Master Thesis

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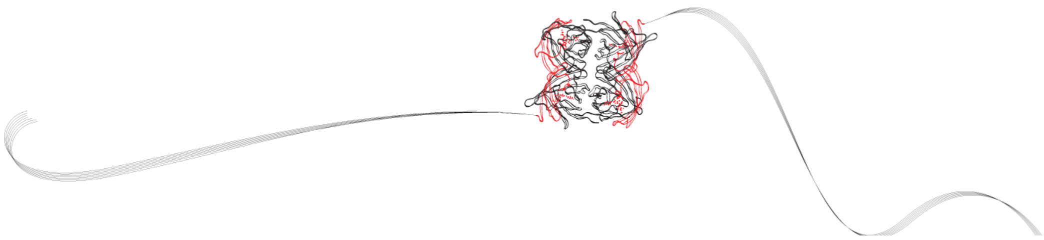
The Business Model in Context of Business Strategy

A framework proposition for connecting business model and business strategy



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The Business Model in Context of Business Strategy

A framework proposition for connecting business model and business strategy

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Berlin, 07.12.12

(Johannes Christian Gaedicke)

Management Summary

Purpose: The increasing use of business models within the strategy making of organizations leads to a gradual neglect of the more established strategy theory, which is seen by some researchers and experts as misguided. It is argued that business model thinking alone is not sufficient to achieve sustainable competitive advantage. On the other hand, proponents of the business model concept point out that the traditional strategy theory does not sufficiently explain how to compete in the fast-changing, new economy and is lacking focus on value creation and customer centricity.

To respond to such discrepancy, this thesis proposes the integration of strategy theory and business model in order to improve organizational strategy making. To do so, an integral framework, building on the two notions, is suggested, addressing both theorists and practitioners. The strategy process is therein explained as multi-step process, including the analysis, the decision making, communication and improvement of the decisions and the implementation process.

Approach: As starting point for the integration of business strategy and business model, an extensive literature research on the development, the main research streams and suggested means for the practical application are presented. Building on this overview, the integration of strategy and business model is proposed within a process model, and an integral strategy making framework is developed. The framework is then tested for contributing to better strategy making results by practical application within a high-tech start-up. To verify the findings, firstly the old and new corporate strategy are compared and secondly assessed via empirical testing.

Findings: The study shows that business strategy and business model can be related to one another and even be seen as complementary. Within the strategy process, the business model concept facilitates the visualization and explanation of the business logic of a firm and the corresponding strategic decisions. It can further act as instrument to better implement the strategic decisions within the organization, and help improving and enhancing the corporate strategy, including a bottom-up approach to the strategy making. The conceptual framework, as means to provide a structured approach to strategy making, proved valuable for the strategy process, positively influencing and enriching the decision making, including the notion of constant reevaluation and dynamism.

The practical application of the conceptual strategy making framework resulted in a more extensive and comprehensive strategy for the sample company. The results are analyzed in detail by a comparison with the previous strategy. The new strategy is then successfully communicated within the organization with help of the business model and, as suggested, used to enhance the corporate strategy. The subsequent empirical testing suggests that the proposed strategy is suitable and feasible for the company.

Value: This study contributes to existing theory by explaining strategy and business model in context and offers an understanding on their complementary functions within strategy making. Additionally, an integral framework on the strategy process is presented to help clarify the approach to strategy, including specification on the process and possible means to it. The application of the framework in the creation of an organizational strategy is portrayed by use of a sample company. Furthermore, insights and recommendations for the sample company are provided within.

Preface

The master thesis lying in front of you comprises several months of intense study and work, the final step to conclude my master studies in “Business Administration” at the University of Twente and “Innovation Management & Entrepreneurship” at the Technical University of Berlin.

The project started with the announcement by Dr. Kasia Zalewska-Kurek that Kryoz Technologies was looking for students to work with them on their strategy. Although, no precise tasks or goals were given and I was cautioned that this project would be very challenging, I’m glad to have accepted and concluded it. It gave me the opportunity to apply my theoretical, as well as practical knowledge and to provide useful insight both to Kryoz Technologies and to academia.

Special thanks go out to Kasia Zalewska-Kurek for presenting this opportunity to me, as well as agreeing to supervise this project and giving me help and support. I also would like to thank Dr. Jeroen Kraaijenbrink for accepting the role of second supervisor on short notice and providing very valuable commentaries and insights. Furthermore, I would like to recognize the given opportunity, great collaboration and welcoming reception by Kryoz, especially by Erik-Jan de Hoon and Pieter-Paul Lerou.

I would like to extent my gratitude to my family in Germany and Italy. Their support during the whole process has helped me to successfully finish this project. Without their encouragement and backing this thesis would have not been possible. Lastly, my thanks go out to Gaja Amigoni. She has not only helped me with managing everything, but also given me strength and inspiration in all situations. She was and still is the most important person to me.

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1. Introduction

The number of papers on strategy, business model or their interaction seems unlimited. The literature on strategy has evolved strongly over the last fifty years, while the use of the term business model grew rapidly in the scientific community since the rise of the internet and the e-commerce in the 1990’s (Seddon & Lewis, 2003). However, no definition for either of both terms has been agreed on and the definitions show varying overlap and unclarity. Moreover, the business model concept more and more replaces the traditional business strategy within organizations, which is seen by some researchers as misguided development and part of the reason for failing of ventures (Mansfield & Fourie, 2004; Teece, 2010). Instead it is suggested that strategy and business model must be considered jointly, in order to provide ground to integrate various and partly opposing strategy perspectives. With the lack of clarity of what strategy and business models are and missing delimitation, this proves rather difficult.

In order to better understand the need and relevance of strategy and business model and their integration, this thesis will present an overview on the field of strategy, including some of the most commonly used concepts and definitions, their historic development and suggested tools. Based on the current literature, confinement and clear definitions of the two notions will be suggested. Furthermore, strategy process and strategy levels are discussed to develop a more holistic framework of the strategy concept. Goal of this thesis is to provide an understanding of strategy, business model and their coherence to each other. The developed framework is then discussed and explained in more detail, followed by a practical application of the components in order to test its validity outside academia.

1.1. Ambiguous depictions and unclear boundaries of the terms business strategy and business models show the need for a defined framework

Already in 1985, Chaffee points out that “virtually everyone writing on strategy agrees that no consensus on its definition exists” and no accord has been found since, although literature on the topic has further increased (Chaffee, 1985, p. 89). Seddon and Lewis (2003) furthermore argue that general understanding of what strategy means and consists of is constantly changing and evolved considerably over the last fifty years, making it even more difficult to find a common ground for a definition. More recent developments in terms of globalization, the rise of the internet and the development of the network economy saw the rise of a more customer centered business perspectives, leading to the introduction of business model thinking (Teece, 2010). Although business models are used widely, concept and key components are very loosely defined in the literature, creating uncertainty about use and benefit (Eisenmann & Hallowell, 2001; Mansfield & Fourie, 2004).

Unclear definitions, missing theoretical detachment between the terms business models and business strategy and disaccord about the implications for the praxis make it also difficult for the practitioner to apply the theories. Although scientific theory is, amongst others, concerned with the provision of tools and concepts for the real world, the amount of unclarity within strategy and business model literature makes it difficult to comprehend which theories to consider. And even though the use of strategy and business models is generally seen as beneficial for the performance of organizations, (inter alia Porter, 1996; Zott & Amit, 2008), imperatives or even guidelines for practitioners are seldom to be found amongst the theories. To better operationalize implications from the strategy and business model literature, a praxis-oriented framework on these topics should be considered.

Authors like Casadesus-Masanell and Ricart (2010), Mansfield and Fourie (2004) or Seddon and Lewis (2003) identified the need to postulate and display the relationship between strategy and business models for a better understanding of such. However, the findings vary strongly concerning delineation, overlap, practical implications, specifications of the included concepts and the theory architecture. Therefore, a comprehensible framework to depict a macro-perspective on the definition of strategy and business model, as well as clear implications for its applicational use and the incorporated logic are needed. This thesis will suggest such framework, to address both the need for theoretical clarification and the possibility for better application in praxis. To do so, also the roots of strategy and business models and their context and relationship to one another will be examined to offer clarification for the practitioner, as well as the scientific world. Such intent therefore leads to following research question:

How can the extensive literature concerning business strategy and business model be combined and presented within a framework in order to provide a comprehensive overview on these theories, their interaction and a means for their application of the theories in practice?

In order to approach the above stated research question in a structured manner, following sub-questions have been defined:

1) *Which are the main streams and key theories in the field of strategy, how are they defined and which are the respective tools and concepts for the practical application suggested within?*

2) *What are the main views on the business model concept and how is theory being applied?*

3) *Based on theoretical insights from research sub-question 1 and 2, how can strategy theory and the business model concept be put in context to one another to provide a comprehensive overview on their interaction and delimitations within one structure?*

4) *To what extent can the application of the framework suggested in sub-question 3 lead to improvements in the strategy making process in practice?*

The research goal is intended to address both academic and practical relevance, as it first offers an overview on research and literature in the field of management on the subject of strategy and business models. Secondly, the thesis suggests a theoretical framework for the clear definition, characterization and delineation of both terms, explaining their interaction and summarizing key components. In addition, the thesis will explain concepts and tools related to the strategy and business model notions with help of the theoretical model. To test the usefulness and validity of the suggested framework for the practical world, an organizational strategy for an example company will be created. An empirical investigation on the results of such application will show the practical relevance of the findings.

1.2. Outline: The thesis is structured according to the four sub-research questions

As indicated by the research questions, this thesis consists of two main methodological parts. The first part is the literature review and the creation of the theory construct, while the second section is the application and empirical testing of the developed framework. Sub-question one hereby relates to the strategic management literature, development, research streams and current developments. Although it is in the interest of literature review to analyze all aspects of the concerning field, the domain of management strategy is too wide, diverse and partly consisting of contradicting definitions so that describing all publishing's is implausible (Seddon & Lewis, 2003).

Therefore, main streams and key theories will be described and analyzed, while also presenting their developments and main components.

While literature on business models grew in importance relatively late compared to management strategy, it has seen a high increase of publishing in the last two decades (Seddon & Lewis, 2003). Furthermore, such literature originates from various academic fields, not only within the area of business strategy, causing the literature to be highly dispersed. In order to answer sub-question two of the research question, main ideas and streams of the business model literature, as well as their development, will be presented, selected according to the author's judgment of relevance to present a well-balanced view on the different theory streams. Part of the analysis will include the observation of the suggested components of such business models and the varying delimitations of business models from strategy if applicable. Building on the findings concerning management strategy and business models and their interaction, a holistic framework will be developed to suggest the inclusion of the two theories within one model. The theory construct builds on the views of authors like Casadesus-Masanell and Ricart (2010); Osterwalder, Pigneur, and Tucci (2005); Seddon and Lewis (2003); Teece (2010); Zott & Amit (2005), suggesting that business model theory is somewhat incomplete without considering the aspects of strategy and need therefore be integrated within the field of management strategy. Therefore, the suggested framework incorporates business model theory as micro perspective within the macro perspective of strategy.

Relating to sub-question four, the developed framework will be tested empirically in its applicability outside the theoretical world. Thus, the model will be applied in order to help creating a strategy, including the business model notion. In this case a high-tech, start-up company will be the focal point of the application. The theory construct will be used in the before suggested way to help analyze and craft a corporate strategy including the goal of increasing added value towards the firm and the customers (Brandenburger & Stuart, 1996). The practical strategy results from this process will be compared to the already existing strategy and then be tested by interviewing potential customers and industry experts to verify suggested claims. Objective of the empirical research is to evaluate if indeed the strategy process has led to a positive development in terms of orientation to offer value to customers, while also accounting for the company environment, competition, strategic fit, financial implications and more (Porter, 1996, 2001).

2. Theoretical Framework

While business strategy theory is an established field in the management science, the business model concept is relatively new to the scientific world, but rose quickly in importance. Both are considered elementary in the business administration discipline, though neither has been plainly defined in terms of what it consists of or its key components (Seddon & Lewis, 2003). One example for the confusion about what consists of strategy or business model is the ‘razor and blade method’ discussion. Observed as revolutionary approach already in the 1960’s for selling a part or stripped down version of a product under cost and selling the other part for higher price. It was labeled as strategy, but nowadays the term business model is equally applied to it as well (Picker, 2011; Richardson, 2008).

This thesis will attempt to construct a framework to clarify business strategy and business models and their relation to one another. To better understand confusion around both terms and to offer a converging view, the historical development will be analyzed to better understand theoretical groundings, influences and overlapping views. Furthermore, key components of both strategy and business model are presented. The then suggested framework builds on available literature, both current and more established writing as reviewed. Following, the framework and the inherent logic are presented in different perspectives to fully cover the inherent complexity of strategy, business models and the underlying theories.

2.1. Development of business strategy literature

One of the first times the term strategy has been mentioned is within the context of the Old Testament. The word strategy has its roots in the Greek verb *stratego,* with the meaning to “plan the destruction of one’s enemies through effective use of resources”, mostly connected with political or military contexts (Bracker, 1980, p. 219). With the developments after World War II in terms of increased competition due to acceleration of market changes and the growing rate of science and technology application, strategy rose in importance for business (Bracker, 1980).

Business strategy has been subject of research since at least the beginning of the 20th century in terms of looking for answers on the question why some firms outperform others on a persistent level (Barney & Arikan, 2001). While the search for reasons and groundings for sustained competitive advantage started more than hundred years ago, research changed considerably in the 1960s when Selznick introduced the idea of analyzing an organization's 'internal state' and 'external expectations' as pre-context to the later well-known SWOT (strengths, weaknesses, opportunities and threats) analysis (Kong, 2008). In addition, Chandler introduced the concept of a long-term coordinated strategy as basis for competitive superiority requiring direction and structure of the company (Chandler, 1962).

In 1971, Andrews advanced the field by defining "strategy as the balance of actions and choices between internal capabilities and the external environment of an organization." (Kong, 2008, p. 283). Building on the works of Selznick, Weihrich (1982) further developed on the internal and external analysis perspective, creating the SWOT analysis framework. While the original SWOT framework is still used today, strategy theory developed further from there and lead to a division of scientific research (Kong, 2008). Hofer and Schendel (1978) found three major areas of disagreement between researchers at that time. The first divergence in the field related to the scope of the business strategy concept. Another disaccord could be found on which components, if any, could be found within strategy and whether or not the formulation process of strategy belonged to the field of strategy (Hofer & Schendel, 1978).

In 1980, Bracker contributed to a better understanding and convergence of strategic research areas by summarizing commonalities between major writers and found two streams. The first definition of business strategy related to an environmental or situational analysis to determine a company's position in the market place, while the second mainly considered a firm's resources and its appropriate utilization (Bracker, 1980). The first path concentrating on opportunities and threats has later been labeled as industrial organization (IO), concentrating on firms environmental factors as key determinants of organizational performance. The second stream in research, developing from the SWOT approach, considered organizational resources and competences as underlying cause for success. This direction was coined in the 1980s as the resource-based view (RBV) (Kong, 2008).

2.1.1. Industrial organization: the outward perspective of business strategy

The first influential work concerning IO came from Porter in 1979 in which he argued that competitive advantage of a firm resulted from its industry position. In order to analyze and evaluate a classification for an industry, he suggested five factors to be analyzed. These five competitive forces that drive competition within an industry, according to Porter, are threat of new entrants, bargaining powers of suppliers and of buyers, threat of substitute products or services and inter-industry rivalry among existing firms. Furthermore, the industry can be classified into one of five generic types, e.g.: fragmented, emerging, mature, declining or global. Accordingly, the firm needs to adopt to these industry factors in order to achieve competitive advantage and survive in the longer run (Porter, 1979; 1996a, 1996b; 1980; 1981).

