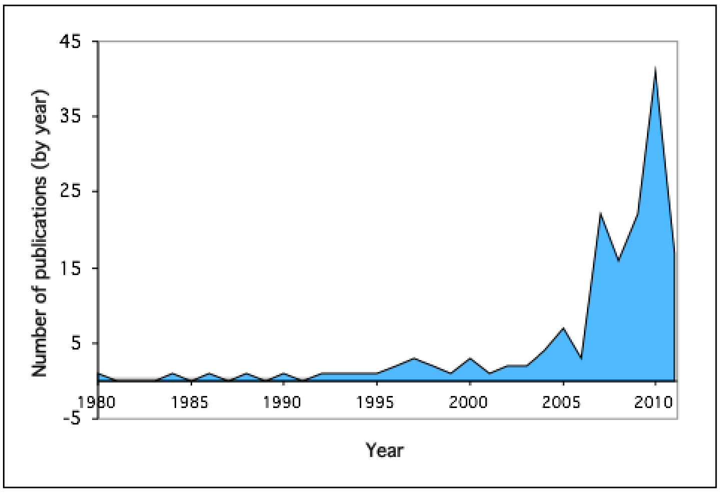
The phenomenal surge in internationalization by firms from emerging markets has gained momentum in academic research. We contribute to the growing stream of research by exploring the questions of how EMNEs manage and innovate their business models as they internationalize. Following a critical review of extant literature, we identify a conceptual framework depicted by two key variables: (1) the level of institutional difference in terms of entry into emerging or developed markets, and (2) strategic initiatives in terms of leveraging the traditional business models or developing new business model. The framework reveals four different business model management strategies EMNEs can pursue during their internationalization trajectories. Second, we summarize from the literature and the identified conceptual framework general propositions on the internationalization of EMNEs. Third, we review distinctive case study examples to illustrate the framework of different business model management strategies of EMNEs as their internationalization trajectories evolve. The paper concludes with theoretical and managerial implication and fruitful avenues for future research.

4.1 Introduction

Recent years have witnessed to a large degree the success story of emerging markets multinationals (EMNEs). Companies such as América Móvil, the Mexican telecoms giant, Samsung, the South Korean electronics group, or Embraer, the Brazilian airplane manufacturer have become world-beaters – challenging their western rivals in the way they have developed technology and pursued innovation, transformed, innovated and managed their businesses models, and internationalized not only to other emerging and least-developed economies but more so to developed markets where they compete with Western firms on their home turf. The ascendancy of these emerging multinationals and their internationalization have gained increased academic attention in recent years (Aulakh, 2007; Aulakh & Kotabe, 2008; Aulakh, Kotabe, & Teegen, 2000; Bonaglia, Goldstein, & Mathews, 2007; Chittoor, Sarkar, Ray, & Aulakh, 2009; Cuervo-Cazurra, 2007, 2008a; Del Sol & Kogan, 2007; Eden, 2010; Gammeltoft, Barnard, &

Madhok, 2010; Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010; Hill & Mudambi, 2010; Khanna & Palepu, 2006; Lecraw, 1993; Luo & Tung, 2007; Mudambi, 2008; Ramamurti & Singh, 2009a; Sauvant, 2008; Young, Hunag, & McDermott, 1996). As Figure 4.1 suggests, interest in emerging multinationals has gained considerable attention in academic literature since 1980. Particularly, we witness a significant acceleration in research from 2007 till today. The recent increase in articles on emerging markets multinationals demonstrates their increasing relevance in management literature. Table 4.1 illustrates the development of research on EMNEs in literature from 1980 till 2011. This phenomenon of EMNEs' internationalization is worthy of scientific scrutiny since it is occurring in a world that is very different from the past decades.

Figure 4.1: Development of research on emerging multinationals



Source: Own creation. Own illustration based on EBSCO Business Source Complete database as a starting point (Certo et al., 2009; Laplume et al., 2008) and extended search to also include the ABI/INFORM Global on ProQuest and the Science Collection databases. Period: January 1980 until May 2011.

First of all, EMNEs have to overcome their globalization 'late mover' disadvantage (Bartlett & Ghoshal, 2000; Madhok, 2010), and they have to compete with established multinationals from the developed markets that have better access to strategic resources such as financial capital, advanced technologies and managerial, internationalization and competitive capabilities (Guillen, 2000). Further, EMNEs typically originate from unique institutional and resource environments (Hoskisson et al., 2000; Khanna & Palepu, 1997, 2006) characterized by market failure through information asymmetry, misguided regulations, inefficient judicial systems and weak legal frameworks, as well as strong institutional voids, which, in turn, increase transaction costs of accessing resources in the external markets and doing business in general (Chittoor et al., 2009; Ghemawat & Khanna, 1998; Khanna & Palepu, 1997; Madhok, 2010). Nonetheless, EMNEs succeed in overcoming their home market challenges. They respond well to exogenous shocks of regulatory and institutional reforms (Cuervo-Cazurra & Dau, 2009), pressures of new competition, opportunities offered by globalization, and transform themselves to become a sizeable and rising feature of the world economy (Chittoor et al., 2009; Duysters et al. 2009; Madhok, 2010) by creating innovative business models (Hill & Mudambi, 2010; Mudambi, 2008).

Research on agile EMNEs that combine novel business models with technological innovation has enriched our understanding of the value creating potential of EMNEs' business model innovation (Govindarajan & Ramamurti, 2011; Immelt, Govindarajan, & Trimble, 2009; Sarkar, 2011). However, although many EMNEs are rapidly going global, both to better compete in international markets as well as to be more competitive at home, relatively little is known about the internationalization trajectories of these firms (Cuervo-Cazurra & Genc 2008; Peng, Wang, & Jiang, 2008). While some scholars argue that EMNEs follow an exploration strategy with the aim to acquire new advantages in order to overcome their home advantage deficit (Luo & Tung, 2007; Mathews, 2002) and their liability of emergingness (Madhok, 2010), others claim that EMNEs pursue exploitation strategies in order to leverage their existing firm and country specific advantages

(Cuervo-Cazurra & Genc, 2008; Narula, 2006; Ramamurti, 2009a). This distinction has produced important insights but is still incomplete in literature.

Although the literature on emerging markets multinationals allows us to identify a set of internationalization trajectories of these firms, this paucity of research renders our understanding incomplete as it does not tell us precisely how they are linked to business model management that is relevant because business models as the "reflection of the firm's realized strategy" (Casadesus-Masanell & Ricart, 2010: 195) offer a particularly interesting insight in the context of EMNEs' internationalization. Against this background, the business model as a new unit of analysis is necessary as it allows for coevally considering EMNEs internal and external aspects. The business model allows analyzing how these firms from emerging markets manage their business models during their internationalization trajectories and how they thereby create and appropriate value. Additionally, the business model encompasses a system-level perspective (Amit & Zott, 2012, 2014; Zott & Amit, 2013) that includes firm-centric activities spanning the firm boundaries of the firm (Zott, Amit, & Massa, 2011). Thus, by focusing on the business model as unit of analysis it is possible to include interactions between the focal EMNEs and their business ecosystems that are crucial in the context of internationalization of firms from emerging markets in our research. This makes further research for greater clarity and theory development necessary.

Consequently, as the concept of EMNEs has matured and addressed a wide range of related areas, we argue that the next step in closing this literature gap and advancing the theoretical milestones on EMNEs is in understanding how exactly they manage and innovate their business models during their global expansion to advanced and emerging economies.

Against this background we raise the following research questions: (1) *How do EMNEs manage their business models as they internationalize? (2) How do EMNEs innovate their business models when they internationalize?*

This paper attempts to address these research questions by proposing a conceptual framework derived from extant research, illustrated by eight case studies of diverse emerging markets firms. Our research extends current literature on EMNEs. We suggest that these firms' international expansions impose a need to either leverage the existent business model from home or develop a new business model and manage dual business models depending on the institutional context of the host country. We highlight the difficulties associated with the required business model innovation and the subsequent management of dual business models and suggest that these difficulties are likely to be affected by their destination of internationalization. Furthermore, we contribute to the literature on emerging multinationals and business model literature through highlighting of a useful setting and framework to investigate the interplay between different internationalization trajectories and business model management strategies. Specifically, we add new insights to the theories of internationalization strategies of emerging economy firms (Cuervo-Cazurra, 2007; Dawar & Frost, 1999; Khanna & Palepu, 2006; Luo & Tung, 2007; Madhok 2010; Ramamurti & Singh, 2009a), and we add to the business model literature in the context of internationalization of emerging economy firms.

The remainder of the paper is organized as follows. In the next section we establish the context by integrating insights from the relevant literature on EMNEs' internationalization and on the notion on business models. We then propose a conceptual framework and make propositions summarized from literature of how EMNEs manage their business models during internationalization into emerging and developed markets. We explore the validity of our framework with illustrations of eight case studies of EMNEs. We conclude by drawing implications to theory and practice and offering directions for further research.

4.2 Theoretical Background

4.2.1 Emerging market multinationals and their internationalization strategies

Emerging economies constitute unique institutional and resource environments (Hoskisson et al., 2000), characterized by institutional voids such as underdeveloped institutions and market intermediaries, and limited resources (Khanna & Palepu, 2006). Consequently, firms from emerging economies are limited in their growth by under-developed markets, low resource munificence, unsophisticated customers, sub-optimal suppliers, weak infrastructure, and market failure caused by information asymmetry, communication and information challenges, misguided regulations, inefficient judicial systems and weak legal frameworks (Chittoor et al., 2009; Khanna & Palepu 1997; Madhok, 2010; Ramamurti & Singh, 2009a). They also suffer of lower technological and managerial standards, underdeveloped capabilities and inadequate resources, as well as lack of experience in global competition (Cuervo-Cazurra & Dau, 2009; Ramamurti & Singh, 2009a). This liability of emergingness (Madhok, 2010) is internally further increased by the EMNEs' small asset bases and the limited access to new strategic assets, which makes it difficult for them to scale advantages along the value chain activities vis-à-vis multinationals from developed markets. These disadvantages decrease efficiency and increase the transaction costs of EMNEs of accessing strategic resources and conducting business in general (Cuervo-Cazurra & Genc, 2008; Madhok, 2010).

Table 4.1: Research on emerging multinationals in literature

Journals	Number of studies	Studies
Academy of Management Journal	3	Guillen, 2000; Hitt et al., 2000; Khanna & Palepu, 2000
Academy of Management Perspectives	3	Guillén & García-Cana, 2009; Luo & Rui, 2009; Luo et al., 2011
Journal of International Business Studies	24	Ghymn, 1980; Lecraw, 1993; Lee & Beamish, 1995; Erramilli et al., 1997; Makino et al, 2002; Guillen, 2003; Doh et al., 2004; Ramamurti, 2004; Zheng et al., 2006; Buckley et al., 2007; Cuervo-Cazurra et al., 2007; Del Sol & Kogan, 2007; Elango & Pattnaik, 2007; Filatotchev et al., 2007; Luo & Tung, 2007; Yiu et al., 2007; Zhou et al., 2007; Cuervo-Cazurra & Genc, 2008; Aybar & Ficici, 2009; Bhaumik et al., 2010; Gao et al, 2010; Gubbi et al. 2010; Kim et al., 2010; Lu et al., 2010
Journal of International Management	27	Luo & Tan, 1998; Harvey et al., 1999; Ramamurti, 2003; Aulakh, 2007; Chittoor & Ray, 2007; Cuervo-Cazurra, 2007; Garg & Delios, 2007; Klein & Wöcke, 2007; Li, 2007; Pananond, 2007; Petrou, 2007; Aulakh & Kotabe, 2008; Chittoor et al., 2008; Cuervo-Cazurra, 2008; Perez-Batres & Eden, 2008; Li & Kozhikode, 2009; Barnard, 2010; Gammeltoft et al., 2010; Hill & Mudambi, 2010; Kalotay & Sulstarova, 2010; Knoerich, 2010; Li & Yao, 2010; Li, 2010; Tan & Meyer, 2010; Tolentiono, 2010; Zhao et al. 2010;
Management International Review	6	Monkiewicz, 1986; Young et al., 1996; Thomas et al., 2007; Ang & Michailova, 2008; Miller et al., 2008; Tracey & Phillips, 2011
Management Science	1	Mahmood & Mitchell, 2004
Organization Science	1	Chittoor et al. 2009
Strategic Management Journal	2	Khanna & Rivkin, 2001; Chacar & Vissa, 2005

Source: Own creation. Own illustration based on EBSCO Business Source Complete database as a starting point (Certo et al., 2009; Laplume et al., 2008) and extended search to also include the ABI/INFORM Global on ProQuest and the Science Collection databases. Period: January 1980 until May 2011.

Table 4.1 above and Table 4.2 below summarize central works using the terminology of emerging market multinationals in their studies. In past research, scholars have focused mainly on the context of emerging multinationals, internationalization, entry mode decisions, mode of entry, competitive advantage, inter-organizational relationships, and innovation models and entrepreneurship. Despite the impressive growth of this literature over the last ten years, further research is needed.

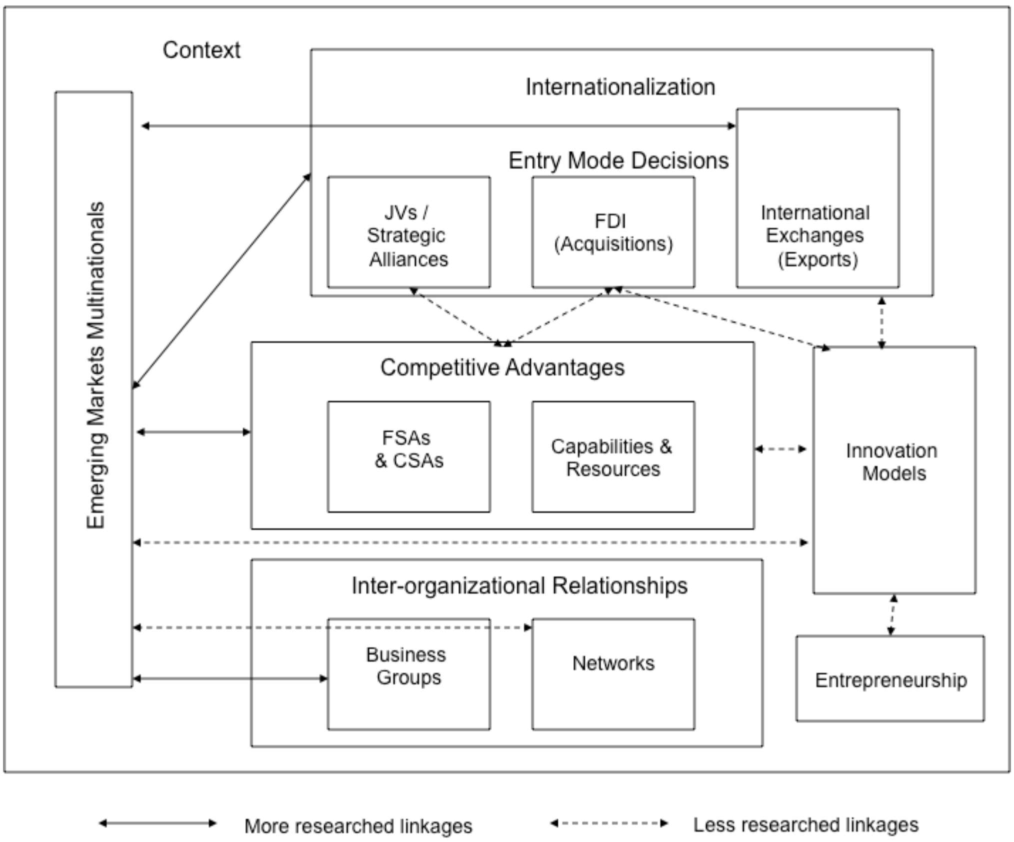
Table 4.2: Categories in research of emerging multinationals

Category in EMNEs research	Topics included	Number of articles in top 9 journals
1. Context of emerging multinationals	Emergence of EMNEs, characteristics of EMNEs, political, regulatory and institutional environment, environmental risks, ambidexterity	12
2. Internationalization	Motivation, antecedents of internationalization, challenges, processes, consequences of internationalization	17
3. Entry mode decision	Ownership levels, location choice, partner selection, pattern of entry	7
4. Mode of Entry	Alliances & JVs, FDI & acquisitions, international exchanges	7
5. Competitive advantage	Capabilities, factor specific and country specific advantages, learning	12
6. Inter-organizational Relationships	Business groups, networks	8
7. Innovation models & entrepreneurship	Innovation model, entrepreneurship	4

Source: Own creation. Own illustration based on EBSCO Business Source Complete database as a starting point (Certo et al., 2009; Laplume et al., 2008) and extended search to also include the ABI/INFORM Global on ProQuest and the Science Collection databases. Period: January 1980 until May 2011.

Questions about the development of competitive advantages by EMNEs and where those advantages derive from, EMNEs' significant outward FDI in developing economies, and how some EMNEs successfully compete with MNEs from industrialized economies, as well as their models of innovation require more research and theory development. Consequently, as represented with solid arrows in Figure 4.2 below, some non-inclusive areas are linked to others by more research that has been conducted, other areas have received considerably less attention in research as indicated with dashed arrows. Figures 4.3a – 4.3e summarize extant research on EMNEs categorized in the occurring research themes.

Figure 4.2: Current themes in research on emerging multinationals



Source: Own creation.

A stream of literature focused on empirically testing the applicability of the popular typologies of competitive strategies at generic level (Miles & Snow, 1978; Mintzberg, 1978; Porter, 1980) in the context of EMNEs (Aulakh et al., 2000; Kim & Lim, 1988). Kim and Lim (1988) tested for the existence of Porter's (1980) generic strategies in the electronics industry in South Korea and found evidence for mixed strategies rather than pure types. Aulakh et al. (2000) found that cost leadership strategy was more successful in the case of exports to developed markets while differentiation worked better in developing economies. Taking into account the unique environmental and institutional context of emerging markets, there have been attempts in literature to develop specific conceptual models that propose a set of generic strategies available to EMNEs as they respond to institutional changes (Bonaglia et al., 2007; Craig & Douglas, 1997; Cuervo-Cazurra, 2007; Cuervo-Cazurra & Genc, 2008; Dawar & Frost, 1999; Khanna & Palepu, 2006).

