



PhD-Thesis

**AN EXPLORATION OF THE BUSINESS MODEL CONCEPT'S
MEANING AND USAGE IN SWITZERLAND: TOWARDS AN
APPLICATION FRAMEWORK**

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ABSTRACT

Although considered a popular and useful tool to support the creation of new enterprises and to develop existing businesses, the business model concept is used so widely and loosely that it may have no clear meaning in practice. A thorough literature review showed that the concept is often discussed theoretically and conceptually but there was a distinct lack of empirical studies of its conceptualisation and application. This research is intended to address this limitation in extant knowledge.

The broad research aim was to explore the conceptualisation and application of the business model concept within three Swiss communities of academics, training and consultancy professionals and small business owner-managers. Subsidiary aims were to explore the concept's perceived limitations, and the ways that members of the three communities have further refined the concept in order to address its shortcomings. To fulfil these aims, in-depth interviews were conducted with samples of 10 academics with expertise in business models, 13 business support professionals and 12 owner-managers of technology-based small businesses, all located in the German-speaking part of Switzerland.

The research findings revealed a high level of diversity in the interpretation and application of the business model concept and in evaluations of its usefulness, both within and across the three samples. There were some interesting general differences between the samples. The academics reflected ideas from the literature while support professionals also offered new application perspectives, but only rarely applied the concept in their work with firms. Only a few SME owner-managers applied the concept in any way and some were unaware of it.

The contributions include the finding that the business model concept is understood and applied differently across the three communities, a distinction being made between revenue and 'advanced' concept thinking, and the importance of time and emergence in the application of business model thinking. It is shown that SMEs are in a different business model development stage from start-ups and large firms, having different business model needs. The necessity of a framework assisting managers in the creation and diversification of revenue streams is proposed. As a final integrative contribution, the thesis concludes with a conceptual framework differentiating between the two main sub-units 'value proposition' and 'business architecture/logic' on the one side, and the two main purposes 'analysis/refinement' and 'creation' on the other side. This four-dimensional framework reduces complexity in application allows for making better-informed business model application decisions.

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DECLARATION

I herewith declare that the content of this thesis is my own work – except where noted and credited. I further declare that this PhD thesis was created in accordance with the guidelines and regulations of the University of Gloucestershire. I affirm that this thesis has not been submitted to any other educational institution in the United Kingdom or abroad or as part of any other academic award.

All views and opinions tendered in this PhD thesis are solely mine and not, in any way, those of the University of Gloucestershire.

Signed:

Date: 1 December 2018

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GLOSSARY

A	Abbreviation of the academic sample (A)
BIM	Building Information Modelling
BM	Business model
Canvas	Abbreviation for Business Model Canvas (Osterwalder, 2010)
CAS	Complex adaptive systems
E-newspaper	Electronic newspaper
ICT	Information and Communication Technology
Intrapreneur	An 'entrepreneur' within an established firm, having the same spirit as entrepreneurs normally have.
M	Abbreviation of the owner-manager sample (M)
Manager	Generic term of a manager. This term is only rarely used in the present thesis. To be more precise, it is distinguished between employed manager or owner-manager, since this differentiation is needed in the present study.
m-servie	Mobile service
PhD	Philosophical Doctor
Planfabrik	The author's firm
R&D	Research and Development
RPV-Theory	Theory about resources, processes, and values in a business model innovation context
S	Abbreviation of the support professional sample (S)

SME	Small and medium sized enterprise
TA	Thematic Analysis
Transaction model	An alternative type of business model visualization/representation using arrows between the building blocks to show the flow of money, resources and goods.
VPD	Value Proposition Designer according to (Osterwalder, Pigneur, Bernarda, & Smith, 2015)

1. Introduction

In this chapter, the author's professional background (as a technology-based SME owner-manager and business school lecturer) is briefly explained and contextualized with the research topic. A brief introduction shows why business models play a significant role in technology-based SMEs. Then, the business model concept's historical evolution is summarised, followed by the insight that only few empirical business model studies have been conducted, thus representing a gap in extant knowledge that the present study is addressing. The need for an exploratory study is outlined and justified. The rationale for changing the initial research focus is elaborated: a change from investigating just one community (managers) to three communities of academics, support professionals and owner-managers. The research aims and the research questions are then outlined. The chapter ends with an overview of the thesis document (structure and content).

1.1 Background to the research

1.1.1 The author's background relative to the research

The author's professional experience was important in shaping the topic of this research, so this linkage will be briefly explained. In this section, the author *"brackets himself out of the study by discussing personal experiences with the phenomenon"* (Creswell & Poth, 2017, p. 81).

The author has co-founded two firms, in one of which he currently works as co-owner-manager. In parallel to his entrepreneurial activities he has been acting as lecturer and supervisor at a university business school and as a coach in governmental training programs for many years. The focus of his activities has always been on innovation and business model generation. Based on his own entrepreneurial journey, he learned about the importance of business model thinking; in his own business he has successfully changed the business model relative to his competitors.

However, despite the author's enthusiasm for the business model concept, sobering key learning points have been that business model ideas, as taught at business

schools, are by far more complex to apply in practice than was expected, and that there is still only limited knowledge available to assist SME owner-managers in making informed business model application decisions. The insights from his entrepreneurial journey were complemented by learning from coaching business school students and SME managers. The author's observation can be summarised as follows: The term 'business model' is often used with no focused meaning in practice. Accordingly, the aim of the present doctoral project was to better understand how the business model concept is conceptualised and applied (in Switzerland) in order to draw inferences that aid understanding of business model application (contribution to knowledge) and that allow for applying the concept more successfully in practice (contribution to practice).

Side note: The author started off by undertaking a DBA programme, then transferred to PhD registration. The rationale for this change was that the author thought, based on the findings of the study, he could make a wider contribution to knowledge. Furthermore, the author can envisage a switch to an academic career at some point in the future and is aware that a PhD degree may be more appropriate to an academic environment.

1.1.2 The role of business models in non-R&D-intensive firms

Small firms often do not have the knowledge, the infrastructure, nor the resources, to conduct traditional basic research. Nevertheless, it can be observed that non-R&D-intensive firms have key positions in the economic value chain and contribute to innovation and growth (Kirner, Kinkel, & Jaeger, 2009). As recent empirical research shows, non-R&D-intensive firms are still very innovative (Rammer et al., 2011).

The author posits that business model innovation represents a formidable chance for such non-R&D-intensive firms to create sustainable competitive advantage. By contrast to traditional R&D activities in a technical or natural scientific sense, business model innovations are less resource-intensive – only limited by creativity – and may have at least the same impact as 'traditional' research initiatives may have these days (however, the most impact may be realised by combining basic research findings with business model innovation). As discussed later in the literature review

chapter, disruptive innovations (innovations focusing on the low-end segment of incumbents' customers – often seemingly unattractive segments to the incumbents) are almost always business model innovations representing an opportunity for new market entrants and small firms to compete with incumbent market-dominating firms (Christensen, 2002).

1.1.3 The geographical context for the research

The samples are mainly located in the German speaking part of Switzerland (two respondents, an academic and a support professional, recruited through the author's professionals network, are located in the French-speaking part). The focus has been given to technology-based owner-managed SMEs because (1) this type of firm is part of the 'backbone' of the Swiss economy, and (2) because the author is familiar with these firms, having his 'professional roots' in such firms – and, by consequence, also having his personal and professional network in this domain.

Switzerland is often considered the 'home of the business model concept' since local scholars and authors such as Stähler, Osterwalder, Pigneur, Gassmann have significantly contributed to the concept's development and evolution. Accordingly, the sample containing Swiss academics, technology-based owner-managed SMEs, and support professionals (as the link between academics and SMEs) reflects a coherent chain that allows for drawing a consistent '360-degree picture' of business model interpretation and application in Switzerland.

1.2 The business model concept in the literature

1.2.1 Origins and evolution of the concept

Some discrepancies exist in the literature concerning the origin of the business model concept. Some authors such as DaSilva and Trkman (2014) argue that the term 'business model' was first formally discussed in the year 1957 in an article by Bellman, Clark, Malcolm, Craft, and Ricciardi (1957) investigating the construction of business games for training purposes. The first time it was mentioned within a title in an academic journal was in an article written by Jones (1960) dealing with the

question how business college students should be trained and how new technologies should best be introduced to them.

Other authors such as Chesbrough and Rosenbloom (2002) claim that the business model concept has its origins in Chandler's seminal book 'Strategy and Structure'. Chandler stated that "*strategy can be defined as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals*" (Chandler, 1962, p. 13). According to Chesbrough and Rosenbloom (2002) further predecessors of the business model concept can be seen in the work of Ansoff (1965) on corporate strategy and the definition of Andrews (1980) of corporate and business strategy (Nielsen & Lund, 2014). However, the business model idea was connected ever since with the idea of representing reality through a model (DaSilva & Trkman, 2014).

From a more practice-oriented perspective Gassmann, Frankenberger, and Csik (2013a) have analysed the evolution of the business model concept back to the end of the ninetieth century, arguing that firms such as the Standard Oil Firm (Rockefeller) already used business model thinking in order to develop their businesses. For example, Standard Oil innovated by giving oil lamps away for free, thereby generating revenue from subsequent sales of oil – a so called "razor blade model", which was later adapted by firms such as Gillette or Hewlett Packard (Osterwalder & Pigneur, 2010). Figure 1 depicts an extract of the 'Business Model Innovation Map', visualising a set of 55 business model archetypes, which have been used and re-combined in various ways since the early twentieth century (Gassmann et al., 2013). Each 'colour line' in Figure 1 represents a business model and its development process (or development path) over time; the dots on the line represent a firm's adaptation of a specific model. For instance, the availability-leasing model (orange line) was adapted in 1957 by Selecta, then in 1995 by IBM and in 2005 by Hilti. Each adaptation may or may not change the model. Furthermore, some individual models may get in contact or may be unified with other models, such as the razor-blade-model and the multisided-platform model, unified by firms such as Apple (i.e. in 2003 by introducing the iTunes platform).

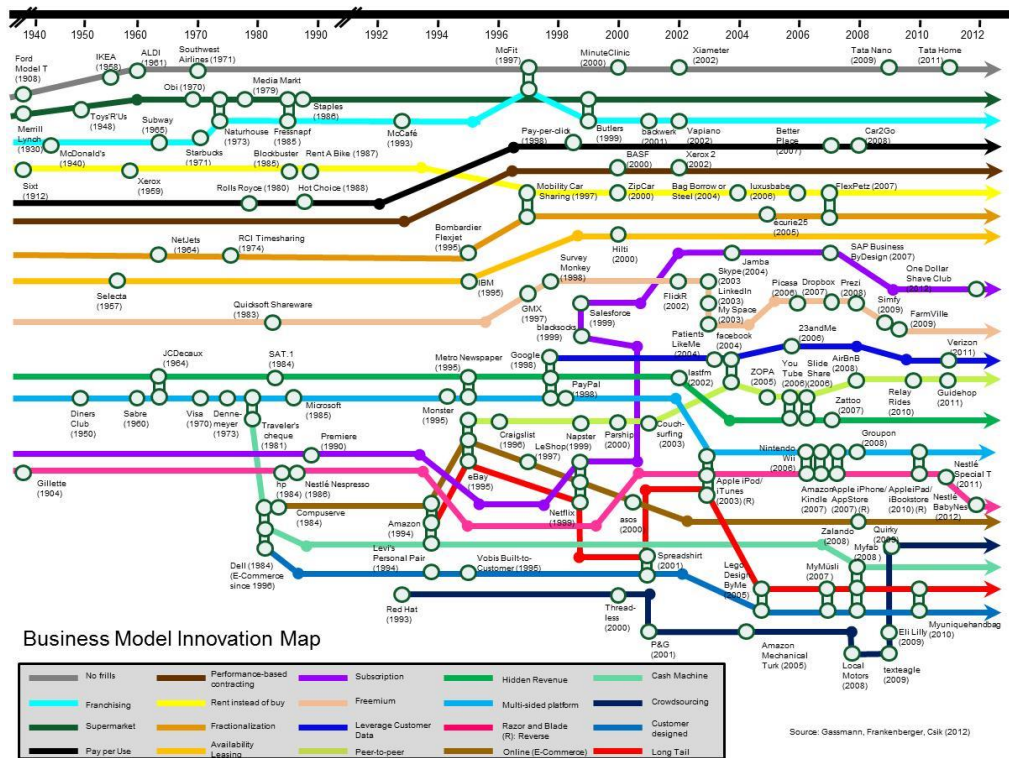


Figure 1: An extract of the business model innovation map showing the evolution of different business model archetypes between 1890 and 2013, according to Gassmann et al. (2013).

1.2.2 The ‘dotcom bubble’ and the proliferation of the concept

However, the business model concept as we ‘know’ it today was propagated widely with the rise of NASDAQ stocks and became a buzzword in the Internet bubble era in the 1990s (DaSilva & Trkman, 2014), and with the rise of e-businesses and the ‘new economy’ the concept of the business model has proliferated (Amit & Zott, 2001; Osterwalder, 2004). Not only was it a shift of existing businesses to the Internet but also, in most cases, the business logic was changed fundamentally, so one could often hear that traditional ways of doing business would become obsolete (Merrifield, 2000). The rationale is that new elements of a business (such as customer relationships or revenue mechanisms) could be changed or replaced through Internet-based ‘components’; and the business model idea supported this way of thinking insofar that individual elements could be identified and selectively manipulated and, as a consequence, new business models could be designed. Accordingly, the term ‘business model’ was originally used to explain the logic of those new ICT businesses and became popular in this context. However, after the

burst of the so-called 'Internet bubble' around the year 2000, the business model idea seemed to be dead (Osterwalder, 2004).

1.2.3 The diffusion of the concept to other sectors

Since then, the business model concept has been adopted by practitioners and academics in all areas, well beyond e-businesses, to describe the core logic of a firm (DaSilva & Trkman, 2014; Frankenberger, Weiblen, Csik, & Gassmann, 2012). More specifically, the business model has been used to describe the overarching logic of how firms work by illustrating the relationship of individual elements acting together (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; McGrath, 2010; Osterwalder & Pigneur, 2010). A rigorous study of the published literature in academic and non-academic journals shows that the term 'business model' has become popular since the mid-nineties (Zott, Amit, & Massa, 2010). Figure 2 depicts the rise in use of the term business model in both academic and non-academic journals. The number of publications took off between 1990 and 1995 from almost zero to more than 1000 articles a year in 2010.

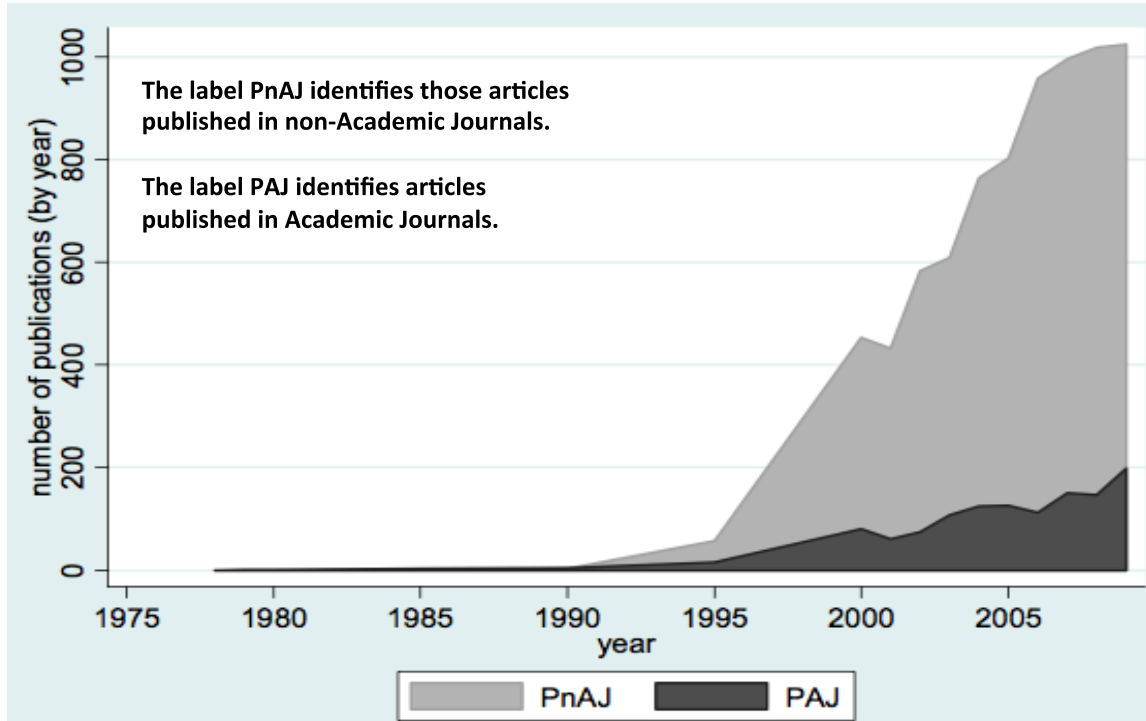


Figure 2: Number of published articles (Zott et al., 2010).

To conclude, most definitions of the term 'business model' and also of the business model concept originated in and directly after the Internet bubble era. As the review shows, the concept does not relate exclusively to Internet based businesses anymore. However, the argument here is that the idea still has a dot-com or e-business 'flavour', which may have influenced the perception of the idea in practice. Based on the review of the concept's history in literature, the author finally concludes that three main factors may have contributed to the way the concept is perceived today. Firstly, an ambiguous historical origin and evolution, the concept's meteoric rise in the dot-com and e-business era, associated with its steep fall directly after the burst of the so-called Internet bubble. Secondly, the business model idea may accordingly be strongly related to a myriad of unsuccessful new venture stories. And finally, an extension of the concept to all kind of business domains. Thus, the concept has gone through turbulent times in the past 20 years and may still be in a phase of consolidation.

Questions may arise as to why the business model concept has become that popular in both academia and practice. The author's argument here is that the concept's popularity is primarily based on intuitive and easily understandable frameworks, above all the Osterwalder (2010) Canvas, which may have contributed significantly to the concept's popularity today (the most prominent models and frameworks are reviewed in Chapter 2). On the other hand, digitalisation has brought about new phenomena, which could no longer be understood and explained using traditional management concepts. New ideas were needed, representing the birth of the business model concept; hence, the emergence of business model thinking is inseparable from the challenge digital technologies have made to existing managerial concepts (Stähler, 2002).

1.2.4 The lack of empirical studies of application

The term 'business model' is often broadly defined or unspecific (Osterwalder, Pigneur, & Tucci, 2005), or authors give no clear definition when using it (Timmers, 1998). Yet, based on its popularity many disciplines are interested in the idea, which has led to many industry-specific understandings (Günzel & Holm, 2013). Accordingly, business models can be described in various ways; hence, there is a

wide variety of interpretations of the term 'business model' (Page, 2014) and numerous applications such as strategy, entrepreneurship, marketing, or business communication (Klang, Wallnöfer, & Hacklin, 2014). However, most business model studies remain conceptual and theoretical (Hacklin, Minato, & Kobayashi, 2015), and, as can be observed with other nascent fields – such as small enterprise and organisational science – a lack of empirical studies leads to an increasing number of concepts (Lambert, 2015).

To conclude, the point here is that there exists a tension between the various applications of the concept on the one hand, and the foremost conceptual/theoretical research on the other. The argument is that the concept should be refined by specific industries or communities working with it in order to be useful. Thus, an empirical exploration of how the business world really understands, perceives and applies the concept represents an important gap in extant research.

1.3 Evolution of the research topic

1.3.1 The need for an exploratory study

Based on the author's observations of interpretation and practical application of the business model concept, and a gap identified in the literature (a lack of empirical studies regarding the business world's perception and application of the business model concept), the purpose of this research project is exploration, since "*an exploratory study is a valuable means to finding out 'what is happening; to seek new insights; to ask questions and to assess phenomena in a new light'*" (Robson, 2002, p. 59, cited in Saunders, 2009, p. 139).