Based on the developments of the late 80's in the direction of developing strategic taxonomies, also called gestalts, a new theory stream advanced (Mansfield & Fourie, 2004; Robinson & Pearce, 1988). Based on the gestalt idea, Porter (1980; 1996), in combination with the theory of the five forces, suggested that companies could outperform their competitors based on focusing on one specific generic strategy: The generic strategies of cost leadership, differentiation or focus. While the cost leadership strategy is the focus on lowest unit production cost and therefore offering customer value through the lowest price in the industry, the differentiation strategy achieves success by offering perceived higher value to customers with a price premium. The focus strategy on the other hand concentrates on one specific segment within the industry and tries to achieve competitive advantage there through either cost leadership or differentiation (Johnson et al., 2007).

2.1.2. Industrial Organization: value chain and its advances

One contribution that was made later by Porter in addition to the Five Forces was his publishing on the so called value chain of the firm. This framework is used to represent and analyze value creation logic of a firm. It breaks down the activities within a firm, from raw materials through to the final consumer, including primary and secondary activity division (Porter, 1985). Although Porters competitive analysis has been challenged by the RBV, the value chain also gained a central role in analyzing important activities in a firm in the RBV over time (Stabell & Fjeldstad, 1998). The implication of the value chain furthermore expands into the business model literature in terms of observing value creation and the logic of interlinked activities for creating products or services (Seddon & Lewis, 2003).

Porter's value chain was advanced in 1995 by (Christensen & Rosenbloom, 1995) which argued that firm's use complementary assets produced by other firms to improve and expand their offering. Such action distributes value between the parties and causes the firms value chains to intersect with value chains of other related firms and so create a so called value network. A second amendment came from Stabell and Fjeldstad (1998) who argued that the value chain was not suitable in service industries. Therefore they argued for three generic configurations: The a) classical value chain for firms creating products by transforming inputs, the b) value shop for firms that rely on technology or knowledge to solve customer or client problems and the c) value network for companies linking or mediating between customers and/or providing networks.

The IO school of thought was criticized on its assumption that organizations within an industry are identical in terms of resources and competences, that resources are assumed to be identical in an industry and that today's environment is changing too quickly to apply this strategy appropriately (Barney, 1991; Barney, Ketchen, & Wright, 2011). Although the five forces and generic strategy theorems are used still today, the critiques lead to the development of another research perspective, the RBV. Although resources had been identified as important to the organization before (e.g., Penrose, 1959; Wernerfelt, 1995), the view that resources and competences could determine companies sustained competitive advantage became popular with the special edition on RBV published by Barney in 1991 (Barney, 2001; Barney et al., 2011).

2.1.3. Resource Based View: the inverted perspective of business strategy

According to Barney (1991), the IO perspective offered little emphasis concerning idiosyncratic firm attributes and suggested that firms within an industry do not have access to homogeneous resources and that those resources might not be perfectly mobile and therefore contributing even more to resource heterogeneity. Consequently, a firm would be able to reach a competitive advantage by utilizing this resource heterogeneity. In order to reach a more lasting advantage, also defined as sustained competitive advantage, Barney (1991) concludes that those resources must have four attributes: "(a) it must be valuable, in the sense that it exploits opportunities and/or neutralizes threats in a firms environment, (b) it must be rare among a firm's current and potential competition, (c) it must be imperfectly imitable, and (d) there cannot be strategically equivalent substitutes for this resource […]." (Barney, 1991, pp. 105–106)

2.1.4. Resource Based View: Resources and Capabilities

The RBV today is seen as a complimentary to the IO theory and has reached a maturity stage, including several academic perspectives within the RBV. One is based on several articles including Barney (1986), Castanias and Helfat (1991), Fiol (1991), Kogut and Zander (1992) and Amit and Schoemaker (1993), suggesting the differentiation of the construct of resources into resources and capabilities of a firm. Following the argument that such division would help in better analyzing firm assets. Resources are further classified as tangible and intangible assets which "an organization possesses and can leverage for its economic purposes." (Fahey & Randall, 1994, p. 216). They can be broken down into physical, financial and human capital as well as intellectual capital (Johnson, et al., 2008). Apart from this classification, a division into threshold resources, meaning "[…] resources needed to meet customer's minimum requirements and therefore [needed] to continue to exist." and unique resources "[…] that underpin competitive advantage and are difficult for competitors to imitate or obtain." (Johnson, et al., 2008, p. 96) is beneficial.

Capabilities on the other hand are skills and abilities to use resources effectively and successfully. They are not to be confused with resources as they are activities of the firm using resources in a competitive manner (Amit & Schoemaker, 1993). All competences a firm is leveraging can consequently be classified into threshold and core competences. The first being activities and processes meeting minimum requirements and the second being skills and abilities leading to a competitive advantage (Johnson, et al., 2012). Building further on the definition of capabilities, the perspective of dynamic capabilities was introduced to incorporate the existence of fast changing markets. The firm's ability to pro-actively adapt to changing markets conditions and exploit its competences therefore under uncertain market conditions was considered a key amendment to the resource and capability view (Teece et al., 1997). The proposition that competitive advantage can be sustained in dynamic and fast changing markets was later rejected by Eisenhardt and Martin (2000) and Fiol (2001).

Hedman and Kalling (2003) admit that the RBV has helped the field of strategy to develop, but argue that certain issues are still either unclear or unexplained. They summarize the critique on the RBV as the lack of empirical studies, the neglecting of a demand-side resource perspective, the inability to explain hypercompetitive industries, lack of process orientation, as well as applicability issues concerning the object of analysis and if rather the outcome than the resource should be unique. It is thus argued that the RBV alone cannot explain organizational success.

2.1.5. Strategy Process Perspective: the question about 'how' to compete over time

Another research stream within business strategy developed in the mid-1970's. While most theories are said to look at what firms do, the strategy process perspective looks at how firms compete over time (Hedman & Kalling, 2003). Based on the ex-ante and normative approach within strategy research, researcher like Mintzberg (1978) and Quinn (1978) concentrated on how firms create favorable market positions and competitive advantage over time, including the concept of the 'emergent strategy'. This concept describes the strategy creation process as a convergence of ideas, action and the environment over time into a specific pattern (Mintzberg, 1978, 1994). The perspective can therefore be related to the concept of dynamic strategy making concepts.

Apart from the criticism on the ex-ante approach and the notion that uncertainty and faster changing environments make long-term planning more and more obsolete, the process perspective relied on two main assumptions. The first is the acknowledgement of a bounded rationality of the individuals acting within and for the organization. The second assumption relates to a pluralistic view on the organizational unit (Chakravarthy & Doz, 1992). More recent developments within the field include a focus on the cognitive processes of managers, cultural impacts on the organization, organizational learning and an adoption of the process view into the RBV (Hedman & Kalling, 2003; Heene & Sanchez, 1997).

2.1.6. Other theory perspectives: ten schools of thought

Apart from these major theories in strategy research, several other streams developed in addition or on the side. On way of presenting the different research streams was made by Mintzberg and Lampel (1999). In their article they argued that at the time the strategy literature could be divided into ten so called schools of thought, including the IO, RBV and the strategy process perspective. The ten schools are based on three main categories, namely three prescriptive, six descriptive and one half prescriptive and half descriptive research stream. The ten schools are presented in a table below in a simplified manner.

Model	School Category	Intended Message	Practices and Tools
The Design School A process of conception	Prescriptive	Fit	SWOT Analysis Ashridge Mission Model
The Planning School A formal process	Prescriptive	Formalize	Theory of Mechanistic and Organic Systems Parenting styles Levers of Control Scenario Planning
The Positioning School An analytical process	Prescriptive	Analyze	Competitive Advantage Five Forces

			Value Chain BCG Matrix. Game Theory
The Entrepreneurial School A visionary process	Descriptive	Envision	Entrepreneurial Government New Leadership styles
The Cognitive School A mental process	Descriptive	Cope or Create	Whole Brain Model Johari Window Groupthink Cognitive Bias Indicator
The Learning School An emergent process	Descriptive	Learn	Organizational Learning Knowledge Management Theory of Organizational Knowledge Creation (SECI Model)
The Power School A process of negotiation	Descriptive	Promote	Bases of Social Power Power Distance Stakeholder Value Perspective Force Field Analysis Stakeholder Mapping
The Cultural School A collective process	Descriptive	Coalesce	Appreciative Inquiry Cultural Dimensions Cultural Intelligence
The Environmental School A reactive process	Descriptive	React	Contingency Theory Situational Leadership
The Configuration School A process of transformation	Descriptive and Prescriptive	Integrate, Transform	Organizational Configurations Chaos Theory Disruptive Innovations

Table 1: 10 schools of thought, simplified (Mintzberg & Lampel, 1999; Prof. Gert Mortensen, 2008)

While summarizing the divergence in strategic literature, the authors argue that research is mostly focused on a single perspective/school. In order to advance research and help management in applying strategy it is suggested to combine all schools within one framework. The exact configuration of the single schools within the framework and its importance is situational dependent. Therefore, a certain strategy process might be more entrepreneurial, more cognitive or something else (Gavetti & Rivkin, 2007; Mintzberg & Lampel, 1999). Although it could be argued that the IO and RBV streams might fit within the prescriptive schools, a more defined incorporation of those major theories is missing within the ten schools of thought (Barney, 2001; Conner, 1991). In this perspective, the overview by Mintzberg and Lampel supports the notion that strategy can be seen as a framework of interrelated conceptions and theories, but fails to provide a more holistic presentation and explanation of the available theories. Despite, the supposition of presenting strategy theories as interrelated and somewhat sequential will be a principle of the suggested strategy framework of this paper.

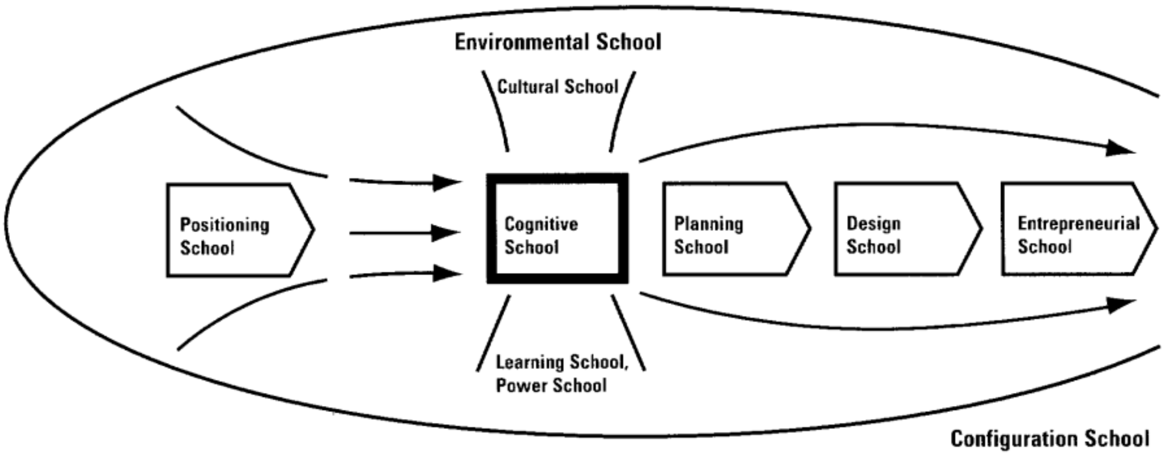

Figure 1: Formation Framework according to Mintzberg & Lampel (1999, p. 27)

2.1.7. Convergence on strategy theory

Although a clear definition on what is and what a strategy consists of has not been found. Certain aspects and definitions can be found across several theorists. Based on a summary of chronologic analysis of strategy definitions, Bracker (1980) defined strategy as environmental or situational analysis in order to determine the firms position, followed by consequent utilization of the companies resources to attain a certain goal. Such classification gives a general classification of what strategy is about, but it is also too simplified and omits key processes within. According to Mintzberg (1994) strategy consists of four different views: as pattern, as plan, as position and as perspective. This relates to strategy making as showing a pattern of choices made in the past and building on it; a plan about the future direction and how to achieve the goals; as decision on which products and markets are offered in which market and how the company is affected by its industry position (also relating to Porter’s theory); and how a firm and its activities is conceptualized and understood, respectively.

Hedman and Kalling (2003) conclude that the field of strategy is fragmented and apart from the three dominant fields (e.g. IO, RBV and process view) there are many subfields which are developing in different directions. Never the less, the authors argue that it is possible to integrate the relevant components within one framework. Such integration will be applied in this paper. Furthermore, the proposition by Mintzberg (1994) that strategy must be dynamic and holistic builds the basis for this thesis in terms of strategy definition.

2.2. Development of the business model literature

Changes in the recent decades, including the rise of the internet, increasing open markets, increasing mobile labor and information abundance lead to more easily tradable resources and falling advantages from market positions, have put the strategy literature in question (Fahy & Hooley, 2002). Especially internet-based companies have put a limit on the IO and RBV perspective due to the requirement of being fast and innovative (Mansfield & Fourie, 2004). Furthermore, the so called new economy businesses "[...] need to encapsulate the essential features of a business in a short descriptive document in order that a judgment could be made, for example by potential investors, on whether the business was likely to achieve its financial and other objectives." (Rasmussen, 2007, p. 1).

This is increasingly done in form of a business model to answer essential questions like potential customers, value proposition, assets, governance structure and others (Rasmussen, 2007). Despite the fact that business model theory is regarded as lacking theoretical groundings in business and economic theory, it is never the less more and more seen as essential business tool. Arguing that economic theory does not conceive value capturing as part of the theory, or simply assumes that it consists of selling output in established markets and customer will buy according to price levels, also generated the need for managers or entrepreneurs to look for other theories (Teece, 2010). Mansfield and Fourie (2004) add that the business model concept rose out of confusion and dissatisfaction with the traditional strategy approaches, especially on topics as alliances, generic strategy deployment, lack of dynamism and customer focus.

The term business model became popular with the introduction of the personal computer and spreadsheet software, as it allowed an analytical approach to planning of every business component in terms of financial numbers and statistics (Magretta, 2002). It helped in quantifying and testing every feature of the business and was seen as essential part for communicating to interested investors the possible value of the investment. Nowadays this linkage between spreadsheet and business model is not accurate anymore and the application of business models goes further than pure numbers (Mansfield & Fourie, 2004). In the academic literature, the term business model appeared first in 1957, but only around the year 2000 the idiom grew in importance together with the rise of the internet and e-commerce companies (Osterwalder et al., 2005; Zott & Amit, 2005).

2.2.1. Business Model: varying definitions and unclear separation from strategy literature and confusion about key components

Concerning business model theory in academia, no consensus on the term or a commonly accepted language has been found so far (Zott & Amit, 2005). Osterwalder et al. (2005) observe that the expression is used in very different meanings, "[...] such as parts of a business model (e.g. auction model), types of business models (e.g. direct-to-customer model), concrete real world instances of business models (e.g. the Dell model) or concepts (elements and relationships of a model)." (Osterwalder et al., 2005, p. 8). The authors therefore conclude that business model literature can be assigned to one of three classifications: i) an abstract meta-model describing general components of business models, ii) business model taxonomies explaining common characteristics of various generic business model types and iii) business model instances depicting real world businesses in a simplified manner.

Reviewing the business model literature from 1975 to 2009, Zott et al. (2011) found several discrepancies within this young research area. Firstly, the lack of business model definitions led to the development of idiosyncratic definitions, fitting mostly to the specific study at hand. Secondly, the authors argue that the literature has developed within isolated areas relating to each authors' interest. These so called silos of research are divided in the area of e-commerce, strategy, as well as innovation and technology management. Despite this divergence, the authors also find common topics in all silos, namely the business model as new unit of analysis, a focus not only on the firm, but across a network and the importance of value creation and value capturing (Zott et al., 2011).

Relating to strategy theory, theorists are unsure about the connection between strategy and business model theory. Shafer et al. (2005) state clearly that "a business model is not a strategy" (p. 203) and that a business model is a tool to test and modify cause and effect relations for decisions made within the strategy context. Hedman and Kalling (2003) on the other hand theorize that the business model concept is a model to integrate all main strategy perspectives into one framework. Arguing that the business model theory is lacking clear theoretical foundations, Al-Debei and Avison (2010) describe the field as 'promising', 'appealing' and likely to 'fill a niche'. And Magretta

(2002) and Mansfield and Fourie (2004) describe business model and strategy as two distinctly different but complementary tools.