Craig and Douglas (1997) and Bonaglia et al. (2007) propose that the internationalization responses of EMNEs range from cost-oriented commodity approaches based on low-cost labor component and private-label manufacturing to higher value-creating approaches that capture a greater share of the value chain. Dawar and Frost (1999) identify a mix of defensive and assertive strategic options leveraging on some of the unique advantages and resources possessed by EMNEs. Khanna and Palepu (2006) and Cuervo-Cazurra and Genc (2008) suggest that EMNEs should exploit their advantage of managing institutional voids that characterize their local markets to counter multinationals from developed markets. Cuervo-Cazurra (2007) argues that EMNEs that benefit from a location advantage in their home market are more likely to start internationalization by using marketing subsidiaries, however, EMNEs that benefit from a location advantage in the host country or face difficulties in the transfer of products across countries are more likely to start internationalization by establishing production subsidiaries.

The common thesis underlying this past research as summarized in Figures 4.3a – 4.3e is that EMNEs experience difficulties in developing resources and capabilities to compete with multinationals from developed markets and hence successful internationalization is only possible by means of exploitation of their country and firm specific ownership advantages, such as low costs or experience in operating within institutional voids, in other, similar, emerging or less developed economies. This stream of literature follows the argument that EMNEs, as well as experiencing disadvantages, also experience certain advantages (Dawar & Frost, 1999).

Figure 4.3a: Research on EMNEs: Context of emerging multinationals

Topic Area	Sub-Topic	Study's Focus	Market / Region	Country	Study
Context of Emerging Multinationals	Emergence of EMNEs	Macro- and micro-level perspectives	Emerging markets (general)	-----	Gammeltoft, P., Barnard, H., & Madhok, A. (2010, JIM)
	Characteristics of EMNEs	Emerging characteristics of EMNEs	Emerging markets (general)	-----	Monkiewicz, J. (1986, MIR)
		Typologies of EMNEs and MNEs	Asia	China	Li, P.P. (2007, JIM)
		Internationalization of inputs and product markets to overcome institutioal changes	Emerging markets (general)	India	Chittoor, R., Ray, S., Aulakh, P.S., & Sarkar, M.B. (2008, JIM)
		Theoretical approaches to overcome pressures from institutional changes in emerging markets	Emerging markets (general)	-----	Aulakh, P.S. & Kotabe, M. (2008, JIM)
	Political, Regulatory and Institutional Environment	Structural reforms accelerate rate of multinationalization and increase competitiveness	Latin Amreica	-----	Cuervo-Cazurra, A. (2008, JIM)
		Liability of localness: changing from 'then' (pre-exogenous regulatory shock) to 'now' (post-exogenous regulatory shock)	Emerging markets (general)	-----	Perez-Batres, L.A., & Eden, L. (2008, JIM)
		Government re-engaging despite privatization and deregulation	Emerging markets (general)	-----	Ramamurti, R. (2003, JIM)
		Regional competitive advantage based on pioneering economic reforms	Latin Amreica	Chile	Del Sol, P. & Kogan, J. (2007, JIBS)
		Effects of market-oriented institutional change on business group affiliated and independent firms	Asia	South Korea	Kim, H.; Kim, H. & Hoskisson, R.E. (2010, JIBS)
	Environmental Risk	Pre-crisis and post-crisis internationalization expansion	Asia	Thailand	Pananond, P. (2007, JIM)
	Ambidexterity	Co-evolution, co-competence, co-opetition, co-orientation	Emerging markets (general)	-----	Luo, Y. & Rui, H. (2009, AMP)

Figure 4.3b: Research on EMNEs: Internationalization

Topic Area	Sub-Topic	Study's Focus	Market / Region	Country	Study
Internationalization	Antecedents	Management skills, sharing of tacit social knowledge with contextual understanding	Emerging markets (general)	-----	Harvey, M.G., Speier, C., & Novicevic, M.M. (1999, JIM)
		International work experience favors internationalization while international education does not	Asia	Taiwan	Tan, D.; Meyer, K.E. (2010, JIM)
		Strategic choice of multinational firms in response to a changing environment is not necessarily isomotphic with that of local firms	Asia	China	Luo, Y. & Tan, J.J. (1998, JIM)
		Motivation to change (past performance), opportunity to change (firm location and market orientation), and capability to change (firm ownership, managers' change attitude, and leader charisma)	Asia	China	Zheng Zhou, K.; Tse, D.K.; Li, J.J. (2006, JIBS)
	Motivation	Market demand and trade restrictions as dominant motivating factors for FDI, EMNEs different motivations than MNEs from US	Emerging markets, North America	USA	Ghymn, K. (1980, JIBS)
		Exploitation of ownership advantages, but also access to and development of ownership advantages previously not possessed	Asia	Indonesia	Lecraw, D.J. (1993, JIBS)
		EMNEs follow clients from home, while MNEs enter developing countries in search for foreign market opportunities	Emerging markets (general)	-----	Petrou, A. (2007, JIM)
		Gain substantially from the global ambitions of EMNEs (acquirerer) for advancement of MNEs' own business objectives	Europe, Asia	Germany, China	Knoerich, J. (2010, JIM)
		In emerging markets control upstream natural resources, while in high-income countries control downstream markets	Eastern Europe	Russia	Kalotay, K. & Sulstarova, A. (2010, JIM)
	Challenges	Loss of advantage provided by resources transferred abroad, creation of a disadvantage by resources transferred abroad, lack of complementary resources required to operate abroad	Advanced and emerging markets	-----	Cuervo-Cazurra, A., Maloney, M.M., & Manrakhan, S. (2007, JIBS)
	Processes	Internationalization processes (inward and outward) as mechanisms of facilitating competitive catch-up	Asia	China	Young, S., Chun-Hua Huang, K., & McDermott, M. (1996, MIR)
		EMNEs follow different patterns of international expansion than the traditional American model of the multinational enterprise	Emerging markets (general)	-----	Guillén, M.F. & García-Canal, E. (2009, AMP)
	Consequences	Relationship between stability, venture creation rationale, satisfaction level, and control with performance respectively	Asia	South Korea	Lee, C. & Beamish, P.W. (1995, JIBS)
		Higher shareholder value when the target firms are located in advanced economic and institutional environments	South East Asia	India	Gubbi, S.R, Aulakh, P.S, Ray, S.; Sarkar M.B., & Chittoor, R. (2010, JIBS)
		Survival of the foreign subsidiaries of EMNEs	South East Asia	India	Garg, M. & Delios, A. (2007, JIM)
		Survival of emerging market firms in developed markets	Emerging markets (general)	-----	Miller, S.R., Thomas, D.E., Eden, L., & Hitt, M. (2008, MIR)
		Contribution of outward direct investment to productivity changes within China, 1991–2007	Asia	China	Zhao, W., Liu, L., & Zhao, T. (2010, JIM)

Figure 4.3c: Research on EMNEs: Entry mode decision & mode of entry

Topic Area	Sub-Topic	Study's Focus	Market / Region	Country	Study
	Ownership Levels	Balancing private and state ownership in emerging markets' telecommunications infrastructure	Emerging markets (general)	-----	Doh, J.P., Teegen, H., & Mudambi, R. (2004, JIBS)
Entry Mode Decision	Location Choice	Asset-exploitation and asset-seeking aspects are predictive of the emerging multinationals' location choice of investment	Asia	Taiwan	Makino, S., Chung-Ming, L., & Yeh, R.S. (2002, JIBS)
	Partner Selection	Partner selection	Emerging markets (general)	-----	Hitt, M.A., Dacin, M.T., Levitas, E., Arregle, J.L., & Borza, A. (2000, AMJ)
		Experience, imitation, and the sequence of foreign entry; South Korean firms in China	Asia	China	Guillen, M.F. (2003, JIBS)
	Pattern of Entry	Choice of equity stake in an affiliate depends upon the extent of family and institutional share ownerships in the parent company; Taiwanese firms in China	Asia	China	Filatotchev, I., Strange, R., Piesse, J., & Lien, Y.C. (2007, JIBS)
		Sequence of value-added activities in the multinationalization, production subsidiaries vs. marketing subsidiaries	Latin America	-----	Cuervo-Cazurra, A. (2007, JIM)
		Role of reference groups in international investment decisions by firms from emerging economies, investments in China by EMNEs	Asia	China	Li, J.; Yao & F.K. (2010, JIM)
	Alliances & JVs	Role of cognitive bias in developed market entry and survival: Alliance experience with MNEs increases the likelihood of entry, but decreases the likelihood of survival	Latin America	-----	Thomas, D.E., Eden, L., Hitt, M.A., & Miller, S.R. (2007, MIR)
		Institutional explanations of cross-border alliance modes; institutional effects are contingent on the alliance location	Emerging markets (general)	-----	Ang, S.H. & Michailova, S. (2008, MIR)
		FDI through MNEs as the principal source of foreign capital for developing countries, extending research agenda	Emerging markets (general)	-----	Ramamurti, R. (2004, JIBS)
Mode of Entry	FDI & Acquisitions	Determinants of Chinese outward foreign direct investment.	Asia	China	Buckley, P.J, Clegg, L.J., Cross, A.R. Liu, X., Voss, H., & et al. (2007, JIBS)
		Cross-border acquisitions and firm value	Emerging markets (general)	-----	Aybar, B. & Ficici, A. (2009, JIBS)
		Effect of ownership strucutre on EMNEs' outward FDI	South East Asia	India	Bhaumik, S.K., Driffield, N., & Pal, S. (2010, JIBS)
	International Exchanges	Effects of institutional environment on export behaviors above and beyond the impact of firm competencies and industry factors.	Asia	China	Gao, G.Y., Murray, J.Y., Kotabe, M., & Lu, J. (2010, JIBS)

Figure 4.3d: Research on EMNEs: Competitive advantage

Topic Area	Sub-Topic	Study's Focus	Market / Region	Country	Study
Competitive Advantages	Capabilities	Scaling up the value chain by copying products of others, capabilities and conditions	Emerging markets (general)	-----	Luo, Y., Sun, J., & Wang, S.L. (2011 AMP)
		Capabilities as a mediator linking resources and international performance	Asia	China	Lu, Y., Zhou, L., Bruton, G., & Li, W (2010, JIBS)
		Asset exploitation followed by asset seeking behavior; leadership and domestic dominance more important than CSAs	Africa	South Africa	Klein, S.; Wöcke, A. (2007, JIM)
		EMNEs supplement exploitation strategies with exploration through new products and new markets emerge with capabilities that challenge MNCs from the developed world	Emerging markets (general)	-----	Chittoor, R. & Ray, S. (2007, JIBS)
		Overcoming the liability of foreignness without strong firm capabilities	Emerging markets (general)	-----	Barnard, H. (2010, JIM)
		Under what condition EMNEs domestically exploit capabilities that have been developed in the course of internationalization	Latin America	-----	Boehe, D.M. (2011, JIM)
	FSAs & CSAs	Influence of firm-specific advantages on subsidiary ownership levels, contingent upon subsidiary located in a relatively less- or a more-developed country as compared to the home country	Asia	South Korea	Erramilli, M.K., Agarwal, S., & Seong-Soo, K. (1997, JIBS)
		Iternational expansion as a spring board to acquire strategic resources, reduce institutional and market constraints at home, and overcome firm-specific disadvantages	Emerging markets (general)	-----	Luo, Y. & Tung, R.L. (2007, JIBS)
		Transforming disadvantages into advantages	Emerging markets (general)	-----	Cuervo-Cazurra, A.; Genc, M. (2008, JIBS)
		Acquisition of complementary resources and capabilities required to transfer existing advantages in the foreign market and develop new advantages required in more competitive environments	Emerging markets (general)	-----	Aulakh, P.S. (2007, JIM)
		Relationships between a few home country-specific macroeconomic factors and outward FDI flows	Asia, South East Asia	China, India	Tolentiono, P.E. (2010, JIM)
	Learning	Exploitative and explorative learning	Emerging markets (general)	-----	Li, P.P. (2010, JIM)

Figure 4.3e: Research on EMNEs: Relationships & entrepreneurship

Topic Area	Sub-Topic	Study's Focus	Market / Region	Country	Study
Inter-organizational Relationships	Business Groups	Future of business groups, diversification, threshold levels	Latin America	Chile	Khanna, T. & Palepu, K. (2000, AMJ)
		Managerial problems and opportunities surrounding the rise and decline of business groups	Emerging markets (general)	-----	Guillen, M.F. (2000, AMJ)
		Effects of business groups on innovation in emerging economies	Asia	China, Taiwan	Mahmood, I. & Mitchell, W. (2004, MS)
		Association between international resources and markets is conditioned by time and business group affiliation	South East Asia	India	Chittoor, R., Sarkar, M.B., Ray, S., & Aulakh, P.S. (2009, OS)
		Estimating the performance effects of business groups in emerging markets; emerging markets: Argentina, Brazil, Chile, India, Indonesia, Israel, Mexico, Peru, the Philippines, South Korea, Taiwan, Thailand, and Turkey	Latin America, Asia	Various	Khanna, T. & Rivkin, J.W. (2001, SMJ)
		Performance persistence and the impact of business group affiliation	Emerging and developed markets	India, USA	Chacar, A. & Vissa, B. (2005, SMJ)
	Networks	Social networks as an efficient means of helping internationally oriented SMEs to go international more rapidly and profitably	Asia	China	Zhou, L., Wu, W., & Luo, X. (2007, JIBS)
		Building capabilities for international operations through networks, small and medium size networks more beneficial	South East Asia	India	Elango, B. & Pattnaik, C. (2007, JIBS)
Innovation Models & Entrepreneurship	Innovation Models	Shift in innovation, develop innovative capabilities to move from process to product focus and from imitation to innovation	Asia	-----	Li, J. & Kozhikode, R.K. (2009, JIM)
	Entrepreneurship	International venturing, the effects of firm capabilities, home country networks, and corporate entrepreneurship	Emerging markets (general)	-----	Yiu, D.W, Lau, C.M., & Bruton, G.D. (2007, JIBS)
		Processes that link globalization to entrepreneurship in emerging economies: spillover and catch up, brokering and bottom up.	Emerging markets (general)	-----	Hill, T.L. & Mudambi, R. (2010, JIM)
		Institutional strategies available to entrepreneurs in emerging markets such as	Emerging markets (general)	-----	Tracey, P. & Phillips, N. (2011, AMR)

Following the idea that the value of resources is contingent on time and location (Amit & Schoemaker, 1993; Brush & Artz, 1999; Hu, 1995; Tallman, 1992) and that a source of advantage can become later a source of disadvantage (Leonard-Barton, 1992), some scholars argue that despite their liability of emergingness deriving from underdeveloped institutional environments (Madhok, 2010), EMNEs are successful in their internationalization (Cuervo-Cazurra, 2011; Curvo-Cazurra & Genc, 2008; Govindarajan & Ramamurti, 2011; Ramamurti, 2009a; Ramamurti & Singh, 2009a). EMNEs learn to work around institutional voids (Khanna & Palepu, 1997) and transform this home disadvantage into a source of relative advantage when they expand to other economies with the same or even more difficult institutional conditions (Cuervo-Cazurra & Genc, 2008).

Elaborating on the exploitation perspective, other scholars suggest that EMNEs possess a variety of other ownership advantages than just low costs or experience in operating within institutional voids (Guillen & Gracia-Canal, 2009; Lessard & Lucea, 2008; Williamson & Zeng, 2008), which translate into significant competitive advantage in local markets and in other emerging markets depicted by similar institutional environments (Ramamurti, 2009a, 2009b; Sim & Pandian, 2003), such as profound knowledge of underdeveloped and low-income consumers, human capital in the form of entrepreneurial skills and international social networks, such as links with the diaspora, large labor pools and home markets, ability to adapt imported technology to develop products suited to the special needs of local customers in emerging markets, ability to optimize production processes by using more labor and less capital, and in some cases the support from the home government in the form of preferred access to markets, preferential regulations, or preferred access to capital (Lall, 1983; Lecraw, 1977; Ramamurti, 2009a; Ramamurti & Singh, 2009a; Wells 1983; Williamson & Zeng, 2008). In their analysis of twelve Taiwanese and Singaporean firms, Sim and

Pandian (2003) found that the EMNEs' strategic advantages derived from low cost, responsiveness and knowledge of local markets.

While traditional views on internationalization are embedded in the exploitation perspective, which explains that firms make the most of their rent yielding ownership advantages through internationalization into foreign markets (Buckley & Casson, 1976; Hymer 1976), recent stream of literature argues that EMNEs rely too heavily on their country and firm specific advantages for their international competitiveness (Rugman, 2009) and that they possess only 'ordinary resources' (Madhok, 2010) or only few intangible ownership advantages, such as brands and technology (Ramamurti, 2009a, 2009b). These recent studies follow the exploration perspective where EMNEs internationalize motivated by gaining access to and internalize strategic resources (Capron, Dussauge, & Mitchell, 1998; Ethiraj & Levinthal, 2004; Gubbi et al., 2010; Madhok, 2010) in order to reduce their emerging market home-country effect (Cuervo-Cazurra, 2011), enhance their strategic renewal (Nelson, 2005; Gubbi et al., 2010), and facilitate quicker transformation by enabling transfer of status and reputation which helps EMNEs to overcome the liabilities of emergingness in global markets (Madhok, 2010). EMNEs acquire financial capital and management skills (Lyles & Baird, 1994; McDonald, 1993; Stoever, 1996), as well as other intangible assets, such as technology, brands, and know-how to establish presence as world-class players (Aulakh, 2007; Luo & Tung, 2007; Madhok, 2010; Mathews, 2002).