The phenomena under study are the ways in which the business model concept is understood, perceived and applied in the Swiss business world; hence, a set of various highly complex phenomena to be investigated (understanding, perception, application). These phenomena will be explored in a new light by investigating the three communities of academics, support professionals, and small business owner-managers, a choice of sample forming a coherent link between academia and practice. Accordingly, the research purpose and research design must allow for a broad exploration of these phenomena. This has been achieved by an exploratory

research purpose, combined with a research design based on individual interviews. This represents an approach that meets the underlying philosophical considerations and allows for accessing respondents' thoughts as they emerge, within the paradigm of social constructionism, as discussed in Chapter 4.

1.3.2 Clarification of the research focus

At the beginning of the project, the author intended to investigate managers (with no distinction between employed or owner-managers), since the argument was that managers, no matter of which type, represent those people who finally apply business models in practice. At the beginning of the present study, the author had an excellent opportunity to interview 8 managers as part of an exploratory preliminary study. 5 out of 8 SME managers were interviewed in a business model workshop organised by a governmental innovation promotion agency, where the author acted as a coach. All 5 managers were employed managers. The interviews were complemented by 3 respondents of the author's network (1 employed manager, 1 owner-manager, 1 start-up manager). The initial focus of the study, namely to investigate SME managers (mostly employed managers), then has changed due to the findings of this preliminary study. A key learning point was that only limited diversity and new insights can be found in firms managed by employed managers. Accordingly, the research focus was clarified and adapted as follows.

Firstly, based on the author's experience with academics and support professionals – as part of his university career – he concluded that more diverse ideas and perspectives would be gained by means of a sampling design consisting of several different communities. Accordingly, the sample was expanded to include academics, support professionals (as the link between the academic and the practical world), and SME owner-managers, which may represent a coherent chain between academia and practice.

Secondly, the focus of the management community was changed towards owner-managers. The rationale for the shift from employed to owner-managers was that owner-managers were assumed be more interested in new concepts, tending to be more 'innovative' since they develop their own businesses for which they feel

responsibility, in comparison with employed managers who may see their position in a more temporary way, focusing on short-time success (financially motivated) and shareholder interests. This assumption was reinforced by the author's personal background and situation as an owner-manager, always being interested in new ideas and developing his business through innovation. Following this line of reasoning, more diverse ideas were expected to be found in the owner-manager community.

1.4 Research aims, objectives and research questions

1.4.1 Research aim

The research aim derived from the author's observation that the term 'business model' may have no focused meaning in practice and the lack of empirical studies revealed in the literature review. The broad aim of the research was to explore the interpretation and application of the business model concept by means of an empirical study and thus to develop an original contribution to knowledge.

1.4.2 Research objectives

The specific objectives of the research were threefold. First, the project aims to increase understanding of the ways in which the business model concept is conceptualised and applied in three Swiss communities; the technology-based small business owner-manager world, the community of academics dealing with business models in their research, and the support professional community. As further elaborated in the methodology chapter, business support professionals and local academics have been selected to complement small business owner-managers in order to increase information and diversity, a research design that allows for drawing a coherent "360-degree picture" between academia and practice. Secondly, limitations of the business model concept are explored and discussed. Third, adaptations of the concept, as performed by the three communities (based on perceived shortcomings), are investigated. Thus, the following research objectives have been formulated:

1. To explore the conceptualisation and application of the business model concept by Swiss academics, training and consultancy professionals and small business owner-managers.
2. To investigate the shortcomings and limitations of the business model concept, as perceived within the three communities.
3. To understand how members of the three communities have further developed the business model concept in order to deal with the concept's limitations.

1.4.3 Research questions

Based on the research aims, the following research questions have been posed, each addressing the three research aims using a funnel-like approach, focusing the questions down from a broad descriptive question (RQ1) to increasingly more specific questions (RQ2 and RQ3):

- RQ1: How is the business model concept perceived, conceptualised and applied within the three Swiss communities of local academics, business support professionals, and technology-based small business owner-managers?
- RQ2: What are the shortcomings and limitations of the business model concept, as perceived within the three communities?
- RQ3: How has the business model concept been adapted or further developed within the three communities?

1.5 **Structure of the thesis**

Chapter 1 – Introduction: The author's personal and professional background is outlined as starting point of the research. The research topic is introduced, the necessity of the research is discussed, elaborated and justified, and the research aims as well as the research questions are presented, before finally giving an overview of the thesis document.

Chapter 2 – Literature review: A comprehensive narrative-style literature review presents the current state of knowledge, starting from broad topics currently widely discussed in the business model world, narrowing down to more specific ideas at the

periphery of the concept (such as complexity theory). Then, a special focus is given to empirical and conceptual studies conducted in the field – the conclusions have been used to inform the methodological chapter. Finally, a research gap revealing a lack of empirical business model studies is presented and discussed.

Chapter 3 – Exploratory study: This chapter is devoted to an exploratory study discussing the results of 8 exploratory interviews with Swiss SME managers. This ‘preliminary study’ was conducted to better understand and learn more about the diversity of perceptions and applications of the business model concept. At the start of the project, little was understood about this diversity – so this study was designed to inform the research design, as documented in Chapter 4.

Chapter 4 – Methodology and methods: In this chapter, the philosophical and methodological fundamentals for the main study are discussed and developed by outlining various alternative research purposes and strategies and justifying the choices made. A special focus is given to the sampling strategy, justifying the choice of a judgmental (purposive) approach. In total, 35 respondents were interviewed (10 academics, 13 support professionals, 12 owner-managers). The choice of respondents is discussed in this chapter. The development of the research instruments and the data analysis process are also part of this chapter, as well as a discussion of specific quality criteria.

Chapter 5 – Findings and discussion: The findings are discussed following the themes identified in the data analysis. 8 main themes are revealed. Conclusions are drawn for each theme and discussed community by community. Chapter 5 closes with a summary of the findings and the author’s interpretation – bringing in his own voice.

Chapter 6 – Conclusions: The research questions are answered and contributions to knowledge and practice are presented and discussed. The limitations of the research are discussed, as well as a further research agenda. The chapter closes with the author’s personal reflection on the research journey.

1.6 A note on terminology

In Switzerland, especially in colloquial language, there is sometimes confusion between the terms 'entrepreneur', 'start-up founder', 'manager', 'owner-manager' and 'start-up'. For instance, an entrepreneur is not just a new venture founder and a new venture founder is not necessarily a start-up founder. This section clarifies the way the terms are used in the present thesis.

1.6.1 Employed manager

A manager with no (or only minor) shareholding in the firm he manages – i.e. someone for whom the management position is a paid job. He or she could easily change employment when offered a better opportunity.

1.6.2 Entrepreneur

On the one hand, the term is often used for someone having founded his own new business. On the other hand, it can also be used synonymously with owner-manager. The term is avoided in the present thesis when discussing the samples. The author understands the term 'entrepreneur' following the entrepreneurship literature, as someone who not simply 'manages' a new or existing business, but as someone who explores and exploits new opportunities – no matter whether he is the owner or employed in the firm. The author sees himself and his firm as entrepreneurial. However, the respondents in the interviews are not always easily identified as entrepreneurs or as owner-managers. Additionally, someone having founded a start-up may also be an entrepreneur in this above sense. Accordingly, the terms owner-manager or start-up founder are preferred; just to be clear, although some of them may in fact be entrepreneurs in the above sense too.

1.6.3 Owner-manager

An owner-manager is owner or shareholder (co-owner) of the firm he or she manages. It does not matter whether he is owner of a new or an existing firm (often owner of a family business). In the present thesis, entrepreneurs are also called owner-managers, since the two groups are often hard to distinguish from each other.

By contrast, start-up founders are clearly distinguished from traditional me-too business founders (see the following sub-sections).

1.6.4 Start-up

Historically, the term start-up was used for each type of new business / new venture, so each new firm was labelled a 'start-up'. Today, in some languages, countries and contexts, the term 'start-up' refers to a special type of new firm, which aims at developing a new innovative business model around a new product or service. In this sense, a start-up is a newly emerged and fast growing business that aims at developing and evaluating a scalable business model (Katila, Chen, & Piezunka, 2012; Robehmed, 2013). Although some start-ups have developed into large and influential firms, most of them fail (Griffith, 2014), so there are high (financial) risks start-ups must take. As a consequence, alternative forms of investments such as seed capital, crowd founding, business angels etc. are needed, rather than traditional bank funding. In the present work the definition from Blank (2013) has been applied, understanding a start-up as a temporary organisation looking for a new viable, repeatable and scalable business model (where the emphasis is on repeatable and scalable). The rationale for the choice of the Blank (2013) definition is as follows: The work of Blank, who frequently collaborates with Osterwalder, has mainly influenced the way the start-up concept is understood at Swiss business schools, as perceived by the author.

The term start-up, as used in the present thesis, refers to a special type of new venture. This also reflects the author's usage of the term start-up in practice, based on the way he perceives the term to be used in Switzerland, in the contexts in which he is active.

1.6.5 Start-up founder

Based on the considerations of the term start-up, managers having founded their own me-too business, such as an engineering office with no changes in the business model relative to its competitors – particularly regarding repeatability and scalability – have been labelled owner-managers rather than start-up founders. Thus, firms who

aim at realising high rates of growth, based on an innovative business model (that aims at scalability), are referred to as start-ups (3 such firms have been included in the sample). By contrast, in the same sample the founder of an architectural office operating a standard business model for his sector has been labelled as an 'owner-manager' rather than a 'start-up founder' even though he only recently founded his business (about 3 years ago).

2. Literature Review

The chapter begins with a review of the role of models in business. Then, a set of definitions are discussed, incorporating the three key terms 'business', 'model', and 'business model', drawing conclusions of the very nature of the business model concept regarding the basic terms building it up. The review then elaborates the importance of the business model concept, and starts with widely discussed business model issues such as revenue thinking, strategy, technology management, the role of business models in start-ups, value creation using business model thinking, or entrepreneurship as source of new business models. Thus, themes in the context of which the business model concept has become popular, and currently is popular. But also, themes and aspects at the periphery of the concept are addressed and reviewed, such as complexity theory, the considerations of futurist Jeremy Rifkin regarding a 'zero marginal cost society' (Rifkin, 2014), and the role that business models could play in such a society.

The review then narrows down to more specific topics by investigating existing empirical and conceptual studies in the field. The chapter concludes that there are only few empirical studies in the business model domain, and this lack of empirical studies has been identified as a viable research gap to be addressed. Furthermore, the literature review reveals arguments as to why business models are very complex concepts and so their perception and application involve complex sets of phenomena – an insight, which is further elaborated in the methodology chapter.

The present literature review is a narrative style rather than a systematic review. The rationale is that business models are a recent arrival in the management world. Ideas are distributed over many disciplines, not yet fully structured. Accordingly, a narrative style review allows for a richer exploration of dispersed concepts and ideas.

2.1 The role of models in business and management

As a preparation for an in-depth investigation of the business model concept in the present literature review, the role of models in business and management will be reviewed in this section. This brief review will aim to contextualise the business model concept within a wider landscape of models. A broad literature review in terms

of possible types of models in the business domain reveals various bodies of knowledge, in which these models are researched and presented. Accordingly, models are embedded in economic literature, business literature, small business and entrepreneurship literature, and in highly specialised sub-domains (i.e. business processes, marketing, innovation management, customer behaviour, performance management, etc.).

Based on the analysis of the various types of models and respective bodies of knowledge, a 4-way classification can be developed as follows:

1. Type 1: macro-economic models. These models deal with the economy of whole countries but also with the interaction of multiple national economies.
2. Type 2: 'integrative models'. these are models that conceptualise firms within their economic context and broader ecosystem.
3. Type 3: business models that conceptualise entire businesses, with the individual firm as the unit of analysis. (These models are the focus of this study).
4. Type 4: 'business sub-system models'. These models conceptualise aspects of a business within the boundaries of an individual firm, such as business process and knowledge management models. These models may also connect with the external environment in specific areas, such as project management or supply chain models.

Although this conceptualization has emerged in this review, it is introduced at the beginning of the present section since it provides a structure for a more detailed examination of the role of models in business. There is a plethora of models across these categories, with a high level of diversity. The author therefore considers a discussion on a broad conceptual level adequate for the purpose of contextualisation, since reviewing every model that has been introduced into the business world would be disproportionate to this thesis, and furthermore would not necessarily provide additional insights.

Figure 3 depicts the developed conceptual framework illustrating the several model types described in literature. The present review discusses the 4 types and the relationship between them.

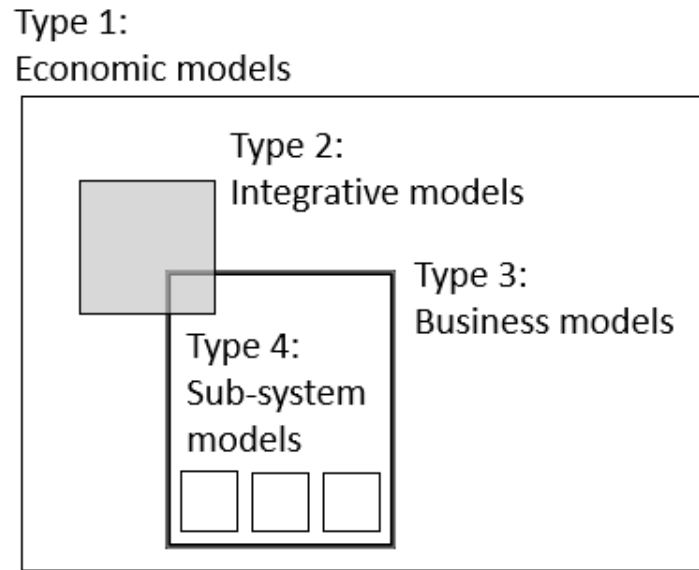


Figure 3: Conceptual framework of models in business. Author (2018).

As discussed above, the aim of the present review is not to provide an exhaustive list of every model that has ever been developed within the business domain but to provide a conceptual overview of the role of different categories of model. This facilitates a discussion of the business model concept relative to other ‘model constructs’ and the contextualisation of the business model concept within a wider ‘model landscape’.

2.1.1 Economic models

The first category, represented by economic models, includes concepts such as the following:

- Business Cycle Models, which deal with business cycles of entire economies, addressing questions such as whether countries “... *who trade more with each other have more closely synchronized business cycles?*” (Kose & Yi, 2006, p. 268).
- ARCH/GARCH Models. These represent a category of statistical models that deal with time series analysis. They are used to solve financial problems in economic contexts, showing whether investments increase or decrease per time period (Engle, 2001).

- Standard Volatility Models are used in decision-making processes in modern finance theory. They are used for derivative pricing purposes. They are based on parameter estimation techniques. ARCH Models are also a category of volatility model. A differentiating factor between volatility models is their ability to deal with different frequencies in the data – hence with data processing speed (Andersen & Bollerslev, 1998).
- Open Economy Models deal with driving forces of business cycles in economies (Christiano, Trabandt, & Walentin, 2011).

This non-exhaustive list of economic models (there are many more described in the literature) shows that economic models play an important role in attempting to predict behaviour on a larger scale. The focus of such models is the whole economy. They are used to predict short and long-term behaviour, offering various outputs depending on the interests of those using them (financial experts, national economists, etc.).

Economic models are mostly quantitative in nature, using the language of mathematics and statistics. The purpose of economic models is not only to understand market dynamics but also to predict future behaviour. The quality of such models may be measured by the predictive power they have (i.e. for financial forecasts).

2.1.2 Integrative models

Integrative models are considered another type of model with a special role. Their purpose is to unify broader economic ideas at the level of the firm. One of the most prominent kind of integrative models is the so called ‘St. Gallen Management Model’, which was first published by Ulrich (1972) and further developed by Rüegg-Stürm (2003). Figure 4 depicts the St. Gallen Management Model, which unifies society, nature, and technology, with the economic context, in which the firm is positioned at the centre. Processes, strategy, structure and culture, as well as innovation

(optimisation or renewal) finally make up the business standing at the centre of the model¹.

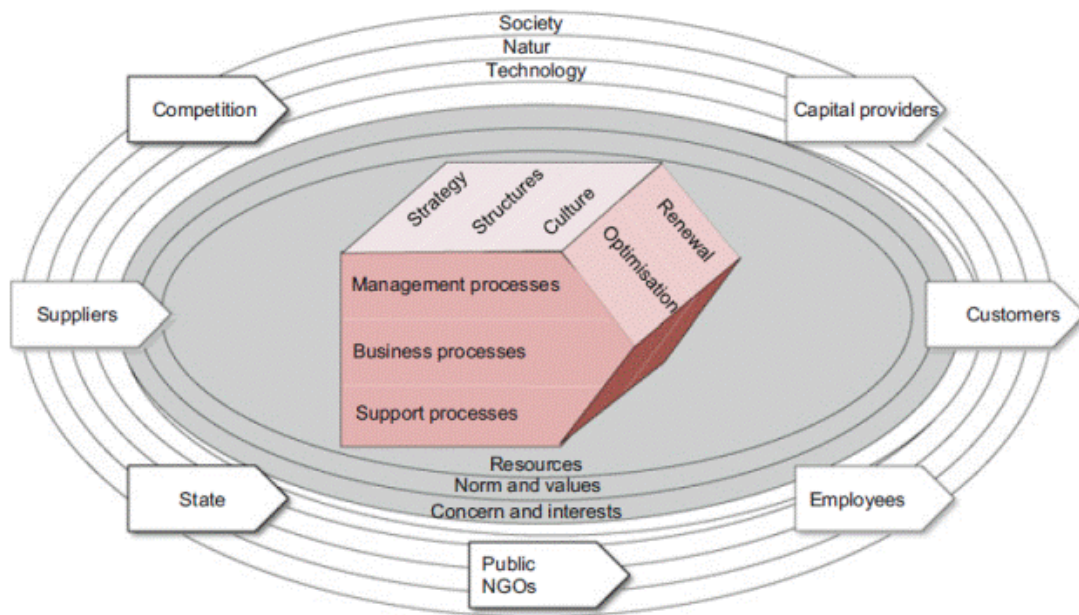


Figure 4: St Gallen Management Model according to Rüegg-Stürm (2003).

Beside the well-established St. Gallen model, there are plenty of additional 'integrative' or business ecosystem models. One of which, for example, is the model from Moore (2006), emphasizing the technology factor, arguing that firms act together through technological platforms that set up the ecosystem. He argues that technological firms might build up an ecosystem in which organisations can flourish (Moore, 2006). He understands the following factors to be determinants of an ecosystem model:

- Actors.
- Relations between actors.
- Performance.
- Dynamics.
- Strategies and behaviour of actors.

¹ In the St. Gallen Management Model the firm, as a unit, is represented by processes (management, business, support), strategy, structure and culture, as well as by an innovation perspective (renewal or optimisation). This can be seen as an alternative form of a business model or as an antecedent of it, since the St. Gallen Model is older than most currently popular business model frameworks.

He further distinguishes between 3 spheres of a firm and its business ecosystem: core business, extended enterprise, and business ecosystem. Figure 5 depicts the business ecosystem model introduced by Moore (2006).



Figure 5: Business ecosystem model according to Moore (2006).

Moore (2006) argues that firms must be analysed through an ecosystem perspective. The sum of individual firms acting together in an ecosystem, mainly through technological platforms, is the new unit of analysis as a whole. This unit finally not only determines the success of the network but also the success of the individual firms too.

An additional class of integrative models are entrepreneurship models such as 'Entrepreneurial Intention Models' as described by Krueger Jr., Reilly, and Carsrud (2000). The argument here is that entrepreneurs do not solely focus on their

organisation but are concerned about value for the society in which they engage. They sense 'what is in the air' and detect trends as basis for their organisation (or for building up a new venture). Hence, entrepreneurial models may form a link between an organisation and its environment, since entrepreneurial ideas often originate in society.

Integrative models have several roles. Above all, they provide understanding in a systemic way. Accordingly, the well-known St. Gallen Management Model is qualitative in nature. It helps to improve understanding of the issues in multiple dimensions that a firm is confronted with. It can be also be seen as a reflection-aiding model, that provides students and practitioners with a holistic picture of a firm.