Claiming that a discussion on the possible overlap between strategy and business model is not of interest, Seddon and Lewis (2003) define the two terms in different levels of abstraction. “A business model is an abstract representation of some aspect of a firm’s strategy.” (p. 2). The reason for such definition is said to be the difference between a firm acting in particular competitive environment leading to different contexts for strategy making and the business model being used to display an abstraction of all the details. Therefore, it is also possible that different firms have the same or a very similar business model.

2.2.2. Business Model: confusion about key components

Most literature about business models also suggests a certain representation of the concept through a mixture of text, verbal and graphical tools (Zott et al., 2011). Some authors even choose to describe the business model only through its components or through a selection of its components (Al-Debei & Avison, 2010). Although the business model literature has not found common ground and convergence, several proposals show some overlap about the key components of a business model, which will be presented briefly.

Applegate et al. (2007) summarize common characteristics of business models as describing three components: description of the components, description of resources and capabilities needed and a description of the value proposition. Mansfield and Fourie (2004) suggest that the business model as architecture for product, service and information flows includes “[...] a description of the various business actors and their roles; a description of the sources of revenues, and a description of the potential benefits for the various business actors.” (p. 39) Looking at the business model as ‘a system of interdependent activities that transcends the focal firm’, Zott and Amit (2009) describe the business model in design components – or design elements as they call it – as selection of activities, e.g. content; how the activities are linked, e.g. structure; and who performs the activities, e.g. governance.

Weill and Vitale (2001) provide a three main components schematic, in which they name participants, relationships and flows as the focal point of the business model design. More specifically this is related to suppliers, allies, firms of interest and customers in terms of participants; flows of information, services, products and money; and all related relationships. Relating to this approach, many authors suggest that the business model must include inter-related components, flows, exchanges or communication components within and outside the focal company (e.g. Al-Debei & Avison (2010); Hedman & Kalling (2003); Osterwalder et al. (2005); Shafer et al. (2005); Weill & Vitale (2001); Zott et al. (2011)).

While such assessment of broad business model elements helps to converge on a single definition, it can be asked how much they help with application and use in theory and practice. Other authors therefore propose more specific components. Shafer et al. (2005) present, based on a literature analysis, a detailed listing of factors within four primary component classifications, e.g. strategic choices, value network, creating value and capturing value. Within these four primary components they list more specific components (see figure two).

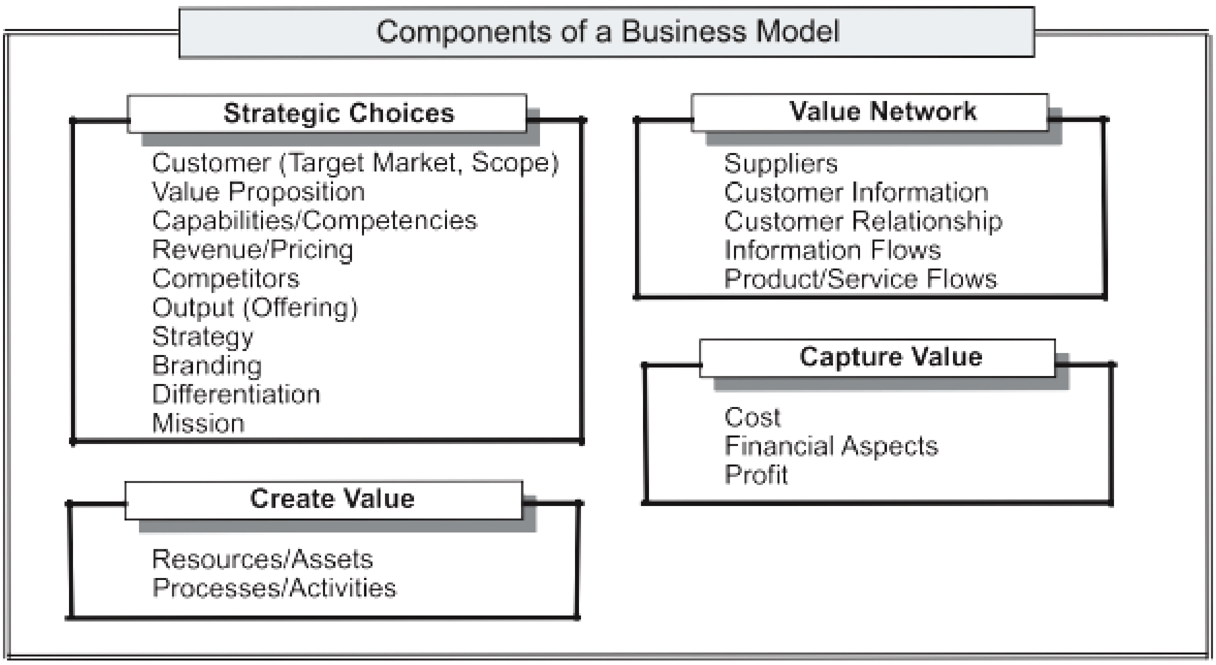

Figure 2: Components of a business model based on literature analysis (Shafer et al., 2005)

A similar approach comes from Osterwalder et al. (2005). The highly cited paper presents the so-called nine business model building blocks for business models. These key components build on four primary pillars, namely the product pillar, the customer interface pillar, the infrastructure management pillar and the financial aspects pillar (see figure three).

Pillar	Business Model Building Block	Description
Product	Value Proposition	Gives an overall view of a company's bundle of products and services.
Customer Interface	Target Customer	Describes the segments of customers a company wants to offer value to.
	Distribution Channel	Describes the various means of the company to get in touch with its customers.
	Relationship	Explains the kind of links a company establishes between itself and its different customer segments.
Infrastructure Management	Value Configuration	Describes the arrangement of activities and resources.
	Core Competency	Outlines the competencies necessary to execute the company's business model.
	Partner Network	Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value.
Financial Aspects	Cost Structure	Sums up the monetary consequences of the means employed in the business model.
	Revenue Model	Describes the way a company makes money through a variety of revenue flows.

Table 2: Nine Business Model Building Blocks (Osterwalder et al., 2005, p. 18)

Hedman and Kalling (2003) propose six causal related components, namely: (1) customers, (2) competitors (3) offering, (4) activities and organization, (5) resources, and (6) supply of factor and production inputs. It should be noted hereby, that in contrast to most other propositions, Hedman and Kalling integrate parts of strategy literature into the business model: competitors relates to market analysis in respect to IO and Five Forces analysis and the resources and supply relates to the RBV. Furthermore, the authors include a longitudinal process component to include dynamics of the business model, as well as cognitive, learning, political and cultural constraints (Hedman & Kalling, 2002, 2003).

2.2.3. Convergence on the business model concept

Although the business model concept has been spotted as important to organizational management, the concept itself is still fuzzy and rather vague, and no consensus has been found on its componential architecture (Hedman & Kalling, 2003; Seddon & Lewis, 2003; Smith, Binns, & Tushman, 2010). Reasons for this lie within the a) youthfulness of the field, b) the fact that diverse disciplines and not only strategy are contributing to the literature and c) the generally young sector of e-commerce and others in which the business model theory is observed (Al-Debei & Avison, 2010). Despite such differences, overlaps and similar approaches can be found within the literature. Firstly, most authors argue that the business model concept should be align or somewhat integrated with strategy theory. Secondly, not only the focal company is part of the business model schematic, but a macro-level is applied, suggesting to include external actors and customers as well. Finally, aspects like value creation, value proposition and value delivery together with interlinked activities separate business model and strategy theory to different levels.

2.3. Strategy and business model in context of the strategy making process

The literature about business models and strategy is not only lacking clear definitions of the terms per se, but also misses’ convergence on the interaction of the two fields in context. (Mansfield & Fourie, 2004) argue that the business model alone is incomplete and (Morris, Schindehutte, & Allen, 2005) claim that the business model literature lies clearly within the field of strategy. In the authors view, factors like strategic intent, sustainable competitive advantage, objective setting, environmental analysis and industry positioning are missing when working solely with business models and can only be answered by strategists. On the other hand, strategy theory appears to lack answers to more recent developments and changes, for example e-businesses (Rasmussen, 2007; Teece, 2010).

Zott and Amit (2008) argue that business models and strategy are distinct from each other, mainly through their different focus and unit of analysis. A summary is displayed in table 3. Despite differences in definitions, unit of analysis, questions addressed and focus , the two authors find evidence that strategy and business model create significant positive effects on the organizational performance when combined. As result, it is argued that strategy and business model prove fit in their application, despite their distinction.

	Business model	Product market strategy
Definition	A structural template of how a focal firm transacts with customers, partners, and vendors. It captures the pattern of the firm's boundary spanning connections with factor and product markets	Pattern of managerial actions that explains how a firm achieves and maintains competitive advantage through positioning in product markets
Main questions addressed	How to connect with factor and product markets	What positioning to adopt against rivals
	Which parties to bring together to exploit a business opportunity, and how to link them to the focal firm to enable transactions (i.e., what exchange mechanisms to adopt?)	What kind of generic strategy to adopt (i.e., cost leadership and/or differentiation)?
	What information or goods to exchange among the parties, and what resources and capabilities to deploy to enable the exchanges?	When to enter the market?
	How to control the transactions between the parties, and what incentives to adopt for the parties?	What products to sell?[a] What customers to serve?[a] Which geographic markets to address?[a]
Unit of analysis	Focal firm and its exchange partners	Firm
Focus	Externally oriented: focus on firm's exchanges with others	Internally/externally oriented: focus on firm's activities and actions in light of competition

Table 3: Differences of business models and strategy by Zott and Amit (p. 5, 2008)

Contrary to some authors seeing the business model as a new tool in strategy or as strategy per se (e.g. Venkatraman and Henderson (1998) or Leem et al. (2004)), this paper adopts the view that the business model is part of the strategy process. In alignment with this view, for example, Seddon and Lewis (2003) argue that a business model represents an abstract picture of a company's strategy. Business models on its own are argued to be not sufficient for the strategy making process of a company. This can for instance be shown with help of the Ohmae's 3C model (Ohmae, 2005). This model suggests that strategy must consist of three perspectives, namely customer-based strategies, corporate-based strategies and competitor-based strategies. The business model generally only addresses the first of such, while strategy generally refers to all three. Therefore, a framework towards a combination of strategy and business model is plausible.

Zott et al. (2011) explain two main differentiating factors between business models and strategy concerning market interactions and focus. They argue that strategy mostly relates to competition, value capturing and competitive advantage, while business model theory is more based on cooperation, partnerships and joint value creation. Secondly, it is observed that business model literature focuses on the value proposition and the customer-focused value creation, which, according to Zott et al., is less of a focal point in strategy research. Hedman and Kalling (2003) suggest furthermore, that many business ventures have a low interest in formulating strategies and find strategies difficult to be changed. As a result business models which are broader and more simplified in subject areas are preferred to business strategy, according to the authors.

Other theorists argue that the business model is an explanation and visualization of how firm activities help to execute a business strategy (Richardson, 2008; Shafer et al., 2005). Based on an intensive content analysis, Al-Debei and Avison (2010) found that the business model is seen as an intermediate layer between business strategy and business processes, building a "[…] holistic but abstract understanding of the underlying business logic of an organization." (Al-Debei & Avison, 2010, p. 365). Hence, the business model is not a replacement of the strategy, but a tool to translate strategic goals into implementation tasks and functions. Correspondingly, Mansfield and Fourie (2004) see the purpose of strategy in the achievement of a desired future through help of strategic processes, while the business model is the underpinning and representation of the value creation process.

Similarly, Casadesus-Masanell and Ricart (2010) see the integration of strategy and business model into one model as possible. In their view strategy is a contingent plan of action made of by choices and then being translated into business models, which therefore act as reflections of the realized strategy and then leads to a tactical set. Within this framework business models act as part of the strategy process and present the choices made for the firm (see figure three).

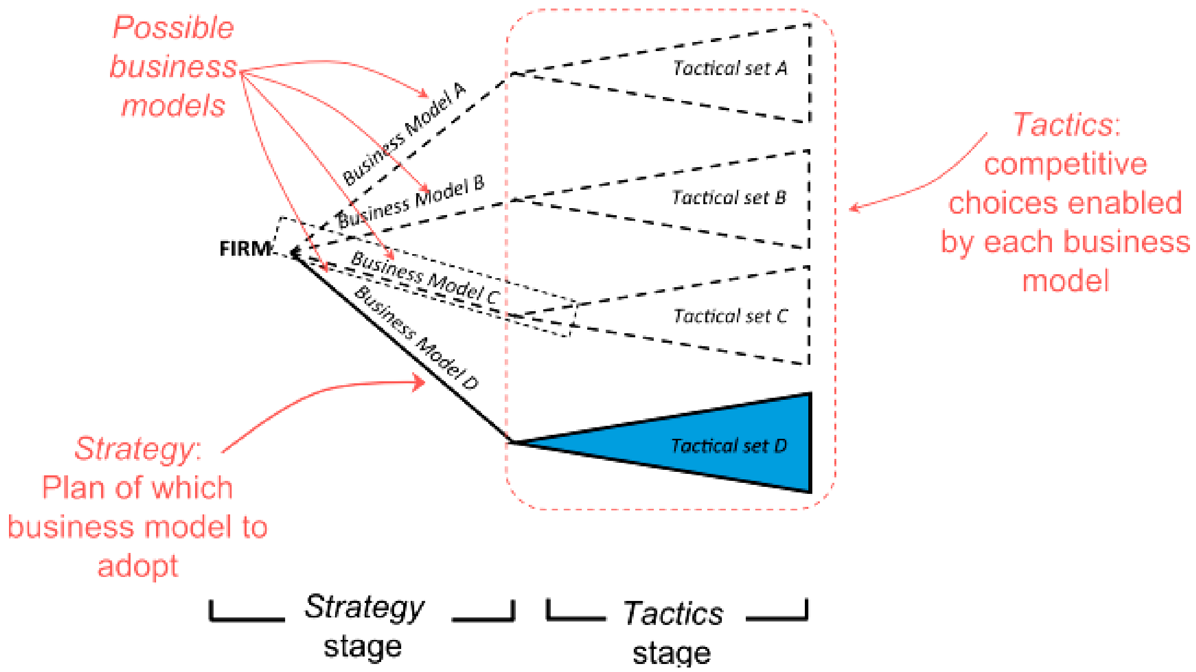

Figure 3: Integrating model for strategy, business model and tactics (Casadesus-Masanell & Ricart, 2010, p. 204)

For Shafer et al. (2005) the business model is a tool for exploring and testing strategic choices. “A business model embodies a set of choices. Through it, the set can be tested and analyzed to ensure that the implicit cause and effect relationships are logical and that the choices are mutually supportive and internally consistent.” (Shafer et al., 2005, p. 203). The business model as concept to fine-tune, address changes and innovation in the organization is supported by Demil and Lecocq (2010), describing the business model as tool for dynamic consistency. Consequently, the business model can be seen as a tool within the strategy-making process in order to validate first analysis, findings and choices in a top-down approach, as well as a tool to initiate change and innovation in a bottom-up approach.

Concluding, strategy theory and the business model concept can be seen as related and even viewed as having a complementary function, as argued above. Strategy is argued to relate to the achievement of competitive advantage over competitors and by creation and use of superb resources and capabilities, while business models emphasis on value proposition towards the customer, boundary-spanning value creation, as well as relationships, networks and value exchange. In this view strategy acts as “contingent plan of action designed to achieve a particular goal”, (Casadesus-Masanell & Ricart, 2010, p. 203) and “reflects the sum of managerial choices and is a blend of deliberate actions, tactical responses and organizational learning.” (Mansfield & Fourie, 2004, p. 35). The business model as “conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm” (Osterwalder et al., 2005, p. 17), acts within the strategy process as explanation and visualization of how the strategy will be implemented and allows fine-tuning and improvement possibility.