Such inorganic growth through acquisitions in developed markets offers EMNEs the possibility to leapfrog conventional growth cycles and permits rapid internationalization of intangible resources, which are difficult to trade through market mechanisms, take time and are path dependent to develop internally (Coff, 1999; Gupta & Govindarajan, 2000). Acquisitions facilitate quicker transformation by enabling transfer of status and reputation which help EMNEs to overcome the liabilities of emergingness in global markets and allow the integration of new and diverse organizational practices with their traditional management techniques (Cuervo-Cazurra, Maloney, & Manrakhan 2007; Uhlenbruck, Hitt, & Semadeni, 2006; Vermeulen & Barkema, 2002). Chittoor and Ray (2007) studied internationalizing firms in India and they too found evidence of firms' international expansion driven by exploitation of local advantages, but they also found equally compelling evidence of firms rapidly exploring and acquiring resources and capabilities to develop state-of-the-art products and move up the value chain. The implication is that EMNEs not only pursue different strategies in their international expansion, but they do so with different core logic of how to operate in different institutional environments.

4.2.2 Notion of the business model

This turns the spotlight on the business model as the core logic of how firms operate, create and capture value (Baden-Fuller et al., 2010; Demil & Lecocq, 2010) that reflects the firm’s realized strategy (Casadesus-Masanell & Ricart, 2010). EMNEs not only expand to foreign markets with distinctive business models but they also manage their business models differently in the different markets under different conditions. In light of EMNEs’ increasing global presence and competitiveness with Western firms, as well as the exploitation and exploration perspectives on ownership advantages of EMNEs, the business model, as a representation of firms’ underlying strategic choices (Casadesus-Masanell & Ricart, 2010; Shafer et al., 2005), offers a particularly interesting insight into the context of EMNEs’ internationalization. Scholars acknowledge that firms do not employ and execute their business models in a competitive vacuum but instead compete through their business models (Amit & Zott, 2014; Casadesus-Masanell & Ricart, 2010; Zott & Amit, 2007, 2008).

Issues relating to how and why firms from emerging markets internationalize, and more specifically, what strategies they adopt or need to adopt, constitutes an interesting and underexposed area of international management and business research. The notion of business models and how they allow EMNEs to create, deliver, and capture value has remained rather absent in the extant literature on EMNEs internationalization (see Table 4.2, Figure 4.2 and Figures 4.3a – 4.3e). Without an adequate focus on the notion of business models, we are lacking a holistic picture of EMNEs' different internationalization strategies. The competitiveness of EMNEs in new markets is related to how their business models interact with the new ecosystems, producing offerings that add value to the participants in these environments and allow them to capture part of the value created. Therefore, the design of the business model is a crucial decision to be taken by EMNEs to ensure that their business models are rethought in order to adapt to new environments (Bowien, Vives, & Laudien, 2015; Zott & Amit, 2010).

Despite a conceptual pluralism that has uncovered novel ways to explain what business models are and how they work (Bowien & Vives, 2013; George & Bock, 2011; Spieth, Schneckenberg, & Ricart, 2014; Zott et al., 2011), scholars broadly agree on the activity-system perspective of the business model in which the business model depicts a system and orchestration of interdependent activities performed by the focal firm and stakeholders in the ecosystem. The firm's business model as an activity system, depicting the design elements of content, structure, and governance of activities (Amit & Zott, 2001; Zott & Amit, 2010), may transcend the focal firm and span its boundaries, but it will always remain firm-centric to enable the focal firm to create value with its stakeholders but also to capture a share of the value created itself through the exploitation of business opportunities (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Svejenova et al., 2010; Teece, 2007), but also through the exploration of new business opportunities.

The organizational perspective on business models takes a configurative approach and describes how the pieces of a business fit together (Afuah & Tucci, 2001; Magretta, 2002), as the business model is a complex set of interdependent activities that are 'discovered, adjusted, and fine-tuned by doing' (Winter & Szulanski, 2001, p. 731). They can lead to the creation of new strategic resources and open up alternatives for future value creation and appropriation. The business model is a useful notion that enhances the understanding, labeling and classification of firms' operations (Baden-Fuller & Morgan, 2010), depicts an overarching meta-model and provides a framework that allows for analyzing internationalization trajectories of EMNEs in a comprehensive way within and across EMNEs' boundaries and across different institutional environments. As such, it offers a holistic picture of EMNEs' different internationalization strategies.

Hereby, the question of fit of the business model is very important. The internal fit among activities ensures that the business model has a coherent configuration of activities, while external fit refers to the appropriateness of the configuration of activities given the environmental conditions affecting the business model (Siggelkow, 2001). Adding or removing activities and resources is about changes in the scope of the business model and "changing the scope of the organization not only affects the extent to which it can capture the fruits of its innovative labor; but it also affects the extent to which it can be innovative in the future" (Jacobides, Knudsen, & Augier, 2006). The business model plays a particularly crucial role in the context of EMNEs expanding to foreign markets. EMNEs modify and reconfigure the activities of their business models in ways that adjust their external fit and enable them to operate in other challenging institutional environments besides their home markets (Vermeulen & Barkema, 2002), compete against multinational enterprises (MNEs) from developed countries (Dawar & Frost, 1999), but also acquire strategic resources in developed markets (Madhok, 2010).

The level of the institutional environment in a market directly affects the firm's incentives and ability to reconfigure its activities in the business model (Cuervo-Cazurra & Genc, 2008) by challenging the external fit between the business model and the external environment (Nelson, 1995) that in turn facilitates and challenges transactions (North, 1990). Thus, the market development as the degree to which capital and labor markets, legal systems, and commercial value chains are established and developed in support of business activities (Chakrabarti, Vidal, & Mitchell, 2011; Cuervo-Cazurra & Dau, 2009) impacts the design and management of EMNEs' business models. Differences in institutional environments across countries lead to different strategic initiatives (Chakrabarti et al., 2011) and therefore to different choices of distinctive business models (Casadesus-Masanell & Ricart, 2010; Shafer et al., 2005). Consequently, the different internationalization strategies pursued by EMNEs lead to different reconfigurations of the business model's activity system and to different business model management strategies.

4.3 Internationalization and Business Model Management Strategies

From March's (1991) description of exploration and exploitation we deduct and further advance that temporal performance's focus and risk associated with the management of business models during internationalization of EMNEs are closely intertwined with the level of exploration and exploitation in the internationalization trajectories. Benefits of exploration of new ownership advantages are distant in time and are highly unpredictable, whereas benefits associated with exploiting current ownership advantages are proximal in time and more certain (Levinthal & March, 1993; March, 1991; March, 1995; March & Simon, 1958). Thus, when risk reduction and short-term performance optimization of activities take priority, exploitation-oriented internationalization will be preferred by EMNEs. “The essence of exploitation is the refinement and extension of existing competences, technologies, and paradigms. Its returns are positive, proximate, and predictable.” (March, 1991: 85). Exploitation entails a response to environmental needs through optimization of external fit of the business model. It enables bottom-up learning, allows institutionalizing of reliable behaviors into routines (Harry & Schroeder, 2000; Nonaka, 1994), focuses on selection and refinement of existing activities, and builds on a firm’s existing business model; its output solidifies existing technological knowledge base of the firm (Cohen & Levinthal, 1989; March, 1991; March & Simon, 1958; Rosenkopf & Nerkar, 2001; Weick, 1979).

On the other hand, when the corresponding uncertainty is willingly accepted and long-term performance improvement takes priority, exploration-oriented internationalization will be pursued by EMNEs. “The essence of exploration is experimentation with new alternatives. Its returns are uncertain, distant, and often negative.” (March, 1991: 85). Uncertainty of outcomes and novelty of alternatives in EMNEs internationalization trajectories constitute two parameters of the definition. In line with a broader discussion on complementarities in economics (Milgrom & Roberts, 1990), the unpredictability of the interdependencies among known business model activities and elements cause the uncertainty in outcomes. Exploration departs from the current business model of the firm and involves a shift to a different technological trajectory and experimentation with new alternatives. It further enables flexibility, discovery, and innovation, and its output broadens the technological knowledge base of the firm (Cohen & Levinthal, 1989; March, 1991; March & Simon, 1958; Rosenkopf & Nerkar, 2001; Weick, 1979). Internationalization of EMNEs involves, both exploitation and exploration of ownership advantages to orchestrate the activities of the business model and adjust the internal and external fit of the business model influenced by emergent conditions internal and external to the firm.

In this sense, external reconfiguration of activities of the business model through acquisition of businesses allows firms to gain access to strategic resources and develop new capabilities while preventing organizational inertia (Rosenkopf & Nerkar, 2001; Vermeulen & Barkema, 2001). Creation of new advantages through external reconfiguration allows EMNEs to redeploy newly obtained managerial and financial resources (Capron et al., 1998), create new processes for future growth (Capron & Mitchell, 2009), and change faster and at a broader scope as opposed to internal development of activities (Karim & Mitchell, 2000). Internal reconfiguration of the activity systems of the business model allows EMNEs to expand through the exploitation of their firm-specific advantages, competencies and knowledge (Caves, 1974; Helfat, 1994) by leveraging their own traditional business models to other markets. EMNEs are able to capture large portions of their value creation by reconfiguring activities in their business model in ways that suit the specific institutional and market conditions in emerging economies (Khanna & Palepu, 1997), which they exploit and internally reconfigure while expanding to foreign markets (Ramamurti & Singh, 2009a).

Some scholars claim that the more a firm excels in some competencies and a particular design of the business model, the more it is likely to exploit those competencies and the business model instead of developing a new one (March, 1991). Firms tend to understand internal routines better than acquired ones

(Karim & Mitchell, 2004; Wiersema & Bowen, 2011) and usually favor the familiar (Ahuja & Lampert, 2001; Christensen & Bower, 1996). Extant literature further implies that institutionally different markets, such as emerging and developed markets, require fundamentally different business models and business model management strategies due to the differences in institutional infrastructure, market development, customer demands and needs, as well as resource availability and external fit with the environments. Firms operating in these distinctive markets differ in their core logics of value creation and appropriation and consequently they organize their activity systems differently according to the complexity of the environmental context, interconnectedness of the ecosystems and the underlying strategic initiatives. Our discussion suggests that EMNEs' internationalization trajectories do not follow either an exploitation or exploration strategy but they rather resemble ambidexterity that centers on simultaneous exploration and exploitation (O'Reilly & Tushman, 2008) of EMNEs during their internationalization trajectories. The arguments put forward in this section lead to our baseline proposition:

> ***Proposition 0:*** *EMNEs do not internationalize through either the exploitation of the existent business model or the exploration of a new business model but rather through the ambidextrous management of the business model.*

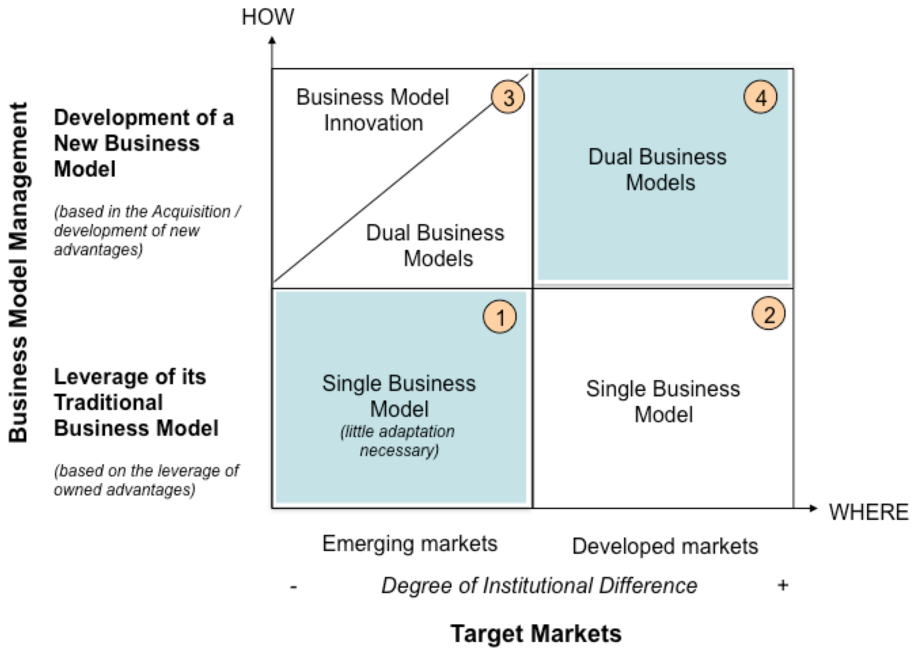
4.3.1 Conceptual framework

Integrating extant literature after a critical review (Tables 4.1 and 4.2, Figures 4.2 and 4.3a-e), we conclude that rather than adopting an either/or perspective, we are be better off approaching the topic of EMNEs' internationalization from a contingency perspective. This idea is used in Figure 4.4, which classifies EMNEs' internationalization strategies along two dimensions. Specifically, from the literature review we identify two key variables that influence how EMNEs internationalize and how they manage their business models during internationalization: (1) degree of institutional difference with regard to entry into an emerging market or a developed market; and (2) EMNEs' strategic initiatives in terms of either leveraging their traditional business model through the exploitation of ownership advantages or developing new business models through the exploration of new ownership advantages.

Conceptually, by plotting these two dimensions in a matrix as presented in Figure 4.4 below, we obtain four possible internationalization trajectories and business model management strategies can EMNEs pursue: 1) leveraging of traditional business model in other emerging markets, similar in environmental and constitutional environments to the home country, which is based on pure exploitation strategy hinging on ownership advantages similar to existing ones in the domestic market; 2) leveraging of traditional business model in developed markets, which is based on exploitation of ownership advantages in developed markets through the same products and service offerings; 3) developing new business model in other emerging markets, similar in environmental and constitutional environments to the home country, which is based on exploration of new advantages through new product and service offerings; 4) developing new business model in developed markets, which hinges on a pure exploration strategy involving new products and service offerings and new developed markets.

We explore the validity of our conceptual framework through illustrations of eight case studies of different EMNEs (Tables 4.3 and 4.4, and Figure 4.5). Figure 4.4 is designed to suggest the ambidexterity of EMNEs' internationalization and subsequent business model management, not to suggest that the world can be neatly divided into four quadrants. These four distinctions of internationalization strategy are important because they give us insight into how EMNEs manage and innovate their business models during internationalization and why some EMNEs are potentially successful in expanding to other markets and why others fail.

Figure 4.4: Internationalization strategies of emerging multinationals



Source: Own creation.

Table 4.3: Case studies of emerging multinationals

Company	Country of origin	Main industry	Sales (US $ millions)	Net Income (US $ millions)	Employees	Target countries (#)
AMÉRICA MÓVIL	Mexico	Telecommunication	49,220.60	7,354.20	55,000	18
CEMEX	Mexico	Concrete	14,434.50	-1,337.40	46,500	35
EMBRAER	Brazil	Aerospace	5,216.20	314.70	17,009	5
NATURA	Brazil	Cosmetics	3,082.90	446.60	6,260	9
ENKA HOLDING	Turkey	Construction / Engineering	4,941.87	513.19	13,070	18
LENOVO	China	Computers	24,394.02	395.26	26,341	160+
TATA MOTORS	India	Automotive	27,629.40	1,653.80	52,244	NA

* Source: Company Financials as at Sept. 2010

Table 4.4a: Summary of case study illustrations

Attributes	Tata Motors (Trucks)	Tata Motors (Commercial cars)
Origin	India	India
Industry	Automotive: Trucks	Automotive: Commercial cars
Founded	1945	1945
Internationalization History	- 2004: acquisition of Daewoo's truck manufacturing unit in South Korea, now known as Tata Daewoo Commercial Vehicle - 2005: acquisition of 21% of Aragonese Hispano Carrocera giving it controlling rights of the company - 2007: joint venture with Marcopolo of Brazil and introduction of low-floor buses in the Indian Market	- 2007: acquisition of British Jaguar Land Rover (JLR), which includes the Daimler and Lanchester brand names - 2010: acquisition of 80% stake in Italy-based design and engineering company Trilix in line with the company's objective to enhance its styling/design capabilities to global standards.
Target Countries	Tanzania, Zimbabwe, Malawi, Namibia, Mozambique, Uganda, Ghana and South Africa	USA, Europe
Traditional Business Model Summary	Inexpensive cars for modular distribution	Inexpensive cars for modular distribution
Key Activities	manufacturing, oursourcing, partnerships with vendors	manufacturing, oursourcing, partnerships with vendors
Approach / Business Model Innovation	Management of the development of new products and not trying to develop everything in-house; moving from a hierarchical model to a collaborative approach	Focus on barnd equity, technology, dhigh end design, focus on Western markets
Uniqueness	Customer foucs and strong collaborations with suppliers	Customer foucs and strong collaborations with suppliers
Strategic Need / Motivation	Overseas expansion;voulume sales in the low-income market; expand the brand	Gain access to Western markets, ie USA and Europe; luxury brand association
Business Model Management Strategy	Single business model strategy: Leveraging of traditional business model in emerging markets	Dual business models: Developing new business model in developed markets

Table 4.4b: Summary of case study illustrations

Attributes	América Móvil	Embraer
Origin	Mexico	Brazil
Industry	Telecommuniation	Aircraft manufacturing
Founded	2000 (spin off from former state-owned Telmex)	1969 - 1994 State-owned enterprise, then 1994 onward privatization of the commercial aircraft division
Internationalization History	- 2001-2003 bought out several distressed assets in Latin America - acquisitions helped to strengthen position in Brazil; - 2002 acquired one of Brazil's wirelss operators from BellSouth - 2003-2004 purchse of AT&T's Latin America's assets and US telecoms company, MCI Worldcom's Latin American assets	- Internationalization started in 1995 after the privatization - development of new business model - Embraer's operations are strategically located worldwide, with large operations in the Americas, Europe, and Asia
Target Countries	17 countries in the Caribbean and Latin America such as Jamaica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Peru, Argentina, Uruguay, Chile, Paraguay, Puerto Rico; Comcel Colombia in Colombia; and Porta in Ecuador. In Brazil it operates the trademark Claro. Inthe US it operates under the trademarks TracFone, Net10, and Straight Talk.	Brazil, USA, Portugal, France, Singapore, China
Traditional Business Model Summary	Pre-paid business model	Reverse outsourcing business model
Key Activities	Customer acquisition, telecommunication services, pre-paid card services, billing, acquisitions	Use of best suppliers in developed markets to supply its own needs, exploitation of strategic alliances, customer focued organization (take customer suggestions in the design phase)
Approach / Business Model Innovation	Volume sales in the low-income market	- Embraer has found the best way to reach its global customers while leveraging the research capabilities of talent from multiple areas - Instead of making components for big firms in the advanced economies, Embraer draws on the best component suppliers in developed markets to supply its own needs
Uniqueness	Up-to-date roaming technology and strong business around pre-paid model	Mix of customer focus and entreprenurial spirit
Strategic Need / Motivation	Overseas expansion;voulume sales in the low-income market through pre-paid cards	Overseas expansion; serving developed markets customers
Business Model Management Strategy	Single business model strategy: Leveraging of traditional business model in emerging markets	Single business model: Leveraging of traditional business model in developed markets