2.1.3 Business Models

2.1.3.1 *Adapting a 'building block perspective'*

Business models, as we know the term today (e.g. represented by the Canvas), can clearly be separated from economic or ecosystem models since they just represent the firm. They were deliberately designed to represent the scope of a firm – they first appeared in the late 1990s. This was a time when new Internet-based phenomena could not be explained anymore (using existing tools at the time), so a new concept was needed. This was the birth of the business model concept (Stähler, 2002). The role of such business models is to break down an organisation into its constituent parts, showing relationships between the individual elements. This provides understanding and reveals a broader perspective. Although business models are 'closed systems', they possess connecting elements with the environment, e.g. through the building block key partners (in the case of the Canvas).

Focusing on the individual firm as the unit of analysis, one refers to the business model concept. As the literature shows, there are many definitions and frameworks. The most popular these days in Europe, as outlined by Wagner et al. (2015), are the Business Model Canvas (Osterwalder & Pigneur, 2010) and the Business Model Navigator (Gassmann, Frankenberger, & Csik, 2013).

However, the business model concept also has a tradition in the US with authors such as Linder and Cantrell (2001) focusing on the revenue side of business models, focusing on technology management and open business models (Chesbrough, 2004; Chesbrough & Rosenbloom, 2002), or Christensen (2002) focusing on the ‘disruptive’ side of business models. However, their models are conceptual in nature – they have not developed easily understandable frameworks such as the Osterwalder (2010) Canvas.

2.1.3.2 Porter’s value chain model

In Porter’s value chain model, the production of goods is arranged as a linear sequence of tasks. These tasks create value, therefore require resources and are connected through processes. The value chain concept was first introduced in Michael Porter’s seminal book ‘Competitive Advantage’ (Porter, 1985). Figure 6 depicts the value chain concept visually. On the one hand, there is a set of primary activities such as inbound logistics, operations, outbound logistics, etc. On the other hand, there are several support activities arranged orthogonally. These are firm infrastructure, human resource management, technology development, or procurement.

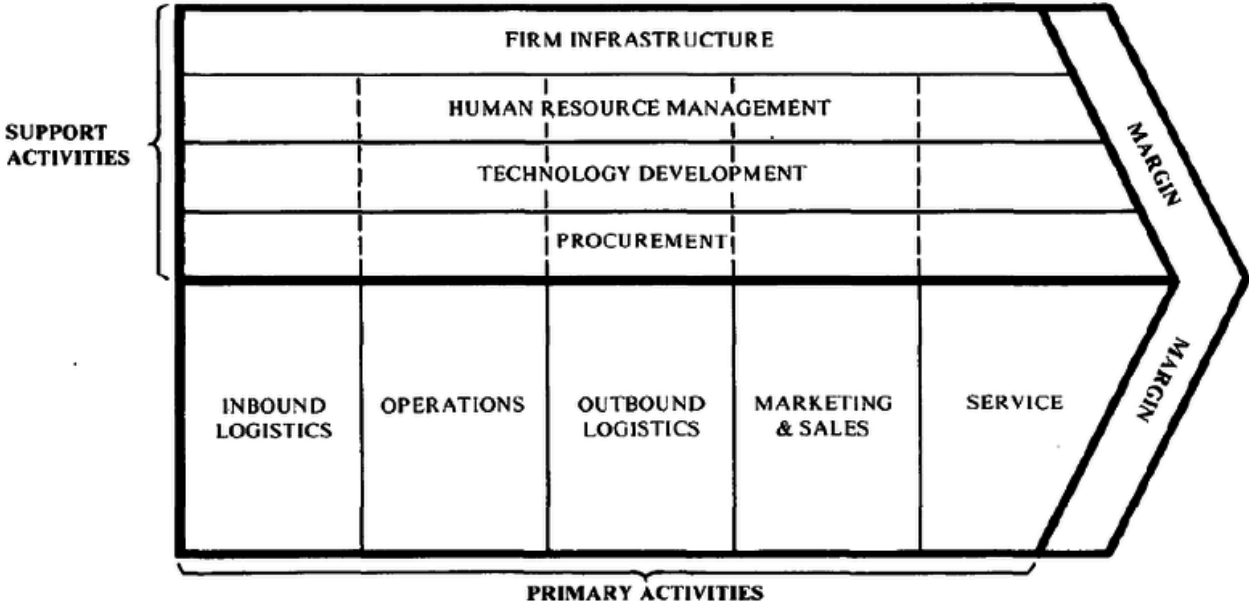


Figure 6: Porter's (1985) value chain model.

Porter's value chain model can be considered a special type of business model as it divides a business into primary and support activities. These activities can be visualized using building blocks.

However, compared to the currently popular business model concepts such as the Osterwalder (2010) Canvas, the value chain model is an activity model organised in processes, whereas business models outline the building blocks (elements) of a business. One of these building blocks may consist of key activities. Furthermore, building blocks may be connected through activities of any type. In summary, although building blocks may be used to visualise Porter's value chain model, it is essentially a process model and not a static business model. In the sense of the present thesis (see the discussion in section 2.2, defining the term 'business model').

2.1.3.3 Business plans as future projections of a firm

In a way, a business plan is a model of a firm's future position and performance in the market. Accordingly, a business plan is a document that clarifies where you want to be with your firm in the future (Horan, 2004) and how to get there. There is a separate section devoted to the difference between business models and business plans (see section 2.6).

2.1.3.4 The balanced scorecard as a model to steer business activities

The term strategy became popular in the 1960s and since then, 'strategy' has entered almost every domain in business. However, in the 1980s and 1990s people started to realise that there was a lack of knowledge in how to implement and apply strategic concepts. As a response to this, the 'balanced score card' framework was developed by Kaplan and Norton (1996).

The aim of the balanced scorecard is to assist managers in finding an optimal balance between long-term strategy and the required measures – the strength of the concept lies in its balance and a clear focus on application (Horváth & Kaufmann, 1998). It is an ideal instrument to fulfil the needs of strategic measurement systems including financial and non-financial measures (Norreklit, 2000). Within the balanced score card model, vision and strategy of a firm are determined by the following four main perspectives: financial, customers, internal processes, learning and growth

(Kaplan & Norton, 2000). Kaplan et al. (2000, p.1) argue that four main characteristics of a balanced score card stand out:

1. *“It is a top-down reflection of the company’s mission and strategy.*
2. *It is forward-looking.*
3. *It integrates external and internal measures.*
4. *It helps you focus.”*

The balanced score card has always been tightly linked with strategy, i.e. as an instrument to align management processes to the strategy (Kaplan & Norton, 2001). However, its application was also expanded to other areas such as supply chain management – areas in which a clear performance management is needed (Stölzle, Heusler, & Karrer, 2001).

To conclude, a balanced scorecard is considered a firm-level business model since it reduces a firm to four main dimensions of interest (financial, customers, internal processes, learning and growth). These four dimensions offer different perspectives of equal importance. In some way, the balanced scorecard is an antecedent of current business model frameworks such as the Canvas (Osterwalder, 2004). As such, the four main dimensions of the balanced score card represent key building blocks, or antecedents, of the Osterwalder (2010) Canvas (cost structure, customers, key processes, value proposition). Furthermore, the Canvas inherited the idea of a ‘balance’ between internal and external activities, or between ‘value’ and ‘cost’, from the balanced score card too.

2.1.3.5 Numerical modelling

Business models may be represented using building blocks showing the way a business works in a reductionist way by visualising how the various elements act together. However, a business may not only be modelled using building blocks and visual techniques, but also using numbers. There are two main ways of using numbers (normally, but not exclusively) financial measures, to model a business. On the one hand, a historical analysis can model the past performance of a business, using financial statements such as a profit and loss (or revenue) statement or a balance sheet. On the other hand, future performance can be modelled by using

spreadsheets to generate detailed forecasts of parameters such as sales, costs, profit and loss, cash flow and balance sheets. When properly integrated, these forecasts can provide a very detailed model of the future development of a business.

The balance sheet

According to Demerjian (2011, p. 180) “*The balance sheet views the valuation of assets and liabilities as the principal focus of financial reporting*”. In the static balance-sheet theory, one argues that the balance is the most important part of the accounting system (Leimgruber & Prochinig, 2002). The balance sheet is considered an important instrument for determining the net assets, for giving account to investors in terms of how their money is invested, and for displaying assets that cover liabilities (Leimgruber & Prochinig, 2002).

Forecast analyses are considered a special type of balance sheet model too. Forecast models of different types are used, such as sales forecasts or cashflow forecasts. Especially in new venture settings (but also for new products in existing firms etc.) forecasts are an important fund raising instrument and must include the following aspects: The expected turnover and net profit for the first year. The loan to be paid per year and how long it takes pay it off entirely. Furthermore, expectations for the second and the following years are often included (Blackwell, 2011).

To conclude, some type of balance sheets are static in nature and regulated in terms of form and content. Others, such as forecast models, may contain dynamic perspectives too (such as dynamic payback). They all allow for evaluating a firm making it comparable with other firms of the same type. The balance sheet is considered a business model in its own right focusing on financial aspects only. Compared to the Osterwalder (2010) Canvas – and other similar models – it is not designed to show how constituent parts of a firm act together (such as mapping the business architecture), but it shows a firm’s financial situation. These are two totally different purposes each of these models was designed to - but both are ‘models of a business’.

Spreadsheets

Spreadsheets, represented by software tools such as Microsoft Excel, may be the most frequently applied form of modelling used in business management.

Spreadsheets are often used as a decision-making instrument, mainly applied in financial analysis, budgeting, and forecasting (Teo & Tan, 1999). Accordingly, spreadsheets “(...) *have made a major contribution to financial analysis and problem solving processes*” (Kruck & Sheetz, 2001, p.1). Spreadsheets allow for exploring alternatives, or as stated by Grossman (2007, p. 1) “*Spreadsheets are a powerful modelling language, allowing strategic rapid model change, and enabling exploratory modelling*”. Furthermore, they are an ideal instrument for simulating business experiments (Seila, 2005). Grossman (2006, p. 18) summarised as follows: “*Spreadsheets are the primary vehicle for analytical work in business, are advantageous for modelling and model representation, and are used by management science practitioners as well as end-user modellers*”.

However, spreadsheets are not easy to use (Grossman, 2006), but decisions made using spreadsheets may have huge impact for the organisations; accordingly, accuracy is extremely important (Kruck & Sheetz, 2001). It was shown that inaccurate spreadsheet models may have impact on a firm’s competitiveness and profitability (Teo & Tan, 1999). It is widely acknowledged that there are many possible sources of errors when working with spreadsheets and there exists consensus that these errors must be eliminated. On the one hand, Powell, Baker, and Lawson (2008) investigated errors in spreadsheet models concluding that there are plenty of possible error sources, such as mistakes in logic, incorrect ranges in formulas, incorrect cell references, confused range names, incorrectly copied formulas, etc. On the other hand, a set of ideas was proposed to minimize errors, such as cell protection, test for reasonableness, establishing good development practice, or error discovery software (Panko, 2008).

Spreadsheets are also widely used in business education. As such, spreadsheet modelling was used successfully to teach finance (Holden & Womack, 2000). The use of spreadsheets does not require learning new approaches, such as necessary

with specialised software. Spreadsheets are easy to understand, and students mostly have prior knowledge before their courses. Accordingly, spreadsheets are often used as a tool for simulation (Evans, 2000). Microsoft Excel and Visual Basic (as programming language) are part of the Office portfolio so these tools are widely spread and easily accessible (Palocsay & Markham, 2002). However, it could be observed with undergraduate students using Microsoft Excel that they had difficulties with the transition from real world statements to mathematical models. These problems reside in the domain of selecting, initializing, and relating variables (Kadijevich, 2009).

To conclude, the application area of spreadsheets is just limited by creativity. They can be used to model (simulate) business sub models, but also complete firms – depending on the expertise of those using it. Accordingly, spreadsheets are classified as business models since they allow for modelling whole businesses. In contrast to the currently popular frameworks such as the Osterwalder (2010) Canvas the following points can be made:

- Firm models, or business models, using spreadsheets are often much more individual models developed from scratch compared with standardised frameworks (although there are many pro-forma spreadsheet frameworks available, depending on the area of interest such as in the finance domain). However, the Canvas could be re-built using spreadsheets or used as template.
- Spreadsheet models are quantitative in nature. The Canvas shows building blocks visually, in a qualitative way. Spreadsheet models consist of parameters that allow for numerically simulating a business.

2.1.4 Sub-system models

There is a plethora of models in the fourth domain, the 'sub model' stage (type 4). A selection of such models is provided in the following list:

Business Investment Models (Oliner, Rudebusch, & Sichel, 1995).

Business Process Models are among the most popular models in the business domain. They encompass domains such as “(...) *different process management*

approaches like Lean Management, Activity-based Costing, Total Quality Management, Business Process Reengineering, Process Innovation, Workflow Management, and Supply Chain Management“ (Becker, Rosemann, & Von Uthmann, 2000, p.2).

Change management and leadership models, introducing models of how to bring about technological change in organisations (Orlikowski & Hoffman, 1997) and Kotter’s 8-Step Process for Leading Change (Kotter, 1996).

- Customer Choice Behaviour Models, by explicitly modelling the customers’ behaviour using mathematical means (Talluri & Van Ryzin, 2004).
- HR competency models aiming at improving HR professionals’ effectiveness as business partners in complex networks (Caldwell, 2008).
- Corporate Performance Models describing social corporate performance, focusing on the three questions: *“(1) What is included in social corporate performance? (2) What are the social issues the organisation must address? (3) What is the organisation’s philosophy or mode of social responsiveness?”* (Carroll, 1979, p. 497).
- Decision Making Models in business organisations, dealing with decision making theory as originally a discipline of economics (Simon, 1979).
- A model of knowledge management in organisations. It is a model that builds on the differentiation of explicit and tacit knowledge. The model consists of *“the individual, the small group, the organization, and the interorganizational domain”* (Hedlund, 1994, p. 73).
- Cooke-Davies and Arzymanow (2003) investigated a wide variety of project management models across 10 industries revealing the use of many highly developed project management models in practice.
- Stakeholder Management Models are used to enhance corporate performance (Berman, Wicks, Kotha, & Jones, 1999).
- Supply Chain Models in e-business including dimensions such as supplier relationships, real-time decision making distribution, pricing, and customization (Swaminathan & Tayur, 2003).
- Business Modelling with UML. UML is a conceptual language from the

software development domain, then was transferred in the business context to model business processes (Eriksson & Penker, 2000).

- Plenty of models were introduced in business to support product development (Nijssen & Lieshout, 1995). *“These models and methods include brainstorming, focus group, in-home use test, limited rollout, etc.”* (Nijssen & Lieshout, 1995, p. 27).
- Models have also been used in litigation since *“The use of modelling is one method by which presentation of complex and multifaceted elements of a given factual situation is simplified. Modelling is a product of the scientific environment and is the application of scientific attitudes and associated techniques to the study of operations”* (Eastin, 1975, p. 610).
- Pricing models are used to set up prices in certain complex constellations including its competitive environment (Chari, Kehoe, & McGrattan, 2000).
- Models of strategic choice: The Ansoff Matrix is a planning tool for firm growth through product and market extension. It offers 4 main strategies (Ansoff, 1957): market penetration, market development, product development and diversification. The well-known Boston Matrix (BCG) describes the life-cycle of a product/service. Each life-cycle represents different levels of risks and returns. Four categories must be distinguished: question marks, stars, cash cows, and dogs. A firm should manage a balanced portfolio between the four categories (Ioana, Mirea, & Balescu, 2009). In addition to the basic version of the Ansoff and the BCG matrices many derivatives of them were developed. Furthermore, in the domain of strategic choice Porter has developed a model consisting of three generic strategies: either low cost, differentiation, or focus. The important thing with the three strategies is that firms must avoid to be ‘stuck in the middle’ (Dess & Davis, 1984).
- The SWOT analysis was developed in the 1960s at Harvard Business School (Kotler, Berger, & Bickhoff, 2010). The SWOT analysis is part of strategy processes. In particular, SWOT (strengths, weaknesses, opportunities, threats) is about internal and external assessment and seeking a fit between the two perspectives (Hill & Westbrook, 1997).
- Market dynamics models: These include diffusion models such as the diffusion of the marketing concept (Mahajan, Muller, & Bass, 1991), or the diffusion of

innovations (Rogers, 2003). In a technology context, Gartner's Hype Cycle model was developed: a model which *“characterizes the typical progression of an emerging technology from overenthusiasm through a period of disillusionment to an eventual understanding of the technology's relevance and role in a market or domain”* (Linden & Fenn, 2003, p.5).

- Several market segmentation models are proposed in the literature, one of which was developed and introduced by Kotler, Keller, and Bliemel (2007), who differentiates between 4 levels of segmentation. The two extreme levels are follows. Level 1: a zero-segmentation, in which there is no difference between various groups of customers. Level 4: An atomic-segmentation building up independent segments for each individual customer (levels 2 and 3 are in between). Another model was proposed by Lombriser and Abplanalp (1998) introducing the concept of Strategic Business Units² that are used to serve different customer segments.
- Environmental analysis models: A popular model of this category is the Porter's Five Forces model. This model integrates potential new competitors, existing competitors in the sector, substitution products, suppliers, and customers (Grundy, 2006).
- Models for the creation of new markets, such as the Blue Ocean Strategy Model (Kim & Mauborgne, 2005). This model suggests that companies can succeed by capturing uncontested market space ('Blue Oceans'), by contrast to areas, in which competitors fight for dominance ('Red Oceans').
- Risk management models of all kind, often in form of mathematical (stochastic) models (Goh, Lim, & Meng, 2007).

The list is non-exhaustive. There are many more additional sub-system models distributed across specialised business areas. The present review can only provide an overview of them by showing some popular ideas but cannot afford to be comprehensive. It shows that many currently popular management models/concepts are part of the sub-system model domain, e.g. models of strategic choice such as the Ansoff or the BCG matrices, SWOT analyses, market segmentation models, market

² In the original language: SGF – Stategisches Geschäftsfled.

dynamic models, etc. The role of these models is to manage a business from a specific perspective.

2.1.5 Conclusions of the review on the role of models in business

The review demonstrates that business models are a late arrival in a much broader model landscape applied to the business and management contexts. It shows that the various models were often developed independently from each other, leading to a plethora of models located in various domains (in silos). Above all, there are countless models in the 'sub-system model' domain, having various roles that depend on the area of interest of the respective researcher having developed the model. The business model concept in some way offers an integrative framework, unifying many of the various ideas in a single overarching framework (such as the combination of business processes with customer behaviour). Since the business model concept is located 'at the centre' of the model landscape, it also bridges sub-system models with economic models. This may explain why business models have become popular in so many domains: they serve as a unifying unit for many domains.

Although often considered as 'new', the idea of modelling a business has existed ever since, it has already existed before the concept that we refer to today as 'the business model concept' was developed. These include tools and frameworks such as spreadsheets, balance sheets, balanced scorecards, or business plans; all of which have in common that they can be used to 'model' a business in some way (according to a specific area of interest). What is 'new' is a model that deconstructs a firm into standardised building blocks – and a visual representation that can assist the understanding of interactions. This way to think about a business was necessary with the rise of the Internet, when existing models (whatever type of) could not explain current phenomena at the time, such as new revenue logic induced by digitalisation. However, some of the 'older' concepts, such as the balanced scorecard, were used as source of inspiration for frameworks such as the Osterwalder (2010) Canvas.

The present thesis deals with 'type 3' business models. More precisely, it deals with a special type of 'type 3' business models, with those dividing a business into its

constituent parts. This type of model is what we label 'business model' today (refer to the definition section in 2.2). The best-known representational framework of this type of model is the Osterwalder (2010) Canvas. The next chapter starts with some definitions regarding the terms 'business', 'model', and 'business model'.