2.4. Literature Review Summary: strategy, business model and future developments

The strategy and business model literature is wide and diversified, no common grounds on definitions, delimitation and compositional aspects have been agreed upon so far. This makes it difficult for researchers to assess and compare findings across different contexts, as well as it denotes a lack of reference points to measure business performance for practitioners (Al-Debei & Avison, 2010). Although relatively young, business model theory has seen high attention from researchers of different fields, but convergence of the field is missing. Strategy theory on the other hand grew in importance already after the Second World War and has developed into three main research fields and many subfields within. These must be considered in correlation and regarding their development towards different perspectives in order to advance the field of strategy. Additionally, the business model concept, including the suggested interrelated two-layer components structure, should be integrated within the field of strategy (Casadesus-Masanell & Ricart, 2010; Mansfield & Fourie, 2004).

With the aim of progress and to build on the current knowledge, a clear classification of strategy and business model literature, as well a possible convergence is needed (Hedman & Kalling, 2003; Seddon, Lewis, Freeman, & Shanks, 2004; Smith et al., 2010; Zott et al., 2011). Such convergence should account for the development of the IO and RBV towards more dynamic models, as well as the process perspective and the motion towards interrelated concepts. Integrating the business model as tool within the field of strategy suggests the integration of more theoretical foundations within the application (Teece, 2010). As explained above, many theorists see the possibility and need to converge the wide field of strategy and the business model theory. An integrating model will therefore be suggested below.

2.5. Strategy Framework Proposition

As presented, the field of strategy is fragmented and not clearly defined; the business model literature, although young, also needs defined concepts and components. This confusion around strategy and business model shows the need for a more holistic model, incorporating also the finer aspects of strategy and business model literature into one model (Hedman & Kalling, 2003). To do so, business strategy and business model will be set in context to one another, building on the reviewed literature. Looking at the strategy making as process which can be displayed within a framework, simplified models for the understanding of the incorporation of strategy and business models within the strategy making will be presented. Building on the understanding of the process perspective, the integral strategy and business model framework is used to operationalize the definitions and make it more concrete and specific, including a more detailed description of the framework components, as suggested by Fielt (2011). Additionally, the business model component of the framework is depicted in more detail for a better understanding and application.

2.6. Strategy process model

Building on the findings above, a unifying framework on business model, strategy and strategy making are drawn up. A first model illustrates the integration of strategy and business model in a simplified manner. It depicts a model to explain the phases of strategy making and to better explain the connections of strategy theory and the business model concept. The second model is the so called model of the strategy creation according to level of analysis. It acknowledges the organizational structures within this process and allows the visualization of the process phases according to the different levels of analysis necessary. Subsequently, the integral strategy making framework explains in more detail the processes of the strategy creation process, illustrates the causal relations and offers a proposition of incorporated strategy tools within this process. The framework is lastly complimented by a detailed visualization of the business model facet, in which primary and secondary components and their interaction are depicted.

2.6.1. Strategy Process Model according to Creation Phases

Christensen (1997) argues that "[…] strategic thinking is not a core managerial competence at most companies" (p.141) and that clear concepts and frameworks of strategic thinking do not exist. Never the less, strategic orientation and management direction are essential for a successful company (Porter, 2001). As starting point it is possible to draw up a general model of the strategy making process based on the cognitive process idea with so called higher-order goal-specific strategies. Such process is defined as consciously made and controllable, as well as mostly sequential and therefore strategic itself already (Pressley, Borkowski, Schneider, & others, 2010).

The strategy creation phase model consists of 4 steps. Starting point is an analysis of the existing situation and can consist of several layers and areas of analysis, which will be explained in more detail later. Building on the results, a strategy on how to position itself, how to compete in the market place, creating fit within the activity system, build competitive advantage, making decisions on what value is provided to customers and earn financial returns is crafted to build on findings of the analysis (Arnold, 2008; Porter, 2001; Seddon & Lewis, 2003). The strategy is then complemented with a conceptual tool, e.g. the business model. This unit of analysis, focusing not only on the firm, but across a network, is used to test, evaluate and explain the organizational strategy. After the implementation, such strategy and the complementary business model must then be adjusted to the changing demands and environments, restarting the circle with the analysis (Teece et al., 1997).

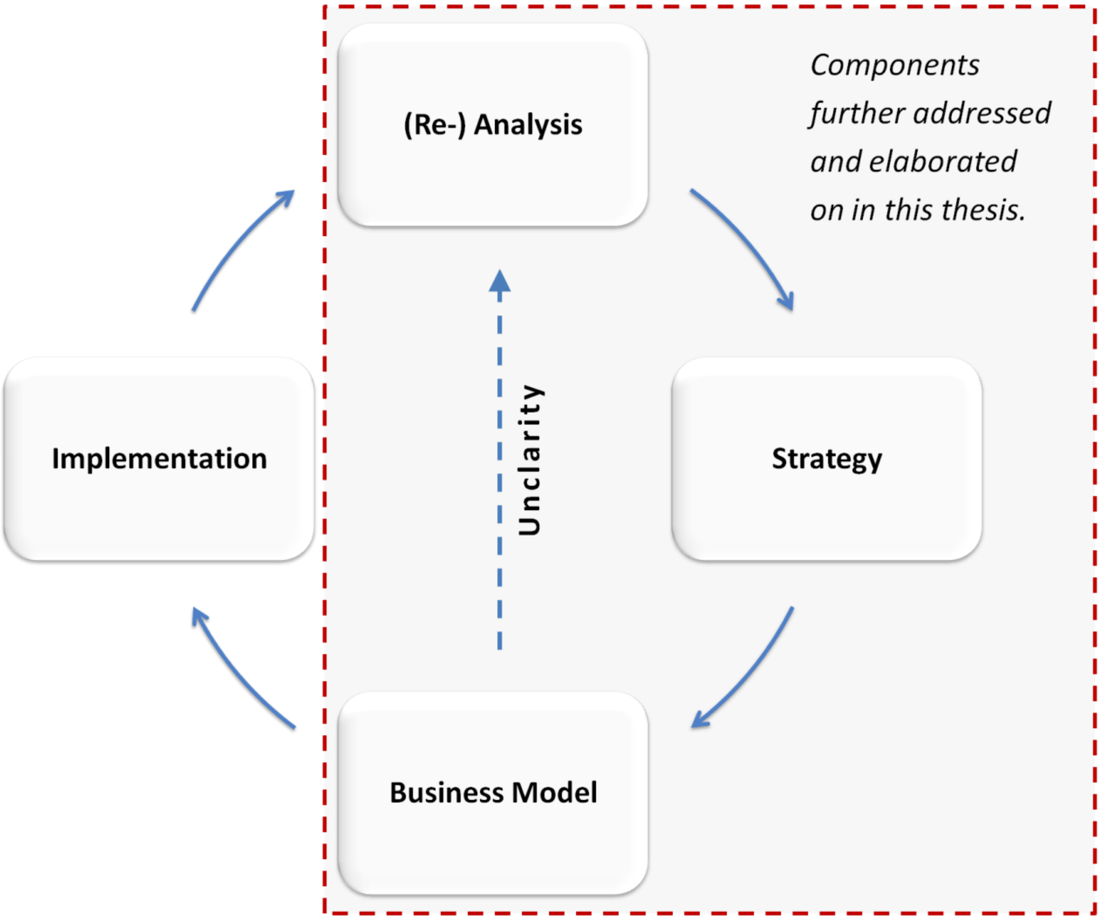

Figure 4: Strategy Process Model according to Creation Phases

The model incorporates the notion of unclarity about the strategy and decisions, which become visible when drawing up the strategy within the business model. The tool business model helps in communicating and visualizing the strategy, but also displays which elements or parts are not yet clear enough or question about their interaction. A graphical notion about the extent of this thesis is used to clarify that the implementation step is not covered within the context of this thesis.

Miller and Friesen (1983) argue that analysis as first part of the strategy making process is essential for successful firms. Furthermore, the amount and repetition of such analysis is dependent on the dynamics of the company's environment. Depending on the factors like complexity of the organization, the environment or the competition, each part of the model can consist of one or several sub-steps (Johnson et al., 2007). For that reason the model presents only a simplified framework to help better understand strategy and business model in context of strategy making.

2.6.2. Strategy Process Model according to Level of Analysis

Relating to the results on the relation of strategy and business model, the strategy process can additionally be structured into level of analysis relating to the hierarchical order of the organization (compare Al-Debei & Avison, 2010; Casadesus-Masanell & Ricart, 2010; Hedman & Kalling, 2002; Seddon & Lewis, 2003). Considering the division of strategy into corporate level and strategic business unit (SBU) level, as for example suggested by Johnson et al. (2007), four stages of the strategy making can be observed, namely: corporate strategy, business unit strategy and business model creation for the SBU and then for the organization as a whole (see figure five). The strategy making process is to be considered within the corporate and the SBU-level, while the corporate level presents the all-embracing frame, the SBU-level helps in drawing more detailed conclusions.

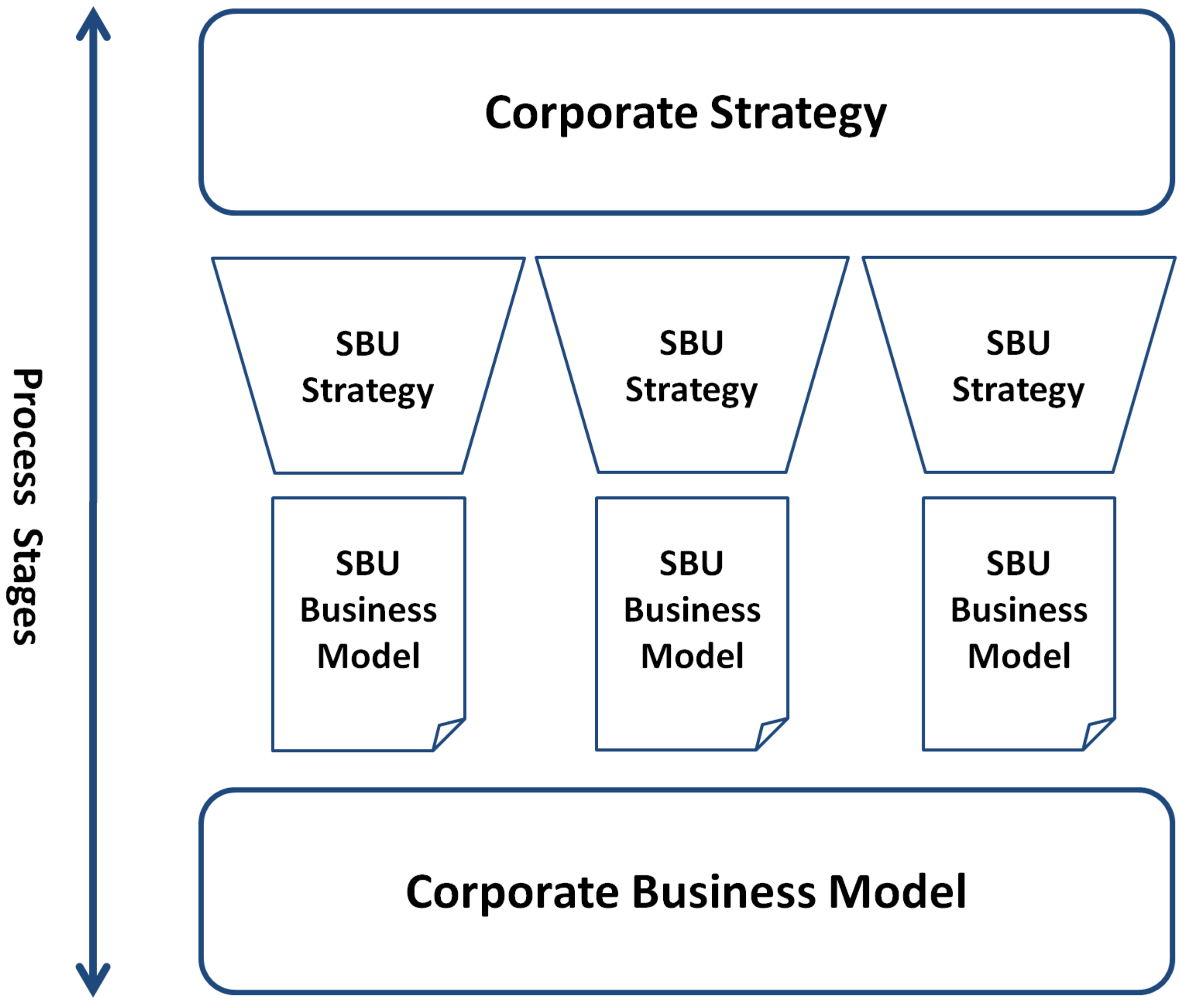

Figure 5: Strategy Process Model according to Level of Analysis

These levels of the strategy making process could be related to the organizational hierarchy in terms of corporate management, departmental management and individual workforce. In accordance with e.g. Magretta (2002) or Seddon and Lewis (2003), new strategies do not necessarily need to emerge from corporate and SBU level, but can also be induced by testing, improving and innovating with help of the business model concept. Such schematic thus depicts the possibility of both a top-down, as well as bottom-up approach in strategy making, considering that strategy making is an organization-wide process (Hart, 1992). In case of small enterprises without need for SBU's due to limited product or service offerings, the model reduces to a two level schematic, including corporate strategy and corporate business model.

2.7. Proposition of an Integral Strategy and Business Model Framework

Despite the critique on the strategy and business model literature, Hedman and Kalling (2003) argue that the strategy perspectives of both offer a valuable set of concepts which could be combined towards a single framework, which, in a simplified matter, has been suggested above. The concepts that the authors name as compatible for one model are: 1) Customers, 2) Competitors 3) Offering, 4) Activities and Organization, 5) Resources and 6) Factor and Production Input suppliers, as well as an evolving business as longitudinal perspective (Hedman & Kalling, 2003, p. 51). These concepts, together with the examined developments in the IO, RBV and relating to a dynamic process view, will be considered to be necessary within the following detailed framework proposition.

For the development of a detailed, integral strategy and business model framework, results of the literature analysis on strategy and business model are used. Core Facets of the framework relate to the strategy creation phase model, but are described in more detail by application of the models by Ireland et al. (2011) and Johnson et al. (2007); (2010) relating to strategic position analysis strategic choices; by Al-Debei & Avison (2010), Fielt (2011), Osterwalder et al. (2005) and others concerning a unified framework of the business model concept. The core facets of the framework are therefore: i) strategic position analysis, ii) the strategic decision making and iii) the drawing of the business model. Additionally, the iv) the acknowledgment of the strategic fit prerequisite and v) the dynamic aspect in terms of internal and external variations leading to changes over time are incorporated into the model to recognize limitations of choices and the need for a dynamicity of the process (see figure six). A more detailed overview on the underlying literature can additionally be found in table 4.