Table 4.4c: Summary of case study illustrations

Attributes	Cemex	Enka Holding
Origin	Mexico	Tukey
Industry	Cement	Real estate development
Founded	1906	1957
Internationalization History	- 1992: Purchase of Spain's two largest cement companiesin - 1994: Acquisition of Venezuela's largest cement company, as well as plants in the US and Panama - 1995: Acquisition of a cement company in the Dominican Republic - 1996: Purchase of a majority stake in a Colombian cement company 1997-1999: Expansion of scope to include Asia and Africa, making major purchases in the Philippines, Indonesia and Egypt, and Costa Rica; acquisition of U.S. based Southdown made CEMEX the largest cement company in North America - 2001: Acquisition of a Thai company - 2002: Acquisition of a Puerto Rican company - 2005: Acquisition of London-based RMC Group - 2007: Acquisition of the Rinker Group, Limited	- 1993: ENKA, with its joint venture partner Bechtel, signed a series of contracts in Kazakhstan for various projects for the development of the Tengiz Oil Field. - early 1990s: Foundation of two joint stock companies, Mosenka and Moskva Krasnye Holmy, to develop and manage office and residential buildings in Moscow. - 2002 - today: Completion of more than 130 projects in Russia and CIS, ranging from buildings, hospitals and industrial plants to oil and gas projects; mega-highway project in Romania, a brand new city in Oman, a new terminal at Moscow's Sheremetyevo Airport, a football stadium in Donetsk, Ukraine, a Toyota car factory in St. Petersburg, Russia and oil field infrastructure on Sakhalin Island in Russia.
Target Countries	Serves the international cement market through acquisitions of key assets in strategic locations Europe, USA, Asia, Australia	Enka has 37 subsidiaries engaged in a diverse range of construction activities including power generation, airports, petroleum, and roadways. Enka primarily operates in Turkey, Russia, Africa, Middle East, and East and Central Europe.
Traditional Business Model Summary	Post-merger integration business model - the 'Cemex' way - based on sinle global identity, common organizational structures and operating processes, common technological platform, centralized back-office functions and strong fopcus on operational best practices, business process gap analysis, benchmarking and performance measurement	Technology driven turnkey soultions
Key Activities	Use of high-tech technology in low-tech industry, effective approach to acquisitions and post-mrger integration, smart marketing and branding strategy	Solution design, development, engineering, investments and finance
Approach / Business Model Innovation	Targets undervalued or underperforming assets, which it believes have the potential for operational efficiency improvements; focus on established palyers with substantial market share; growth markets	Enters challenging emerging markets by opening new subsidiaries and development of new business models for each new project; international construction projects serve as engine of growth for the future
Uniqueness	Post-merger integration: detecting cost savings, identify and retain talent, implement the Cemex business model	Modern technologies, innovative solutions
Strategic Need / Motivation	Overseas expansion; gain access to strategic assets such as capital and access to other markets	Gain access to a location advantage in the host country
Business Model Management Strategy	Single business model: Leveraging of traditional business model in developed markets	Dual business models: Developing new business model in emerging markets

Table 4.4d: Summary of case study illustrations

Attributes	Naturs Cosmeticos	Lenovo
Origin	Brazil	China
Industry	Cosmetics, fragrances and personal hygiene	Computer manufacturing
Founded	1969	1984
Internationalization History	- 1974: Introduction of direct sales as sales model - 2008: more than 800,000 " beauty consultants" (resellers) spread throughout Argentina, Brazil, Chile, Colombia, France, Mexico and Peru - Expansion through marketing subsidiaries	- 1988: Hong Kong Legend established - 1989: Legend Computer Group Co. followed in mainland China - 1990: the first Legend PC was launched to the market, pioneering the PC industry in China: - 1996: Legend, the market leader in China - 1999 Lenovo gained first position in the Asia-Pacific region - 2006: Acquisition of IBM's Personal Computing Division in the US
Target Countries	Argentina, Brazil, Chile, Colombia, France, Mexico, Peru	USA As the final piece in their business model, to secure future growth, Lenovo relies on sales in China but it has set as a priority to increase its presence in other emerging markets to replicate its Chinese success, notably Brazil, India and Russia.
Traditional Business Model Summary	Direct sales model with baeuty consultants	Relevant innovation for the user - Lenovo's business model is built on innovation, operational efficiency and customer satisfaction as well as a focus on investment in emerging markets
Key Activities	Ethical stance in production and advertisements, direct sales, beauty consultants, low cost R&D and innovation	R&D, sales, technical support, innovation (innovation center, with the aim to catalyze customer collaboration in their new PC solutions)
Approach / Business Model Innovation	Low cost way to support its own product development of natural products, door-to-door sales women; R&D and marketing merged to bring technology and sales together in order to accelerate new product's commercial acceptance	Miantains its traditonal business model in China and other emerging markets and the acquired US business model for the US market
Uniqueness	low cost innovation and R&D; door-to-door sales with beauty consultants	Innovation and technological soulutions
Strategic Need / Motivation	Gain access to new markets and cutomers	Gain access to Western markets, ie USA
Business Model Management Strategy	Dual business models: Developing new business model in emerging markets	Dual business models: Developing new business model in developed markets

4.3.2 Leveraging of traditional business model in emerging markets

Internationalization directed toward other emerging countries, which are similar in institutional and environmental conditions, by leveraging the own traditional business model is a way to diversify away from the domestic market into similar markets while maintaining the domestic market as the primary market (Lall, 1983). EMNEs design and innovate their business models at home (Ramamurti & Singh, 2009a) in the way their products and services are financed, distributed, and sold in emerging markets because of various institutional voids that characterize their home environment (Khanna, Palepu, & Sinha, 2005). When EMNEs internationalize to other emerging markets by leveraging of their traditional business models (Figure 4.4, cell 1), based on the exploitation of their own country and firm specific advantages, they follow a single business model strategy.

This means that they maintain the value proposition offered to customers in the home market, the way they deliver the value proposition and capture value for the firm, and the way the firm's activities are organized in the business model, which demonstrated a strong external fit between the activities and resources of the firm and the challenging institutional environment in the domestic market. Here, EMNEs maintain the content, as well as the underlying structure and the governance of their activity system. There is always a potential need for a marginal business model adaptation in form of adding, eliminating or changing of one or several activities of the business model content, but the core traditional business model in terms of structure and governance developed in the home market remains unchanged. EMNEs expand their traditional home business model and employ it in other emerging markets characterized by low level of institutional difference, where they are familiar with a similar institutional environment, and know how to operate within such. This trajectory reduces risk of internationalization and promises higher short-term performance.

The strategy of internationalization by leveraging of the traditional business model from home is further characterized by capital-intensive tangible and intangible outputs in closed systems that allow for a high degree of standardization and an exploitation of economies of scale. Challenged by changing ecosystem conditions in host markets targeted for expansion EMNEs are in need to rethink and reorganize their business model design and their value creation and capture processes (Lerch, 2014; Ramirez, 1999) and thus to adjust their business models if necessary. However, this internationalization strategy of leveraging of the traditional business model is usually the predominant solution for EMNEs that do not actively need to change their business model design and value creation and capture processes. This internationalization strategy is very efficiency-centered. Therefore, to detail our research question, this discussion suggests the following proposition:

> ***Proposition 1:*** *Internationalization through leveraging of the traditional business model to emerging and developing markets is positively related to risk reduction and firm-performance, thereby increasing organizational efficiency.*

We illustrate the internationalization strategy of leveraging of the traditional business model to emerging markets by drawing on examples of two case studies of EMNEs, namely (1) América Móvil, the Mexican mobile company, and (2) Tata Motors, one of the companies of the Indian giant business group Tata (Figure 4.5, cell 1). Table 4.4 presents details of the two case study illustrations. América Móvil, the Mexican mobile company, has grown sixfold since its spin-off from former state-owned monopoly, Teléfonos de México (Telmex) in 2000 by crafting a successful pre-paid and call-card business model for markets with low-income consumers who lack a positive credit rating. This business model allowed the company to unlock shareholder value and provided a branding vehicle to expand its wireless business (Casanova, 2009).

América Móvil leveraged its business model across other emerging and developing markets with low-income consumers by acquiring distressed companies and integrating them directly into the activity system of its traditional business model at home. Following this strategy, América Móvil maintained the same value proposition, delivery and capture. It changed the activity system content by adding new activities in terms of the acquired firms, and it integrated the acquired business models directly into its traditional business model thereby maintaining the same structure and governance of activities. América Móvil leveraged its business model to other emerging and developing markets in terms of institutional and environmental similarity by exploiting its ownership advantage of the ability to efficiently serve the low-income customer base and achieve high economies of scale.

India's Tata group companies follow the same single business model strategy in emerging markets similar to the home market with respect to institutional and environmental conditions. For example, Tata Motors produces trucks without technologically advanced components and systems but with strong and rigid suspension system that can withstand the challenges of India's unpaved, rutted rural roads. These vehicles can be easily maintained and repaired by locals without formal training in mechanics, while the necessary spare parts do not pose any constraints. Therefore, Tata Motors is able to leverage its trucks business model to developing countries such as Tanzania, Zimbabwe, Malawi, Namibia, Mozambique, Uganda, Ghana and South Africa (Veliyath & Brouthers, 2010). It maintains thereby the value proposition, delivery and capture. Moreover, Tata Motors does not make any changes to its business model content, structure, or governance and maintains an efficiency-focused business model design. The minor adjustments in terms of exportation do not change the overall business model.

4.3.3 Leveraging of traditional business model in developed markets

Literature argues that EMNEs have only 'ordinary resources' (Madhok, 2010) and only few intangible ownership advantages, such as brands and technology (Ramamurti, 2009a; Ramamurti & Singh, 2009b), and they are more familiar with conducting business and operating in difficult institutional environments in emerging economies (Cuervo-Cazurra & Genc, 2009). Yet, EMNEs enter developed markets by leveraging their traditional business models from home (Figure 4.4, cell 2). The strong institutional infrastructure and greater market development present in developed markets facilitate higher degree of internal and external reconfiguration of resources and activities in EMNEs' business models (Khanna & Palepu, 1999). It allows EMNEs to leverage their own business model into developed markets, acquire complementary resources, and integrate them fast into their own business model. The main objective is to acquire strategic resources for further international expansion, such as for instance developed markets firms' financial resources, credit rankings, and managerial skills. Because of the fast integration of any business model innovation through acquisition into the traditional business model, EMNEs that follow this internationalization strategy into developed markets can leverage their traditional business model thereby focusing on an efficiency-driven business model design that reduces risk and increases performance and the firm's welfare.

In order to create and appropriate more value during the international expansion, EMNEs that enter developed markets via a single business model strategy by leveraging their own business models do so by first developing innovative business models at home to roll out to many different markets in developed economies thereby following an efficiency-driven approach. Despite the resources disadvantage, some EMNEs are able to reconfigure their activities and resources internally and externally through acquisition in a way to increase value creation and value capture in emerging markets and exploit these business models in developed markets, as well by focusing on needs of lead customers in developed markets during their business model innovation at home. Since emerging economies differ from developed economies in the per capita income of average consumers, the mass consumer markets in emerging economies, except for the top of the pyramid in these markets, require business models based on value products and services characterized by low cost, functionality, different price-performance value proposition, and 'good-enough-quality' that demand different competencies (Govindarajan & Ramamurti, 2011; Ramamurti, 2009a).

There are low to mid-end consumers in developed markets for whom the 'good-enough-quality' products at low prices have appeal. This is the mirror image of the assumption many multinationals from developed markets predicate their strategies on, namely that products from developed markets have appeal to consumers at the top of the pyramid in emerging markets (Govindarajan & Ramamurti, 2011). Aligned with business models designed around value offerings, EMNEs leverage their own traditional business models from home by moving up the value chain on the basis of low labor costs and fast-growing domestic markets. They transform their business models by moving up the value chain from original equipment manufacturers selling their own products with a Western firm's brand affixed to original design manufacturers or original brand manufacturers leveraging their value business models in developed markets through foreign direct investment (Bonaglia et al., 2007; Duysters et al., 2009, Goldstein & Bonaglia, 2005).

Consequently, EMNEs following this internationalization strategy change the content, structure, and/or governance at home before leveraging the new business model to developed economies. Novelty generation, which aims at creating an advantage for the firm as opposed to efficiency generation, which aims at reducing the organizational risk (Amit & Zott, 2015), prior to internationalization contributes to the business model innovation and orchestration of the activity system necessary to realize and address the envisioned leverage of the business model to developed economies (Bonaglia et al., 2007; Jacobides et al., 2006). The leveraging itself is based on a single business model strategy. This means that the resulting business model at home is more likely to be novel and turns toward efficiency during the internationalization, which emphasizes that a novel solution can perfectly be more efficient as well. Novelty-centered design and efficiency-centered design are not necessarily mutually exclusive (Zott & Amit, 2007). Our discussion suggests the following proposition:

> ***Proposition 2:*** *Internationalization through leveraging of the traditional business model to developed markets is positively related to risk reduction and firm-performance, thereby increasing organizational efficiency following a novelty-design in the traditional business model that is leveraged.*

Three rising emerging multinationals in the home appliances industry, namely Haier from China, Mabe from Mexico, and Arçelik from Turkey offer interesting illustrations of the single business model internationalization strategy into developed markets pursued by EMNEs (Bonaglia et al., 2007; Goldstein, 2008). These EMNEs have developed into competitive EMNEs as original equipment manufacturers selling their own products with a foreign firm's brand affixed. Some of them are also enhancing their own competencies and innovate their business models as either original design manufacturers or original brand manufacturers. Subsequently, they try to leverage their novel business models in developed markets through foreign direct investment (Goldstein & Bonaglia, 2005).

Other illustrations of EMNEs that follow the same internationalization strategy are Cemex from Mexico, which is one of the world's biggest suppliers of ready-mix concrete, and Embraer from Brazil, which is a manufacturer of commercial aircrafts, offer a glimpse into internationalization by leveraging the business model across developed markets (Figure 4.5, cell 2). Table 4.4 presents details of the two case study illustrations. Both companies successfully developed innovative business models at home prior to their international expansion. The EMNEs changed first the content of their activity system by reconfiguring the activities in the traditional business models, which required a new structure of activities, in terms of new relationships with foreign suppliers and acquisitions of new companies, and new governance policies regarding the new structure and new content of the business model. This allowed the firms, both Cemex and Embraer, to change their value proposition designed for the new developed markets, different value delivery in new markets and consequently new value appropriation potential as opposed to the home market. Changes took place at home and the EMNEs expanded then their novel business models to developed markets following a single business strategy.

For example, the position that Brazilian Embraer enjoyed in recent years in commercial aircrafts for commuter and regional airlines demonstrates how business model innovation of its traditional business model in the commercial aircraft business at home was a key in turning the performance of an existing and relatively unknown player in the industry into global leadership. Embraer performed business model innovation by reconfiguring its existent activities in the activity system and by changing the content, structure and governance of its traditional business model: change of relations with suppliers into risk-sharing partnerships, co-design of components by suppliers and Embraer together very early on in the development process, outsourcing of ancillary design and production activities to local companies, focus on US customers as lead customers instead of local customers in Brazil, and outsourcing of some major design and production activities to suppliers outside of Brazil (Santos, Spector, & Van der Heyden, 2009).

In its business model innovation, Embraer focused from the beginning on the needs and trends of lead customers in developed markets and orchestrated accordingly all its activities as a consortium of strategic suppliers from different countries with the objective to assemble, sell, and service its commercial aircrafts in developed markets. The key elements of Embraer's business model, since it was a protected state-owned company, which the firm managed to leverage to developed markets were its capability to design planes, produce fuselage and assemble the final product, relying on the delivery of foreign suppliers, and a strong focus on customers' needs and their market environments, and all of this at very competitive prices (Casanova, 2009).

Cemex, the Mexican cement production giant and major global player, expands by integrating the reconfigured activity system into its traditional business model to take better advantage of the newly acquired capabilities and knowledge and increase efficiency. Its internationalization into developed markets by leveraging its traditional business model began with the acquisition of two Spanish cement producers in 1992, which had an investment grade sovereign rating and thus allowed Cemex to improve its credit rating, raise capital in international financial markets to fuel further acquisitions, consolidate its group-wide debts into the Spanish subsidiaries where interest rates were tax-deductible in Spain, and it opened a back door through which Cemex could export cement to the US without having to pay heavy duties (Casanova, 2009). This set the stage for the firm's fast internationalization to other developed markets. Cemex's has developed a business model, which allows the firm to externally reconfigure its activities and resources in the activity system by integrating its acquisitions into the business model quickly and efficiently in order to further leverage its business model in other developed markets. Although the firm changes the content, structure, and governance of its business model with every new acquisition and incorporation, it expands internationally with its one traditional business model.

4.3.4 Developing new business model in emerging markets

EMNEs expand to emerging and developing markets similar in institutional and environmental conditions to explore new ownership advantages by developing new business models (Figure 4.4, cell 3) when the fit between the EMNEs' traditional business model and the new external environment is initially not strong enough. Benefits of exploration of new ownership advantages are distant in time and are highly unpredictable, however, the corresponding uncertainty is willingly accepted and long-term performance improvement takes priority. This implies that the internationalization strategy of developing a new business model in emerging and developing markets bears a tradeoff between an efficiency-centered business model design, which aims at lowering organizational risk, and a novelty-centered business model design, which aims at creating an advantage for the firm.