2.2 Definitions

2.2.1 Defining the term 'business'

On the one hand, according to Dicksee (1910), the term business means earning profits for those who conduct a certain activity. Stephenson and Mintzer (2008, p. 13) define business as, *"The regular production or purchase and sale of goods undertaken with an objective of earning profit and acquiring wealth through the satisfaction of human wants"*. The online business dictionary provides a more elaborated definition of the term 'business' defining it as *"An organization or economic system where goods and services are exchanged for one another or for money. Every business requires some form of investment and enough customers to whom its output can be sold on a consistent basis in order to make a profit. Businesses can be privately owned, not-for-profit or state-owned. An example of a corporate business is PepsiCo, while a mom-and-pop catering business is a private enterprise"* (BusinessDictionary.com, 2017).

On the other hand, Peter Drucker often used to start business debates or interviews with the question: What is a business? To him, people most often answered: an organisation aiming at making profit – which is, according to him, considered totally wrong (Watson, 2002). Instead, *"If you want to know what a business is, you have to start with its purpose, which must be found outside the business itself - in society, since a business enterprise is an organ of society"* (Watson, 2002, p. 55). Accordingly, for Drucker, *"There is only one valid definition of business purpose: to create a customer"* (Drucker, 2001, p. 22). However, from a value creation perspective, Drucker argues that a business is an organization that *"adds value and creates wealth"* (Watson, 2002, p. 55).

Perhaps surprisingly, only few definitions of the term 'business' are covered by literature. However, existing definitions have in common that business is about

earning profits by selling something that initially has been produced or purchased. Nevertheless, the author argues that Drucker's perspective plays a significant role, since the first question of an organisation should be posed about its purpose, deeply touching the values of a society by including a contextual perspective. Thus, there is also a philosophical dimension, which is considered an important component in business model thinking, as will be discussed later.

2.2.2 Defining the term 'model'

The following high-level definitions may be applied to get a first picture of what the term 'model' could mean:

- *"A description of static and/or dynamic characteristics of a subject area, portrayed through a number of views (usually diagrammatic or textual)"* (Jackson, 1995).
- *"A model is an abstraction of something for the purpose of understanding it before building it"* (Blaha & Rumbaugh, 2005).

However, by investigating the question in more depth it can be concluded that a model is a concept, which is used in various ways in many disciplines – most applications and definitions are part of natural scientific domains adapting (post) positivistic perspectives. The concept may have its origins in physics, and then has been adapted by other disciplines in sciences and engineering. The following review shows several definitions from various domains.

The first to use models in physics to structure thoughts and as thinking models – by mapping 'reality' in an abstract way – was René Descartes (1596-1650). Since then, models have also become important for instruction purposes. (Etkina, Warren, & Gentile, 2006). Hestenes (1987) advocated models in physics education by suggesting that *"A model is surrogate object, a conceptual representation of real thing. The models in physics are mathematical models, which is to say that physical properties are represented by quantitative variables in the models"* (Hestenes, 1987, p. 440, cited in Etkina et al., 2006, p. 34). Hence, physicists may have a common understanding of what a model is (Etkina et al., 2006):

- a) It is a simplified version of reality, where scientists decided which elements to neglect.
- b) A model is either descriptive or explanatory. Explanatory models are based on analogies with objects we are more familiar with.
- c) A model must have predictive power.
- d) However, its predictive power has limitations.

In the engineering domain, Bézivin and Gerbé (2001) define the term 'model' as follows: *"A model is a simplification of a system built with an intended goal in mind. The model should be able to answer questions in place of the actual system"* (Favre, 2004, p. 2), or, alternatively, *"A model is a coherent set of formal elements describing something (for example, a system, bank, phone, or train) built for some purpose that is amenable to a particular form of analysis"* (Mellor, Clark, & Futagami, 2003, p. 15). In computer science, a model describes objects or phenomena in systematic ways. Thereby the model shares characteristics with the real-world counterpart. It allows for systematic investigation. Normally, models are represented as posits, data, and inferences presented visually. Models may have the form of mathematical terms, simulations (computer), or in material form, and are often used to construct scientific theories (Börner, Boyack, Milojević, & Morris, 2012). Different types of models are distinguished according to Börner et al. (2012):

- Qualitative and quantitative models. While qualitative models use verbal descriptions, quantitative models *"express units of analyses, their interrelations and dynamics using properties susceptible of measurement"* (Börner et al., 2012, p. 4).
- Deductive vs. inductive models. On the one hand, deductive models work top down, from the general to the more specific. On the other hand, inductive models work from inside out, from the particular to the more general.
- Deterministic vs. stochastic models. Deterministic models are used for description where the initial state is determined. A given input will always end in the same output. Stochastic models cannot predict the exact behaviour but the probability of an output.

- Descriptive models vs. process models. Quantitative models can be subdivided in these two categories. With descriptive models, outputs are described using maps, tables, or charts. Process models “*aim to capture the mechanisms and temporal dynamics by which real-world networks are created*” (Börner et al., 2012, p. 4).
- Universal models vs. domain-specific models. Universal models aim at describing phenomena over several disciplines. Domain-specific models aim to replicate something in a given domain.

In biology models are often related to mathematical models that allows for regression (Motulsky & Christopoulos, 2004). Accordingly, a model can be defined as follows: “*A model is neither a hypothesis nor a theory. Unlike scientific hypotheses, a model is not verifying directly by an experiment. For all models are true and false.... The validation of a model is not that it is ‘true’ but it generates good testable hypotheses relevant to important problems*” (Levins, 1966, p. 421).

Savenije (2009) distinguishes between scientists and engineers as having different views on models. From the perspective of a scientist: “*It is a hypothesis of the real world’s functioning, codified in quantitative terms: a model of thought reflecting our theory. This hypothesis needs to be tested against empirical evidence*” (Savenije, 2009, p. 159). From the perspective of an engineer: “*A model is essentially a tool; a tool based on a theory, but still a tool*” (Savenije, 2009, p. 159). Furthermore, for the engineering discipline, authors such as Kleppe, Warmer, and Bast (2003) argue that the element of language must be included as basis for defining models that allow for computer generated automations: “*A model is a description of a (part of) written in a well-defined language. A well-defined language is a language with well-defined form (syntax), and meaning (semantics), which is suitable for automated interpretation by a computer*” (Favre, 2004, p. 2). According to an epistemological understanding, a model is “*empirical in that it tries to re-evaluate the importance of experiments, of the situation, and of the instruments used, in the continuing production of models, but also empirical in that it tries to produce an epistemology of “science in action,” and not according to the more or less “scholastic” description that some classical epistemologists may have produced*” (Sensevy, Tiberghien, Santini, Laubé, & Griggs, 2008, p. 425). In the business domain, models can be used to classify businesses, as

blueprints for scientific investigations, but also as recipes for creative managers. Business models as models are useful since they may have multiple roles and are useful for mediating purposes (Baden-Fuller & Morgan, 2010).

Based on the growing importance of model development (e.g. in domains such as information technologies) the debate has developed as to what is a model and what is not (Kühne, 2005). Accordingly, the argument is that a model must have the following properties according to the reasoning of Stachowiak (1973):

- It must be based on an original.
- It only reflects (relevant) properties of the original.
- With respect to some properties the model can be used instead of the original.

By adapting a rather positivistic perspective, business models could be characterised by using the categories from Börner et al. (2012), arguing that business models are quantitative models, top-down working in a deductive manner, probabilistic, process-based, and universally applicable, aiming at describing phenomena over many disciplines. However, from a constructivist's perspective, the definition from Stachowiak (1973) is considered more sensible – at least in a first approximation – since business models aim at mapping the internal structure of a business reflecting some important properties for that business. Regarding the selected properties the model can be used instead of the original. However, to satisfy a constructivist's point of view the insight of Box, Hunter, and Hunter (1978) could be considered a necessary addition, arguing that models by definition are wrong but some of them might be useful. An insight, which is interpreted that models can help structuring basic assumptions but reality is always too complex to be fully mapped by any model.

2.2.3 Defining 'Business Model'

There is a plethora of literature contributing to the definition of the business model concept (Lambert & Davidson, 2013). Starting with one of the probably most often cited definitions, Osterwalder, Pigneur, and Tucci (2005, pp. 17-18) define the business model in a holistic way as *“a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is*

a description of the value a firm offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams". Based on the work of Osterwalder the seminal and bestselling book 'Business Model Generation' (Osterwalder & Pigneur, 2010) was published and the definition of Osterwalder has become widespread – one can argue that simply through this work the business model idea has become popular.

While the definition of Osterwalder has a clear focus on the organisation, other authors such as Timmers (1998, p. 2) expands this view by defining a business model in a boundary-spanning way as *"an architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues"*. Since organisations are embedded in contexts, this boundary-spanning definition from Timmers can be used as a complement to Osterwalder's definition.

Moving from static considerations toward a dynamic view, the business model concept can be understood from an entrepreneurial perspective as *"the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities"* (Amit & Zott, 2001, p. 511). Since the business model concept has extensively been described in technology contexts, a further definition is: *"The heuristic logic that connects technical potential with the realization of economic value"* – following the reasoning of Chesbrough and Rosenbloom (2002, p. 529). Beside a technological perspective a business model can also be used to tell a firm's story such as outlined in the seminal Harvard Business Review Article from Magretta (2002, p. 4): *"Business models are stories that explain how enterprises work. A good business model answers Peter Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?"* However, from a traditional strategic stance a business model is a representation of decision variables in order to create sustainable competitive advantage (Morris, Schindehutte, & Allen, 2005), or *"a business model is*

[...] a reflection of the firm realized strategy” (Casadesus-Masanell & Ricart, 2011, p. 195). Based on the various perspectives such as technology, entrepreneurship or strategy, authors started focusing on value creation by describing a business model as a customer value proposition standing at the core surrounded by a profit formula, key resources and key processes (Johnson et al., 2009; Teece, 2010).

Most business model definitions contain aspects such as value creation (value proposition), value capturing (generating revenues and profit out of a value proposition), and the relationship between individual elements. Furthermore, various authors consider the value proposition the epicentre around which the whole business model should be organised (Johnson et al., 2009; Osterwalder & Pigneur, 2010; Osterwalder et al., 2015). A wide range of definitions has been developed as the concept has been researched in a wide range of domains.

In relation to the terms ‘business’ and ‘model’ as reviewed in the previous two sub-sections, it can be concluded, from a philosophical perspective, that most definitions understand models adapting a realist, or (post) positivistic perspective. Hence, it is about an abstract representation of a real-world object/construct, a business, reduced to its most relevant aspects. The term ‘business’ itself is only rarely taken into consideration by existing definitions; the rationale may be that the term business itself has not been extensively discussed in literature.

The following section deals with the possibly most important question; whether the business model concept is relevant at all, and, derived from this, which domains are most affected by the concept.

2.3 Importance of the business model concept

From a traditional strategic perspective, business models serve as basis for new competitive advantages since they allow for breaking down the individual elements of a business (which often have been considered inseparable), enabling for creatively (re-)combining those elements or linking them with new components to create strategic advantage. Each organisation is argued to have a business model describing the way it does business (Voelpel, Leibold, & Tekie, 2004). Hence, business model thinking is especially important in environments where ‘the rules of

the game' change quickly (Voelpel et al., 2004), namely in the domain of 'disruptive innovations' which almost always are business model innovations (Christensen, 2002). Accordingly, business model changes can be seen as 'paradoxical' since those changes may represent the basis for destroying or 'cannibalising' the existing business. As a consequence, through a comprehensive and cohesive understanding of the business model concept and its components, it can be used as source of competitive advantage (Voelpel et al., 2004).

In the same way Hamel and Trudel (2001) argue that business model thinking has become crucially important since today's business environments are unstable and affected by continuous and complex change. What is more, change is no longer additive, but discontinuous, abrupt, and seditious (Hamel & Trudel, 2001). Accordingly, based on major shifts in the environment such as disintegration and privatisation, radical improvements in telecommunication, digitalisation of information, and employee mobility, organisations have to adjust and transform their business model in order to stay competitive (Voelpel et al., 2004). Thus, as a cutting edge example, the business model concept may be used for the commercial exploitation of new applications in the area of the Internet of Things (Dijkman, Sprenkels, Peeters, & Janssen, 2015). Generally, the idea of value creation is tightly linked to the business model concept. Various authors claim that a business model, at its core, deals with value creation, value capture and value delivery. Therefore, as a conceptual tool, a business model serves as a blueprint showing how a business functions (Günzel & Holm, 2013). In the start-up and entrepreneurship domain, business model thinking can lead to more informed decisions in the context and management of new ventures (Trimi & Berbegal-Mirabent, 2012). Thus, business models hold promise as unifying units of analysis for theory development in areas such as innovation or entrepreneurship (Morris et al., 2005). A further argument for the increasing popularity of the concept is reflected by the fact that the concept not only is used in its 'core domains' such as strategy or new venture creation but also has found its way into areas rather 'far off' such as financial reporting regulations. According to the UK Corporate Governance Code (UKGCG) the business model is characterised as the basis on which the firm generates or preserves value over the longer term (Page, 2014).

2.4 Influential conceptual business model studies

Since the argument has emerged that most business model studies are conceptual in nature, the present section reviews and discusses influential studies of this type. The section first concentrates on the most relevant business model frameworks. In a second step, other influential conceptual business model studies are reviewed.

2.4.1 Business model frameworks

In the German speaking part of Europe two business model frameworks have become most popular and may represent the basis of business model thinking in practice (Wagner, Tilly, Bodenbenner, Seltitz, & Schoder, 2015): the Canvas from Osterwalder and Pigneur (2010) and (2) the Navigator from Gassmann et al. (2013). Additionally, two often used and cited frameworks are the question-based framework from Stähler (2013)³ considering soft skill factors (which may be ignored in other frameworks), and the four-box model from Johnson et al. (2009). However, there are countless supplementary frameworks described in literature, which are theoretical or highly complex so that they may have only limited significance in practice such as the process based business model framework developed by Wirtz (2010).

2.4.1.1 *The Business Model Canvas (Osterwalder)*

According to Osterwalder and Pigneur (2010) a business model consists of a framework, called Canvas, containing 9 building blocks (Figure 7). The left side of the Canvas represents 'efficiency', the right side 'value' (Maurya, 2010). The 9 building blocks, namely key partners, key activities, key resources and cost structure (on the 'efficiency side'), and value proposition, customer segments, customer relationships, channels and revenue streams (on the 'value side'), represent the elements each business consists of. Through analysing those elements as well as their interactions managers and entrepreneurs can better understand the working mechanisms of their

³ Some ideas described in Osterwalder's dissertation (Osterwalder, 2004) are based on the work of Stähler (2002), who is among the first scholars having dealt with the business model concept in the German speaking part of Europe (or even worldwide). However, based on the huge success of Osterwalder's work, in particular the best selling book 'Business Model Generation' (Osterwalder, 2004), the work of Stähler seem to have fallen in oblivion.

business gaining new perspectives. Accordingly, the reorganisation of the various building blocks allows them to innovate their existing business models. In the start-up domain, it is argued that the most important building blocks are the customer value proposition and the customer segments, so the main aim of each entrepreneur is achieving ‘product market fit’ between these two components (Blank & Dorf, 2012).

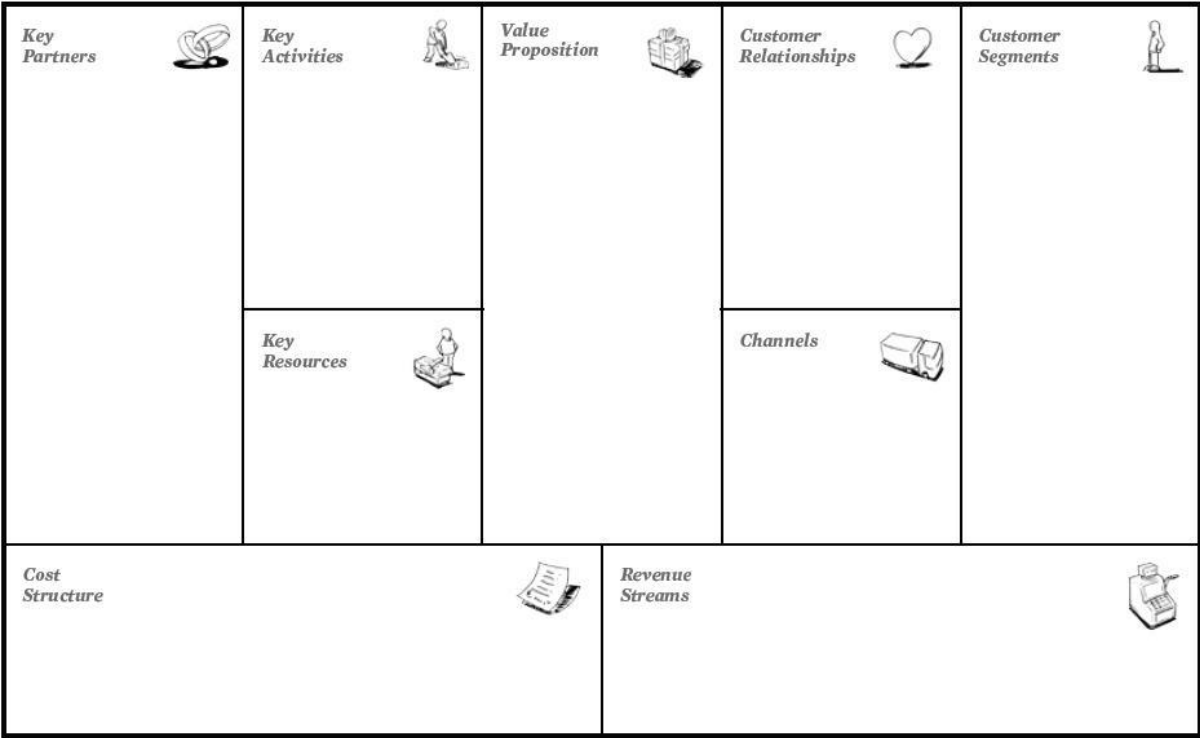


Figure 7: Osterwalder’s (2010) Business Model Canvas.

The 9 building blocks were developed in Osterwalder’s dissertation (Osterwalder, 2004). Between 2004 and 2010 the concept and the Canvas were further developed and expanded to industries different to e-business by incorporating 400 business-practitioners from all over the world acting as co-authors of the seminal book ‘Business Model Generation’ (Osterwalder & Pigneur, 2010). The Canvas from Osterwalder is the most commonly known and most widely applied business model ideation method in business model creation (Griol-Barres & Martinez, 2013; Hoffmann, 2013). Beside the original version, a lean Canvas for beginners was proposed (Maurya, 2010) as well as a an advanced Canvas suggesting supporting questions to be asked before mapping a business model (King, 2010). However, according to the author’s experience in the domain (application in many workshops),

those adapted frameworks have also been criticized since the original idea of a balance sheet, making up the Canvas, is violated.

An additional tool, the 'Value Proposition Designer', was introduced for supporting the process of customer value creation (Osterwalder, 2012; Osterwalder et al., 2015). It has been learned through application practice that value proposition design is different from business design (business logic/architecture) – a finding that has led to a new tool called 'Value Proposition Designer' (VPD), conceptualised as a plugin for the Canvas. However, both concepts (Canvas and VPD) do not comment on the different nature of the value proposition and the business logic/architecture, and neither whether both concepts should be conceptually separated to reduce complexity in practical application.

The most positive properties of the Canvas are its simplicity, practice-orientation and an easy way of reconfiguring and reusing the individual components, hence designing new business model alternatives based on a relatively small number of basic building blocks. However, no broad size of competition, no formulation of business goals, or no taking into account of KPI are negative points (Ching, 2013). The argument here is that the Canvas can be used as a framework to analyse existing businesses. It is often applied to create new business ideas. The author questions whether such a framework can include the required real-world complexity for creation purpose. Accordingly, he posits the Canvas' usefulness for analysis but not for creation.

Nevertheless, the Canvas consists of a well-defined and manageable number of elements (9 building blocks). Beside its well-defined granularity, the strength of the model is that interdependencies can easily be visualised, patterns identified and archetypes discussed. Based on the author's practical experience, the Canvas has become the 'quasi standard' in the Swiss start-up scene.