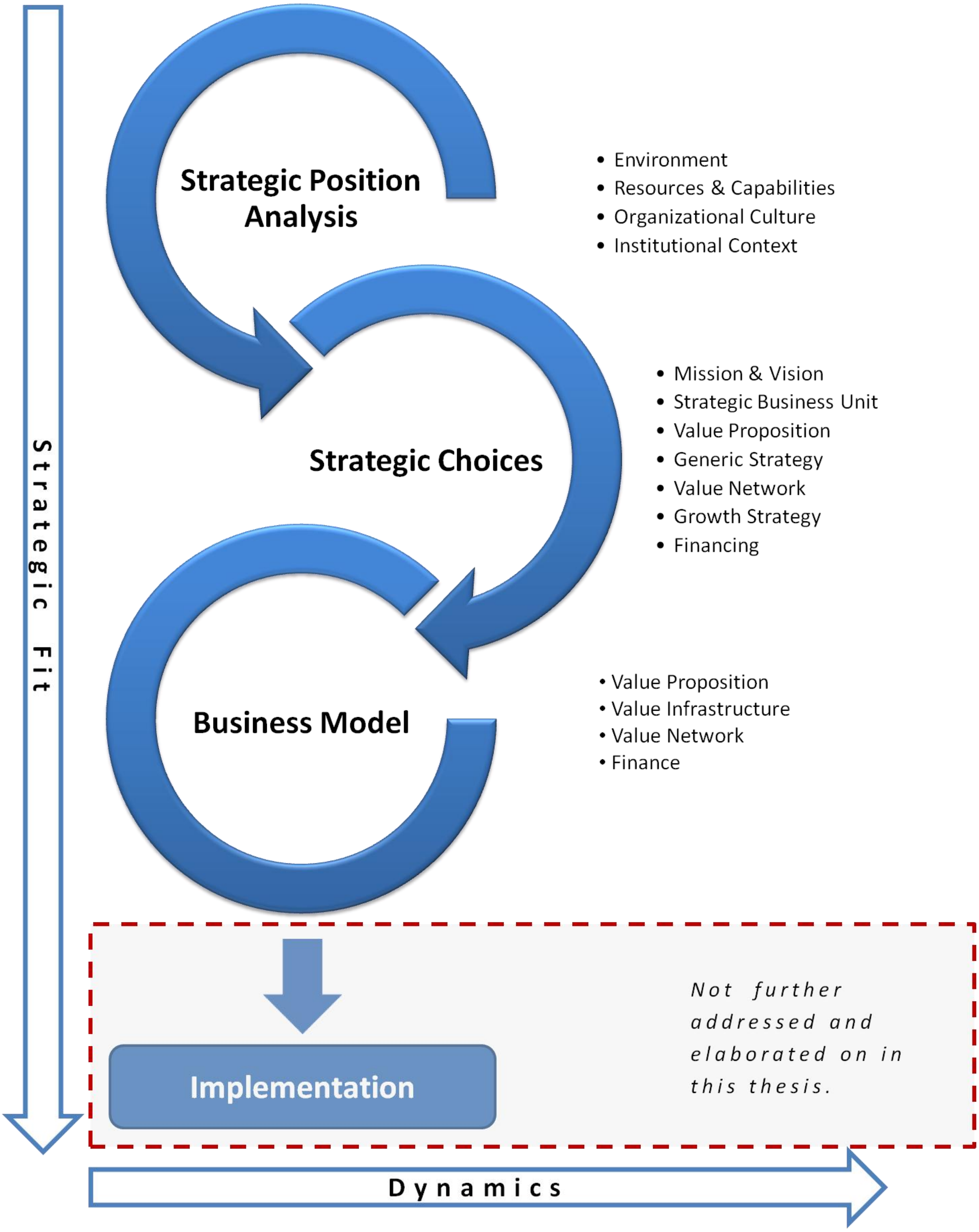

Figure 6: Proposition of a strategy making framework

Due to the limitation of this thesis, a closer look on the aspects of strategy implementation and the finer details of reinitiating the process will be omitted. It is depict within the framework, but not further discussed. Therefore the proposed framework will be looking at the first three phases in more detail, contributing to the academic literature by combining strategy theory and business model into one detailed perspective.

2.7.1. Strategic Position Analysis

Starting point is the analysis of the strategic position in order to assess internal and external factors influencing the organization and the strategy making (Foss, 1998; Johnson et al., 2007; Johnson et al., 2010; Zou & Özsomer, 1999). It relates to the IO and RBV theory and its development in terms of integration, arguing for the analysis of internal, as well as external factors impacting an organization (Barney, 1991; Porter, 1980; Weihrich, 1982; Wernerfelt, 1984). The strategic position analysis investigates the organizational environment, relating to the SWOT concept (Andrews, 1971; Hill & Westbrook, 1997) and Porter's Five Forces model (1980); acknowledges the importance of unique resources and capabilities for the strategy creation according to the RBV (Barney, 1991); considers the influences of the organizational culture and history on the performance of an organization (Alvesson, 2002; Barney, 1986; Hofstede & Bond, 1984; Hofstede & Hofstede, 2005; Newman & Nollen, 1996; Scholz, 1987); and investigates the institutional context as influencing factor on the decision making process (Lawrence, 1999; Mintzberg, 1978; Sharma, 2000).

The strategic position combines the strategic theories of RBV and IO in order to emphasize the need to analyze the business environment and core resources and core capabilities before the strategy creation process (Grant, 2002). Hereby, the layers of the business environment should be considered in the environmental analysis. According to Johnson et al. (2010) those are: the macro-environment, the industry or sector, the competitors in the market and the focal organization. Moreover, the analysis includes organizational culture and institutional context in order to acknowledge influences within the firm that might affect the strategy making. Institutional context relates hereby to the governance structure of the organization, stakeholder expectations and ethics (Eisenhardt, 1989; Mirvis & Googins, 2006; Monks & Minow, 1996). Whereas organizational culture is concerned with influences through company history and path dependency, creating lock-ins patterns and believes influencing the organizational development and change process (Alvesson, 2002; Greener, 2002; Hofstede & Hofstede, 2005).

2.7.2. Strategic Choices

After the analysis of the strategic position, decisions on the strategy and relating to the findings have to be made. Such decisions involve strategic directions, on how strategies are pursued and ways on how to outperform the competition if applicable (Ireland et al., 2011; Johnson et al., 2010). In more detail, this relates to seven components, summarized from strategy literature. Firstly, it is argued that the mission and vision statement formulation should be part of the strategy making process as it positively influences performance and financial revenue (Bart, 1997a, 1997b; Chun & Davies, 2001; Klemm, Sanderson, & Luffman, 1991; Sidhu, 2003). Positive influence on organizational performance is proposed to stem from a better sense of purpose and business focus, a better control over employees as well as promotion of shared beliefs and standards, compared to organizations with relevant mission and vision (Bart, 1997a).

A second component of the strategic choices facet is the value proposition towards customers. As authors like Parasuraman (1997), Porter (2001) or Slater (1997) argue, the value proposition, as perceived customer preference for a service or product attribute, is essential to differentiate from and outperform competitors. Consequently, one important strategy decisions lies on what the organization offers in terms of unique and valuable product or service benefits towards its customers. Connected to the value proposition is the generic strategy approach in which the product or service is delivered. Porter (1980) suggested that organizations should focus on one specific generic strategy, namely 'overall cost leadership', differentiation' or 'focus'. The principle allows for choosing a product or service strategy depending on the customer's perception of value for money and then focusing on either offering the lowest price, the best value with a price premium or offering a similar price as competitors with additional value to the product or service. A successful implemented strategy therefore helps to outperform competitors which do not apply the concept (Dess & Davis, 1984).

Murray (1988) recommends that a generic strategy should not be mutually exclusive, but influenced by a variety of strategic means, while Miller (1992) warns that such specialization can lead to a specialization trap. Organizations offering more than one product or service can avoid the trap of specialization on one generic strategy by introducing the strategic business unit concept within the strategy. The SBU within an organization addresses a distinct external market for goods or services different from other units of the same organization (Johnson et al., 2010). Such differentiation allows the company to decentralize and avoid pitfalls of specializations. When directions of the

SBU's are generally aligned to the organizational strategy, performance increases of the SBU are possible (Davis & Schul, 1993; Govindarajan, 1986; Gupta & Govindarajan, 1984). Thus, the SBU concept should be considered in the strategy making process.

Another aspect of the framework considers the organizational position within the value network. As presented in chapter one, the value chain is still a strategic tool "[…] for decomposing the firm into strategically important activities and understanding their impact on cost and value" (Stabell & Fjeldstad, 1998, p. 413). Never the less, authors like Allee (2002), Peppard & Rylander (2006) or Stabell & Fjeldstad (1998) argue that organizations need to look also outside their firm-boundaries in order to understand and support their position in the value creation process, including inter-organizational links and relationships. Such positioning incorporates decisions on which value creation processes to execute internally and which processes to outsource or buy-in. Hereby, not only goods, services or revenues are of importance, but also the exchange of knowledge and other intangible benefits must be considered (Allee, 2000).

There are several different approaches to growth of a business, but uncoordinated growth due to lack of planning is undesirable. A strategic direction is therefore of importance and should be considered in the organizational strategy (Kelley & Marram, 2009). Building on the firm's distinctive competencies, the Ansoff growth matrix concept (Ansoff, 1965) presents one strategic tool for the help on the decision of how and where to grow. The four quadrants of Ansoff's matrix can be divided by distinguishing between growth in new or existing products, as well as growth in new or existing markets. These strategies are market penetration, product development, market development and diversification. Andersen and Suat Kheam (1998) point to the fact that resources and capabilities have an impact on strategic directions and thus growth strategies are related to the concept of the RBV. Although in some cases organizational growth is effectual or emergent, Kraaijenbrink et al., (2011) argue that emergent and planned growth can coexist and lead to growth. Consequently, growth strategies should be considered in strategy making, even if not all growth can be planned far ahead.

The last component of the strategic choice facet considers the financial side of the strategy making. Financial analysis is used to asses if strategic options are valuable in terms of cost and revenue. Points of consideration are amongst others return on investment, cost-benefit, shareholder value analysis, financial ratios and more (Arnold, 2008; Atrill, 2009). Moreover, decision makers need to account for funding strategies in terms of appropriateness between strategy, funding and financial risk, considering the impact of strategic decisions on long-term cash generating capability of the organization, as well as stakeholder expectations (Arnold, 2008; Ballow, Burgman, & Molnar, 2004; Johnson et al., 2010). Although decisions based on future values and expectations carry certain risks, financial analysis is a key determent for strategic success and should be included within the strategy making process (Johnson et al., 2010).

2.7.3. Business Model

After the process of the strategic position analysis and the making of strategic choices, the business model concept is proposed for linking strategy making and implementation (Casadesus-Masanell & Ricart, 2010; Seddon & Lewis, 2003; Shafer et al., 2005). The business model hereby plays the role of visualizing strategic decisions, offering the possibility to visualize, test and "fine-tune" strategic decisions, as well as guide for the implementation process, as argued above. Despite unclarity and only little convergence on the business model concept and it components, it is argued that the concept can help to understand and develop value capturing processes (Chesbrough, 2002). Several authors have suggested ways of applying the concept and proposed components for such application. The elements, also referred to as for example, building blocks (e.g., Osterwalder et al., 2005), components (e.g., Pateli & Giaglis, 2004) or functions (e.g., Chesbrough & Rosenbloom, 2002), are sometimes furthermore presented in structures, two-layer models and suggesting a specific relationship within (Fielt, 2011).

The study by Fielt (2011) offers a detailed discussion on seven, 'very popular, well-published (preferable in a book) and/or with specific characteristics' business model frameworks. The analyzed frameworks are: a) the Business Model Canvas (Osterwalder & Pigneur, 2010); b) the Four-Box Business Model (Johnson, 2010); c) the STOF model (Bouwman, De Vos & Haaker, 2008); d) the Business Model Schematics (Weill & Vitale, 2001); e) the Technology/market mediation (Chesbrough & Rosenbloom, 2002); f) the Entrepreneur's business model (Morris, Schindehutte & Allen, 2005); and the e3-value (Gordijn & Akkerman, 2001). The author concludes from his analysis that all the analyzed concepts show significant similarities and relating to the same definitions of business models. He therefore concludes that the higher-order elements of a multi-structured framework should at least consist of the 'value proposition', the 'value architecture' and the 'value economics' dimension (see appendix 2).

Another study by Al-Debei and Avison (2010) uses content analysis of academic literature found in electronic libraries on keywords relating to term business models. The authors propose a unified business model concept, including four higher-order business model dimensions, from the analysis. Similar to Fielt, dimensions are labeled 'value proposition', 'value architecture', value network' and 'value finance'. Both conceptualizations are similarly presented, showing interlinkages between the three, respectively four dimensions and macro-view with focus on the focal organization. Additionally, the four business model dimensions are presented in the article of Al-Debei and Avison within a greater framework, allowing to visualize dimensions, functions, reach and principles of the business model concept, supporting the authors view on the function of the business model within strategy making (see appendix 3).

Both meta-analysis studies argue that business model literature shows significant overlaps in business model dimensions and are in most cases multi-structured frameworks, offering higher-order dimensions with elaboration on those in more detail with lower-level elements. The authors converge their findings in frameworks depicting the higher-order dimensions. Never the less, it can be argued that both proposals show a certain degree of unclarity concerning the dimensions and their delineation. And despite the acknowledgment that a majority of literature uses multi-layer frameworks, the authors concentrate only on higher-order dimensions. Thus, it is suggested to converge the meta-analysis studis of Fielt and Al-Debei and Avison and add lower-level elements for a better elaboration on those.

The here suggested business model concept builds on the works by Al-Debei and Avison (2010), Bouwman et al. (2008), Demil and Lecocq (2010), Fielt (2011), Hedman and Kalling (2003), Johnson (2010), Osterwalder et al. (2005), Rasmussen (2007) and Zott et al. (2011). The framework includes value proposition, value infrastructure, value network and finance as higher order elements or pillars. They are furthermore elaborated on by use of second-order elements and presented as interlinked system (see figure seven). The value proposition presents hereby the value offering of the firm, an element which can be found most studies on business model (Morris et al., 2005). The value proposition describes the value or service offered, explains the unique selling proposition the target market segment and the sales channel for the product or service (see for example Al-Debei & Avison, 2010; Fielt, 2011; Magretta, 2002; Osterwalder et al., 2005).

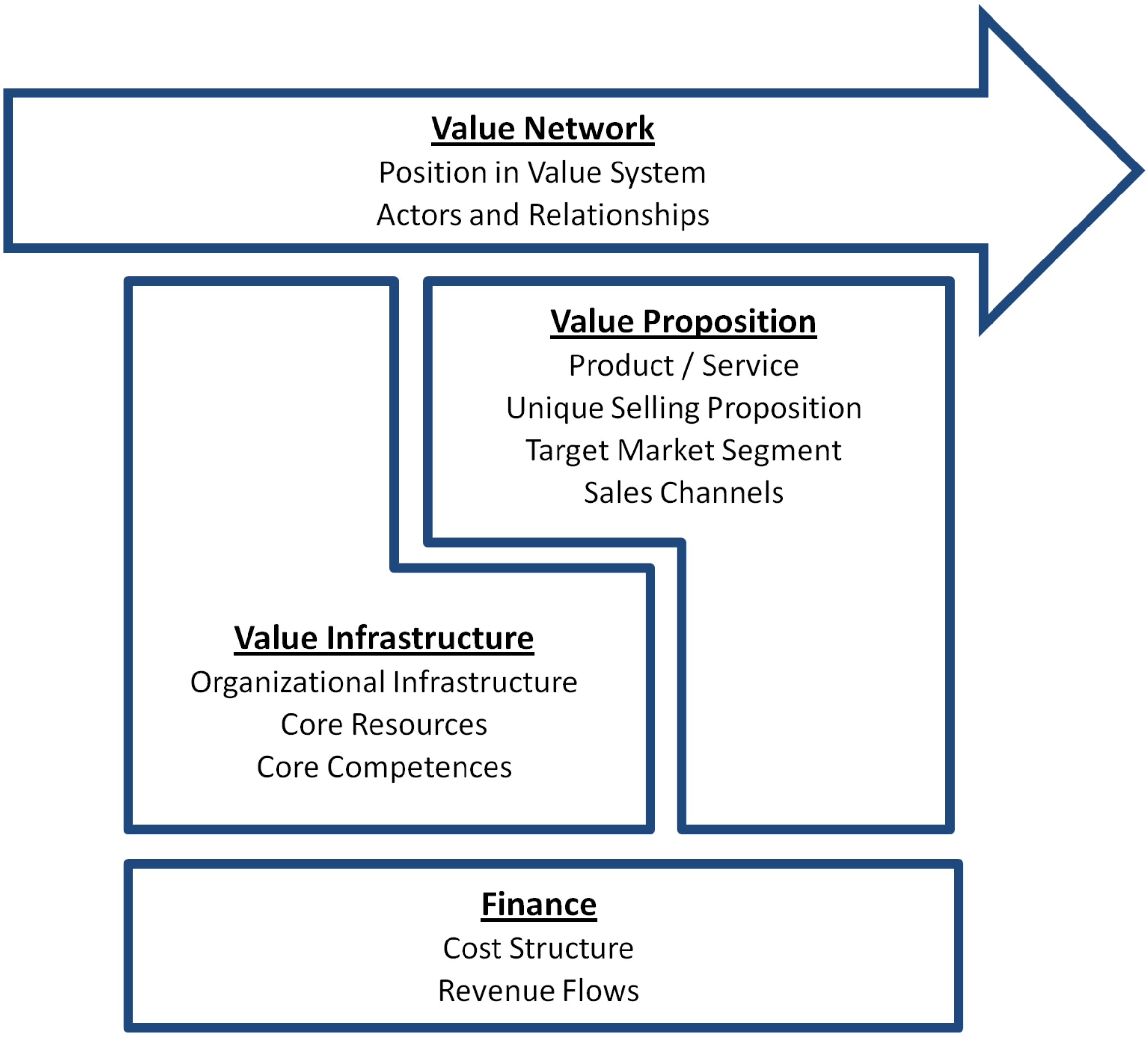

Figure 7: Proposition of a business model concept as part of the strategy making framework

The second high-order element, called value infrastructure, looks at the organization value creating infrastructure, as well as core resources and capabilities needed to deliver the value proposition. Relating to the RBV and the analysis of core competences and resources, the value infrastructure element considers factors and their arrangement, which allow the provision of products and services, including flows of information and knowledge within the organization (Bouwman et al., 2008; Fielt, 2011; Johnson, 2010; Osterwalder et al., 2005; Weill & Vitale, 2001). The value infrastructure can be seen as precondition to the value proposition and is therefore aligned to the left in the model.