External reconfiguration of activities with the aim to optimize the external and internal fit in emerging markets is challenging when the institutional infrastructure is weak and acquisitions cause valuation difficulties and opportunistic behavior by contracting parties, which reduces EMNEs' ability to buy and sell (Capron et al., 1998; Chakrabarti et al., 2011), driven by information asymmetry (Arikan, 2005; Madhok, 2010; Reuer & Ragozzino, 2008) and weak patent and other appropriability standards (Chi, 1994; Grossman & Hart, 1986; Rumelt, 1987; Williamson, 1985). Therefore, due to the difficulties in acquisitions in challenging institutional environments of emerging markets, EMNEs employ a stepwise approach to their internationalization strategy by initially implementing a novelty-centered business model design that predominantly changes the structure and the governance elements of their traditional business model. During the first phase, EMNEs manage dual business models, namely the new and the traditional one at home. In the second phase, the two business models merge and the efficiency-driven design becomes dominant.

In the first phase, EMNEs innovate their own traditional business models in order to adapt to the prevailing voids in the new markets. However, they do not change the content element of their business model as a first step, but put more emphasis on a strong customer-centered perspective on value creation (Priem, 2007). Implementing new activities into the traditional business model, either developed and acquired, does not necessarily affect the content element of the business model, but it calls for the development of new organizational processes and structures (Kindström, 2010; Kindström, Kowalkowski, & Sandberg, 2013; Neely, 2008), thereby changing the business model element of structure, as very often new network partners need to be integrated and deep customer-specific knowledge needs to be acquired (Hakanen, Kansola, & Valkokari, 2014). Moreover, EMNEs often change the structure element as outside-in processes such as market sensing or channel bonding (Day, 1994) to complement their traditional business model based on a closed-system perspective (Grönroos & Ojasalo, 2014). They further change the governance mechanisms as collaborative, relational exchange replaces rather automated transactions (Day, 2000).

Integrating network partners implies new ways to monitor and control network relations (Matthyssens & Vandenbempt, 2008).

However, EMNEs innovate their business models without destroying the elements of the activity system that give them a competitive advantage over competitors. They identify value propositions, which they not modify, whatever the context (Govindarajan & Ramamurti, 2011) and they deploy their cost advantages in creative ways to deliver high technology, variety and customization at minimal price premiums, and redirect niche offerings towards volume segments (Williamson, 2010). While maintaining their value proposition from the traditional business model at home, due to the changes of the activity system EMNEs change the value delivery and as a consequence they change their value capture as they adapt to the new market. The innovation of the traditional business model depends on the customers and institutional conditions in the market, the product/ service the EMNE desires to offer in the new market, or the target business it has acquired in order to enter into the new market. Once EMNEs explored and created new ownership advantages in the new market, they merge both business models into one and continue with a single business model strategy. Thus, our discussion leads to the following propositions:

> ***Proposition 3a:*** *Internationalization through the development of new business model to developed markets is negatively related to risk reduction and positively to firm-performance, thereby increasing organizational novelty followed by organizational efficiency.*

> ***Proposition 3b:*** *EMNEs following an internationalization strategy of developing new business model in emerging and developing markets employ a stepwise approach by predominantly changing the structure and governance element of their business model to create a novelty-*

centered design, and in the second phase they merge both business models and follow an efficiency-centered design.

We illustrate the internationalization strategy of developing new business model in emerging and developing markets by drawing on examples of two case studies of EMNEs, namely (1) Enka Holding, Turkey's biggest construction company, and (2) Brazil's Natura Cosméticos (Figure 4.5, cell 3). Table 4.4 presents details of the two case study illustrations. Enka Holding develops new business models in other emerging markets where it is easier for the firm to win contracts. While maintaining its value proposition it offers in the home market, the firm enters emerging and developing markets with the development of new business models designed for the specific markets by opening subsidiaries and reconfiguring its activities and resources to transform its business model to fit the new institutional environments. Enka Holding develops relationships with key stakeholders in the new ecosystems and enters diverse joint venture and alliance agreements with local players. These reconfigurations change the structure and governance of its traditional business model and lead to changes in the value delivery and capture. For example, through Mosenka, Enka's Russian arm, Enka has become the biggest private real-estate owner in Moscow, and one of the city's leading developers (Munir, 2002).

Natura Cosméticos from Brazil follows a direct sales business model in the domestic market. This EMNE enters other emerging markets by transforming its traditional direct sales business model into a new retail based business model following a dual business model strategy when it cannot leverage its direct sales model. For instance, when entering Chile Natura Cosméticos was forced to change its direct sales model of beauty consultants and develop a retail sales business model because customers in Chile customers purchase their cosmetics and hygiene products in retail stores and not through consultants at the door, which is also the case in other markets (Eccles, Serafeim, & Heffernan, 2011). Such innovation of the business model resulted in the internal reconfiguration of the firm's activities of distribution, sales, and marketing.

This implies a change to the business model in terms of changes of the structure and governance elements. While Natura Cosméticos maintained its value proposition of healthy natural cosmetic products, it changed its value delivery process and consequently its value capture mechanism. As a consequence, the company followed a dual business model strategy. While it maintained its traditional direct sales model at home, Natura Cosméticos used the new business model in other markets that favor the retail business model. Thus, the company incorporated the new business model into its traditional business model in order to achieve higher efficiency during its internationalization.

4.3.5 Developing new business model in developed markets

EMNEs face constraints when pursuing internal reorganization of activities due to lack of strategic resources and well-developed supporting resources, such as availability of complementary resources (Mitchell, 1989) and skilled personnel (Penrose, 1959), which are scarce in emerging markets (Peng & Heath, 1996; Puffer, 1992; Sharma, 1993). In their attempt to overcome those constraints EMNEs expand to developed markets by pursuing the internationalization strategy of development of new business models (Figure 4.4, cell 4) with the objective to get access to complementary and strategic resources, and reconfigure, upgrade and develop new capabilities to produce advanced value-added products and services required in globally competitive product markets (Aulakh, 2007; Bonaglia et al., 2007; Chittoor et al. 2009; Duysters et al., 2009; Madhok, 2010; Mathews, 2006). EMNEs pursuing this strategy deal with environmental constraints by creating novelty rather than imitating existing business models. They view constraints as stimuli and creative challenges rather than as obstacles that require taken-for-granted responses (Amit & Zott, 2012, 2015).

Sanchez and Ricart (2010) note that constraints not only hinder but also help novelty-centered business model design. The essence of novelty-centered business model design is the adoption of new activities, new ways of linking activities, and/or new ways of governing activities (Amit & Zott, 2014; Zott & Amit, 2010). The strong institutional infrastructure and market development present in developed markets facilitate and encourage a higher degree external reconfiguration of activities in EMNEs' business models (Khanna & Palepu, 1999). Here, EMNEs pursue the strategy of dual business model management and internationalize with two separate business models, the traditional business model in the home market and a new, independent business model developed or acquired in the developed market. The strategy is based on pure exploration, with the aim to create advantages for the focal firm and the improvement of long-term firm performance.

Dual business model strategy is pursued when organizational efficiency is not the main driver but instead the motivation to explore and seek new opportunities (Kim & Min, 2015). Since EMNEs do not have superior advantages to be transferred to the acquired firm as typically argued in literature (Nachum, 2003), EMNEs' greater concern is how to overcome their liability of emergingness and to learn and upgrade firm capabilities (Madhok, 2010). Furthermore, integration of the acquired target's business model into their own activity systems is also less desirable since EMNEs are motivated by the learning opportunities and access to strategic resources rather than costs and efficiency unlike multinationals from developed markets. A recent study found that more than 50 per cent of

Asian EMNEs do not integrate to any extent since their priorities and motives are quite distinct than acquirers from developed economies (Cogman & Tan, 2010). EMNE's aspired learning has less to do with technology alone but with management, organizational know-how, and aspects concerning the institutional environment in developed markets. Our discussion leads us to the following proposition:

> **Proposition 4:** *Internationalization through leveraging of the traditional business model to emerging and developing markets is negatively related to risk reduction and positively to firm-performance, thereby increasing organizational novelty.*

Tata Motors, India's largest carmaker, and Chinese Lenovo in the computer industry offer clear illustrations of the dual business model strategy in developed markets (Figure 4.5, cell 4). Table 4.4 presents details of the two case study illustrations. In 2007, Tata Motors acquired Jaguar and Land Rover, two luxury car brands with their major markets being USA and European countries. At the same time, Tata Motors could not really be termed a global brand with majority of its revenues coming from India. The development of the new business model through the acquisition transformed Tata Motors into a global player and gave the company access to technology expertise, offered access to new markets, and allowed the firm global brand control. Chinese Lenovo also followed a dual business model strategy when the company acquired IBM's PC division and became overnight an international company. Instead of incorporating IBM's PC division's business model into its own activity system Lenovo employed two separate business models, its traditional activity system in China and the acquired business model in the US (Vives & Lessard, 2006). The acquired business models both by Tata Motors and Lenovo were very different from the EMNEs' traditional business models at home. They implied new content, strategy, and governance of the business models, offered new value propositions to customers, new value delivery and value appropriation mechanisms. These EMNEs develop a value creation logic that breaks the "existing rules of the game" (Matthyssens & Vandenbembt, 2008, p. 326).

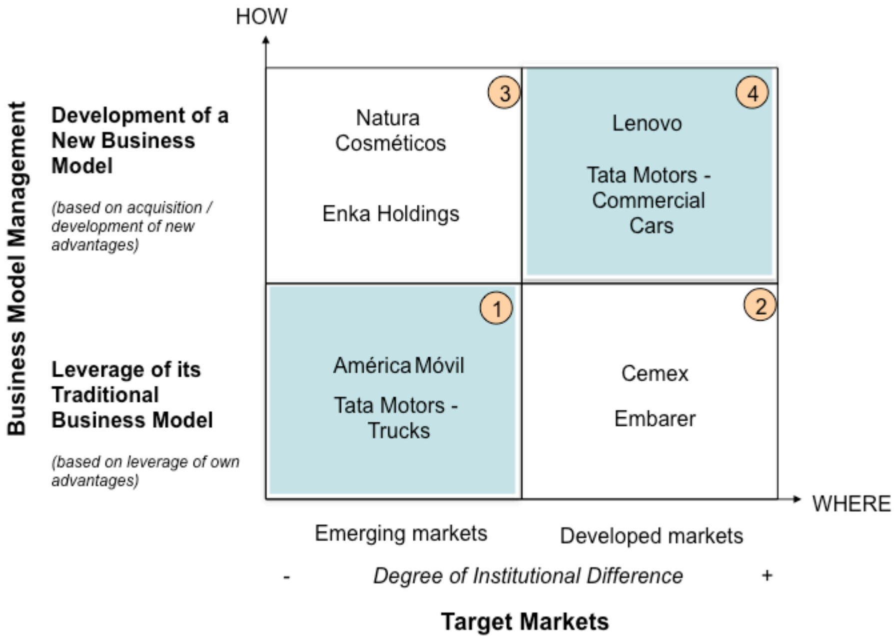
Developing new business models in developed markets is the approach followed by India's Tata Group spanning a wide range of industries, from hotels, tea, chemicals and metals to consulting, auto components, and automobiles. Tata Group's different companies expand to developed markets by acquisition of leading firms in their industries. Based on the nature of the business, these investments in Western markets have different strategic objectives: accessing new markets (BPO, steel, cars, trucks); integrating value chain (steel); brand control (tea, cars); and technology acquisition (steel, cars, trucks) (Goldstein, 2008). Tata externally reconfigures its activity systems by acquiring strategic resources such as managerial, technological, and marketing resources without having to develop them internally. EMNEs develop new business models in Western markets through acquisitions, however, because of the group's interest in learning from the acquired companies and overcoming its liability of emergingness (Madhok, 2010) the group does not integrate its acquisitions into its business models, maintains operations in diverse locations, and manages dual business models.

4.4 Discussion

Recent wave of internationalization sparked new interest in firms from emerging markets making it an important research topic in international business (Buckley, 2002). The article argues that EMNEs follow different internationalization strategies to emerging and developed markets depending on the degree of institutional difference and endowments of own resources and activities. As we have argued throughout this article, all internationalization trajectories of EMNEs aim to create and secure the long-term viability and performance, as well as reduce risk, of the firm's business. Thus, the central mission of business model management strategies is to design, structure and govern activities (internal and external to the firm) in such a way as to realize (exploit or explore) opportunities that enhance the viability and performance of the firm, as well as reduce risk. The outcomes of such business model management strategies during the different internationalization trajectories are far from predicable. Therefore, in Figure 4.4 we present four different but realistic strategies of such potential business model management outcomes and illustrate them with eight case studies in Figure 4.5.

We argue that during internationalization by firms from emerging markets, under certain circumstances, the dual business model strategy is preferable to the single business model strategy, but under certain other circumstances, the single business model strategy might be preferable to dual business model management. Specifically, we argue that the dual business model strategy is the preferred strategy when EMNEs enter emerging and developed markets by developing or acquiring new business models and the new market is not only strategically different from the EMNEs domestic market but also when the two business models face serious tradeoffs and conflicts. While the firm explores new ownership advantages it is crucial to exploit the newly developed and acquired advantages and strategic resources such as for example brand equity, financial resources, and managerial and competitive expertise. Entry into emerging and developed markets via a single business model strategy by leveraging the traditional business model is the better option in terms of efficiency gains when the new market is very similar to the domestic market in terms of institutional and economic conditions and presents few conflicts that need managing.

Figure 4.5: Internationalization strategies: Case study illustrations



Source: Own creation.

In such a case, embracing the new business model through the EMNE's existing activity system is the superior internationalization strategy. Here the firm needs to strive to protect the business model and exploit its advantages and synergies. We have also described the circumstances when EMNEs need to innovate the business model at first before entering a developed market by leveraging their business model and integrating it with the existing activity system in order to follow a single business model strategy in developed markets. In similar terms, when EMNEs enter emerging markets by developing new business models the preferred strategy is to first innovate the traditional business model in the new markets and manage two separate business models at first before eventually integrating them with the existing activity system. We have therefore proposed that the best way to approach the topic of internationalization by firms from emerging markets is through a contingency perspective.

EMNEs expanding across borders need to understand their business models and their choice of business model design and management, as well as how their activities are organized in the activity systems, as the business model allows them to make more informed choices about their internationalization strategies. The business model acts as the core logic of how a firm conducts business, how it delivers value to stakeholders, and how it links factor and product markets in domestic and foreign markets. The architecture of the EMNE's business model – the choice of activities, how the activities are organized, and who performs them (Svejenova et al., 2010; Zott & Amit, 2010) – captures how the EMNEs are embedded in its ecosystem of multiple networks of suppliers, partners, customers, and competitors in the domestic market as well as in the foreign target market (Casadesus-Masanell & Ricart, 2010). The business model describes how the activities of the EMNEs are linked, e.g. the sequencing between them, and it captures their importance for the business model in terms of their core, supporting or peripheral nature (Siggelkow, 2001, 2002; Zott & Amit, 2010), which, in turn, helps determining the internationalization strategy in terms of exploitation of the traditional business model or rather the development of a new business model. Thus, by shifting the focus away from country and firm specific advantages that EMNEs experience or have a lack of toward the business model as a boundary-spanning concept opens new areas for theorizing on internationalization strategies for firms from emerging markets.

Our definition of the business model as a boundary-spanning activity system (Zott & Amit, 2010) that acts as a representation of firms' underlying strategic choices (Casadesus-Masanell & Ricart, 2010) and our delineation of its mechanisms for sparking different internationalization strategies for EMNEs suggest a shift in perspective in research. The locus of internationalization activity of EMNEs is not solely the existence or creation of ownership advantages, but lies in the interplay between the business model design and the reconfiguration of activities in the activity system. Those EMNEs that intent on internationalization, therefore, need to understand the design of their business models and their management requirements.

Our approach shifts focus from the ongoing debate of exploitation versus exploration, to considering their interaction. As we have noted, opportunity realization during internationalization requires cognizance and recognition of the dynamic interplay between leveraging of the traditional business model and innovation and development of new business model. As such, the business model approach to EMNEs' expansion across borders also causes a shift in the conception of opportunity realization itself during the different internationalization trajectories. Hence, the business model offers a means to revisit existing views on the nature of internationalization opportunities and trajectories. The business model offers an important means of defining opportunities, calling for firm boundary-spanning intelligence rather than focal-firm centered insight or foresight.

4.4.1 Theoretical implications

The findings presented in this paper have important implications for theory. In contrast to the extant theorizing on the internationalization strategies likely to be adopted by emerging markets firms (Cuervo-Cazurra & Genc, 2008; Dawar & Frost, 1999; Khanna & Palepu, 2006; Madhok, 2010), the findings indicate that firms from emerging markets do not necessarily follow an either exploitation or exploration strategy. In this sense, this study supports the research by Chittoor and Ray (2007) arguing that EMNEs internationalize through a combination of exploitation and exploration strategies determined by their business model design, innovation and management. Our theoretical implications, taken together, support theoretical conjectures in the literature that EMNEs use internationalization as a springboard to acquire strategic assets from diverse markets in order to overcome their many disadvantages and become more competitive during periods of institutional transitions (Hutzschenreuter, Pedersen, & Volberda, 2007; Luo & Tung, 2007; Mathews, 2006), but they also support the traditional theoretical conjectures in literature that EMNEs internationalize through the exploitation of their ownership advantages (Ramamurti, 2009a) by leveraging and innovating their own traditional business models. Our findings suggest that internationalization through business model management, with the underlying activity reconfigurations, facilitate strategic and organizational innovation of these firms.