2.4.1.2 The Business Model Navigator (Gassmann)

The business model Navigator (Frankenberger et al., 2012; Gassmann et al., 2013) contains four elements describing for dimensions as follows: WHAT, HOW, WHO, REVENUES. Furthermore, Gassmann investigated the evolution of business models

(Gassmann, 2012) and proposed 55 generic business model archetypes (Gassmann et al., 2013). Any existing business model, Gassmann argues, can be described by using these patterns. The argument here is that the model from Gassmann is not intuitive. Furthermore, it cannot be used for visualising the business logic – the 4 elements are too generic and only useful for discussing business models on more abstract meta levels; a major drawback in order to compare the 55 archetypes. What's more, the archetype concept doesn't seem to be throughout consistent: since some firms, such as Google, are overrepresented, used to demonstrate successful implementations of several models simultaneously within the same firm. However, a counterargument here is that a firm normally runs only one (dominant) business model since each model is associated with a unique set of resources, values and processes (Christensen, 2002); this idea is further elaborated in the strategy section.

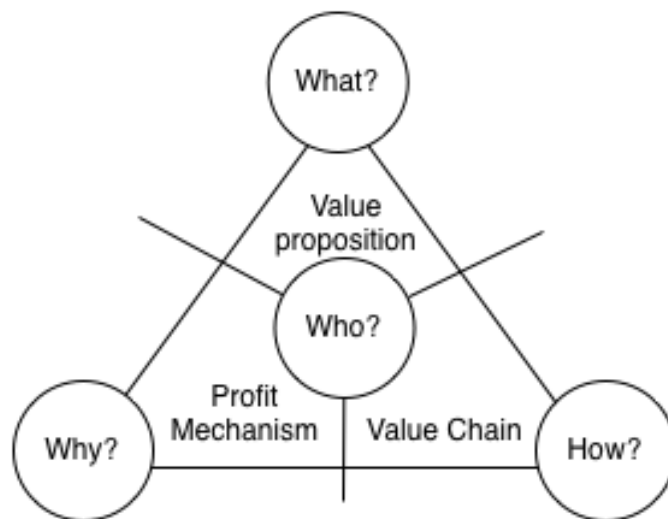


Figure 8: Business Model Navigator according to Gassmann et al. (2013).

Figure 8 shows the business model Navigator consisting of the four leading questions what, why, how and who as well as the three main components of each business model: the value proposition, the profit mechanism and the value chain.

2.4.1.3 A question based framework (Stähler)

Stähler has developed a model consisting of the value architecture, the value proposition, the revenue model as well as the team and its values. It is organised in a Canvas-like framework. The purpose is asking questions (Figure 9), which are

relevant in a business model conception phase (Stähler, 2002, 2013). In contrast to other models, Stähler describes business models as social systems where the following often ignored concepts may play fundamental roles too. (a) Tipping points: Ideas, diseases, but also business models, may spread as viruses do. Key characteristics are contagious behaviour, little changes have big effects and all happens in a hurry (Gladwell, 2002). (b) Diffusion: The significance of diffusions of innovations in social systems (Rogers, 2003). Rogers explains how innovations spread and adopt in social systems. Four interrelated building blocks represent the basis of the diffusion process: Innovation, communication channels, time and social systems. Stähler points out that the system, as a whole, must fit with the customer by arguing that business models have to be considered highly complex social systems and not just a linear superposition of individual elements. These considerations bridge to the systemic and complexity section in this document.

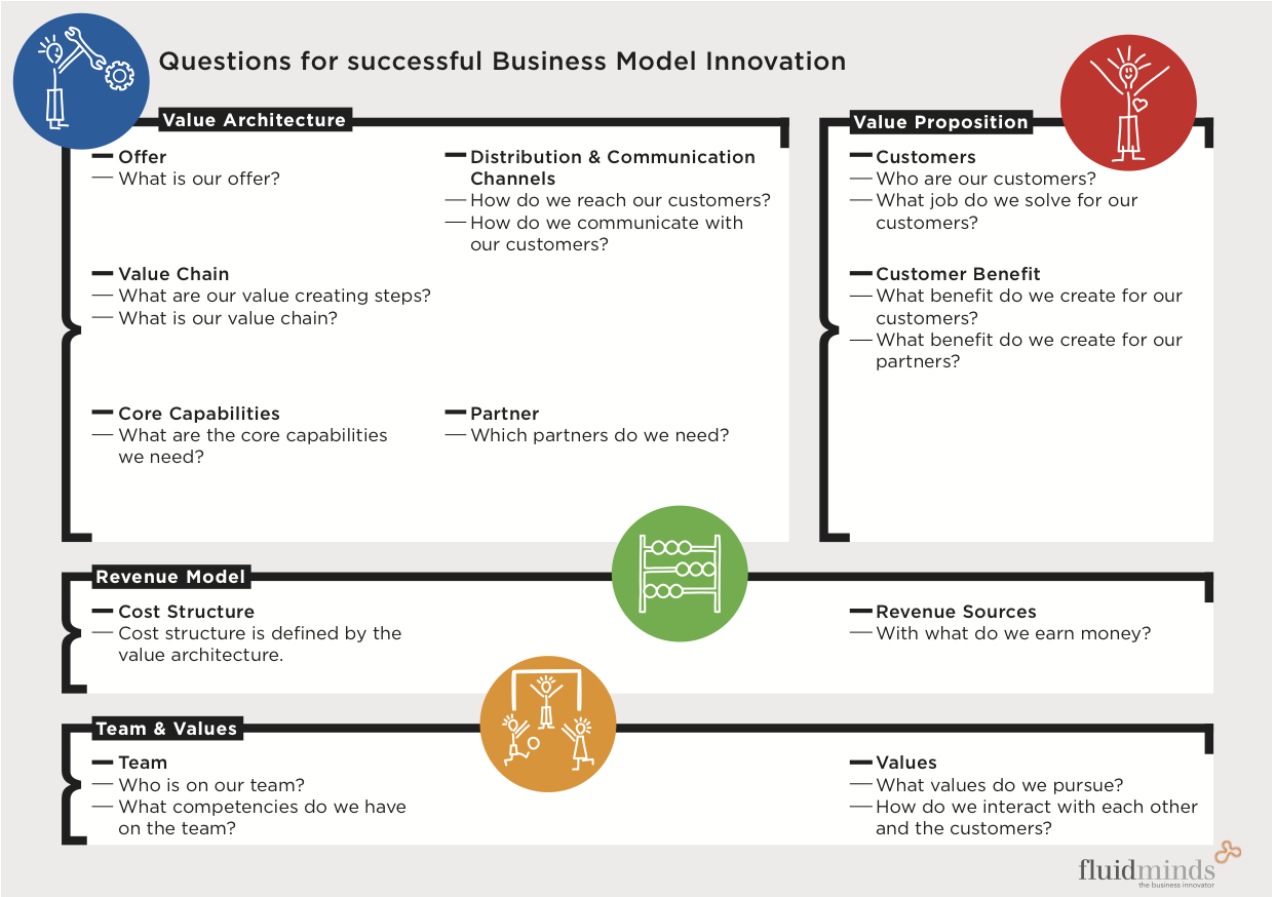


Figure 9: Business Model Creation Questions. Source: Stähler (2013).

The argument here is that the model from Stähler contains relevant aspects for explaining the complex social dimension.

2.4.1.4 The four-box model (Johnson)

The four-box model from Johnson (Johnson, 2010; Johnson et al., 2009) describes business models as 4 building block frameworks consisting of the customer value proposition, key resources, key processes, and the profit formula (Figure 10). The customer value proposition (CVP) is based on the famous ‘job-to-be-done’ concept (Christensen, 2004), arguing that customers don’t buy products or hire services but are interested in what the products or services finally fulfil (example: we do not buy a drilling machine for the sake of drilling, we are interested in the hole it drills (Christensen, 2004)). Johnson’s four-box model is well founded in practice and intuitively understandable. A major drawback may be that the model cannot (easily) be used to visually map the business logic/architecture. By contrast, it is much more a thinking model.

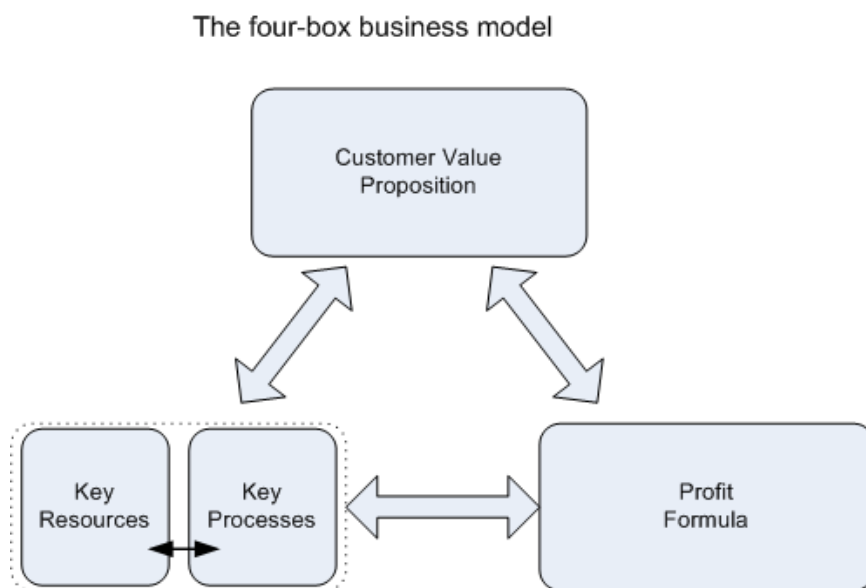


Figure 10: Four-Box Business Model according to Johnson et al. (2009).

The four-box model can be understood as an indication to support the idea that the value proposition and the business architecture/logic should conceptually be separated. While most of the currently popular conceptual frameworks tend to include the value proposition, ‘putting’ it at the centre (such as the Canvas), the four-box

model allows for a conceptual separation. Although Johnson puts emphasis on value proposition design too, the model still allows for unbundling the value proposition and the business logic/architecture. The four-box model describes the main building blocks as individual units having influence on each other.

Beside the four-box model, there is further evidence that a conceptual separation of the value proposition and the business architecture/logic might be sensible:

1. First, Osterwalder developed the Value Proposition Designer (VPD) (Osterwalder et al., 2015) as a plugin for the Canvas (as discussed in section 2.4.1.1). He realised, through practical application, that value proposition development in some way is different from business architecture/ logic. Value proposition design requires for different tools and approaches. However, both sub units (value proposition and logic/architecture) are still tightly linked within of the Canvas and the VPD as plugin.
2. Second, the lean start-up literature (Blank, 2013) suggests to deal with both concepts in sequence proposing an approach to first achieve product market fit (value proposition), and then scaling up the business (business logic/architecture).

To conclude, some models and concepts indicate that a separation between the value proposition and business architecture/ logic could be reasonable. However, the respective authors do not explicitly comment on this separation in a conceptual way – they just refer to it by suggesting a sequential application order.

2.4.2 Other influential conceptual business model studies

Beside the most popular frameworks there are plenty of other influential authors who have significantly contributed to the conceptual business model literature. Focusing on the influence of technology, Henry Chesbrough has proposed the BMF framework: *“The Business Model Framework (BMF) is a model that sequences possible business models from very basic (and not very valuable) models to far more advanced (and very valuable) models”* (Chesbrough, 2007, p. 15). Accordingly, Chesbrough categorises business models in 6 types, ranging from type 1 (firm has an undifferentiated business model) to type 6 (firm’s business model is an adaptive

platform). Furthermore, Chesbrough (2010) identified barriers in business model creation such as conflicts with existing assets. In order to overcome these barriers Chesbrough emphasizes the importance of experimenting and effectuation with new business models as the only viable action strategy. As a contribution to the innovation management discipline, Chesbrough (2007) points out that innovation must include business model thinking rather than just focusing on technology as well as research and development activities – Chesbrough is also considered an influential thinker regarding Open Innovation, which is discussed in 2.11. A categorising approach was applied by Timmers (1998), who addresses the question as to what emerging Internet business models are by classifying 11 different business models (business-to-business and business-to-customer): e-shop, e-procurement, e-mall, e-auction, trust service, info-brokerage, value chain service provider, virtual business community, collaboration platform, third party marketplace, value chain integrator. Therefore, Timmers (1998, p. 2) defines a business model in a boundary-spanning way as *“an architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues”*. Another conceptual model was developed by Tikkanen, Lamberg, Parvinen, and Kallunki (2005) introducing a generic framework illuminating managerial cognition. The model consists of material aspects (strategy and structure, network, operations, finance and accounting), the belief system (reputational rankings, industry recipe, boundary beliefs, product ontologies) and business model evolution.

Although there are numerous conceptual studies dealing with business model definitions and frameworks – many more than any review could ever encompass, the argument is that the business model concept has increasingly become popular through the bestselling book from Osterwalder, titled ‘Business Model Generation’, in which the ‘Canvas’ was introduced. However, many ideas contributing to the ‘Canvas’ were addressed and discussed in literature before, ideas not only unified by the Canvas, but becoming easily understandable and applicable by a wide audience – one of the merits of Osterwalder’s work. Osterwalder synthesised existing ideas and produced an appealing model embedded in an even more appealing book. Thus,

three stages must be distinguished: (up to 2010) Business model ideas and concepts published before the 'Canvas' having influenced the work of Osterwalder – above all the work and ideas of Stähler – the publication of the seminal book 'Business Model Generation' (introducing the Canvas) in the year 2010, and, starting from 2010 up to date, ideas and concepts following the 'Canvas'. Since 2010, a plethora of authors and scholars have adapted the Osterwalder (2010) model and developed their own 'enhanced' models, by taking advantage of the concept's popularity. The following section reviews the way in which business models and revenue models are often used interchangeably.

2.5 Business models versus revenue models

Many people relate the business model concept to financial dimensions such as creating revenues (Al-Debei & Avison, 2010), hence, the revenue model has often been interchangeably used with the term 'business model' as stated by Morris et al. (2005): *"It also leads to confusion in terminology, as business model, strategy, business concept, revenue model, and economic model are often used interchangeably"*.

Following this reasoning, Morris et al. (2005) argue that at the most rudimentary level the term business model is understood and also defined as an economic model consisting of the revenue creation logic incorporating revenue sources, pricing methodologies, cost structures, margins and expected volumes. This idea can be demonstrated by comparing different statements of several authors from the early days of business model thinking, where the two terms were used interchangeably as follows:

- *"Technology managers must expand their perspectives, to find the right business model, or 'the architecture of revenue', in order to capture value from that technology. Failure to do so will cause technologies to yield less value to the firm than they might otherwise"* (Chesbrough & Rosenbloom, 2002, p. 530).
- *"A firm's logic of making money is pretty fundamental. Just because some people went overboard with ill-considered investments based on flimsy*

evaluation methods in the recent past does not mean that we should throw business model thinking away” (Linder & Cantrell, 2001, p. 13).

As an interim conclusion, the author argues that these quotations explicitly show the revenue concept to be the core of early business modelling. This is either illustrated by using the business model concept as a means to exploit technologies, or by arguing the concept to be the general logic of how to make money. These citations are from the years 2001 and 2002, which were still the early days of business model research. Concepts focusing on a value proposition perspective followed later, starting off between the years 2003 and 2005, as discussed later in the review (for instance in section 2.11).

Revenue thinking is often associated with early day business model thinking (Ballon, 2007). However, while Internet start-ups may understand business modelling as ‘how to make money’, established firms may understand a much more diverse picture of interrelated elements working together (Linder & Cantrell, 2001).

The terms business and revenue model are often used interchangeably but are essentially two different concepts. A remaining question now is for what purpose revenue models are used? A degree of consensus between authors has been achieved that a revenue model is part of a business model but it cannot be used standalone to describe a business and the way it captures value (Zott, Amit, & Massa, 2011). DaSilva & Trkman (2014, p. 7) argue that *“a revenue model describes the revenue sources, their volume and distribution”*. The revenue model can be understood as embedded in the profit formula, consisting of revenue model, cost structure, margin model and inventory turnover. The profit formula defines how to create value for itself while creating value for the customer (Johnson et al., 2008). Furthermore, the revenue model is often considered an instrument to capture value. But what is ‘value’ in this sense? Porter defines value as: *“The amount buyers are willing to pay for what a firm provides them. Value is measured by total revenues.... a firm is profitable if the value it commands exceeds the costs involved in creating the product”* (Porter, 1985, p. 38). Accordingly, the value propositions provide the volume and structure of revenues (Casadesus-Masanell & Ricart, 2010). In the same line of reasoning, Chesbrough (2007) has outlined 6 potential functions of a business

model, one or which has been described as specifying the revenue mechanisms, as well as estimating the costs so that potential profits can be estimated, based on given value propositions (Chesbrough, 2007).

On the one hand, following the ideas of Linder (2000) the business model concept can be understood as a tool that explains revenue generation, but on the other hand, it can be seen as an instrument explaining the way a business works, hence making relations explicit (Al-Debei, El-Haddadeh, & Avison, 2008). According to traditional perspectives *“Revenues are the ‘bottom line’ of a business model”* (Alt & Zimmermann, 2001, p. 7), hence the revenues must be carefully composed, adopting a mid- and long-term perspective (Alt & Zimmermann, 2001). The revenue model concept is used to refer to specific ways a firm generates revenues (Amit & Zott, 2010), or, more precisely, *“The revenue model refers to the specific ways a business model enables revenue generation for the business and its partners”* (Amit & Zott, 2012, p. 46). Accordingly, managers must ask the question *“What revenue model fits with the firm’s business model to appropriate part of the total value it helps create?”* (Amit & Zott, 2012, p. 47). Kindström (2010, p. 482) follow the same reasoning by stating that revenue mechanisms, as a substantial part of a business model, are considered as *“The mechanism that is used to appropriate the value created (in the form of a revenue stream)”*. The revenue model is often used as an embedded sub-system model within the business model.

- As such, Gassmann et al. (2013) have introduced a four question framework (4I-framework): questions concerning the what, who, how and value. The fourth question, the ‘value’ question, includes the revenue model. Based on this framework, 55 business model archetypes have been identified, 34 of which have been evaluated as dealing with revenue mechanisms.
- The revenue model is considered one of 7 sub-system models within a business model: it *“Describes the logic of what, when, why, and how the firm receives compensation in return for the products”* (Petrovic et al., 2001, p. 3). Accordingly, Petrovic et al. (2001) refers to the revenue model as the ‘business logic’.

- A study looking for relationships between business model innovation and firm performance has revealed 3 types of business model innovations: (1) industry models, (2) enterprise models, and (3) revenue models (Zott et al., 2010). Revenue model innovation can be understood as an *“innovation in the way revenues are generated, for example through re-configuration of the product-service value mix or new pricing models”* (Zott et al., 2010, p. 24).

Business models are also often used interchangeably with business plans, which build up on revenue considerations too. However, business models and business plans are two concepts to be distinguished, as further described in the following section.

2.6 Distinguishing between business models and business plans

Business plans are often considered an important instrument regarding the investment in new businesses since a widely spread argument is that new ventures can just grow through financing (venture capital) from investors (Heucher, 2002). Therefore, a business plan is a short document outlining where you want to be with your firm in the future (what you want it to achieve and how you will achieve it). Therefore, it should answer five questions (Horan, 2004):

1. What are you trying to build?
2. Why will customers buy it (the product or service)?
3. What measures should be used to measure the success?
4. How will the business be built?
5. What is the work that needs to be done?

Heucher (2002) divides a business plan into a set of categories as follows: executive summary, product or service, founding team, marketing, business system and organisation, realisation plan, risk analysis, finance plan. Business plans are widely known by new businesses since they are supported by universities, governmental support institutions, consultants and in literature (Karlsson & Honig, 2009). For several reasons, most professional investors only support new businesses on the basis of a professionally written business plan. The business plan shows whether the founders have thought through their business, highlights knowledge gaps,

encourages the founders to make decisions, serves as a communication instrument, shows the required resources, and represents a 'dry run' before going real (Heucher, 2002).