While value proposition and value infrastructure relate to the most extend to an organizational inward focus, the value network element explains the organization in context with its partners and relationships. It uses the value system concept to elaborate on which part of the value system the firm is serving and which actors or resources are needed before the focal firm engages in its activities to provide the service or product. Also, the way of transaction and collaboration are determined within this business model element (Chesbrough, 2002; A. Osterwalder et al., 2005; Rasmussen, 2007; Weill & Vitale, 2001; Zott & Amit, 2009; Zott et al., 2011). In order to symbolize the value system concept as core of the value network element, it is presented in the graphic as arrow, connected to value proposition and value infrastructure.

The last element of the conceptualization is finance. It relates to all financial matters, roughly the cost structure and the revenue flows of the enterprise. As already argued above, finances are an essential part to the success of a strategy and should therefore also be considered in a more abstract level within the business model. Especially costing, pricing and revenue breakdown are essential to consider even on the product level. Apart from value proposition, a financial/economical element is the second most frequently cited aspect of the business model in the academic literature, which symbolizes its importance within the concept (Morris et al., 2005). The financial element is located as attached to the value infrastructure and value proposition element to show the connection between the two elements and the question on pricing, revenue and more (Al-Debei & Avison, 2010; Bouwman et al., 2008; Chesbrough, 2002; Morris et al., 2005; Osterwalder et al., 2005; Weill & Vitale, 2001). Never the less, all four higher-level elements should be seen as interconnected, and not be considered only on a single level.

The four higher-level elements combined with more elaborating lower-level elements build the above suggested abstract meta-model, describing general components of the organization. Relating to Seddon and Lewis (2003), the business model is used as a representation of some aspect of a firm's strategy to display an abstraction of all the details. In this process the concept can be used as new unit of analysis, focusing not only on the firm, but across a network and focusing on the importance of value creation and value capturing (Mansfield & Fourie, 2004). The business model concept in this process furthermore relates to the market environment (IO), the company's resources and capabilities (RBV) and the value system logic of the strategy literature. It is likely to show overlap with the strategic position analyses and strategic choices as it is a visualization tool for the strategy making process.

2.7.4. Strategic Fit and Dynamics

The last two elements of the strategy framework consider the need for a dynamic model to acknowledge the fast-changing environments, as well as the necessity of strategic fit on all levels to incorporate all changes successfully. Internal and external variations which might lead to dynamic changes over time make it necessary to reinitiate the strategy making process (Drazin & Ven, 1985; Hill & Westbrook, 1997; Scholz, 1987; Waterman, 1982). This is expressed within the dynamics element in the framework. In order for the company to perform well, organizational resources and capabilities must fit well with internal and external factors through strategic context and structure. Path dependency must further be considered within the whole strategy making process, relating to previously made decisions affecting the current and future choices (Al-Debei et al., 2008; Al-Debei & Avison, 2010; Hedman & Kalling, 2003; Osterwalder & Pigneur, 2010; Zott et al., 2011).

2.8. Summary on the Strategy Framework Proposition

So far, literature on business model and strategy theory and their corresponding concepts and tools have been presented, relating to research sub-question one and two. Furthermore, the incorporation of the two notions within a strategy making process perspective is suggested. The process perspective as underlying concept of the strategy making framework is first explained from the perspective of phases of strategy making and level of analysis, as shown in figure four and five. Building on those simplified strategy making models, an integral strategy framework is presented, in order to elaborate on the strategy process in detail and also provide practitioners with a tool to better comprehend and apply strategy theory. Thus, the framework is related to research sub-question three. To better understand the complex business model facet within the integral framework, a more detailed explanation has been proposed in figure seven.

Together, the proposed models explain the strategy process, including a comprehensive overview of the interaction and delimitations of strategy and business model. Furthermore, it is suggested that the integral framework can be used for the application of strategy theory in the real world due to specification of process steps and integrated concepts. A detailed overview of the underlying literature is presented in table 4. Together with the detailed illustration of the business model facet, the strategy making framework is argued to help organizations with better theory application and consequently better strategy making outcomes. Such assertion will be tested in the following chapter, as suggested in research sub-question four.

Table 4: Overview of the framework core facets, components and representative literature

Core Facets	Brief Description	Framework Components	Representative Literature Examples
Strategic Position	Analysis of the internal and external factors, purpose, history and culture of a company as starting point for the strategy making process (Johnson et al., 2007)	Environment Analysis	Hall, 1992; Johnson et al., 2007; 2010; Porter, 1996; 1980; Thérivel & Partidário, 1996
		Resources and Capabilities	Amit & Schoemaker, 1993; Barney, 1991; 1996; Teece et al., 1997
		Institutional Context	Lawrence, 1999; Mintzberg, 1978; Sharma, 2000
		Organizational Culture	Alvesson, 2002; Hofstede & Bond, 1984; Hofstede & Hofstede, 2005; Newman & Nollen, 1996; Scholz, 1987
Strategic Choices	Strategic decisons concerning the basis of competitive strategy, strategic directions and how strategies are persued (Johnson et al., 2007)	Mission and Vission	Bart, 1997a, 1997b; Chun & Davies, 2001; Klemm, Sanderson, & Luffman, 1991; Sidhu, 2003
		SBU	Davis & Schul, 1993; Govindarajan, 1986; Gupta & Govindarajan, 1984; Johnson et al., 2010)
		Value Proposition	Parasuraman, 1997; Porter, 2001; Slater, 1997
		Generic Strategy	Dess & Davis, 1984; Miller, 1992; Murray, 1988; Porter, 1980
		Value Network	Allee (2000); (2002); Peppard & Rylander (2006); Stabell & Fjeldstad (1998)
		Growth Strategy	Andersen & Suat Kheam, 1998; H. Ansoff, 1965; Kelley & Marram, 2009; Kraaijenbrink et al., 2011
		Financing	Arnold, 2008; Atrill, 2009; Ballow et al., 2004; Johnson et al., 2010
Business Model	A business model describes the value logic of an organization in terms of creating and capturing value. (Fielts, 2011) It is used as visualization and testing layer between strategy and implementation (Chesbrough, 2002)	Value Proposition	Al-Debei & Avison, 2010; Fielt, 2011; Magretta, 2002; Osterwalder et al., 2005
		Value Architecture	Bouwman et al., 2008; Fielt, 2011; Johnson, 2010; Osterwalder et al., 2005; Weill & Vitale, 2001
		Value Network	Chesbrough, 2002; Osterwalder et al., 2005; Rasmussen, 2007; Weill & Vitale, 2001; Zott & Amit, 2009
		Finance	Al-Debei & Avison, 2010; Bouwman et al., 2008; Osterwalder et al., 2005; Weill & Vitale, 2001
Strategic Fit	In order for the company to perform well, organizational resources and capabilities must fit well with internal and external factors through strategic context and structure		Drazin & Ven, 1985; Fielt, 2011; Hill & Westbrook, 1997; Scholz, 1987; Waterman, 1982
Dynamics	Internal and external variations leading to dynamic changes over time which reinitiate the strategy making process		Al-Debei et al., 2008; Al-Debei & Avison, 2010; Hedman & Kalling, 2003; Alexander Osterwalder & Pigneur, 2010; Zott et al., 2011

3. Methodology: design science approach

3.1. Research Design

The research design of this paper resembles a design science methodology with a systematic approach to create a new and innovative artifact. *"In the design-science paradigm, knowledge and understanding of a problem domain and its solution are achieved in the building and application of the designed artifact"* (Hevner et al., 2004, p. 75) The main argument for this approach is that the theory used is already in existence, the problem is framed, and the application of this theory to create all-encompassing strategy and business model framework is what is being researched on. Therefore, based on the literature a framework is designed, implemented and reflected on it based on results from an empirical testing procedure (Babbie, 2010).

According to Iivari (2007), the design science approach follows the epistemological orientation of pragmatism, while it bridges science and practical action in its approach. This is the case also in this paper, although this should not be seen as implication that information underlies consequently the notion of truth. Like all research approaches, the validity of results depends on every argument being legitimate. The here used approach builds on generating an aggregated construct for the field of strategy based on single theories or streams within the field (Saunders et al., 2009). This approach moreover will be applied within a nomoethic causal reasoning, building on a more general and implicit relationship between the theories. It allows explaining and creating a more general model for a wider application (Babbie, 2010).

The design oriented process includes six steps to be addressed: a) problem identification and motivation; b) objectives for a solution; c) design and development; d) evaluation; and e) communication (Peffers et al., 2007). Specifying the research problem and description of the problem definition are addressed within the first chapter, including the definition of the research question. The objectives for a solution are inferred rationally from the problem specification and addressed within the chapter on the theoretical framework. It relates to the two notions of strategy and business model, their history, current state of research and existing knowledge in order to determine scope and limitations for the problem solution. As basis for the design of the artifact, an overview of the major topics and main research streams of strategy and business model and their development has been given to provide the basis for the integration of both concepts.

As a next step, the artifact as embodiment of the research contribution is presented as strategy framework, developed in the framework proposition chapter. The framework builds on the insights from the literature review and the findings concerning the delimitation of both terms and is explicitly explained in details (Fallman, 2007). To demonstrate the use of the artifact, the framework is applied in a practical setting within an organization. Hereby, the framework builds the underlying tool for the creation of an organizational strategy for a company in the high technology sector. To do so, the researcher spent twelve days in the role of participant as observer within the firm. Actions performed within the organization under scrutiny relate to analyzing current conditions, decisions and strategy via qualitative interviews and data analysis, introduction of the research artifact and preliminary analysis and decision making concurring with the suggested framework in cooperation with the management.

In order to "observe and measure how well the artifact supports a solution to the problem" (Peffers et al., 2007, p. 56), three approaches are used for cross-validation of outcomes. First, the framework is used as underlying tool to develop an organizational strategy, relating to the elements of the artifact. Due to time constrains, the strategy implementation as part of the strategy process has hereby been omitted to the investigation and discussion. Secondly, a comparison of previous state and new results of the practical research subject are compared to analysis if the framework leads indeed to better strategic evaluations. Lastly, an empirical analysis by use of semi-structured, qualitative interviews with experts and possible customers is conducted to verify the findings (Hevner, 2007). Aim of the empirical testing is the provision of evidence that the strategy framework resulted in valuable insights and decisions for Kryoz's strategy in terms of value proposition, target segment and sales channels, as well as revenue and customer relationships.

The last step in the design science approach is the communication of the research problem, the utility and novelty of the artifact and its design, as well as its effectiveness to researchers and practitioners. The last chapter of this paper will take up those issues and present a discussion on key findings, limitations, implications for further research and practical implications (Hevner et al., 2004; Peffers et al., 2007). Building on the results and data collected, the framework as strategy tool for better organizational strategy making will be evaluated, its advantages and limitations discussed and summarized, as well as suggestions for further research proposed.

3.2. Subject for Testing the Practical Application of the Framework

(subject to secrecy)

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3.3. Data Collection and Practical Application

The study can be divided into a theoretical part, data collection, practical implementation of the framework within organizational strategy making, comparison of previous and new strategy and empirical testing of the artifact in terms of contribution to better strategy making. For the purpose of artifact creation by development of new knowledge as main aim of the design science approach, objectives for the solution have to be defined and illuminated (Fallman, 2005; Peffers et al., 2007). In this case, the artifact is constructed based on literature review of the relevant topics. Main research streams of business strategy and business model are presented in terms of their historic development, their convergence and conflicts within, and their applicable concepts and tools. Apart from summarizing important theories and concepts, emphasis is put on the historic development to better understand the confusion around defining strategy and business models and to anticipate future developments (Demil & Lecocq, 2010; Mansfield & Fourie, 2004).

A wide array of methods for data-collection, for the design process of the framework, as well as for the practical application and empirical testing was used. Both in the design science and the action research field this mixed method of data-collection is common. The mix of methods and the emphasis on qualitative sources does not have to be an issue and can be used to cross-validate findings (Aken et al., 2012; Hair et al., 2011). Data collection for the framework application was collected within the company through qualitative interviews, archival search, analysis of secondary data provided by the organization and participation inquiries. Outside the organization, data for the applicational purpose was largely based on market research, industry analysis and competitor analysis conducted.

The data collection process started with the purpose of evaluating if the sample company qualifies for the strategy framework application. For this reason, the acceptance of the management, the cooperation-willingness and support, as well as the openness for company, product and strategy analysis was investigated through a first meeting between the researcher and the Kryoz management. The result showed positive acceptance and interest which led to the initiation of the practical project part.

To evaluate the experience and knowledge about strategy creation by the management, as well as to determine the existence of organizational strategy, several qualitative interviews with the founders/managers were conducted. Question therein related to existing knowledge on strategy theory, current and former approaches to strategy, theories and concepts used and decisions made so far. Due to already existing views and conceptions on strategy, company-internal archival search and secondary data analysis was performed on existing strategy-related, internal documents also. Results were then revised to allow the summarization of the findings in form of the strategy making framework. This was done in order to draw conclusions about the effect of the strategy framework towards a better organizational strategy making in comparison to strategy making without the application of the framework.

Based on this first data collection, the existing but fragmented strategy-related views and observations of Kryoz were summarized in form of the theory framework structure, including the suggested steps and components. As a next step, a new strategy for Kryoz was drawn up with help of the suggested framework. For this purpose, data was gathered and analysis conducted related to the suggested steps within the framework. One source for the creation of the new strategy were qualitative interviews with all employees of Kryoz relating to their functions and expertise, their knowledge level, their opinion on the products, the company culture and history, a judgment on known competitors and competing technologies, as well as possible customers and target markets. Additionally, the management of Kryoz was questioned concerning cost analysis, sales estimation, cash flow projection, visions and future growth expectations.

The results of the qualitative interviews were added to the researchers own analysis concerning the organizational environment, the company's direct and indirect competition, company resources and capabilities, the organizational legal form, human resources, path dependency of the organization, as well as company culture and history. An additional basis for the researchers own analysis were a qualitative market research, literature review on cryogenic technology and their development (see for example Coulter et al. (2003); Ter Brake & Wiegerinck (2002); Tward et al. (2002)) and secondary data provided by Kryoz concerning cryogenic technology, financial data and earlier customer surveys. The vast amount of primary and secondary data was then used to apply the integral strategy making framework and create an all-encompassing, organizational strategy. A summarized listing of methods and concepts used for the analysis can be found in table 5 in the following chapter. The results of the new strategy were then contrasted with the fragmented strategy made by Kryoz, previous to the project to determine if the use of the suggested framework leads to improved strategic decisions.