The resulting explanations help us better understand how business models interact with the external environment during EMNEs' internationalization and how these firms overcome their home market challenges and advantage deficits by reconfiguring their activity systems. International markets serve as means to gain access to diverse, locally embedded ideas and knowledge-based capabilities (Almeida, 1996; Doz, Santos, & Williamson, 2001). The institutional environment of countries is determined by the sets of rules and regulations that direct the economies (North, 1990). Thus, every institutional environment offers different advantages, opportunities and challenges. Over time, organizations learn to operate in particular institutional environments (Eriksson et al., 1997; Johanson & Vahlne, 1977) and manage their relationships with their external environment (Cuervo-Cazurra & Genc, 2008).

Majority of studies in the management literature study the influence of host country institutions on the entry of foreign multinationals from developed markets (Bevan, Estrin, & Meyer, 2004; Henisz, 2000). New streams of literature discuss how home country institutions influence the market entry of multinationals from emerging economies and their competitive behavior in foreign markets (Cuervo-Cazurra, 2011; Cuervo-Cazurra & Genc, 2008; Rangan & Drumond, 2011). This study contributes to the literature by adding a new dimension, namely the internal notion of the business model. By reconfiguring their activity systems internally and externally EMNEs use the internal driving force of their business models to overcome home and host country influence. This conceptual article contributes to the present theory on internationalization of EMNEs by adding new strategic alternatives EMNEs can pursue in addition to the pure exploitation in other emerging markets and exploration in developed markets perspectives.

Another theoretical implication of the evidence presented in this article is that EMNEs are a unique kind of multinationals that can only be understood adequately with de novo theory as suggested by Mathews (2002). Existing international business theory is adequate and sufficient to help answer questions regarding why EMNEs internationalize, what challenges they face in host countries, and when they prefer hierarchies over markets (Ramamurti, 2009a). However, it falls short in answering questions about competitive advantages of EMNEs and where those advantages derive from, why some EMNEs follow substantial outward foreign direct investment strategies, and why some EMNEs compete successfully against established Western multinationals. By introducing the notion of the business model, the proposed conceptual framework helps advance answers to issues in EMNEs research for which existent international business theory falls short in providing.

4.4.2 Managerial implications

This article also provides practical and managerial implications. It is important for managers to understand how firms from emerging markets enter into new foreign markets and what are the implications of different business model management strategies and the underlying objectives. The presented conceptual framework allows managers to better understand how to expand to new markets in terms of leveraging the traditional business model, innovate the business model, or enter new markets through the development or acquisition of an entirely new business model. Each business model management strategy bears different consequences for the firm and requires different organization of the activity system, which in turn has implication for the value creation and value capture mechanisms.

Our discussion underscores that managers' vision, commitment to action, ability to articulate when and where to focus search for opportunities internationally, and social skills are needed to build momentum for internationalization of EMNEs. Managing the different internationalization and business model management strategies requires different leaderships skills that allow opportunity exploration that fosters exploitation. The greatest contribution of the business model concept is stretching the EMNEs managers' thinking and frames to consider "far-off" scenarios that are initially hard to justify or even to comprehend. The business model concept requires managers to stretch beyond their familiar "search zone," (March & Simon, 1958) to explore distant signals of pending change (Zahra, 2008).

Our proposed framework allows managers to believe that their firms are not necessarily at a disadvantage relative to their competitors from developed markets, but that they also can develop greater advantage vis-à-vis Western rivals. The presented conceptual framework encourages managers to evaluate the internationalization of EMNEs from the business model perspective in terms of how EMNEs create and capture value, despite the existence or non-existence of ownership advantages. The notion of the business model allows EMNEs' managers to focus on the core logic of how to operate and reconfigure their activity systems internally or externally depending on the context of emerging and developed markets. Leveraging of the traditional business model from home and the development of new business models have different competitive consequences because they require quite different organizational and individual capabilities and follow different strategies; that is, EMNEs require different abilities to absorb, integrate, and transform internal and external resources and activities into a competitive advantage (Amit & Schoemaker, 1993).

4.4.3 Avenues for future research

Having outlined our article's contributions, we believe it has several limitations that provide opportunities for further research. First, as it is a theoretical article, the validity of our ideas needs to be empirically tested. Large sample studies may be attempted to formulate and test specific hypotheses with regard to the business model as a specific firm-level factor that enables the internationalization of EMNEs. The next logical step is also to analyze whether the distinct internationalization trajectories and business model management strategies are associated with any performance differentials. Thus, future research should systematically analyze and test which of the four identified internationalization and business model management strategies create more value for the EMNEs and allow for increased value appropriation and under what circumstances and conditions, and what are the drivers of differential firm performance. Secondly, additional research on the nature of EMNEs' internationalization trajectories would be useful; that is, distilling the drivers, enablers and impediments of the business model innovation process during internationalization seems very relevant from this perspective. Thirdly, future research would greatly benefit from a deeper analysis of the capabilities needed in each of the four business model management strategies.

4.5 Conclusion

This article attempts to throw light on the internationalization trajectories of emerging markets firms by proposing a conceptual framework. Specifically, we study the internationalization trajectories of EMNEs with focus on how these firms manage their business models during their international expansion via a single or dual business model management strategy. Overall, the paper highlights the importance of studying emerging markets firms to reveal new theoretical insights. The study of the diversification of EMNEs has already resulted in new insights into diversification. The study of EMNEs will also generate new insights on internationalization, but requires further work (Wells, 1998). The current paper is a step in this direction.

Chapter 5: Discussion, Contributions, Implications, Limitations and Future Research

This dissertation has attempted to explore and define theoretically and empirically the concept of business model transformation and its underlying dynamics by distilling its enablers of business model innovation and business model internationalization across multiple contexts to ensure the robustness of my conceptualizations. This allows the examination of the different research questions discussed in the preceding chapters. In this chapter, I discuss and reflect on how this dissertation realizes its original intent and show how the collective contributions could provide a distinct research agenda for future research. Final remarks complete this thesis.

5.1 Discussion: Conceptual Framework of Business Model Transformation

As a whole, these three essays follow a common thread of business model transformation and its underlying dynamics and provide empirical findings and integrative insights that move the business model research agenda forward. The shared phenomenon of all three essays is business model transformation that leads to strategic renewal of the firm. While Essay 1 has the objective to shed light on the ambiguity in current research on business models and provides an overview of the business model conceptualizations, the terminology and general relationships between elements that influence its evolution, Essay 2 and Essay 3 build on this by diving deeper into the role of the distribution and characteristics of interdependency between business model elements that leads to business model transformation through the lenses of innovation and internationalization of business models.

Taken together, business model transformation is a multi-dimensional construct, which resides in a firm's strategic choices. However, the transformation design is not purely given by nature but to some extent at the discretion of the firm. This thesis suggests that business model transformation is to some extent a choice by itself, driven by antecedents of business model innovation and through growth strategies of the business model that both determine the opportunity space that allows the business model to create and capture value. Antecedents of business model innovation and business model growth strategies determine whether and how the set of activities of the business model is supposed to interact or not. By taking decisions that influence the contingency and interdependency design of the business model, firms set the right context for system-induced recombination of activities as a source of business model transformation.

Complementarities in business models can lead to inertia faced by environmental changes and, at the same time, incremental changes in the activity system of the business model can have detrimental consequences for the business model itself and the focal firm because of tight interdependency of the activities and choices made in the design of the business model (Siggelkow, 2001, 2002a). Thus, by adapting to evolving ecosystems, firms transform their traditional activity systems in order to create novel business models. These insights, derived through my research on both complex service providers in Germany as well as emerging market multinationals expanding across borders, support recent work on institutional theory that highlights institutional entrepreneurship and describes how institutional entrepreneurs construct new markets, become dominant players in those markets, and simultaneously legitimize business model transformation by attracting new stakeholders of the ecosystem (Battilana, Leca, & Boxenbaum, 2009; Hwang & Powell, 2006; Santos & Eisenhardt, 2005).

Evolving ecosystems act as stimuli and creative challenges that enable focal firms to deal with them by creating novelty through business model transformation rather than imitating and following existing business models (Amit & Zott, 2015), which is understood as an incremental process of exploring new activity configurations. Business model transformation not only allows strategic renewal but it goes beyond that by defining an opportunity space in which the business model is being passed through on the way to collaborative agency. Consequently, I argue that business model transformation enables firms to continuously enact upon and realize opportunities in the determined opportunity space of value creation and appropriation during the evolution of the ecosystem. I further claim that interplay takes place between the evolution of the ecosystem and business model transformation of firms within the ecosystem.

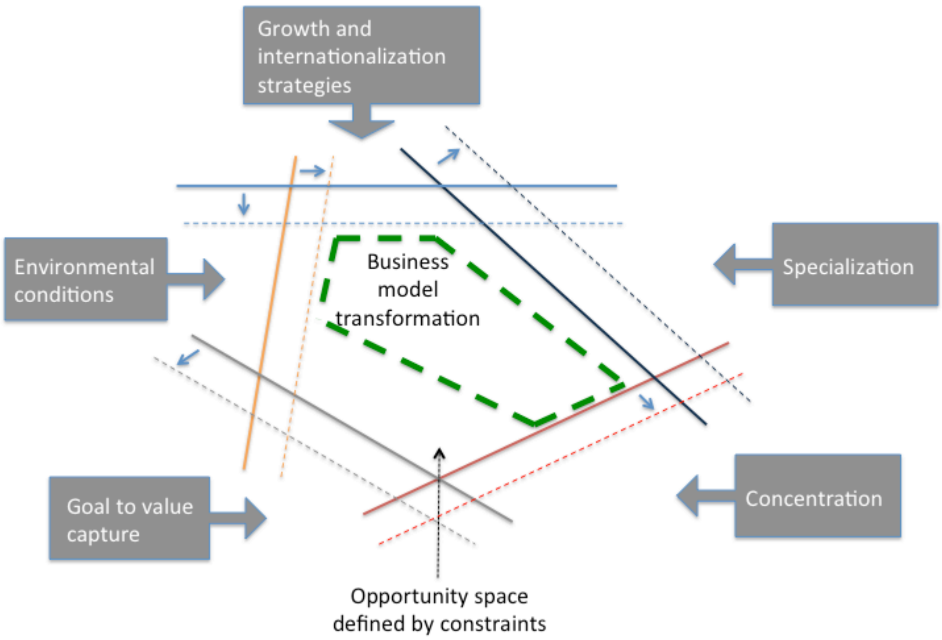
The novelty of a new business model opens up new strategic directions and transforms the ecosystem. Thus, firms become adept at experimenting with a repertoire of strategic alternatives that my spur game changing strategies (Huber, 1991; Miller & Chen, 1996) toward other stakeholders in the ecosystem and may transform the ecosystem itself. Such business model transformation that orientates itself on the evolution of the ecosystem refers to a focal firm's way to improve the odds and out-smart other players in pursuit of profit and growth (Lafley & Charan, 2008). Business model transformation involves the creation of a new game by envisioning and realizing a new playing field and related system of roles, rules, relationships, and outcomes. This, however, requires mobilization of collective action across a range of stakeholders, within and outside the ecosystem, as well as lobbying efforts at the institutional level to legitimize the new game (Aldrich & Fiol, 1994; Porter & Lee, 2013; Porter & Teisberg, 2006). Environmental constraints not only hinder but also help novelty-centered business model design (Sanchez & Ricart, 2010). The essence of novelty-centered business model design is the adoption of new activities, new ways of linking activities, and/or new ways of governing activities (Amit & Zott, 2014; Zott & Amit, 2010).

Advancing on my preceding research in this dissertation, I provide a more systemic perspective on business model transformation that emphasizes the interdependencies and complementarities between a firm and its stakeholders within the ecosystem in order to better understand how value is created and captured. In my focus on business model transformation and its underlying dynamics enabled through business model innovation and growth of the business model through internationalization, I emphasize firms' orchestration of internal and external activities to enact and realize opportunities, whether they are discovered or created, to increase the potential for value creation and appropriation in order to adapt to the evolving ecosystem.

This dissertation defines business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by enacting its opportunity space through value creation and value capture with the goal to adapt to an evolving ecosystem. I propose a conceptual framework of business model transformation by integrating the results and contributions of my preceding research. Placed in an agentic world, this proposed integrative framework considers the business model as a complement to strategy, characterized by constraints that determine its opportunity space and allow for realization of the opportunities and thus enable value creation and value capture. The constraints are depicted by the business model innovation antecedents on the firm-level as they drive business model innovation, which in turn enables transformation as a response to the need for adaptation to an evolving ecosystem.

The antecedents dictate the opportunity space as they influence every firm and its respective activity system in different ways. Also, firms respond differently to antecedents of innovation, depending on the interdependency of the activities in their business models. Growth strategies defined by internationalization trajectories of business models further determine constraints of the opportunity space by enabling the firm to transform its activity system through growth, which requires adjustments, changes or new developments of activities and the underlying interdependencies. Transformation of the business model allows firms to attain scale and raise the threshold of viability, as well as find new market space. Business model innovation and growth through internationalization are the enablers of business model transformation by allowing the firm to make strategic choices in order to enact the opportunity space. Figure 5.1 below illustrates the proposed conceptual framework of business model transformation.

Figure 5.1: Conceptual framework of business model transformation



Source: Own creation

The agentic representation of business model transformation considers time and experience as important prerequisites for the conceptualization and conceives the business model as a dynamic concept determined by the notion of continuity. It defines the dimensions that characterize the way firms realize opportunities in order to increase their value creation and appropriation potential. Here, the business model acts as a design of organizational structures to enact business opportunities and transform them into a distinct value propositions (George & Bock, 2011; Svejenova, Planellas, & Vives, 2010; Teece, 2010), thereby transcend the organization, span its boundaries (Zott & Amit, 2010) and transpire in a network structure. I propose viewing business model transformation by defining some of the factors that condition this process as well as some of the outputs that it might produce.

This framework emphasizes the ongoing and changing nature of business model transformation and its underlying dynamics. In this model, I not only consider the dynamics of the interaction between the different dimensions of the model but also its variation and retention over time. Elaborating on work by Porter (1980, 1981, 1991), Spender (1989, 2011), and Spender and Kraaijenbrink (2010), the proposed framework provides a representation of the evolutionary nature of business model transformation, an intrinsic part of strategic management. It considers business model transformation a collective, continuously changing process in which the different dimensions interplay and confront each other in a complex process of evolution.

5.2 Collective Conclusions and Contributions

The discussion throughout the thesis implies that a fundamental question in literature is how firms continuously rejuvenate themselves to meet the demands of an ever-changing business environment. Miles and his colleagues recognized the challenge of strategic renewal as the crux of entrepreneurship and called it the entrepreneurial problem (Miles, Snow, Meyer, & Coleman, 1978). In a similar vein, the behavioral theory of the firm highlighted the role of organizations' myopic search (March & Simon, 1958) while Penrose (1959) stressed the role of limited managerial capacity in handling organizations' obsolescence and stifling growth. Winter (1993), in turn, highlighted the need for building and revamping organizational capabilities to address these diverse challenges. In similar line of thought, Teece and his colleagues (Teece, Pisano, & Shuen, 1997) focused on the role of dynamic capabilities in the creation and appropriation of value. This dissertation aims at extending the discussion and research on strategic renewal by introducing and defining the concept of business model transformation through which incumbents and new ventures alike increase their value creation and capture potential by realizing and enacting opportunities.

The overall general question this thesis aims to answer is: What is the nature of business model transformation in evolving business ecosystems? This thesis seeks to provide a fine-grained understanding of business model transformation as the notion of fit adjustment in evolving business ecosystems and unravel the underlying dynamics of business model transformation of firms as they innovate and internationalize to realize – exploit and explore – opportunities. In this dissertation, I define business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by realizing its opportunity space and increase its value creation and value capture potential with the goal to adapt to an evolving ecosystem, enabled by business model innovation and business model internationalization. Realization of business opportunities is defined here as a firm's exploitation and exploration of internal and external activities and resources within the business model to continuously pursue value creation and value capture. Studying business model transformation through the notion of business model dynamics allows the examination of strategy at the intersection to innovation and internationalization.

Advancing this discussion, research on business models is a growing and influential literature stream. As discussed throughout this thesis, business models have been recognized as complementary to strategy as they reflect the realized strategy (Casadesus-Masanell & Ricart, 2010) thereby allowing firms to be competitive (Zott & Amit, 2008), and they are considered as an important locus of strategic innovation (Anderson & Markides, 2007; Markides, 1997, 2008) thereby propelling growth and progress with an impact on firm performance (Malone et al., 2006; Zott & Amit, 2007) of new ventures and incumbents alike (Fiet & Patel, 2008; Magretta, 2002; Markides, 2008). With its narratives and numbers (Magretta, 2002), the business model reflects the core logic of firm's value creation and value capture (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002) and reveals the focal firm's aspirations and intentions of strategic renewal (Volberda et al., 2001).

This dissertation examines business model transformation through the enabler of business model innovation in the context of complex service providers in terms of dental service providers in Germany and through the enabler of business model internationalization in the context of emerging economies and the expansion of their firms across borders to emerging and developed markets. To ensure the robustness of my conceptualization, I explore the notion of business model transformation across multiple contexts for three main reasons. First, scholars have highlighted the merits of context specific theorizing that considers the variables that form the setting's characteristics and fuels its actors' behavior (Zahra, 2008). Second, opportunity is a context specific phenomenon, which requires clarifying its context of operation to gain rich understanding from its investigation. Third, the contexts of both complex dental service providers in Germany and emerging market multinationals represent unique settings to observe the notion of business model transformation and its underlying dynamics of innovation and internationalization respectively.

The uniqueness of the context of dental service providers in Germany emerges from the institutional change from small personal dental practices to large anonymous dental centers, indicating an evolution and significant change in the ecosystem of dental service providers. Moreover, the dental profession by nature is defined as very service intensive. Very little research exists that describes the complexity of the dental industry and the relationship between the stakeholders and the dental professional. Researchers describe the dental profession as a monopolistic profession as its market behavior reflects a simple monopolistic model because the dental service providers act in their own interests instead of those of their consumers (Kushman & Scheffler, 1978; Kushman, Scheffler, Miners, & Mullers, 1978).