A study by Mason and Stark (2004) investigated the investment criteria of bankers, venture capital fund managers and business angels in the UK on the basis of business plans. While bankers exclusively consider financial aspects, venture capital fund managers and business angels also have a focus on market issues. Furthermore, business angels also consider entrepreneurial aspects such as the founding team. However, the effectiveness and usefulness of business plans has been questioned. Empirical research of entrepreneurs in Sweden has shown that there is no positive outcome in terms of profitability for those new ventures writing a business plan in their first two years compared to ventures with no business plans (Honig & Karlsson, 2004). Another empirical case study conducted in a university incubator shows that founders only rarely refer back to or update their business plans they have produced in the early founding phase of their venture (Karlsson & Honig, 2009). Blank and Dorf (2012, p. 35) go even a step further to say that "*No business plan survives first contact with customers*" – thus, it is a waste of time to write one. The business plan has been critiqued because some investors want to see one because they have learned about it at business school, but in fact a business plan is nothing else than a set of unproven hypotheses. Instead, founders are encouraged to map their assumptions (also called 'business hypotheses') on the Osterwalder (2010) Canvas and verify them through customer feedback (Blank & Dorf, 2012). This is where the business plan and the business model concept get in contact with each other. According to the 'Lean Start-up Movement' (see 2.7) the business model concept is especially well-suited to formulate a set of business hypotheses an entrepreneur needs to verify with his customers. This process is much more dynamic than a business plan since the hypotheses may be revised within a week's time. Major changes are called 'pivots'. This process allows for developing new businesses much more time and cost efficiently compared with business model-based long-term planning approaches (Ries, 2011).

The author's argument here is that business plans are not part of the present research project because they can clearly be differentiated from business models.

While business models simply describe the logic or architecture of a business, business plans are more complex documents that may perform many functions, including formulating and communicating appropriate strategies and plans, forecasting outcomes, assessing profitability, evaluating requirements for funding and other resources, and so on. However, it should perhaps be acknowledged that a business plan is also a 'business model' in its broadest sense. However, it is in essence a conceptualisation of a business's future performance and development and thus a portrayal of a dynamic phenomenon, whereas a business model provides a snapshot of a business's architecture at a particular point in its development.

2.7 Business models – a strategic perspective

On the one hand, the terms 'business model' and 'strategy' are two different concepts, not just regarding semantics (Yip, 2004). On the other hand, the terms are often used interchangeably (Magretta, 2002). Business models describe how the individual elements of a business fit together but they do not include an important aspect of strategy: competition (Magretta, 2002). Strategy, however, refers to dynamic activities trying to change either a market or a firm's business model (Yip, 2004). In a traditional view, according to Porter (1996), strategy essentially consists of

- operational effectiveness (performing activities better than rivals);
- the productivity frontier (the maximum value a firm can deliver at a given cost);
- competitive convergence (the more indistinguishable firms are from another);
- and strategic positioning (different activities from rivals or performing similar activities in different ways).

Strategic competitive advantage may determine the success or failure of a firm. Competitive advantage is achieved by delivering products or services customers want by offering them at lower costs or with a superior value compared to the competition (Porter, 2008). However, the argument here is that new Internet based business models allow for competing strategies, thereby challenging conventional wisdom. In particular, everything can be sourced from global markets and is therefore nullified as source of competition (Porter, 1998), which particularly means, for

example, that through the globalisation and the Internet each firm has access to low-wage areas and can therefore outsource supporting areas such as the IT department to India; while this outsourcing required sophisticated knowledge and connections to the respective countries a few years ago, it has become generally accessible through technologies such as the Internet. By contrast, a business model can be considered a reflection of a firm's realized strategy. In simple competitive configurations the two notions may be used simultaneously but may differ *"when there are important contingencies upon which a well-designed strategy must be based"* (Casadesus-Masanell & Ricart, 2010, p. 1). Thus, emerging strategy literature understands a firm as a bundle of resources and capabilities, which finally are reflected by the business model concept (Amit & Zott, 2001).

Many attempts have been undertaken to unify the two concepts, for instance via debating partnerships. Afuah (2000) poses the question what happens when technological change renders the capabilities of partners and competitors obsolete? Complementary to this line of reasoning, Bock, Opsahl, George, and Gann (2012) argue that partner reliance may reduce a firm's strategic flexibility while innovating the business model. With a similar partner-centred perspective, the Open Source Movement – as a special form of new business models (see 2.11) – has always been challenging strategic thinking since it is an affront to well received theories of individual motivation and task coordination (Bonaccorsi, Giannangeli, & Rossi, 2006).

A further issue at the interface of business models and strategy is the question as to whether a firm may have more than one dominant business model simultaneously (in parallel). Based on Christensen's RPV theory (RPV: Resources, Processes, Values) a firm can just run one dominant business models since existing resources, processes and values would not allow a second model to emerge and flourish since the 'immune system' of the firm does not accept potentially disruptive models with a new different 'DNA' (Christensen, 2002). The RPV theory may be particularly powerful in the context of disruptive business models; the latter are used to explain how new market entrants 'attack' incumbent firms in their low-end segments (see 2.11). Thus, many firms avoid creating disruptive business models since they fear to cannibalise their existing model; an aspect that has become an important strategic challenge with the rise of the business model concept (Amit & Zott, 2010).

Consensus regarding disruptive technologies has been achieved, insofar that a firm confronted with strategic discontinuities and disruptions would be well advised to think about changing its business model⁴ (Tikkanen et al., 2005). However, firms' abilities of pursuing several business models simultaneously has been widely discussed and challenged. Markides and Charitou (2004) posit the possibility of running two business models simultaneously while integrating them enough so that maximum synergies can be exploited. The same line of argumentation is used by Mitchell and Coles (2003), arguing that business model innovation can be viewed as a parallel way of outperforming competition in a way as it is done in sports: pursuing the existing model by simultaneously developing a new, which equals 'faking your competitor' who follows your old model. Hence, in order to identify the trade-offs of different business model alternatives, they have to be compared in terms of classical strategic considerations such as competitiveness and efficiency (Brousseau & Penard, 2007).

A further perspective to the idea of handling different business models comes from Markides (2013), who posits that the question whether a firm can run two or more business models simultaneously lacks a theoretical foundation by proposing the integration of ideas from ambidexterity literature, addressing three principal areas that may allow for dealing with more than one business model at the same time:

1. Spatial separation, meaning that two 'seemingly incompatible' activities are separated in two independent units, which raises the question of how to exploit synergies between the two competing activities.
2. Temporal separation, meaning that a firm can undertake two 'seemingly incompatible' activities but not at the same time (such as exploration or exploitation activities).
3. Contextual ambidexterity, which means that *"the organization ought to design the appropriate context that would encourage and support each employee to achieve an appropriate level of balance among the conflicting demands on his or her time and attention"* (Markides, 2013, p. 316). An idea that links to

⁴ The nature of disruption is further elaborated in 2.11.

system thinking as further elaborated in the systems theory/complexity section.

A major problem in this debate is that decision makers are normally faced with an enormous range of business model alternatives to choose from. This choosing process is called the 'intelligence phase' of decision making (Hayes & Finnegan, 2005). The debate of running (or testing) several business models should be opened up through including the perspective of opportunities provided by new technologies such as the Internet, which can support or damage a firm's strategy. Accordingly, Porter (2001) posits that the best way of integrating the Internet is

- to complement rather than to cannibalise the existing business model,
- and to create systemic advantage, which cannot easily be copied by competitors.

The strategic influence of the Internet has been manifested in the process of continuously developing and adapting business models; it has become a core activity of remaining competitive, particularly in the context of the Web 2.0 where the 'rules of the game' of creating and capturing value have fundamentally changed by disrupting conventional Internet business models (Wirtz, Schilke, & Ullrich, 2010). In the debate of strategy, business models and the Internet, knowledge and information management has raised attention since the business model concept can be particularly useful in explaining the relation between information systems and strategy (Hedman & Kalling, 2003), and because information is an important strategic resource in business modelling, so information has to be adequate and correct for discussing model alternatives. Nevertheless, each business may be viewed under many deviant perspectives (Eriksson & Penker, 2000), which causes a dilemma, in particular by considering business models as highly complex systems with missing information as an inherent characteristic (see 2.12).

Furthermore, linking the knowledge management perspective to the innovation and entrepreneurship domain, Week (2000) finds that business model innovation has a strategic component regarding knowledge management since the traditional information processing mechanisms are challenged by radical changes in the

business environment. Finally, contemplating business model innovation and strategy through an entrepreneurial lens, business model and strategy thinking may be unified in that novelty-centricity coupled with traditional strategic considerations such as product market strategies, cost leadership or early market entry can enhance firm performance (Zott & Amit, 2008), concluding that entrepreneurship and strategy are both focused on creating wealth, hence both disciplines are not only engaged but also deeply anchored in business model thinking (Ireland, Hitt, Camp, & Sexton, 2001). As established markets have become even more saturated, firms have turned to emerging markets in order to create wealth in those countries too, which requires new strategies combined with new business models (London & Hart, 2004).

Due to “*confusion around generic strategy deployment, lack of dynamism and its vacuous treatment of customer-centricity*” (Mansfield & Fourie, 2004, p. 35), and since the success of electronic ventures is largely believed to be determined by the underlying business model (Alt & Zimmermann, 2001), the business model concept has induced the conclusion by many practitioners that it may be the only viable concept predicting success (Mansfield & Fourie, 2004). So, it can be concluded that the two concepts are different but reinforce each other in many areas. As this discussion shows, an integrative framework merging the two concepts might be useful. However, the business model concept has its origins in the technology sector, in particular in the Internet industry. Although it has been emancipated from its ‘roots’, a review of the technology perspective helps to form a better understanding the idea. Accordingly, one of the following sections is devoted to business models in the technology management context. However, the next section discusses the separation of established firms and start-ups - an issue that also has strategic implications.

2.8 Separating established firms from start-ups

As Klang et al. (2014) stated, the term ‘business model’ is suffering from a paradox between outstanding popularity and severe criticism. In practice everyone is currently talking about business models; however, taking a random sample of business people only few may in fact know what a business model really is, or it is like the old saying about teenage sex: “*everyone talks about it all the time; everyone boasts about how well he or she is doing it; everyone thinks everyone else is doing it; almost no one*”

really is; and the few who are are fumbling their way through it incompetently” (Klang et al., 2014, p. 454). Thus, the business model concept is considered fuzzy and vague and there is only limited consensus concerning its compositional parts. Because there is a wide variety of interpretations of the term ‘business model’, a firm’s business model may be the result of a social negotiation process (Page, 2014). Accordingly, the argument here is that reducing the vagueness and fuzziness of the understanding of the business model concept is to better understand in which types of firms it is applied. This may help drawing a more concrete picture of the context in which it is used, making the term less fuzzy. Two models have been identified in literature, the Blank (2013) start-up model, and the Christensen (2016) business model journey model, which contribute to the understanding of possible application contexts. The models are elaborated and discussed in the present section.

Of particular interest are start-ups, in the context of which the business model concept has become a quasi-standard and is currently part of many MBA curricula (Nobel, 2011). Ideas based on the Canvas (as a visual framework of the business model concept), developed by Osterwalder and Pigneur (2010), and on fast learning cycles based on ‘lean’ ideas, as described by Ries (2011), the Lean Start-up concept – at the centre of which the business model concept is located – has become popular and can be summarised as follows (Blank, 2013, p. 4): *“Lean Start-up favours experimentation over elaborate planning, customer feedback over intuition, and iterative design over traditional ‘big design up front’ development”*. According to Blank (2013) the Lean Start-up process consists of 2 main process phases:

1. The search process consists of customer discovery by sketching out hypotheses using the Business Model Canvas. Based on the business hypotheses a ‘Minimal Viable Product’ (MVP) is built and tested with real customers. Based on what has been learned, the business model hypotheses are changed by ‘pivoting’ the business model and sketching out a new Canvas accordingly (Ries, 2008-2013).
2. The second step, called the execution phase, consists of customer creation, once the product is refined enough to sell. The focus changes to build up the firm by setting up a business model that allows for scaling, and the transition from a start-up to a ‘traditional’ firm.

Blank and Dorf (2012) point out that start-ups are not small versions of large firms. Instead, managing a start-up requires different skills and values. After the transition from a start-up into a large firm, the managing team has often to be exchanged (due to a paradigm shift in terms of skills and values). Figure 11 depicts the Lean Start-up process showing the two main, but fundamentally different phases, 'search' and 'execution'.

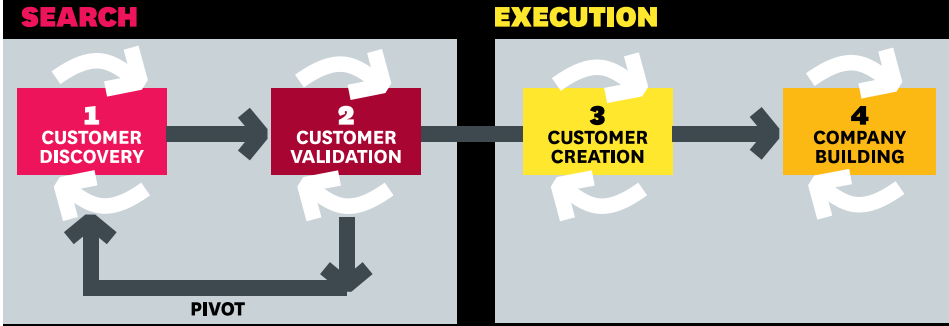


Figure 11: The Lean Start-up Process (Blank, 2013).

To conclude, the ideas behind the Lean Start-up concept consist of separating start-ups (more concerned about 'search') and large firms (more concerned about 'execution'). In the search phase, the focus is on validating viable customers and further developing an idea, including so-called pivots, using the business model concept as a visual framework. Once having established 'product-market-fit' the strategy has to change towards execution, where different skills are needed (Blank & Dorf, 2012).

Supporting the idea that start-ups are not just small versions of large firms but are located in a different development stage, Christensen, Bartman, and Van Bever (2016) distinguish 3 stages of a business model journey (Figure 12). In the first stage, the 'creation phase', most activities are concentrated on developing a viable value proposition and the required resources (called the start-up phase). In the second stage, called 'sustaining innovation', firms must develop their processes to scale up the model. In the third phase, the 'efficiency phase', firms develop their profit formula.

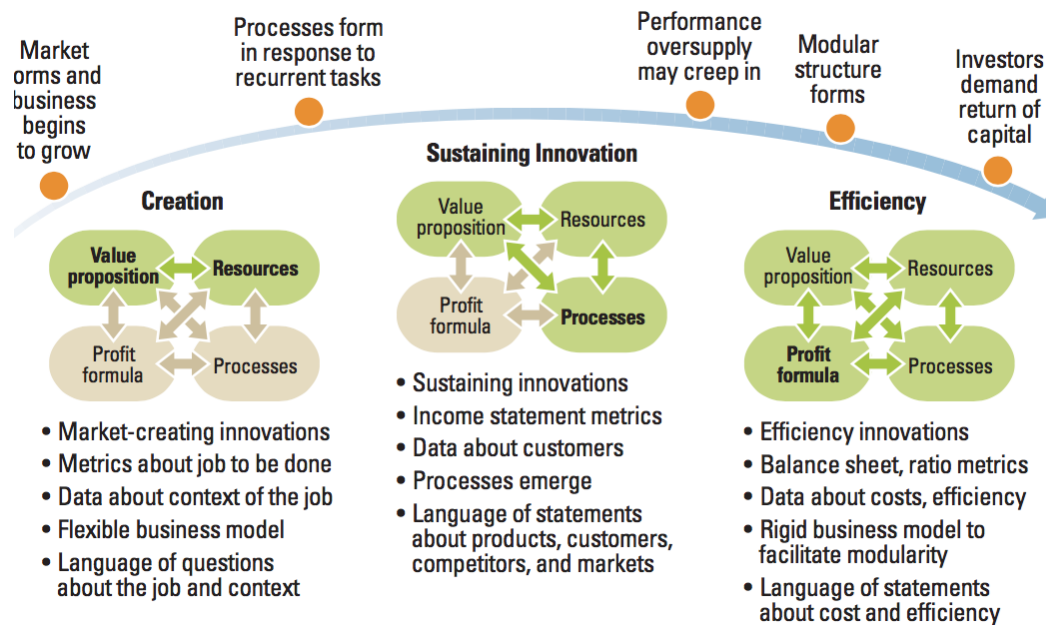


Figure 12: Three stages of a business model journey (Christensen, Bartman, et al., 2016).

The three-stage model from Christensen provides a solid line of argumentation explaining the absence of business model thinking in established firms since they are in a different development stage, compared to start-ups. However, for start-ups, as a current study shows (Najmaei, 2016), there is only little solid empirical knowledge about how to develop a viable business model from scratch, although the topic is currently ‘hot’ in the new venture community. Case studies conducted in the Australian IT start-up environment have identified 3 phases: (1) idea generation, (2) strategic commitment and selecting ideas, (3) market tests. Established firms, on the other hand, most certainly are in the third, the efficiency phase.

A further argument here is that exploiting the business model idea requires knowledge and experience in dealing with concepts. A study from Sääskilahti (2016) has empirically investigated the use of concepts in firm’s innovation activities, using samples ranging from a micro size up to a globally acting Finnish manufacturing firm. They concluded that firms have problems developing concepts in general, hence are more product-oriented, often struggling in developing services. In small firms, the success of a product depends on evolutionary developments by an entrepreneur rather than dedicated innovation activities. This study is considered relevant since it addresses the phenomenon that firms have difficulties using and applying theoretical

concepts in practice, the business model concept being considered a particular instance of such a concept. Rather than using abstract concepts, managers often rely on prior experience and heuristics when confronted with changes in their business model, which has been learned by investigating cognitive factors explaining decision making in small businesses (Osiyevskyy & Dewald, 2015).

Although only little has been said in literature about the way small business owner-managers conceptualize and apply the business model concept in practice, it has been learned that there is only little consensus what the term business models really means, but that the term (and the concept) is popular in the start-up context. Nevertheless, start-ups are not just small versions of large firms; neither in terms of required activities nor in terms of their culture. Rather than using concepts, established firms (particularly small firms) often rely on their experience and on heuristics. It can be concluded that, on the one hand, we still have only little knowledge about the conceptualisation and use of the business model concept in established firms, and, on the other hand, that start-ups (to the context of which a lot of business model literature has been devoted) are different. Furthermore, and even more fundamentally, the literature shows that small business owner-managers may have problems working conceptually, which may also influence the way they deal with business model ideas. In all, it is important to recognise the very different nature of established firms and start-ups.

2.9 Business models and corporate culture

The discussion about corporate culture may begin with the question ‘What is culture?’ This question can be answered using the following definition: *"Culture is the set of habitual and traditional ways of thinking, feeling and reacting that are characteristic of the way a particular society meets its problems at a particular point in time"* (Lasswell, Lerner, & Fisher, 1951, p. 89). Accordingly, corporate culture, as a sub-concept of culture, can formally defined as *"an attitude, policy, rule, course of conduct or practice existing within the body corporate generally or in the part of the body corporate in which the relevant activities take place"* (Belcher, 2006, p. 2), or as argued, *"most authors agree that ‘corporate culture’ refers to the set of values beliefs and behaviour patterns that form the core identity of an organization"* (Denison, 1984,

p. 5). What is more, Schein (2010), who is considered one of the leading authors in the domain, states that corporate culture *“stands up against any organizational test, in any sector, remaining unambiguous, practical and complete. Schein states that an organization's culture is the pattern of shared, fundamental beliefs held by the leaders of the organization”* (Schein, 2010, cited in Hall, 2002, p. 2). Taking the cognitive dimension into account, Greenberg, Baron and Greenberg (1997) argue that corporate culture is *“a cognitive framework consisting of attitudes, values, behavioural norms, and expectations”* (Greenberg et al., 1979, cited in Sadri & Lees, 2001, p. 854). By including belief systems *“corporate culture is a collection of uniform and enduring beliefs, customs, traditions and practices shared and continued by employees of a corporation”* (Hai, 1986, p. 162). To summarise, a strong culture may have the following characteristics, according to Mowat (2002):

- Internally consistent
- Widely shared, and
- Makes it clear what appropriate behaviour is.