Both, past and new strategy are presented and contrasted to draw conclusions on the effects of the framework on the strategy process and results. After comparison of the former strategy with the strategy suggested by use of the framework, the business model was created. The business model concept was so far not considered for the strategy of Kryoz and could therefore not be compared with the new results. Building on the strategic position analysis and the strategic choices, the business model, as interlinking factor between strategy and implementation, was therefore developed from the beginning. As the business model concept is argued to be part of the strategy and so also relating to the same data and analysis, new data gathering was not required. The process of drawing up the strategy, including the business model visualization, was supported through involvement of the focal company management.

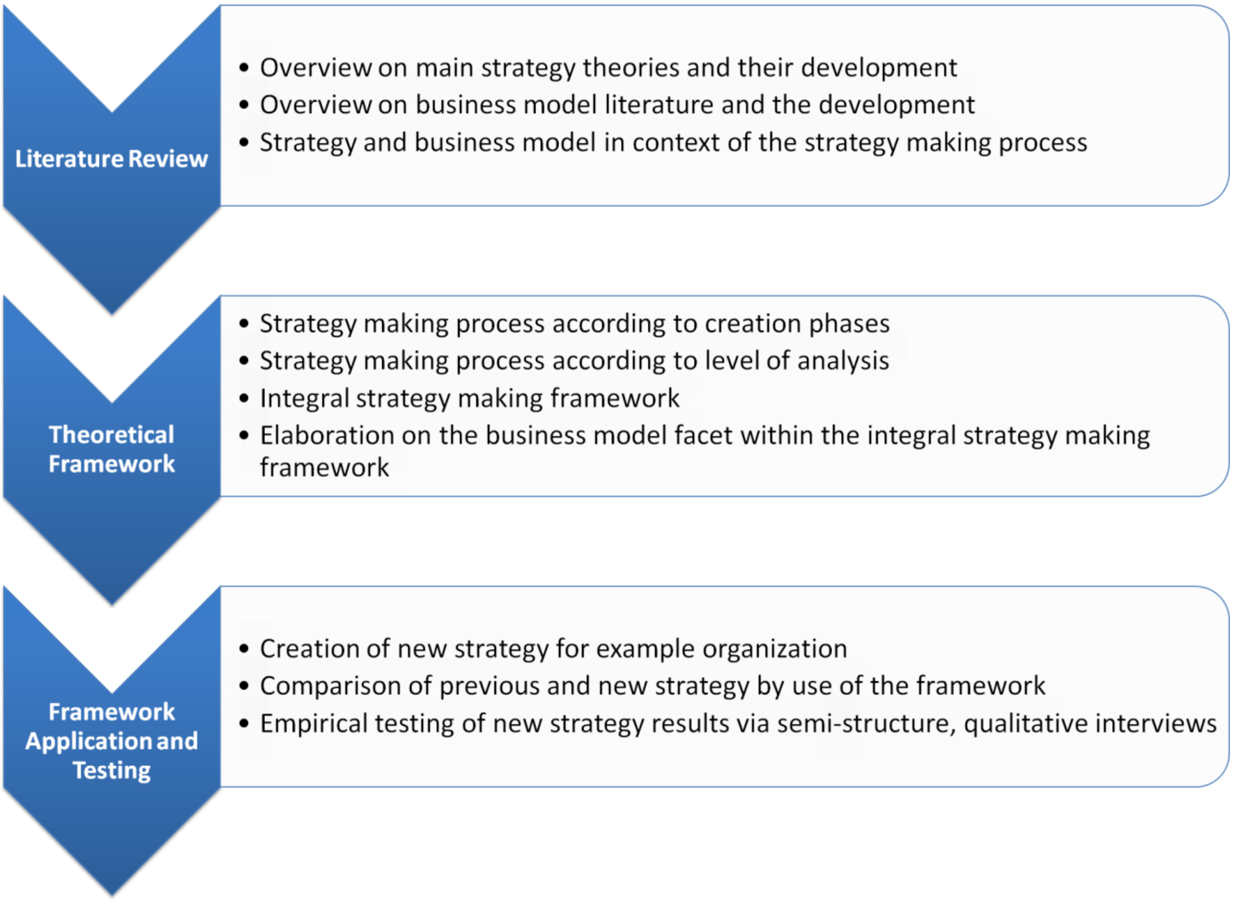


Figure 8: Simplified overview on the methodological approach

Later on, the preliminary results were introduced to the entire company in order to gain more insights from various perspectives. Following the business model presentation, the creative technique of brainstorming was used to elaborate on possible improvement options in form of a bottom-up approach. This technique was chosen to create valuable insights and perspectives from individuals of different professional backgrounds and to accelerate the process of bottom up strategy creation (Mindtools.com, 2012; Osborn, 1953). Although some studies have shown that group brainstorming does not necessarily lead to better results (Mullen et al., 1991; Pauhus et al., 1993), brainstorming has been used in order to rely on a broader technical insights and confirmation, as well as faster results. The outcome generated by the brainstorming showed unclarity on certain details within the strategy and was therefore addressed within the empirical evaluation of the strategic results in a later stage.

3.4. Empirical Testing

Additionally to the comparison between previous and new practical strategy results, success of the artifact in terms of better strategy making is evaluated and tested via empirical research. The testing was done via semi-structured, qualitative interviews with potential customers, user of the applicable technology, and experts in the related field. The semi-structured interviews were structured into four areas of inquiry. Firstly, the interviewee was questioned concerning his involvement and use of the related technology, the connected knowledge level and the average spending. Secondly, the interviewees were introduced to the product of which the strategy is applicable to, so that the individual can make judgment on it. As a next step, potential interest in the value offering, the product and its advantages, as well as their opinions on new ideas created during the business model creation were asked for. Additionally, the interviewees were questioned on the market potential of future offerings, as suggested by the strategy results.

The interview structure thereby relates to the qualitative research criteria suggested by King (2004), arguing a) the interview should start with an introduction and instruction part, b) then continue with relatively simple and open question, c) questions containing multiple sub-questions should be avoided, d) follow-up and clarifying questions ought to be used to explore the meanings of the relevant aspects of the answers, and that e) the interviewer should draw on the variety of types of interview questions (p. 23 – 32). Furthermore, the phenomenological approach to interviewing is used, in which a lengthy interview is conducted to better capture the interviewee's perspective on the topic. In this context the answers are seen to also partially reflect the participant's subjective impressions (King, 2004).

To summarize the interview data, simplified recursive abstraction was used (Chenail, 2012). Following, accuracy and relevance of the suggested strategy towards market demands and expectations was examined. Therefore the interviews related to the testing of Kryoz's value proposition, and therefore also the unique selling proposition, generic strategy of the SBU, target segment and sales channels, as well as revenue and customer relationships. Test criteria in this case are relevance and accuracy of the strategy in comparison to the test results. To draw conclusions from the interviews towards the viability of the new strategy, it was assumed that a positive confirmation of the factors allow inference on the viability of the other underlying factors (Hacking, 2001). This logic of inference by use of inductive reasoning is presented in a simplified manner in figure nine. Even though inference does not prove cause, it can be argued that prove of correlation is sufficient (King et al., 2001). Confirming the new findings and decisions on the organizational strategy, together with the outcomes of the process of drawing up the business model, can therefore be used to test the framework as means for better strategy making.

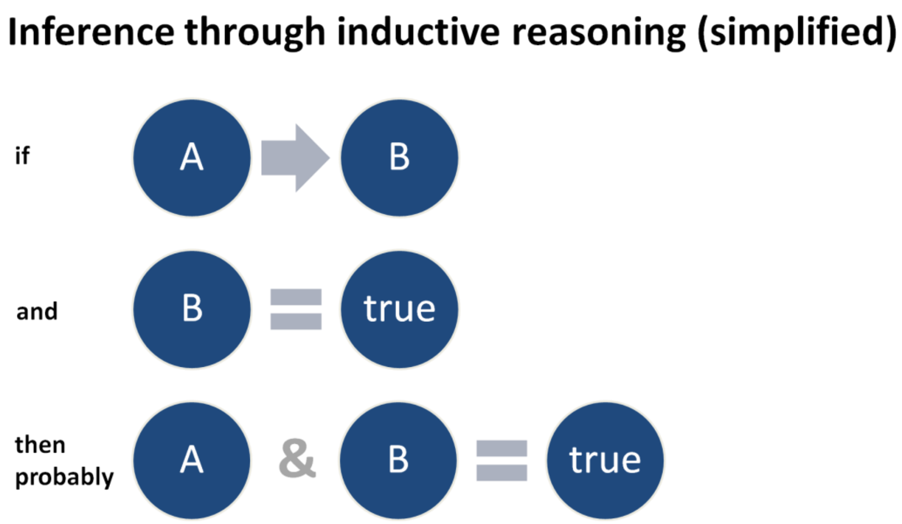


Figure 9: Simple model of direct and indirect testing assumption

Whether this cross-sectional validation of the theory construct is enough to conclude that the framework indeed provides a better ground for strategic decision making is a question of research philosophy. Despite the fact that the framework is build on "the shoulders of giants", the author is modest enough to acknowledge that neither citied authors, nor the suggested construct might be completely right. Only further research and studies might show the objective truth and also confirm an external validity. A detailed overview on the interview partners, including their knowledge level can be found in the appendix 1.

4. Results: Application of the strategy framework and empirical testing on the example of Kryoz Technologies *(partially subject to secrecy)*

After developing and presenting the strategy making framework, its practical application in terms of better strategy making will be tested within the context of a high-tech start-up. Although the framework can be considered generally applicable to the strategy making process of all for-profit organizations, differences between high-tech start-ups and the general organization will be highlighted within the related parts. Firstly, strategy analysis and strategic decisions will be presented, followed by the development of the business model, according to the strategy making framework. Results from the practical application will be analyzed and compared to the previously existing strategic views and decisions. Furthermore, the new, all-embracing, organizational strategy will be empirically verified with help of qualitative interviews of experts and users in the specific industry to draw conclusions about the impact of the suggested framework on the strategy making process.

In the role of participant as observer, and thus as researcher taking part in the strategy making process while revealing once research purpose, the strategy making within Kryoz was not only observed but actively supported (Saunders et al., 2009). This included analysis of the current strategy, introduction of the strategy framework and application of such in the role of consultant until the implementation stage. A summary of the company-internal work with the management of Kryoz can be found in form of a short research diary in the appendix 5.

4.1. Strategy developments of Kryoz up to the start of the thesis project

(subject to secrecy)

4.2. Comparison of the strategy before and after use of the strategy framework

In order to assess the suggested strategy making framework within the context of Kryoz, a separation of existing strategy and the new process has to be made. In a first step, the existing strategy of Kryoz was analyzed with help of the strategy framework structure. This was done in order to be able to compare and evaluate changes of the previous to the new strategy. As a next step, collected primary and secondary data were used to apply the integral strategy making framework and create a new, all-encompassing, organizational strategy for Kryoz. This included the suggested creation of a business model, which had not been done in the previous strategy making for Kryoz. The results of the new strategy were then contrasted with the fragmented strategy made by Kryoz, previous to the project. A detailed strategy comparison up to the business model facet is presented on the following pages and in a summarized version in table 6. Detailed results of the new strategy for Kryoz by application of the strategy framework can be found in the appendix 6.

4.2.1. Strategic Position Analysis and Comparison Results

As described above, the strategy making process starts with the strategic position analysis. Johnson et al. (2010) argue for the need to first asses the companies environment, resources, competences and organizational configuration before making further strategic decision, labeled as strategic choices in the framework. Data needed for the new and autonomous strategic position analysis were gathered through qualitative interviews and data analysis. It furthermore related to an environmental analysis of such by use of the 5-Forces framework and opportunities and threats assessment. Core resources and core competences analysis was use to determined Kryoz's basis for sustained competitive advantage. An evaluation of legal form, human resources, path dependency, history, and cultural web was conducted to assess the institutional context and the organizational culture.

Environmental Analysis

(subject to secrecy)

Resources and Capabilities for sustained competitive advantage

(subject to secrecy)

Institutional Context

(subject to secrecy)

Organizational Culture

(subject to secrecy)

4.2.2. Strategic Choices and Comparison Results

In order to craft new strategic choices for Kryoz, strategic tools and concepts in combination with the results of the strategic position analysis were used. This process included seven steps, as suggested in the strategy making framework. Based on the strategic position analysis findings, mission and vision statements were formulated. Following, the customer segment analysis was used to make decisions concerning the SBU and its viability for Kryoz. Based on the decisions concerning the SBU's, value propositions based on core resources and capabilities were established. Porter's generic strategies concept was then applied to suggest ways to achieve and maintain competitive advantage with the products of Kryoz (Dess & Davis, 1984; Porter, 1985). A value network position assessment, in order to determine Kryoz position in the value chain and to establish the role and relationship of suppliers, customers and other entities towards Kryoz was established as next step. Following, the Ansoff growth matrix helped in creating a specific growth strategy for Kryoz (Ansoff, 1965). As last step, the financial part was determined by use of cost analysis, sales estimation and cash flow projections. A more detailed procedural method and a comparison to the previous strategy are presented below.

Mission and Vision

(subject to secrecy)

Strategic Business Unit

(subject to secrecy)

Value Proposition

(subject to secrecy)

Generic Strategy

(subject to secrecy)

Value Network

(subject to secrecy)

Growth Strategy

(subject to secrecy)

Financing

(subject to secrecy)

4.3. Results of the comparison of previous and new organizational strategy

(subject to secrecy)

4.4. Kryoz's Business Model derived from the strategic position and strategic choices

Building on all of the strategic analysis and decisions made, the use of the business model concept is proposed within the suggested strategy framework. The business model holds the part of better communicating, understanding and defining the strategy (Al-Debei & Avison, 2010; Shafer et al., 2005). The business model can therefore be seen as intermediate layer between strategy formulation and strategy implementation. Additionally, the business model concept acts as a two-way tool in terms of displaying the strategy in more detail but also allowing to reassess strategic decisions or lack of such right away. Therefore, it is possible that the business model initializes a re-evaluation of the strategy before implementation, as suggested in the strategy process model.

(subject to secrecy)

4.4.1. Business Model Process Insights: reconsideration of relationships, new sales channels and revenue options

(subject to secrecy)

4.5. Comments on the strategic fit and dynamics facets

As argued above, dynamics and strategic fit are core facets of the strategy framework. Therefore these two concepts have been considered within the strategy making process. Strategic fit and dynamics were integrated in this application in the notion of constant re-evaluation and analysis of the organizational strategy. Analyzed resources and competences were considered within the strategy as basis for value creation and in general context of internal and external factors. Such consideration included organizational culture, institutional context and a general fit between all components. Apart from evaluating internal and external fit and structure re-evaluation of the strategy through uncertainty and strategic fit necessity, internal and external variations impacting previously made decision need to be accounted for, too. Adoption of the strategy as described above, in combination with the evaluation of the changes concerning fit, show the importance of the two facets within the strategy making process.

4.6. Empirical testing of the practical strategy results of Kryoz

In order to test if the proposed framework positively affects the strategy making process, a comparison of the previous strategy created without, and a new strategy created with help of the framework is performed. As the business model facet had not been applied for the prior strategy, a comparison of this aspect is invalid. Never the less, the business model is considered a fundamental part of the strategy making framework and therefore should be considered for determination of the usefulness of the framework. Consequently, the results of the applied business model concept were tested through qualitative interviews in order to determine if the concept facilitated the strategy process. Additionally, the business model concept as part of the strategy process is argued not only to support visualization, but also helping to reassess and improve the strategy. Therefore, reconsiderations as results of the practical application are being tested via the interviews as well.