The uniqueness of the context of emerging market multinationals emerges from the environmental complexity, the uncertainty of industrial structure, the specificity of business culture and the economic and political shocks, which are distinctive characteristics of emerging economies (Hoskisson, Eden, Lau, & Wright, 2000; Luo, 2002). Bringing these traits to the opportunity realization through exploitation and exploration of ownership advantages and the management and innovation of business models during the internationalization trajectories links national level environmental factors to the notion of business model and its underlying dynamics and illustrate how firms transform their business models and adjust the fit of their activity systems as markets emerge and ecosystems evolve (London & Hart, 2004), a phenomenon observed in diverse emerging economies with different cultural and political characteristics. As a result, context invokes the anomalies embedded in firms' business model transformation process within the setting and as they internationalize.

Based on the assumptions and research questions presented in the general introduction of this dissertation, I now turn to explore some general conclusions stemming from this research. I began this thesis by presenting the main debates regarding business models and their dynamic nature. Given the nature of the overall research question of the dissertation and its subsequent research questions, which aim at providing a deeper understanding of the notion of business model transformation and its underlying dynamics of innovation and internationalization, the research design is that of grounded theory and multiple case studies, following a semi-constructivist methodological approach. The three articles' endeavors together provide theoretical and empirical findings that move the business model research agenda forward.

First, following a critical review, I identify three different perspectives in literature that determine the various subsequent conceptualizations of the notion of business models on different levels of analysis. Second, I develop grounded theory that sheds light on our understanding of business model innovation antecedents on the firm-level and value innovation as the outcome of business model innovation of complex service providers. Third, I contribute theoretical and empirical data on the growth strategies of business models through internationalization of emerging multinationals. Together, the essays in this thesis have improved our understanding of how business model and business model transformation as well as its underlying dynamics enabled through innovation and internationalization are constructed. I proceed now to present the collective conclusions and contributions of this thesis:

- Research on business models has developed in isolated fashion within silos, according to the phenomena of interest to the respective researchers and their respective viewpoints, in different contexts, and most of all on different levels of analysis.
- Embracing the three different perspectives in literature offers an implicit consensus of the business model as a new unit of analysis that spans traditional levels of analysis and hinders arriving at conflicting conclusions.

- Most of the received literature on business models places the emphasis on value creation and value delivery of the business model and less on the value capture dimension.
- Specialization is associated with the division of labor and affects how service providers search for new technologies and what type of knowledge they acquire.
- Concentration leads to changes of the scale on which activities are delivered and drives the efficiency-based theme of the business model through cost efficiency, better knowledge sharing, better communication, collaboration, and efficiency for customers.
- Service providers are not the passive pawns of environmental constraints but instead take steps to challenge them.
- Business model innovation contributes to the re-shaping of the firm's activities necessary to realize and address the envisioned external disruption of the ecosystem.
- By innovating their business models, service providers move away from a supply-driven system toward a customer-centered system, with a focus on customer outcome.
- Emerging multinationals follow different internationalization strategies to emerging and developed markets depending on the degree of institutional difference and endowments of own resources and activities.
- The business model approach to emerging multinationals' expansion across borders causes a shift in the conception of opportunity realization itself during the different internationalization trajectories.
- Interdependency of activities is crucial in understanding the transformation of the business model.

- Firms not only encompass radical business model transformation when groundbreaking developments in the ecosystem force them to do so, but business model transformation can also be the result of many small transformation steps that are not triggered by severe ecosystem changes and environmental constraints.

From the research performed in this thesis, I not only provide the variables to understand the business model transformation logic in a particular moment in time but I also reflect on how business model transformation evolves over time and allows firms to adapt to a changing and evolving ecosystems. I also provide some insights to understand the factors that influence and the outputs derived from business model transformation. The above described theorizing throughout the thesis considers the business model phenomenon as an intrinsic part of the organization and allows us to better understand strategic renewal, growth, differential firm performance and sources of competitive advantage. So far, I have examined the main dimensions framing business model transformation. In the next section I propose a joint framework that integrates the lenses of business model innovation and business model internationalization.

5.3 Collective Implications

5.3.1 Theoretical implications

This dissertation contributes to new research at the intersection of business models and ecosystem by exploring how firms adapt their business models to evolving ecosystems through business model transformation. It explores the nature of business model transformation as a response to evolving business ecosystems by analyzing the underlying dynamics of business model innovation and growth through internationalization. This dissertation defines business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by enacting its opportunity space through value creation and value capture with the goal to adapt to an evolving ecosystem. I propose a conceptual framework of business model transformation by integrating the results and contributions of my preceding research across various contexts. This dissertation has improved our understanding of how business model transformation is constructed at the intersection of strategic management and the theory of the firm, by conceptualizing business model transformation and its ability to enable the firm to realize opportunities in order to increase its value creation and value capture potential in an agentic world.

I argue that business model transformation is a complex and sometimes ambiguous process. It is not linear and it can imply prospective and retrospective processes of change. The findings of the preceding research discussed in chapter 3 and chapter 4, and complemented with the development of the business model transformation framework discussed in chapter 5, are in line with findings presented by Khanagha and colleagues (2014). Firms not only encompass radical business model transformation when groundbreaking developments in the ecosystem force them to do so, but business model transformation can also be the result of many small transformation steps that are not triggered by severe ecosystem changes and environmental constraints. My findings and conclusions are also in line with research presented by Brea-Solís et al. (2015) in that the emphasis on certain choices affecting the business model makes a difference and that focus on business model choices that generate growth and lead to transformation are of importance for future performance, and also with research conducted by Kim and Min (2015) with respect to dual business model management.

The findings and outcomes of this thesis further allow overcome a deficiency also highlighted by Schneider and Spieth (2013) that most studies on business model change refer to radical, industry disruptive business model innovation. In this thesis, I present and discuss that this is not the case. Rather, business model transformation allows firms to realize opportunities through a step-wise process of change. I further contribute by defining the constraints of business model transformation that determine its opportunity space for the realization of opportunities and the subsequent value creation and appropriation. In defining the opportunity space of business model transformation I identify only the reasonable possibility of a firm rather than its actualization. Its closure and enactment is left to management and implies search for heuristics, which admit and shape managers' creative capabilities and choices. My argumentation and the proposed framework take distance from rational decision-making and intuit a place for the manager, making it appealing to practitioners.

This dissertation further contributes to research on business models by providing more theoretical clarity about business model conceptualization, the underlying elements and the interplay among them. In particular, I identify three perspectives on business models prevailing in literature, which reveal sources of differences but also commonalities and shared dimensions in the various business model definitions that act as a catalyst toward more convergence in research on business models. The identification of the three perspectives in literature demonstrates major methodological implications and establishes a clear position of the business model in literature. It legitimizes the conceptualization of the business model as either complementary to strategy or as a model of the firm thereby restricting strategy. This methodological classification provides clarity for future research and helps solve the dilemma in this field by allowing scholars to place their research on business models accordingly.

By analyzing the underlying dynamics of business model transformation through the lens of business model innovation, this dissertation contributes to theorizing on business models by identifying the antecedents of business model innovation on the firm-level, which constitute the opportunity space of business model transformation. This thesis contributes to institutional theory by extending the locus of individual insights in innovation research (Beckman, 2006; Hargadon & Sutton, 1997; Ruef, 2002; Sinhur & Zott, 2014) to the consideration of firm-level transformation constraints. This dissertation further enhances strategy literature that points to the relevance of value innovation, as the desired outcome to be achieved through business model innovation, as a competitive trajectory of business model transformation. This insight constructs the opportunity space for business model transformation.

By identifying growth of business models through internationalization as the second lens of the underlying business model dynamics of business model transformation, this thesis further contributes to literature by proposing a theoretical framework depicted by the two key variables of institutional difference and strategic initiatives. In this sense, differences in institutional environments across countries lead to different strategic initiatives (Chakrabarti, Vidal, & Mitchell, 2011) and therefore to different choices of distinctive business models (Casadesus-Masanell & Ricart, 2010; Shafer et al., 2005). My findings are of particular interest as I show that internationalization strategies are not one-dimensional. I argue that the central mission of business model management during internationalization is to design, structure and govern activities (internal and external to the firm) in such a way as to realize (exploit or explore) opportunities that enhance the viability and performance of the firm, as well as reduce risk and allow firms to adapt to changing ecosystems. Consequently, the different internationalization strategies pursued by emerging market firms lead to different reconfigurations of the business model's activity system and to different business model management strategies in order to adapt to changing ecosystems. Thus, this dissertation provides a more systemic perspective that emphasizes the interdependencies between a firm and its stakeholders within the ecosystem in order to better understand how value is created and captured.

As a result, my research focus on business model transformation through innovation and internationalization lenses and firms' ecosystems sheds light on the importance of balancing firms' internal and external conditions to enable them to adapt and shape their ecosystems. Therefore, the dissertation points to the merits of addressing firm-level business model transformation through the underlying dynamics of business model innovation and international growth from an agentic view for future business model and theory of the firm theoretical efforts under the umbrella of strategic management. The focus on activities in my attempt to capture the firm-level phenomenon of business model transformation placed in the agentic world is a counterweight to the business model construct defined as a static model by the determined view. Although, I do not deny the usefulness of the model construct of the business model, I posit that it eliminates the dynamics and ability of the business model to change and evolve over time, which may need to be complemented by the gauge of firms' activities and their interdependencies in the activity system of the business model. This is in spirit with early classical arguments of entrepreneurship that provide compelling reasoning that firms are identified through their actions (Covin & Slevin, 1991; Gartner, 1989; Schumpeter, 1934).

In this line of thought and with particular focus on the interdependencies between the business model activities, this dissertation further contributes to our understanding of fit of the business model, to which firms need to pay special attention. The external fit between strategy and ecosystem conditions has been widely discussed in past research (Siggelkow, 2001, 2002a; Yamakawa, Yang, & Lin, 2011; Zajac, Kraatz, & Bresser, 2000). As argued throughout the thesis, the business model, as a complement to strategy, acts as a reflection of the focal firm's realized strategy, therefore, as such it needs to match and adjust its fit to its ecosystem and the underlying conditions. Thus, business models needs to change and evolve over time as dynamic external fit is crucial (Siggelkow, 2001, 2002a; Zajac et al., 2000). Moreover, my dissertation also uncovers and confirms that the degree of internal fit among the activities in the business model also plays an important role, in addition to the external fit. A business model in order to be successful in its transformation needs to achieve not only the external fit with its strategy and alignment with the strategy and the ecosystem evolution but it needs to show a distinct internal fit. Chapters 3 and 4 examine and discuss on longitudinal data the role of external and internal business model fit related to changes and evolution in the ecosystem that takes place over time.

When the ecosystem evolves, firms adjust their activity systems and reconfigure the sets of activities within the business model (Siggelkow & Levinthal, 2003). Internal fit among activities ensures that the business model has a coherent organizing of activities, while external fit refers to the appropriateness of the configuration of activities given the ecosystem affecting the business model. Fit among the activities in the business model is of crucial importance to the firm since environmental changes in the ecosystem can affect the external and/or the internal fit (Siggelkow, 2001, 2002a,b, 2011), which in turn will affect the business model architecture and the resources employed. By adapting to evolving ecosystems, service providers create novel business models. The focus on focal firm's efforts and undertakings to transform its business model may provide useful insights into the role of collective harnessing of its members' individual efforts.

Business model transformation encourages knowledge sharing and distribution across the firm, which encourages collective sense making at the organizational level to link this information and funnel it towards novel business model design and new breakthroughs. A focus on collective intelligence ascribes firm's entrepreneurial initiatives to firm wide efforts that transcend specific individuals' contributions. These findings support recent work on institutional theory that highlights institutional entrepreneurship and describes how institutional entrepreneurs construct new markets, become dominant players in those markets, and simultaneously legitimize business model innovation by attracting new stakeholders of the ecosystem (Battilana, Leca, & Boxenbaum, 2009; Hwang & Powell, 2005; Santos & Eisenhardt, 2005). Thus, I argue that business model transformation enables firms to continuously enact upon opportunities of value creation and appropriation in their defined opportunity space during the evolution of the ecosystem.

This thesis contributes to research on business models and business model transformation by offering fine-grained empirical and theoretical analyses of the evolution of the underlying dynamics of business model innovation and business model growth through internationalization. It advances a multi-level, multi-period, multi-disciplinary, and multi-context view of business model transformation, which integrates in a theoretical framework notions and insights from the fields of strategy (activity systems and fit of choices), organization theory (agentic world and organizing), innovation (business model innovation), and internationalization (growth of EMNEs). By presenting the opportunity space of business model transformation that allows the focal firm to increase its value creation and value capture potential, the thesis provides a richer account of the connection between business model and value, articulating the role of mechanisms and processes for value creation and value capture in a business model's functioning and transformation. Finally, it extends these notions across various contexts, such a complex dental providers in Germany and emerging market multinationals from diverse countries.

5.3.2 Organizational and managerial implications

My theorizing on business model transformation may appeal useful to managers in providing them with empirically grounded lenses, or also referred to as heuristics, of business model dynamics of innovation and growth through internationalization for paying attention to what history suggests, but cannot prove, matters. Much management literature emphasizes objectivity and keeping manager's creativity and imagination out of the analysis by presupposing rational decision-making. The business model transformation framework presented in this thesis appeals to managers because it intuits a place for them by allowing space for their imagination and not only rational decision-making. It offers descriptive theorizing allowing managers strategic choice. The underlying heuristics admit and shape managers' creative capabilities, as opposed to positivist theory, which restricts managers to rational decision-making.

Managers are encouraged to examine their behaviors and their underlying assumptions in relation to the various dimensions and constraints determining the opportunity space of business model transformation. Managing these dimensions requires different leadership skills that enable firm wide opportunity realization. Thus, leaders are encouraged to observe the relationship between particular skills and the constraints dimensions to reinforce these dimensions throughout the opportunity realization process when transforming their business models.

Managers' roles could be tracked by surveying firms to determine managers' behavior that supports the opportunity realization determined by the constraints and those that hamper the behavior that hampers their development. This will allow managers to assess the effect of their behavior on the transformation of their business models.

Therefore, a focus on an organizational level constraint of the opportunity space of business model transformation, as identified by the firm-level antecedents of business model innovation, will allow managers to continuously subject their assumptions and expectations to challenges that may seem distant from competitive realties. One important implication of focusing on the notion of business models and their core logics of value creation and value capture is questioning firms' dominant logics that keep firms confined to their established boundaries and standards. Moving beyond these boundaries and standards is one important mechanism through which firms could strike out into different domains and sometimes into uninhabited lands through business model transformation and the realization of the provided opportunity space. Yet, managers are encouraged to take distance from pure rational decision-making and instead challenge more their creative capabilities and their imagination. It is this stretching exercise that opens up new opportunities determined by the business model transformation constraints and provides firms with possibilities and tools to conquer new lands that contain the seeds for tomorrow's victory.

In addition, findings suggest that managers could develop and institutionalize business model transformation and the dimensions of the opportunity space determining the levels of the transformation to continuously pursue opportunity and proactively use their capabilities. Thus, managers should not view their activities, the orchestration of the activity systems and their required capabilities as static repositories, but rather as sources that ignite potential links and open up new possibilities. Business model transformation intuits them a space to do that. This, in turn, requires viewing firms as part of their larger ecosystems, as some activities and the required capabilities may be embedded within these ecosystems and not necessarily internally possessed by the firm. Also, in their attempt to adapt to an evolving ecosystem, business models may transform the entire ecosystem during their own transformation while pursuing the realization of opportunities. Transformation of firms' boundaries in relation to the activities in the activity system and in the ecosystem, resources, capabilities, and opportunities is an important exercise that business model transformation encourages and managers should prudently attend to.

Further more, the multi-dimensional nature of business model transformation indicates that integration among the constraints of the opportunity space is an important determinant of success of the transformation of the business model. Yet, managers should note that fruitful integration is never a straightforward exercise; it requires collective interpretations of activities and choices that go beyond their individual functional characteristics. It is about knowing the links among activities and choices and how they apply to opportunities. Business model transformation involves a great deal of customizing to the opportunity at hand, as two opportunities are never the same. Thus, systematically exercising business model transformation through the realization and enactment of the opportunity space implies that managers will gain experience with activities and their interdependencies in the activity system and how they should be applied from one opportunity to another.

Another important managerial implication of my research is its illustration of the difficulties emerging markets multinationals face in their attempt to manage the growth of their business models as they internationalize, as discussed in chapter 4. Managers need to be aware of these difficulties as their firms expand internationally to advanced and developing economies. Awareness of these difficulties promises early attention to problems associated with innovation and transformation of business models, as well as, the decision to either exploit or explore their ownership advantages and leverage or develop new business models, and their implications for firms' success. Our observations also show that managers need to jointly consider the opportunity space available, owing to the inseparable nature of knowledge.

Furthermore, our study demonstrates the effect of the dual setting of emerging multinationals on the internationalization of their business models, which therefore constitutes one of five main constraints of the opportunity space of business model transformation. Although, emerging multinationals expand to leverage their core activities and stretch and develop others, this is not an automatic process. This process requires judicious selection of activities that could be generalized from one setting to another to avoid misleading integration of activities. In addition, managers should note that signals of opportunity and time frames could not be extended from one setting to another. Thus, managers should expect that managing business models internationally would exhibit pronounced differences from exercising it domestically.

The conceptual framework advanced in this dissertation could assist managers in both creating a new business model and further developing an existing one, inspired by business model innovation, business model internationalization and business model transformation. In that, managers need to be aware of the dynamic, multi-level nature of business models, and their inherent need for alteration and transformation over time in alignment with the needs of the venture, the priorities posed by key stakeholders and the evolution of the ecosystem. Such changes can make previously successful business models obsolete and in demand of major adaptation and transformation. Furthermore, managers need to understand the interdependency between activities and what each activity of the activity system contributes to the whole as well as how altering one activity, or the connection and interdependency between activities, may have significant implications for the business model's sustainability.