Many aspects and debates in the business world touch on the concept of corporate culture. For instance, cultural intensity and homogeneity have been identified as having influence on a firm's growth capacity (Calori & Sarnin, 1991). Furthermore, corporate culture is argued to have significant influence on mergers and acquisitions since cultural differences may play a crucial role in merger failures (Bouwman, 2013). It has been empirically shown that corporate culture has a significant influence on a firm's sustainability (Eccles, Ioannou, & Serafeim, 2012). What is more, corporate culture may have a positive influence on knowledge management (Demarest, 1997). The positive impact of congruent values between different people on a firm's performance has empirically been evaluated and verified (Meglino, Ravlin, & Adkins, 1989). Corporate culture and reward systems are two tightly linked, complementary concepts, to be used for directing members to achieving a firm's strategic goals (Kerr & Slocum, 1987). A relationship between corporate culture and quality management has been revealed as well (Irani, Beskese, & Love, 2004). Corporate culture is also discussed in the firm performance debate. The cultural traits of a firm have positive influence on its performance (Denison, 1990), and the performance of employees

does not just depend on stated cultural values but it is much more important that they act in consistency of cultural norms that are consistent with the values of a firm. Accordingly, key cultural values include integrity, collaboration, and adaptability (Graham, Harvey, Popadak, & Rajgopal, 2017). Participation, as an additional aspect of corporate culture, is also argued to positively influence a firm's performance (Denison, 1984). However, corporate culture is something complex and only hard to be measured. Some argue that it is something to be intuitively sensed rather than empirically measured (Denison, 1984).

Regarding business model innovation, corporate culture is considered a strategic asset to be seen as a key differentiating factor of a successful business model (Flamholtz & Randle, 2012). It encourages innovation by tolerating openness to new ideas, fault tolerance, agility and responsiveness, diverse teams, or broad background and perspective (Bucherer, Eisert, & Gassmann, 2012). Accordingly, good ideas need openness for experiments to survive within an organisation. An appropriate corporate culture must allow for experimentation as well as having diverse social networks behind the official hierarchy, which may allow that several executives can say 'yes' (Wolcott & Lippitz, 2007). In a broader innovation sense, *"one way to consider business model innovation is to view it as a potential aspect of a firm's (innovative) corporate culture or capacity/capability"* (Aspara, Hietanen, & Tikkanen, 2010, p. 3). On the other hand, the role of corporate culture on business model innovation raises new questions such as different corporate functions, human resources, marketing, leadership, or finance (Spieth, Schneckenberg, & Ricart, 2014).

In the new venture or start-up context – which is considered particularly important in the business model domain – the development of a corporate culture in an early phase, where internal processes and structures do not yet exist, is considered fundamentally important. It is about developing a corporate identity, which encompasses corporate culture, corporate design, corporate behaviour, and corporate communication; hence, concepts, which are all interrelated (Rode 2005). In a new venture environment *"corporate culture is the carrier of stories and gossip that spread information about valued behaviour and 'heroic myths' around the organization"* (Rode & Vallaster, 2005, p. 123). The following definition is considered

especially interesting in a new venture sense, where experimentation is considered a key characteristic to be part of the culture: Corporate culture is *“a pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that has worked well enough to be valid and to be taught to new members as the correct way to perceive, think and feel in relation to these problems”* (Hampden-Turner, 1990, p. 12). Since business model innovations often are disruptive innovations (Christensen, 2002), the latter depend – amongst other factors – on corporate culture too (Assink, 2006).

The argument here is that the concept of corporate culture represents a prerequisite for experimentation, and tolerance for failures, two ideas crucially important in early business model development (Blank, 2013) – whether in start-ups or established firms (e.g. in the context of developing new business units, as discussed later). Furthermore, an appropriate culture allows for ‘sensing what is in the air’, an important aspect of entrepreneurship and opportunity detection – as basis for new business models. Since corporate culture is something to be intuitively sensed rather than measured (Denison, 1984), it is much more associated with philosophy than with natural sciences. From a soft factor concept as discussed in the present subsection, the review continues with more ‘tangible’ an idea, hence business models and technology management.

2.10 Business models and technology management

“When Apple introduced the iPod, it did something far smarter than wrap a good technology in a snazzy design. It wrapped a good technology in a great business model” (Johnson et al., 2008, p. 1). In order to improve the alignment of business strategy with the organisation and its technology the business model concept serves as an overarching framework (Osterwalder et al., 2005). Furthermore, the business model concept is considered a useful construct for investigating opportunities for market exploitation of technologies (Pateli, 2003). Although business model thinking has detached from the e-business context (from where it emerged), it cannot be denied that even through the openness and connectivity of the Internet and the availability of the respective technology a wide variety of new business models in all areas has become possible (Timmers, 1998). Timmers (1998, p. 10) makes this

explicit by stating that *“Information and communication technology enables a wide range of business models“*.

According to the author’s interpretation, as an interim conclusion, this paragraph contains several key aspects regarding the rise of the business model concept. Through the proliferation of new technologies, above all the Internet, new business models became possible. For instance, new ways to interact with customers or new pricing strategies could suddenly be realised. Accordingly, the business model concept became an important and indispensable instrument to understand new economic realities that developed in the early days of the Internet business.

Since not all firms could take advantage from the Internet and its possibilities, Stewart and Zhao (2000) noted that there are two categories of ‘losers’ influenced by new Internet-based business models:

1. Those firms who do not understand how the Internet influences their business.
2. And those who have not the resources to change their business.

Based on steadily growing technological developments web-based business models offer increasingly more improved and flexible solutions, which often are subsumed under the term Web 2.0 (Weinhardt, Anandasivam, Blau, & Stößer, 2009). Generally spoken, technical changes may render firms existing capabilities obsolete making them losing their competitiveness (Afuah & Tucci, 2000). On the one hand, answering solely with improved technological solutions to changing environments is considered inappropriate these days since even great technologies cannot compensate for the shortening product life cycles and their ability to create profit before commoditization (Chesbrough, 2007). Technological innovations alone do not guarantee success anymore – only through coupling with a viable business model their success rate can be sustainably increased (Alt & Zimmermann, 2001; Teece, 2010). However managers of established or new ventures are confronted with huge uncertainties in their technological environment (Camponovo & Pigneur, 2003). As such, it has been shown that repeated partnerships have a negative influence on the performance, particularly in environments of great technological uncertainties (Goerzen, 2007).

To conclude, the environment is recognised as an important variable regarding the uncertainties and the complexity in technological innovations (firm, business models, stakeholder, environment). This issue will be further discussed later by introducing a systemic perspective on business models. The argument here is that the complex behaviour of business models represents a core debate of technology management as well as an area of cutting-edge research since there are still gaps in knowledge of how business models emerge – a discussion which finally leads to the idea of conducting market experiments, building the bridge to the start-up and entrepreneurship domain (as discussed later). Although technology may not be the core of business model thinking anymore these days, current developments such as 3D printing, the Internet Of Things⁵, and digitalisation end up in the currently popular ‘Industry 4.0’ debate, which may bring the technology perspective back on the table. Nevertheless, these new technologies may have unprecedented consequences on the whole economy, hence on future business models – in fact, the argument is that they already have huge implications but many firms may not have realised how to deal with them or even whether to deal with them at all. Hence, another point here is that Industry 4.0 will force firms to reflect much more intensively on their existing and on possible new business models. Accordingly, the area where business model thinking originally emerged from will be of crucial importance in future too. However, the debate about Industry 4.0 may not be solely a technological debate since the concept of value drives this development too (see 2.11). As a consequence, the Industry 4.0 world may be even more complex than what we know today. Accordingly, the argument is that managers and entrepreneurs are better off learning how to deal with highly complex social systems, an issue reflected in the complexity debate later in this document.

⁵ The Internet of things is a term often used in the digitalisation Industry 4.0 debate. It refers to an Internet, which is connected with ‘real life’ object having a certain degree of intelligence and communicating with each other. A prominent example in this context is the refrigerator independently ordering food when necessary.

Side note – the technology debate in relation to the sector of the author’s firm

In the context of the author’s firm, the building technology sector is currently confronted with technological changes subsumed under the term industry 4.0. First, the whole building construction process is questioned since new technologies are about to emerge, such as enabling pre-fabricated construction, an idea often discussed in the context of ‘Building Information Modelling’ (which partly stands opposite to existing practices of building houses), an idea affecting current business models. Second, photovoltaic systems are continuously expanding to the building technology sector since new elements such as e-mobility have become part of the context. Third, technology firms from various outside sectors (such as Google or Swisscom) enter the market with new highly interlinked products such as advanced building automation solutions (using the Internet), potentially disrupting existing market structures.

Furthermore, the idea of selling building technology infrastructures as a service is a hot debate these days too – rather than selling energy production and distribution systems to homeowners, the argument is that they would be provided with such systems paying fees for its utilisation – as a service model. Such concepts – enabled through and combined with new web-based technologies – could totally change the logic of the sector. What can be observed these days, most incumbent firms in the building technology domain still have no strategies to deal with these challenges. Although business model considerations become increasingly important, they do not find their way to the respective firms. As a consequence, we should try to make the concept more tangible and better understandable for entrepreneurs so that people realise its importance and take advantage of its strengths (not just to consider it ‘theoretical stuff’) – an aspect the present research aims to make a contribution.

2.11 Creating value through business models

The business model concept is inseparable from ‘value creation’ and ‘a firm’s value proposition’ since a viable business model is always centred on a customer value proposition (Johnson et al., 2008). The customers and the value proposition therefore represent the core of a business model – each value proposition can be further

divided in customer jobs ('jobs to be done' as part of the Osterwalder (2015) Value Proposition Designer) as well as pains and gains associated with these jobs (Christensen, 2004; Osterwalder et al., 2015). In this line of argumentation, a business model can be understood as a firm's underlying core logic, describing the way a firm creates and captures value (Shafer, Smith, & Linder, 2005). According to Kambil, Ginsberg, and Bloch (1997) it is important to understand what is meant by value in the business model context. Value in the sense of a value proposition can be understood as the way in which *"items of value, such as products and services as well as complementary value-added services, are packaged and offered to fulfil customer needs"* (Kambil, Ginsberg, & Bloch, 1997, cited in Osterwalder & Pigneur, 2003, p. 4). Accordingly, *"modelling and mapping value propositions helps better understanding the value a firm wants to offer its customers and makes it communicable between the various stakeholders"* (Osterwalder & Pigneur, 2003, p. 1).

The author's argument here is that creating value through business models, adapting a value proposition perspective, is part of a 'second development wave' – that began between the years 2003 and 2005. In the early days of the business model concept, revenue thinking dominated the area (see section 2.5). Then, authors such as Osterwalder or Christensen incorporated the value proposition concept, so that today the business model idea is mainly influenced by value proposition thinking. Through the raise of the Osterwalder (2010) Canvas and the 'Value Proposition Designer' (Osterwalder, 2015), value proposition-centred thinking has significantly contributed to the business model's popularity (at least in the Swiss start-up context). Revenue perspectives are still included, but are no longer dominant.

However, creating value propositions have become complex through the invention of information and communication technologies – firms act in even more complex networks and offer their products and services through a multitude of diverse channels (Osterwalder & Pigneur, 2003), even more specialising the economy (Wirtz & Ehret, 2012). With this in mind, knowledge plays a dominant role since knowledge-intensive firms have to create unique value in a complex landscape, which is very much unlike of the context of industrial firms (Sheehan & Stabell, 2007).

The idea of value creation may not be used as a stand-alone concept; instead, the literature shows that it is embedded in various other disciplines such as technology management, strategy, entrepreneurship and design thinking as follows.

- Value creation is often related to technology – a tribute to its origins since business models play a key role by capturing value from great technologies (Chesbrough & Rosenbloom, 2002). The rise of such new technologies, particularly the Internet, has formed complex knowledge-intensive landscapes. As a consequence, the rising business model concept, itself a ‘child’ of new technologies or even a new technological paradigm (Internet), has been used as the theoretical foundation for value capturing in such contexts (Amit & Zott, 2001), not only for single firms but also for networks of actors (Gordijn & Akkermans, 2001).
- The idea of value capturing using the Internet not only is supported by a business model perspective but also by business strategy since integrating the Internet in the process of developing new products and services may substantially create value for customers, which has been defined as competitive advantage (Porter, 2001). However, to separate the two concepts, business models are argued to be the ‘sine qua non’ of value creation, while strategy deals with creating sustainable competitive advantages (Mansfield & Fourie, 2004).
- A business model creates value through the employment of technological opportunities, or as stated by Chesbrough (2002, p. 2): “*A successful business model unlocks latent value from a technology.*” This is often performed by entrepreneurs, because value creation is strongly linked to the concept of entrepreneurship since entrepreneurs create value by using new tools such as business models in order to create new types of organisations and to make sense of unlikely opportunities (George & Bock, 2012). For instance, in social businesses, where entrepreneurs or ‘entrepreneurial minded’ firms engage, value propositions with new value constellations and profit formulas are created and implemented (Yunus, Moingeon, & Lehmann-Ortega, 2010). Thus, not only may the business model idea be used for creating value but also for capturing that value (Chesbrough, 2012).

- Last but not least, the ability to create and capture that value through customer understanding is part of a design thinking approach. A business model is argued to be an abstraction of a firm's strategy based on Porter's (1996) theory by creating and delivering value to its customers (Seddon, Lewis, Freeman, & Shanks, 2004).

Strictly speaking, a business model is a firm's core logic of creating value to customers (Linder, 2000), which means that different activities of a firm are orchestrated for creating value to customers using the business model concept (Demil & Lecocq, 2010). However, creating value through business model design by focusing on the customers follows a comprehensive process of gaining customer insights, ideation, visual thinking, prototyping, storytelling, and scenario development (Osterwalder & Pigneur, 2010). In addition, Urban and Von Hippel (1988) suggest a lead user approach, allowing for creating maximum value for potential customers by investigating people developing their own solutions for problems where no solutions are still available; hence, lead users are people often considered at the forefront of an emerging trend (the 'avant-garde'). Given the complexity of today's business environments, firms have to create value for a large group of stakeholders and have to capture value for themselves (Sosna, Treviño-Rodríguez, & Velamuri, 2010). One can argue that value creation is the core activity of a firm per se since perfect competition and equilibrium must be considered an idealised and misleading idea; instead, customers just want products and solutions fulfilling their perceived needs (Teece, 2010). Thus, business models are geared toward total value creation for all parties (Zott & Amit, 2010). By complementing this perspective of 'total value centrality' a shift in the concept of value creation is discussed towards value appropriation by linking some drivers of value creation to firm performance (Amit & Zott, 2012).

An indication of the importance of the value concept is the latest book 'Value Proposition Design' from Osterwalder et al. (2015), devoted solely to the two basic business model building blocks 'Value Proposition' and 'Customer Segment'. These days, creating value propositions is an appealing and popular idea. However, the complexity of the value creation process is high and far from fully understood. More research is needed by focusing on value creation (and capturing) by understanding

the business model as a boundary-spanning systemic activity system (Zott et al., 2011) – an aspect linking to the systemic and complexity section because a viable working value proposition is often described in literature as the result of a complex non-linear process leading to the interaction of individual elements in a stable ‘fit-configuration’. Regarding the distinction of value creation and capture there is a current debate how far business models try to explain how value is created, not just captured (Zott et al., 2011). Another debate deals with the distinction between value and price. Some economists and futurists such as Jeremy Rifkin predict a future where goods tend to cost 'nothing' since they are produced everywhere and anytime using technologies such as 3D-printing and the Internet of things (Rifkin, 2014) – As a consequence the end of capitalism is predicted. The question here arises which new business models will be employed to make ‘profit’ in this new world, whatever profit may be there. Thus, the point is that the concept of value may play the dominant role in future business models since, according to authors such as Rifkin, goods will be exchanged rather than sold. As a consequence, elements in today’s business models must be re-conceptualised, for instance the role of partners, resources, activities, cost structures and revenues may change fundamentally. Accordingly, new technologies ‘democratising’ the world may further increase the significance of the value concept, because goods may be exchanged on the value they create. Additionally, value thinking also represents the core of innovation management.

2.12 Business models and innovation management

The concept of innovation management was first introduced by Schumpeter in the 1930s. According to his definition core innovation is the new combination of productive resources (Schumpeter, 1934). Since World War 2 there has been an evolution from the technology perspective in the 1950s to social network and complexity perspectives transforming information into knowledge in the 1980s (Hidalgo & Albers, 2005). The complex nature of innovation – the focus in the 1990s and 2000s – makes it impossible to identify a simple and widely applicable algorithm (Ortt & van der Duin, 2008, p. 15). Innovation management is used in various disciplines. Each research community such as economics, technology management

or sociology has their own perspective (Kusiak, 2007). Thus, the idea of innovation has been adapted and researched by many disciplines dispersing the concept over a wide area of interests leading to a wide variety of research agendas. As a consequence, there has never been identified a 'best way' to manage innovation since industries differ too much (Tidd, 2001). Although there are differences in research focus and variations in the way innovation is defined, multidisciplinary consensus has been achieved in that it is about the creation and adoption (including commercialisation) of something new. Some streams focus on new ideas, methods or devices; others concentrate on processes. These processes can be understood as linear or complex, with multiple, cumulative and conjunctive progressions of convergent, parallel and divergent activities (Gopalakrishnan & Damanpour, 1997). Innovation management is stretched from idea generation to product commercialisation (McAdam & McClelland, 2002).

With the concept of disruptive innovations business models may first have found their way into the discipline. The 'disruption theory' explains why less 'powerful' (in terms of features of products or services), but cheaper solutions, combined with new business models, can change the dominant business logic of a whole industry and why incumbent market leaders may disappear within a few years, defeated by entrants. The theory, first introduced in Clayton Christensen's bestselling book 'The Innovators Dilemma' (Christensen, 2002), concludes that implementing new business models may be a chance for new market entrants to challenge and defeat industry leaders. Disruptive innovations are an important concept to understand the power of new business models in established industries, especially to understand business model innovation as a chance for new ventures in established, highly saturated markets (Christensen, 2002). Consequently, the capacity of a firm to capture value not only depends on the development of new technologies anymore but on its capability to innovate its business model (Teece, 2010). Based on this insight, innovation must include business model thinking rather than just focusing on technology and R&D (Chesbrough, 2007). However, Lepore (2014) states that the disruption theory has also been massively critiqued since:

- it has become a buzzword explaining 'everything' these days with no meaning in practice anymore,

- and, methodologically, Christensen has not used data from successful firms but searched for reasons why firms fail using data from unsuccessful firms so his findings could only be used as anecdotal stories at best. Hence the disruption theory would be a short-term business phenomenon without any empirical foundation; the long-term study of young technology-based firms would be needed.

Innovation is considered a complex phenomenon per se making broad survey-based investigations and statistical evaluations difficult since only very few firms are really able to create 'true' (radical or disruptive) innovations. At the forefront of innovation research, anecdotal stories or case studies are considered most suitable from which to learn (Huber, Kaufmann, & Steinmann, 2015).

Beside disruption, 'open innovation' has become indispensable in the innovation discipline (particularly in the business model context), which can be understood as the third step in evolving systems innovation (Van der Meer, 2007). In its origins, open innovation can be defined as a concept to open the innovation process by including knowledge from outside the firm as well as excluding internal knowledge to the outside (making knowledge created in firm accessible to other firms). Through this process, the firm enhances its ability to create innovations. Henry Chesbrough, professor at University of California, Berkley, introduced the concept in 2003 (Chesbrough, 2003). The core idea is that the locus where knowledge is created does not necessarily always equal the locus of innovation (Gassmann & Enkel, 2006). Three major open innovation processes can be identified within the literature (Gassmann & Enkel, 2006):

- The outside-in process, in which firms integrate external knowledge,
- the inside-out process, where firms sell their ideas, e.g. by licensing intellectual property,
- and the coupled-process meaning that firms work in alliances.