The results from drawing up and communicating the business model already showed that the business model indeed functioned as tool to elaborate and redefine the strategy by offering a different perspective and focus, and so supporting the assertion that the suggested framework might improve strategy making through the suggested integration of strategy theory and business model concept. Several effects of using the suggested framework and in the order suggested also demonstrated that the strategy creation phase model is realistic. To further test and verify the results of the strategy framework application, an empirical evaluation, in form of qualitative interviews with possible customers and industry experts in the field of cryogenics, was carried out. Goal of this empirical testing was the provision of evidence that the strategy framework resulted in valuable insights and decisions for Kryoz's strategy and the testing of new suggestions from the brainstorming.

While applying the simple recursive abstraction method to analyze the interview data, relevance and accuracy as validating criteria of the suggested elements are compared to the empirical data. The interviews related to the testing of Kryoz's value proposition, and therefore the unique selling proposition, target segment and sales channels, as well as revenue and customer relationships. As other factors like the value infrastructure and value network are directly related and influencing those tested factors, it can be assumed that a positive confirmation of the factors allows inference on the viability of the other factors. Even though inference does not prove cause, it could be argued that prove of correlation is sufficient (King et al., 2001).

(subject to secrecy)

5. Discussion and Conclusion

The business model concept is argued to be an essential tool to the success of organizational performance, however its definition, its place within the fields of academia, as well as its relation to strategy are rather unclear (Al-Debei & Avison, 2010; Seddon & Lewis, 2003). This thesis presents a framework to suggest a way of explaining strategy and business model in context, building upon an extensive literature analysis. It is proposed that the business model concept is related to the field of business strategy and integrates within the strategy making process of organizations. More specifically, the business model is seen as a complementary concept to visualize and explain the business logic of a firm and the corresponding strategic decisions. The business model can further act as instrument to better implement the strategic decisions within the organization, and help improve and enhance the corporate strategy, including a bottom-up approach.

5.1. Key Findings

Building on a profound overview of key research streams, main theories and concepts of strategy and business model literature, the function of the business model within the strategy context is explained. Furthermore, the strategy creation process is explicated according to creation phases and level of analysis, suggesting that the strategy making process should be ongoing, dynamic and related to all levels of the organizational hierarchy. Following, a detailed outline on the strategy process via the framework on the strategy making process is presented. The suggested framework for the integration of strategy and business model includes four steps, namely strategic position analysis, strategic choices, business model and implementation phases. The framework is further complemented by the notion of strategic fit and constant dynamic reevaluation of the components. Due to limitations of this thesis project, the strategy implementation was however excluded from further analysis.

In order to test if the framework positively influences the organizational strategy making, it was applied within the context of a high-tech start-up. The practical application of the framework and the resulting conclusions showed positive effects. A comparison of the previous strategy, created without use of the suggested framework, with the new strategy showed considerable differences in magnitude, level of analysis and depth of decision making. Moreover, framework components like institutional context, organizational culture or SBU's had not been considered previously and were added successfully to the strategy, making it more comprehensive. Other strategic elements were only defined superficially before, due to lack of acknowledgement of their importance to the strategy making. As a result, the comparison of former and novel strategy indicates a support for the usefulness and practicality of the suggested strategy making framework.

To further test the positive effect of the framework on the strategy creation process, the practical results were evaluated and tested via empirical research. The testing was done via semi-structured, qualitative interviews with potential customers, user of the applicable technology, and experts in the related field. The interviews showed that the new strategy in fact suitable in terms of value proposition, and therefore the unique selling proposition, target segment and sales channels, as well as revenue and customer relationships. Moreover, it was demonstrated that the business model concept as integral part of strategy, as well as the suggested reanalysis and constant dynamic reevaluation, positively affects strategy making. New suggestions and refinements emerged, while communicating and presenting the business model to the company and its employees.

Concluding, strategy theory and the business model concept can be seen as related and even viewed as having a complementary function, as argued above. Business strategy is argued to relate to the achievement of competitive advantage over competitors and by creation and use of superb resources and capabilities, while business models emphasis on value proposition towards the customer, boundary-spanning value creation, as well as relationships, networks and value exchange. Integration of both notions within appears reasonable. The suggested framework proved valuable to the process of strategy creation and showed advantages over application of single concepts or theories.

5.2. Implications

As argued, strategy theory and business model literature show missing convergence, overlapping definitions and unclarity, especially associated with their relationship to one another. Moreover, the business model concept more and more replaces the traditional business strategy application, although it is argued that business models alone are not sufficient for the strategy making process in organizations. The suggested framework provides a framework to elaborate on the relation and interaction between strategy and business model, as well as proposing a holistic view on the incorporation of the major strategy theory streams within.

It is argued that strategy and business models are not only related, but in fact provide complementary functions for the strategy creation process. This is shown via the strategy process models, in which the application of the business model builds on strategic analysis and decisions. The integral strategy and business model framework then depicts this interaction in more detail, presenting the process model with specific components for the particular steps. Strategy as related to the achievement of competitive advantage over competitors and by creation and use of superb resources and capabilities is asserted to be complemented by the business models emphasis on value proposition towards the customer, boundary-spanning value creation, as well as relationships, networks and value exchange. Consequently, the framework is argued to provide a new perspective on the modus operandi of strategy creation.

Addressing the practitioner, the strategy making framework suggests how organizations should relate to strategy theory and proposes a tool for the practical application of such.

Providing a clear overview on major theories and concepts for the strategy process, the framework can facilitate the design of a better organizational strategy. The strategy process is thereby explained within several steps, containing the analysis, the decision making, communicating and enhancing the decisions via the business model concept and the implementation process. Furthermore, it is expressed that the process is dynamic, showing the need for constant reevaluation and the necessity of strategic fit between all components.

Regarding the research questions, the suggested framework attempts to answer the need for a better overview on strategy theories, business model and their interaction, as well a means for the application of such. Sub-question one and two are addressed via an extensive overview on the historic development and current state of research to provide a basis for the development of a comprehensive overview. The process model and the strategy making framework, as response to research sub-question three, are then applied in practice to answer sub-question four. Results of the strategy developed by help of the framework appear suitable, feasible and show a more comprehensive approach to the strategy making compared to the previous effort. Therefore, it can be implied that the framework indeed provides a comprehensive overview, as well as means for the practical application of such and consequently answers the research problem statement.

Relating to the practical application of the framework, it is argued that indeed the comprehensiveness, as well as the combination of strategy and business model perspective can result in better strategies. It was shown that a structure and pattern-providing framework for the strategy making process can positively influence and expand the decision making. Additionally, the notion of constant reevaluation and dynamism is an important aspect to be considered in the context of real world application and consequently added to the concepts. Constant evaluation and dynamic processes are needed to face the changing environments and conditions.

5.3. Recommendations to Kryoz

(subject to secrecy)

5.4. Limitations and Further Research

The suggested framework in this thesis is built on the contributions of an extensive number of academic resources and the inherent findings and assertions. The author acknowledges that neither the citied literature, the assumptions within, nor the conclusions from it are necessarily without flaws. The practical application of the framework, to test the validity towards better strategy making, as well as the empirical testing of the practical results are therefore used to confirm the usefulness of the suggested model. It is recommended though, to further test and validate the propositions, especially as the practical application was cross-sectional and company-specific in terms. Therefore, the use of other methodological approaches, particularly company comparisons and long-term studies are suggested.

The strategy making framework is created not only to understand the content of strategy, business model and its delimitations, it is also meant to be applied in a practical manner for the creation of organizational strategies. At the same time, the framework comprises of a higher complexity than the single theories or concepts within the field of strategy. With so many factors being taken into consideration, a certain ambiguity on its application and a determining of more exact causes for better strategy making are difficult to pinpoint. Therefore, further research on the single theories and concepts within the framework should provide better ground for successful assessment of beneficial factors to strategy.

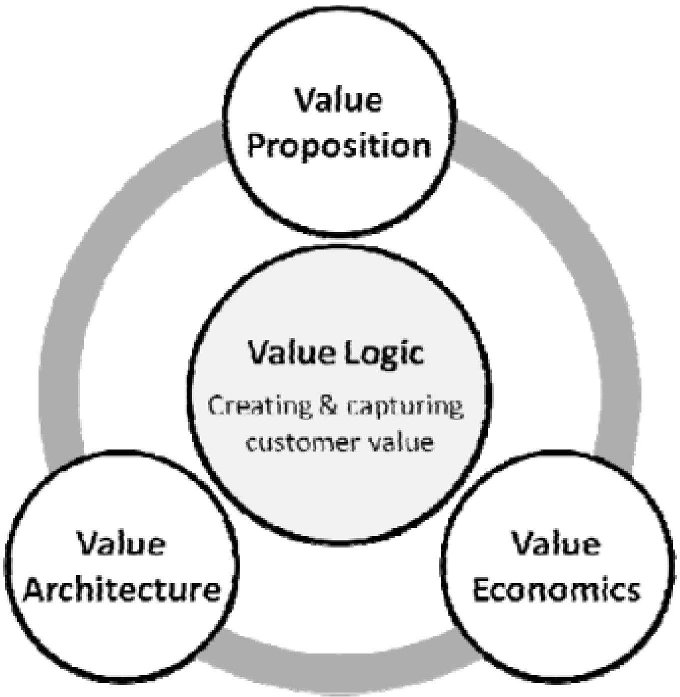
Appendices

Appendix 1: Interview partner for the empirical research

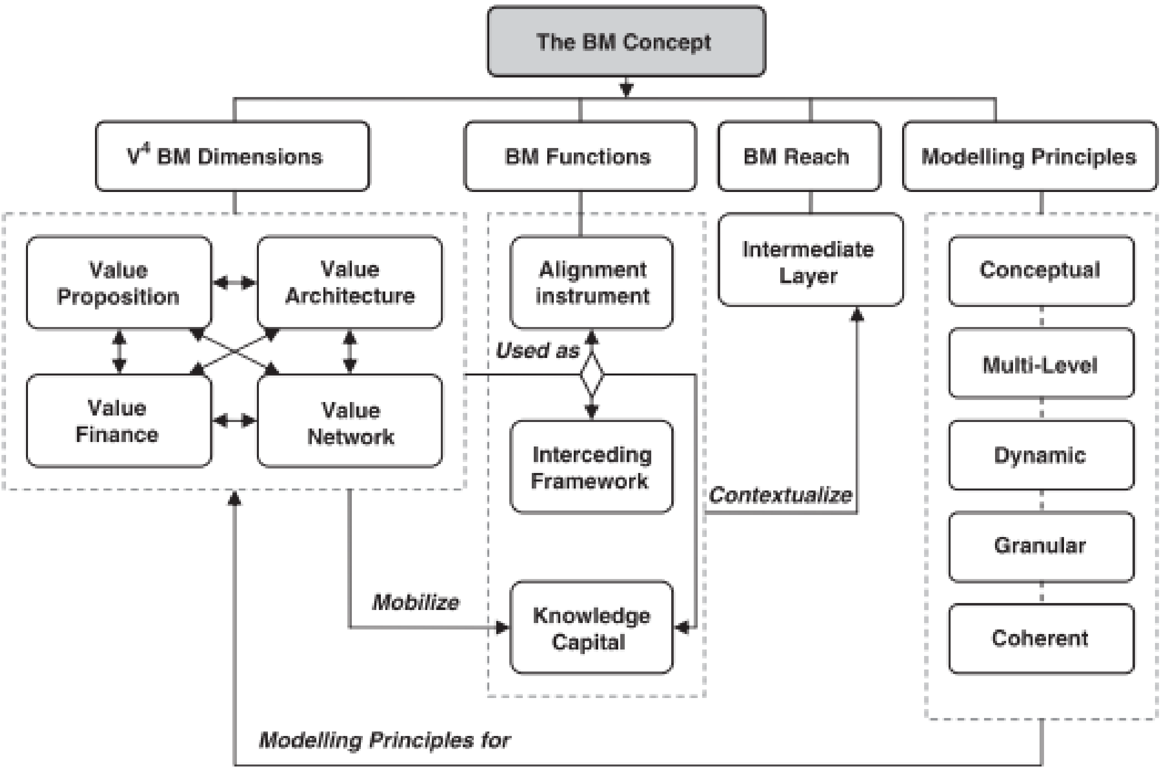
(subject to secrecy)

Appendix 2: Conceptualization of a business model framework by Fielts (2011)

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



Appendix 3: Unified framework of the business model concept by Al-Debei and Avison (2010)



BM facets	*BM classes*	*Brief description*	*Representative literature*
V^4 BM dimensions	(1) Value proposition	A way that demonstrates the business logic of creating value for customers and/or to each party involved through offering products and services that satisfy the needs of their target segments.	Amit & Zott (2001), Petrovic *et al.* (2001), Magretta (2002), Osterwalder *et al.* (2005).
	(2) Value architecture	An architecture for the organization including its technological architecture and organizational infrastructure that allows the provisioning of products and services in addition to information flows.	Timmers (1998), Venkatraman & Henderson (1998).
	(3) Value network	A way in which an organization enables transactions through coordination and collaboration among parties and multiple companies.	Amit & Zott (2001), Gordijn & Akkermans (2001), Bouwman (2002).
	(4) Value finance	A way in which organizations manage issues related to costing, pricing, and revenue breakdown to sustain and improve its creation of revenue.	Timmers (1998), Linder & Cantrell (2000), Rappa (2008).
Modeling principles	(5) Conceptual	A conceptual tool, an abstraction and a blueprint of the existing business and/or the future planned business.	Stähler (2002), Osterwalder *et al.* (2005), Haaker *et al.* (2006).
	(6) Multi-level	A way of designing, analyzing and evaluating different units or levels within organizations such as products and services, business unit, an organization, or even a network of organizations.	Magretta (2002), Kallio *et al.* (2006), Al-Debei *et al.* (2008a, b), Bouwman *et al.* (2008).
	(7) Dynamic	A dynamic concept as the BM configurations and design change over time reflecting internal and external variations.	Hedman & Kalling (2003), MacInnes (2005), Al-Debei *et al.* (2008a).
	(8) Granular	A grainy controllable way of designing and evaluating business as the concept is subdivided into manageable elements.	Gordijn & Akkermans (2001), Osterwalder *et al.* (2005), Shafer *et al.* (2005).
	(9) Coherent	A comprehensive way of depicting a particular business entirely taking into consideration the interlinks between its different aspects.	Chesbrough & Rosenbloom (2002), Al-Debei & Fitzgerald (2010).
BM reach	(10) Intermediate layer	An interface or a theoretical intermediate layer between the business strategy and the ICT-enabled business processes. Nevertheless, it intersects with both: strategy and ICT-enabled business processes. The BM intersection with strategy represents a set of organization's strategic-oriented choices for business establishment and management, while its intersection with processes signifies a set of business implementation practices and functions.	Leem *et al.* (2004), Morris *et al.* (2005), Shafer *et al.* (2005), Kallio *et al.* (2006), Rajala & Westerlund (2007), Al-Debei *et al.* (2008a).
BM Functions	(11) Alignment instrument	A theoretical tool of alignment providing a crucial instrument (i.e. bridge) for improving harmonization and consistency among strategy and business process including their supportive information systems.	Campanovo & Pigneur (2003), Osterwalder *et al.* (2005), Al-Debei *et al.* (2008a).
	(12) Interceding framework	A mediating construct or framework that connects technological potentials and innovations with the realization of economic value and the achievement of strategic outcomes.	Chesbrough & Rosenbloom (2002), Kamoun (2008), Al-Debei & Fitzgerald (2010).
	(13) Knowledge capital	An intangible and tactical information/knowledge asset useful in supporting strategic decision-making functions, and thus valuable in providing the organization with an enduring competitive advantage.	Venkatraman & Henderson (1998), Al-Debei *et al.* (2008a, b).

Appendix 4: Overview of Kryoz products as presented before start of the thesis project

(subject to secrecy)

Appendix 5: Research diary of company-internal work with the management of Kryoz

(subject to secrecy)

Appendix 6: Practical application of the strategy framework at the example of Kryoz

(subject to secrecy)

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