Finally, the lack of coherence in a business model can hamper its successful functioning and reduces its value creation and value capture potential. Managers should be aware of the mechanisms for value creation and value capture and the parties that could benefit from it. Managers should further understand how the interdependency between activities in the activity system, which leads to a coherence of the business model, further leads to the development or acquisition of new distinctive competences and strategic resources, which can bring new opportunities for the business model development and its transformation if sustained and leveraged over time, as discussed in chapter 3. The newly developed or acquired distinctive competences and strategic resources can help in refining the value creation and capture logic of the business model, and also create opportunities for diversification, which is particularly important to firms in niche markets and aiming to grow, as presented in chapter 4. Thus, managers should understand that business model transformation is a fragile process that involves delicate intricacies.

5.4 Limitations and Future Research

Despite the important theoretical and practical implications of this thesis, it is important to consider the contributions within the dissertation's limitations that may open up future research avenues. While the main part of my dissertation research program, presented in this thesis by the three essays and the discussion in which I develop the conceptual framework on business model transformation, places the focus on theory building and establishing the theoretical milestones, the second part and my future research of the complete dissertation research program, aims at empirical testing of the built theory on business model innovation antecedents and internationalization of business models respectively in the subsequent four essays.

Further research in progress as part of the PhD research program portfolio. Literature is short on empirical studies that actually capture and explore the enablers of business model transformation and the underlying dynamics that drive strategic renewal of the focal firm. My research on business model innovation and business model internationalization presented in this thesis leads to subsequent additional research and articles, which do not constitute part of this thesis, in which I test the here proposed theoretical model of business model innovation through different quantitative methods of multivariate analysis and the theoretical model of business model internationalization through the case study method. The case study method is becoming a mainstream method for new process analyses as it addresses important questions and raises critical concerns on process improvement and trajectory development to build theory. Yet, the application of the case study method with the objective to make generalizations should aim at discovering new facts about the reality with the precaution of applying that learned from the case studies to similar processes as not even a large number of cases or observations will provide a general theory or serve as absolute verification (Gomm, Hammersley, & Foster, 2000; Stake, 1994).

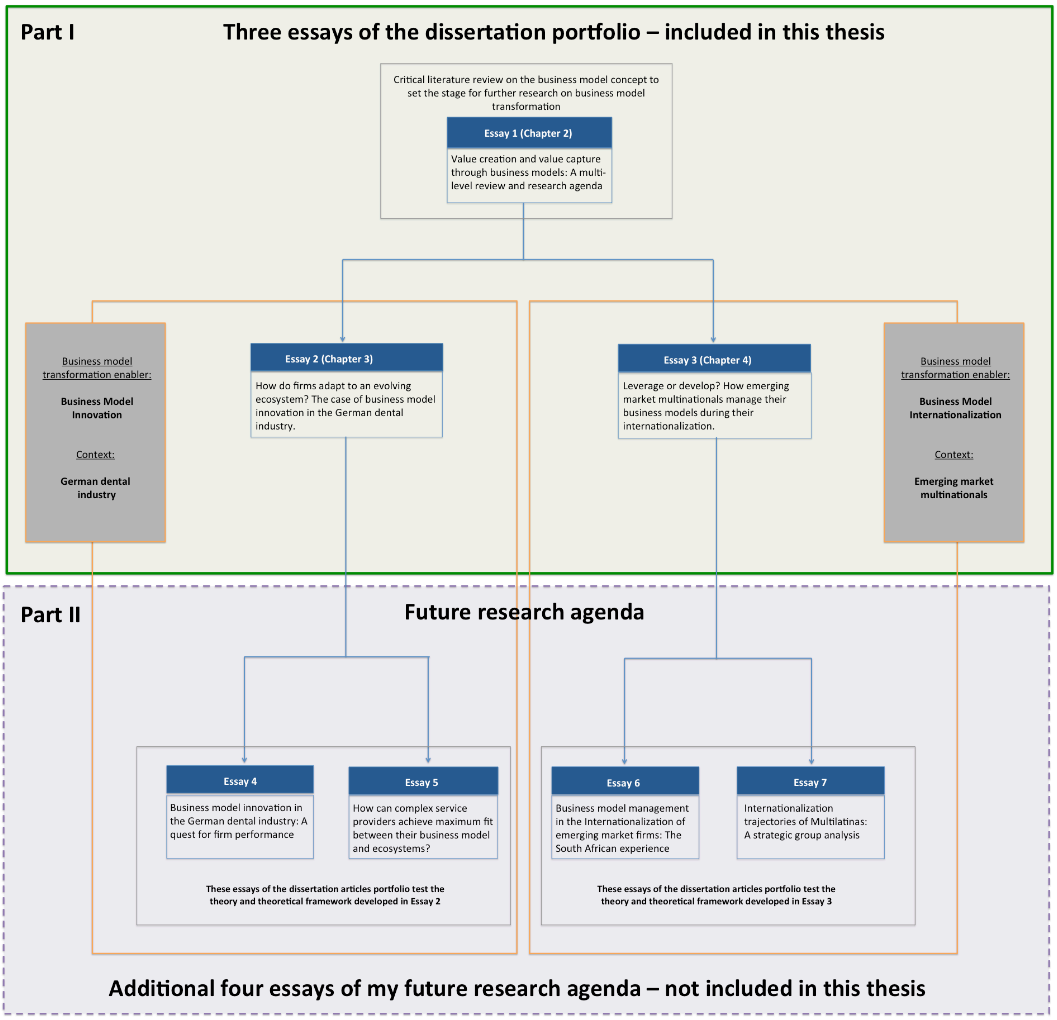
In this thesis, I present the first part of my PhD research program constituted by the three essays. Given that little research exists about the dynamics of business model transformation, which are explored in this dissertation as the lenses of business model innovation and internationalization, I believe this topic will benefit from a qualitative research design to build testable mid-range theory from rich and replicable evidence (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Multiple, comparative case studies allow for replication logic and result in an enriched understanding of the dynamics at play (Yin, 1994). Theory development, particularly grounded theory, is the main focus of this part of the thesis. In the second part of my PhD research program, I present four articles that represent the immediate future research in which I test the theories and conceptual models developed in the three essays of the first part of my PhD research program.

Given that little research exists using a quantitative methodology in the business models literature, whereby most of the few existent publications focus mainly on performance and controlling measures (Clark, 2013; Froud, Johal, Leaver, Phillips, & Williams, 2009; Kind, Nilssen, & Sørgard, 2009; Lazonick & Tulum, 2011; Patzelt, Knyphausen-Aufseß, & Nikol, 2008; Susarla, Barua, & Whinston, 2009; Zott & Amit, 2007, 2008; as well as recent SEJ Special Issue 'Business Models' by guest editors Demil, Lecocq, Ricart, and Zott (2015, Vol. 9, No.: 1): Brea-Solís et al., 2015; Gerasymenko et al., 2015; Kim & Min, 2015; Osiyeveskyy & Dewald, 2015), the main objective of the second part of PhD dissertation research portfolio is to identify instrumentalization of variables and develop quantitative methodology to test the developed theories in this thesis. Quantitative research is the next consequent step. The move towards broadly quantitative analysis is very important for further development of this area of research.

To extend my research on the first enabler of business model transformation, namely business model innovation, in Essay 4, I apply a quantitative research design and test the developed framework empirically by applying multivariate analysis. The findings confirm the four identified antecedents of business model innovation and elaborate the theory by presenting how the antecedents impact differential firm performance. My future research further elaborates in Essay 5 on my initial research on business model innovation by empirically exploring through a quantitative methodology how complex service providers can achieve maximum fit between their business model and ecosystems.

Further, I extend my future research on growth through business model internationalization as the second enabler of business model transformation by testing the theoretical model developed in my third essay presented in this thesis. Here, in Essay 6, I explore the developed framework and test the four identified internationalization strategies in a new context, namely on emerging multinationals from South Africa. In Essay 7, by following a mixed method approach, I apply the qualitative, case study approach as well as quantitative methods in order to perform a strategic group analysis in the context of emerging firms from Latin America, also referred to as Multilatinas, with the objective to confirm the existence of the four identified internationalization strategies of EMNEs. Figure 5.2 presents the structure of my PhD research program and the four subsequent essays of my future research.

Figure 5.2: PhD research program: Future research



In addition to the future research already in progress under my own PhD research program, this thesis highlights six common areas that represent the collective contributions of the presented three essays in this thesis, and I link these contributions to potential research topics that may prove useful in shaping the future research agenda.

Context focus. Throughout the chapters of this dissertation I focused on particular contextual factors that were seen as relevant to the analysis of how business model innovation and growth through internationalization of emerging multinationals transpire as the enablers of business model transformation. However, the notion of context includes a variety of contextual parameters such as cultural, industry, sector and economic wide characteristics. Originality comes at the price of limitations of the generalizability of the results presented and discussed in this thesis. Thus, another limitation of this thesis is the limited generalization due to the "specific context" being used for the analyses; that is, the German dental industry in chapter 3 and the internationalization of EMNEs in chapter 4.

Future research should assess and empirically validate the relevance of these contextual factors across different contexts, as it would be interesting to learn the following: How do these contextual factors affect the constraints of the opportunity space setting? How do these contextual factors affect the type of opportunity firms realize and enact through business model transformation? What is the effect of the different types of opportunities on the enablers of business model transformation? How do the emerging and created opportunities affect the contexts that gave rise to them in the first place? How do the emerging and created opportunities affect the convergence and divergence of industries?

Attending to these questions allows moving the notion on business models in the field of strategic management from a focus on the origin of opportunities to a focus on the type of opportunities and the contexts they are embedded in. Moreover, future research should link different contexts. For instance, future research could explore what we could learn from applying the business model innovation antecedents identified in the context complex service providers in

Germany when applied in a very different context in a different industry and/or different country; that is: How do the identified business model innovation antecedents apply in emerging markets? Such research questions require collaborative efforts.

Business model transformation perspective. Extant literature on business models has acknowledged and adopted the view of firms and their strategy as complex systems of interdependent activity choices (Miller, 1981; Siggelkow, 2011; Thompson, 1967; Zott & Amit, 2010). However, research on business models mainly developed in silos and researchers did not agree on a common definition of the concept, which has limited the comparability and replicability of prior studies and most importantly the use and development of the concept. For future directions, the distinction of the three perspectives identified in the first essay of this thesis is promising because each perspective addresses a different level of analysis and different terminology, as well as different theoretical foundations. Consequently, future research should focus empirically on the relationship of the constituting elements of the business model for each of the three perspectives in order to obtain further insights about the business model concept, which are relevant for further research on business model transformation. More specifically, it would be interesting to analyze the effects of varying numbers and content of each type of element on business model transformation. For example, how does the business model design differ between having three homogenous or heterogeneous core-elements versus having six of them, and how does it affect the transformation of the business model? Is a business model with a larger number of elements more likely to sustain a competitive advantage or does it – even under homogenous themes – increase the modularity and make imitation more likely?

Future research could also explore which parts of the adaptation process of business model transformation to an evolving ecosystem are planned, and which parts are emergent, and how can the best fit between the transformed business model and the ecosystem be achieved. Further, with respect to the identified constraints of the opportunity space of business model transformation, future research could explore the best timing for business model transformation to take place predicated on the assumption that further changes in the ecosystem will occur. Following evolutionary theory, future research could analyze the differentiation between intentional change and unintentional change of business models in an evolving ecosystem. I approach the current research from the business model and strategy perspective, however, future research could explore the presented research topics from the institutional theory perspective. Future research could also analyze the network effects of business model transformation and its realization of the opportunity space.

Further, I am taking an agentic approach to business model transformation placing the concept in an agentic world as a complement to strategy. Although I am limited in my treatment of individual behavior in this thesis, I believe that a deeper analysis of the differences between the activity system set-up applied here and human operations would be fruitful. Studying this relationship would be a promising path for bridging the firm or system-level approach that I have chosen in this thesis with more micro-level research, such as the strategy-as-practice view. In particular, future research could address the following areas: When managers make strategic choices and perform activities, they might face cognitive misperceptions of interdependencies of the activities in the business model. For example, they might misinterpret existing or non-existing interdependencies or perceive peaks as high even though they are small in the greater scheme. As such, capabilities required that allow for interpretation and the actual behavior that follows should be studied further. Future research could explore the dynamics between the business model on a firm level and the behavioral aspects of individuals and groups.

Role of interdependency. While the concept of interdependency has been acknowledged as crucial in understanding the evolution and strategic renewal of firms (Levinthal, 1997; Rivkin & Siggelkow, 2007; Simon, 1962), research has viewed interdependency designs mainly as given by nature (Zhou, 2013) and focused on a particular type, namely, complementarity (Milgrom & Roberts, 1995). The literature needs greater conceptualization and theorizing about the characteristics of interdependency of activities, the subsequent business model transformation and the underlying dynamics to better explain the role that interdependencies among activities appear to play on the ability of the business model to renew, evolve and travel in continuously changing environments (Siggelkow, 2011). Further, the distinction between interdependency and interaction between activities provides another fruitful avenue for future theorizing about their interplay and implications on strategic change and transformation outcomes. A research agenda for studying interdependency of activities in a business model could cover such questions as: What are sources and types of interdependency? What are the value consequences of different types of interdependency? How do different types and their value consequences evolve over time? A starting point to address these questions could be to build on the literature reviewed in this paper to further classify types of interdependency and link them to the different choices in activity systems. Moreover, future research could explore the effects of environmental changes on existing interdependencies of the business model and what impact this has on the business model transformation.

Ecosystem dimension. Unlike other concepts in strategic management literature, the business model concept does not solely focus on firms' internal or just the external activities; it rather stresses the importance of a boundary-spanning concept considering activities within and outside firms' boundaries. Hence, the discussion presented across the preceding chapters of the dissertation notes the importance of considering firms' ecosystems. As such, a focus on firms' ecosystems comprises interesting topics for future research such as: How can firms achieve maximum fit between their business model and ecosystem, and what exactly defines such fit? When would be the right time to adapt a firm's business model, given the possibility that further change might happen in the ecosystem? What capabilities are necessary to transform the business model to an evolving ecosystem? What are the implications for the interdependency among activities in the activity system? An interesting empirical challenge would be how to operationalize business model transformation and relate it to firm's performance outcomes. Such research would require multiple data sources, interviews, surveys, and archival data, which, in turn, would permit drawing statistical robust conclusions because one data source would make up for the biases inherent in another.

Role of internationalization. The research on growth of the business model through internationalization attempts to throw light on the internationalization trajectories of emerging multinationals by proposing a conceptual framework of the underlying internationalization strategies. Future empirical research is needed to substantiate the presented observations and uncover the sequence and the causal links between the underlying processes of internationalization. My research noted the impact of emerging multinationals' attributes such as their origin and the host destination on their internationalization and consequent business model management processes. The fact that these firms internationalize suggests that they will pursue a myriad of opportunities, examining the types of these opportunities and how they impact business model transformation and expansion are important areas for future research. Gaining an understanding of the type of opportunities would help future research to outline the differences between emerging multinationals' business model design and transformation and other firms, perhaps in developed markets.

Moreover, the validity of my ideas needs to be empirically tested. Large sample studies may be attempted to formulate and test specific hypotheses with regard to the business model and business model transformation as a specific firm-level factor that enables the internationalization of EMNEs. The next logical step is also to analyze whether the distinct internationalization trajectories and business model management strategies are associated with any performance differentials. Thus, future research should systematically analyze and test which of the identified internationalization and business model management strategies creates more value for the EMNEs and allows for increased value appropriation and under what circumstances and conditions, and what are the drivers of differential firm performance. Additional research on the nature of EMNEs' internationalization trajectories would be useful; that is, distilling the drivers, enablers and impediments of the business model innovation process during internationalization seems very relevant. In addition, future research would greatly benefit from a deeper analysis of the capabilities needed in each of the four business model management strategies.

Theory of the firm. The presented conceptual model of business model transformation developed from the findings of my preceding research is predicated on several assumptions. Firstly, I propose the assumption that the business model concept is complementary to strategy. Strategy presupposes uncertainty. The agentic view on business models, which I employ here, too assumes the underlying notion of Knightian uncertainty, which is argued to be the source of profit (Knight, 1965). Secondly, driven by the notion of continuity, the business model is a dynamic concept in motion. Thirdly, strategic analysis is generally not considered part of the literature on the theory of the firm, however, strategic management presupposes a theory of the firm. For instance, Chandler defines the firm as a production function that meets a particular market segment and should be internally structured to do this optimally. Thus, one can conclude that strategy follows structure. Consequently, in this line of thought, there is a need for a new concise theory of the firm (Demsetz, 1988; Foss & Klein, 2005). The concept of business model transformation developed from my preceding research offers a step in this direction.

5.5 Final Summing Up

Throughout the chapters of this dissertation, I have expended considerable effort to explicate the concept of business model transformation and its underlying dynamics through the lenses of innovation and internationalization of business models and clarify its role across multiple contexts. In large part, this effort attempts to offer an understanding of firm-level business model transformation as a collective ability through which firms integrate their capabilities, existing within and outside their boundaries. The identified opportunity space of business model transformation intuits a place for the firm and identifies only the reasonable possibility of a firm rather than its actualization. This dissertation defines business model transformation as a mean to allow the focal firm to attain scale, raise the threshold of viability, as well as find new market space by enacting its opportunity space through value creation and value capture with the goal to adapt to an evolving ecosystem. I propose a conceptual framework of business model transformation by integrating the results and contributions of my preceding research across various contexts.

The focus on business model transformation within diverse contexts gives rise to positive observation; despite the contextual variety, the robustness of the conceptualization of business model transformation still holds and allows to shed light on the underlying dynamics of business model innovation and growth through internationalization. This dissertation reflects a high degree of diversity, which allows a close investigation of the manifestation of business model transformation and the underlying dynamics in diverse contexts. This, in turn, brings focus on the differences among the type of opportunities pursued and their implications for value creation and value capture. This leads to an exciting conclusion; although seemingly challenging, being attentive to the role of context enriches our conceptualizations and promises new and useful insights into the phenomenon under investigation. Finally, it must be pointed out that the notion of business model transformation with its underlying dynamics of innovation and internationalization is a complex phenomenon and that this dissertation alone cannot settle any definitional or conceptual debate on the matter. It can only start to clarify the elements and perspectives that might constitute and influence these.

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