The idea of open innovation can be advanced in the area of business models by establishing co-development partnerships. As a consequence, costs can significantly be reduced, innovation outputs expanded and new markets opened up. This process

requires new approaches to intellectual property management, licensing or spinning-off (Chesbrough, 2006; Chesbrough & Schwartz, 2007).

Apart from the two currently dominant concepts of disruption and open innovation, a couple of other, less well-known ideas have emerged. One is the understanding of business models as having a mediating role affecting technological innovation through organisational learning (Hu, 2014). Another is that steadily raising risks and costs of technological innovations have to be compensated by business model initiatives (Faber et al., 2003). It has widely been argued that the integration of business model thinking may strengthen the impact of technological developments (Gambardella & McGahan, 2010), because the concept contributes to the construction of new 'techno-economic networks' (Doganova & Eyquem-Renault, 2009), supporting the investment in complementary assets, which may change the scope of a firm by simultaneously increasing their innovation capabilities in new areas (Jacobides, Knudsen, & Augier, 2006). However, firms focusing on product development have been defeated by firms using business model innovation initiatives that may or may not be disruptive, but often Internet-based (O'Reilly, 2007). Thus, firms concentrate even more on business model innovation rather than solely focusing on product innovation as a complementary perspective. Amit and Zott (2012) identified three ways of performing business model innovation:

1. Adding new activities such as forward integration,
2. combining existing activities in new ways,
3. changing components of existing activities.

By widening up the perspective from the single firm to the ecosystem, three main types of business model innovations can be distinguished: innovations in industry models, in revenue models and in enterprise models (Giesen, Berman, Bell, & Blitz, 2007), which also changes the debate towards a more strategic perspective since there is an increasing tendency for incumbents to respond with business model innovations to new market entrants (Casadesus-Masanell & Ricart, 2007)⁶. On the

⁶ Whether those entrants follow a disruptive positioning cannot be determined. According to the theory of Christensen, incumbents would most probably not react on disruptive competition since they are 'just' losing customers at the lower end of the segment, i.e. customers that tend to be the most

other hand, Chapman, Soosay, and Kandampully (2003) argue (especially for the service industry sector) that competing through business models will be of limited significance since firms have to entirely think on behalf of the customer by delivering and producing an outcome that surpasses customers' present expectations, which go far beyond the traditional offering by adding value through rich new functionalities (Timmers, 1998). The role of value creation in the business model innovation context has widely been discussed by authors such as Johnson et al. (2009) and Osterwalder et al. (2015), seeing the value proposition the core of each business model, Christensen (2004) by introducing the customer job concept, or Urban and Von Hippel (1988) suggesting lead user studies.

A further current issue in the innovation debate is that firms not only explore internal innovation opportunities but are looking at the peripheries for innovative ideas by cooperating with competitors and complementary firms. Above all a boundary-spanning tendency of exploration instead of exploitation can be observed (Casadesus-Masanell & Zhu, 2010) – similar to the open innovation approach but in a more systemic sense. Hence, business model innovation should be considered a boundary spanning process per se (Amit & Zott, 2010). Accordingly, two approaches to innovating the business model are distinguished and have been described. While a static one focuses on the coherence between the business model components the dynamic approach is more transformational using the business model concept as a tool to initiate change within the organisation (Demil & Lecocq, 2010). Accordingly, business model innovation needs experimentation and investment, so firms need to understand which tools make sense in the experimental, emerging and time-evolving world (McGrath, 2010; Morris et al., 2005). This dynamic approach strongly links to a systemic perspective of business models – an aspect that is further elaborated in the next section.

profitable, so incumbents may even increase their performance by giving away those low-end customers. However, the question as to what extent firms recognise disruptive challengers and react 'appropriately' is still an unanswered question – not least because disruption is a buzzword these days that is interpreted in a wide variety of ways.

To conclude, the innovation discipline shows at least three different ways of understanding the business model concept within one discipline. It serves as a conceptual device for explaining the power of disruptive innovations, as a framework for anchoring open innovation, or as a device for dealing with value creation and capture. Each concept brings out different main points: the focus on a modified value proposition combined with adapted revenue streams (disruption), the focus on activities, resources and partnerships (open innovation), and the focus on achieving product-market-fit (value capturing) (Blank, 2013). This shows contrasting (and possibly competing) perspectives within the innovation management discipline, contributing to the argument that business models may be perceived, conceptualised and applied in highly diverse ways. Furthermore, some of the ideas used in combination with business model considerations such as disruption theory have also been critiqued (Lepore, 2014); the argument is that ideas such as disruption theory are based on business models, a concept that itself does not yet have a strong foundation. Furthermore, the innovation discipline (particularly regarding business models) is strongly linked to strategy, especially when it comes to decisions of launching new business models: choosing the most promising model, how to implement a possible disruptive business model (in the existing organisation, as a new division, as a new ventures, etc.) and how to react to disruptive challengers, and running only one dominant or several different business models in parallel, are aspects linking innovation management and strategy. This in essence illustrates the complexities within which the business model discussion is embedded.

2.13 Business models and complexity theory

Business models are argued to be highly complex social systems. Complex systems are considered systems made up of a large number of parts that have many interactions (Simon, 1996). Complexity theory emerged after World War 2 based on the success of feedback control devices. Complexity theory was founded by basic disciplines such as cybernetics, catastrophe theory, chaos theory, philosophy of organisms and neural networks (Anderson, 1999; Manson, 2001). Three major divisions have been identified:

- 1) 'Algorithmic complexity', in the form of mathematical complexity theory.

- 2) 'Deterministic complexity' which deals with chaos and catastrophe theory.
- 3) 'Aggregate complexity' which is concerned with how individual elements work in concert to create systems with complex behaviour (Manson, 2001).

Additionally, on the basis of modelling complex behaviour emerging from interactions of individuals, the concept of complex adaptive systems (CAS) has emerged. CAS can be summarised as an outcome that is produced by a dynamical system comprising agents at a lower level of aggregation. Self-organising agents are partially connected via feedback loops; co-evolutionary processes can be observed at the edge of chaos; recombination and system evolution over time through the entry, exit or transition of agents (Anderson, 1999). Critics argue that evidence of emergence is only just gaining empirical foothold (Goldberg & Markóczy, 2000). Thus, ant colony algorithms, as a common example of emergence, are governed by biochemical rules. Individual humans, however, are complex systems in their own right. Whether complexity theory can account for this is still unclear (Smith, 2005). However, in complex systems the components act together as a whole in a new and dynamic way and respond with their environment; they create a functioning whole by the interaction of its components, which finally leads to a new 'self'. One speaks of 'self-organisational' behaviour or 'emergence' (Bodenschatz, 2009).

2.13.1 Applying complexity theory to business models

Breaking down the theoretical considerations to the concrete business context means understanding organisations as continuously changing organisms to be treated as complex structures with inherent time-paced evolution mechanisms (Brown & Eisenhardt, 1997), so the development of a business model follows an evolutionary path (Tikkanen et al., 2005). The 'dominant logic' of a firm, of the market, or of the whole ecosystem, may act as a filter, which induces instability in a firm because firms are non-linear in nature and create mental models of non-rationality (Bettis & Prahalad, 1995). The idea of 'fit' has been discussed in the context of complexity since business models emerge over time and adapt to a fit configuration with the environment. A business model's environment and the way the firm interacts with its environment plays a critical role in the business model building process (Morris et al., 2005). Furthermore, the effectiveness of a business model in value creation can be

understood as the level of fit between internal activities and the firm's environment such as the suppliers' and customers' business models (Gummesson, Mele, Polese, Nenonen, & Storbacka, 2010), and business model evolution can be seen as a 'fine tuning' process involving emergent changes between its constituent parts (Demil & Lecocq, 2010). Accordingly, business model design can be understood as a complex undertaking since different complex requirements (such as technology, organisation, finance) come together and must be balanced. Changes in one domain affect other domains in unpredictable ways (Faber et al., 2003). In environments of high complexity and uncertainty (à la Schumpeter) decisions from rationally acting managers can be deferred and have unpredictable consequences (Amit & Schoemaker, 2012).

In the complexity debate, the boundaries of a firm represent an important strategic variable by understanding a firm's dynamics and its innovation process (Teece, 1986) – this links the complexity debate back to the strategy discussion. The success of a business model depends on other innovators and its environment and the location of the firm relative to its ecosystem (Adner & Kapoor, 2010). By pursuing the ecosystem argument not only business models (as the unit of analysis) should be considered complex systems but also firms aggregated in business networks and markets forming whole ecosystems, within which business models overlap as constituent parts and actions on each stage of the systems influence the whole – in possibly unpredictable ways (Mason & Spring, 2011).

Dynamic capabilities, the ability to adapt, appropriate knowledge management and leadership are fundamentally important 'leverage points' allowing for interacting in such otherwise 'uncontrollable' systems. Through dynamic capabilities a firm not only adapts to its environment but also influences this environment through its own actions (Teece, 2007). An adaptive organisational firm, often also referred to 'dynamic community', has the capability for quickly adapting to changing circumstances (Galunic & Eisenhardt, 2001). Furthermore, managing complexity in business models is argued to be a question of leadership that can make dynamic decisions and handle complex situations (Smith, Binns, & Tushman, 2010). Additionally, a firm's knowledge base must continuously be adapted and must be

current enough in order to deal with the uncertainties of the environment (Sosna et al., 2010).

In complex systems, an initial phase of exploration followed by refinement and coordination leads to a higher performance (Siggelkow & Levinthal, 2003). Therefore, a firm's internal structure must allow for managing different cultures – allowing for managing the exploitation and exploration phase – simultaneously (Huber et al., 2015), an aspect that links back to the idea of ambidexterity, as discussed in 2.5.

2.13.2 Investigating complex systems

To conclude, examining the way business models are shaped and adapted over time reflects a cross-disciplinary research stream shaping and consolidating the business model on a pivotal level, allowing for a better understanding of the systemic nature of business models and the value capturing process (Zott & Amit, 2013). Based on Kruse's (2013) classification, the author's argument is that business models are 'unstable' and 'complex' systems (many interlinked elements and the future of the system cannot be predicted based on its past), where self-organisation may be the only viable action strategy. Thus, based on the law of Ashby (1957), the argument is that researching highly complex concepts or 'problem systems' requires at least the same level of complexity as the 'problem system'.

The next section deals with launching market experiments through trial and error. Although trial and error may not cover the full range of challenges induced by the complex nature of business models, it is considered much more manageable in practice compared to the more abstract theories from complexity literature.

2.14 Experimenting with business models

As outlined above, firms adapt their business model to the needs of an even more complex competitive environment (Casadesus-Masanell & Zhu, 2010). By doing so, successful firms 'play' with a wide variety of low-cost probes (business models or business model building blocks) enabling them to learn from the market, which is by far more effective than planning or reaction (Brown & Eisenhardt, 1997). Developing business models calls for a 'discovery driven' rather than an 'analytical' approach

since business model development requires massive experimentation; there is no understanding at the outset who will be winning (McGrath, 2010). Managers and entrepreneurs face great uncertainty in their business model development process so classic planning approaches are not just unhelpful, they may be disastrous (McGrath & MacMillan, 1995).

From a theoretical perspective, business model development is the managerial equivalent to scientific experiments: stating a business hypothesis, testing, and adapting if necessary (Magretta, 2002). The process of experimentation and effectuation is strongly coupled with leadership by transforming the business model (Chesbrough, 2010). However, the question as to what such an experiment should encompass is conjectural, because experimenting with business models through organisational modularity differs greatly from just following changing purposes (Djelic & Ainamo, 1999). However, the core idea of experimenting is that business model components are like a set of Lego blocks; managers and entrepreneurs can experiment with those building blocks and create completely new business models limited only by their creativity and the availability of the respective blocks (Osterwalder et al., 2005). A series of such small experiments enhances the learning by minimizing the risks (Yunus et al., 2010).

Experimenting with business models has become popular in the start-up scene, represented by concepts such as the Lean Start-up idea, which has attracted much attention since 2008 through the blog 'www.startuplessonslearned.com' of Eric Ries, in which Ries has been publishing his experiences from the process of founding a new venture and developing the basics of the Lean Start-up concept (Ries, 2011). He has developed a methodology to shorten the product development cycle and eliminating waste in the value creation process by formulating hypotheses, launching market experiments, building 'Minimal Viable Products'⁷ (MVPs), pivoting and learning from customers. The 'lean' idea is based on lean manufacturing, a concept

⁷ By using 'Minimal Viable Products' (abbr. MVPs) entrepreneurs can test how potential customers react to new products and services. As MVPs normally are mock-ups, prototypes or even PowerPoint slides entrepreneurs can produce at low costs in a short time period, allowing for learning fast and cheaply.

originally introduced in the Japanese car industry in the 1980s (Krafcik, 1988), and ideas about market experiments such as the concept of discovery driven planning (McGrath, 2000, 2010). Simultaneously, Steve Blank, mentor of Eric Ries, Silicon Valley serial entrepreneur and Stanford Professor, has identified patterns by analysing his own entrepreneurial journeys and developed a methodology by introducing a process consisting of customer discovery, customer validation, customer creation and firm building (Blank, 2006, 2014). Steve Blank has unified his own ideas with those of Eric Ries by creating the Lean Start-up concept (Blank, 2013; Blank & Dorf, 2012). Ideas from other authors (researchers and practitioners) in the area of business model creation in uncertain environments either influenced the concept or contributed additional elements. The business model Canvas (Osterwalder & Pigneur, 2010), for instance, is used to formulate business hypotheses (Blank & Dorf, 2012). The mantra of the Lean Start-up concept can be summarised as follows (Blank, 2013, p. 4): *“Lean Start-up favours experimentation over elaborate planning, customer feedback over intuition, and iterative design over traditional ‘big design up front’ development”*. According to Blank (2013) the Lean Start-up process consists of 2 main process phases:

1. The search process consists of customer discovery by sketching out hypotheses using the Business Model Canvas. Based on the business hypotheses, a “Minimal Viable Product” (MVP) is built and tested with real customers. Based on what has been learned, the business model hypotheses are changed by ‘pivoting’ the business model and sketching out a new Canvas accordingly (Ries, 2008-2013).
2. The second step, called the execution process, consists of customer creation: once the product is refined enough to sell. The focus changes to build up the firm by setting up a business model that allows for scaling, and the transition from a start-up to a traditional firm.

It is important to point out that start-ups are not small versions of large firms. Instead, managing a start-up requires different skills, values and world-views. After the transition from a start-up into a traditional firm, in most cases the management team has to be exchanged (Blank & Dorf, 2012). Figure 13 depicts the Lean Start-up process.

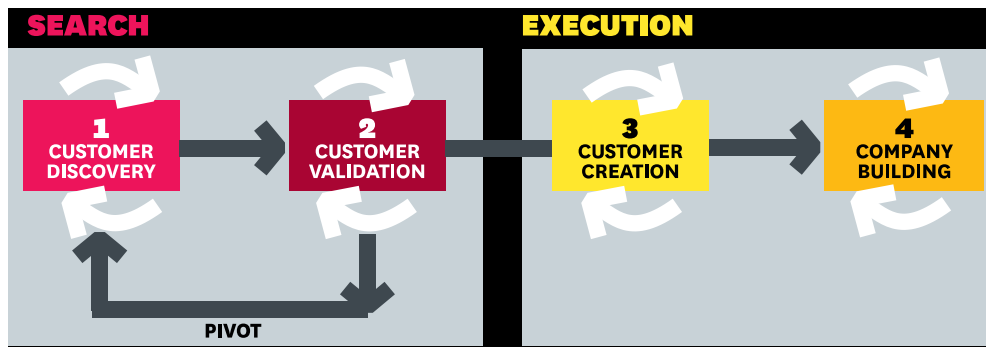


Figure 13: Lean Start-up Process (Blank, 2013).

The Lean Start-up process has become popular in the start-up scene and part of many MBA curricula (Nobel, 2011). Critics question the new entrepreneurial culture in delivering unfinished products (MVPs) and fast customer feedback with only exit strategies in mind (McGinn, 2012). The most promising element, however, is the concept of validated learning in all components and details of a business model; not only “experiments” are learning sources but also qualitative interviews or observations (Breuer & Mahdjour, 2012).

To conclude, gaining feedback from customers, testing and iterating, are promising approaches to adapt business models much faster (Iqbal, 2012). However, until now, the author’s argument is that the Lean Start-up concept has never been subject to thorough evaluation through academic research. Furthermore, trial and error action strategies can be interpreted as inappropriate in highly complex social systems (Kruse, 2013). Alternatively, entrepreneurship, as outlined in the next section, explains the way business models are created through a more traditional lens, focusing on individuals or teams looking for and exploiting opportunities often derived from their personal contexts. Nevertheless, similarities of the two concepts can be found in the way new venture founders experiment in the market.

2.15 Entrepreneurship as a source of business model creation

Entrepreneurship – as a possible source of new business models – is broadly defined in various disciplines looking at different aspects such as cognition, learning and opportunity discovery. Nevertheless, none of them captures the whole picture of what entrepreneurship is (Breslin, 2008). Critics of entrepreneurship as a research

discipline argue that key elements are subjects of other fields. They further critique a lack of conceptual framework (Shane & Venkataraman, 2000). However, a consensus has been achieved that entrepreneurship is more than just starting up new businesses. It is a process in which some (learnable) skills are highly relevant. Environmental factors that foster the detection of opportunities and the motivation to detect them are fundamentally important. Those factors are interlinked and reinforce each other (Stevenson & Jarillo, 1990). According to Stevenson and Jarillo (1990), entrepreneurship research can be divided in three main streams.

1. What happens when entrepreneurs act: an economic view first described by Schumpeter (Schumpeter, 1934).
2. Why they act: a sociological view founded in the 1960s by McClelland (McClelland, 1961).
3. How they act: how entrepreneurs can achieve their aims.

A business model orientated perspective claims that the main aim of entrepreneurship is discovering new opportunities and exploiting existing ones (Casadesus-Masanell & Zhu, 2010), about entrepreneurial cognition leading to opportunity creation and organizational outcomes (George & Bock, 2011), about wealth creation (Ireland et al., 2001), and also about value creation (Amit & Zott, 2010). However, business models have been used as 'templates', supporting imitation or comparison by entrepreneurs, investors and partners. Such business model templates are often used as examples in public press articles to show successful entrepreneurial stories (Doganova & Eyquem-Renault, 2009). To be broken down, each entrepreneurial venture either explicitly or implicitly employs a particular business model where the environment is a variable of choice selected and possibly shaped by the entrepreneur (Teece, 2010). The question why business models are important and relevant can be addressed by the entrepreneurship concept and answered by referring to Peter Drucker's age-old question: *"Who is the customer? And what does the customer value?"* A business model also answers the fundamental questions every entrepreneur must ask: *"How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?"* (Magretta, 2002, p. 4). As stated by Drucker and Drucker (2007) developing and implementing new business models is

one of the core tasks of an entrepreneur since “*entrepreneurs shift resources from areas of low productivity and yield to areas of higher productivity and yield*” (Drucker, 2007, cited in Nirjar, 2011, p. 26).

However, developing entrepreneurial ideas must be considered equal to business model development, since it deals with the interplay of factors such as people and resources. Thus, an entrepreneur can be imagined as a movie director bringing all elements of a business model together into play (Faltin, 2001, 2008, 2011). The core of business model innovation in an entrepreneurial sense is creatively (re-) combining existing business model components in new ways. An entrepreneur sees potential and opportunities in something that already exists and creates value by changing the context and by offering the same with a new business model to new customers (Faltin 2001). This point was made very explicit by Faltin (2001, p. 60) when he argues that: “*Entrepreneurs are actors (...), who discover opportunities in the market, recombine production factors and processes in order to develop new and more efficient business models, compared with existing structures*”.⁸ In particular, in founding a new business, entrepreneurs deal with business model design at the very beginning of their entrepreneurial endeavour (Zott & Amit, 2010).

As an interim conclusion, the author argues that business model thinking can be used as an ideal entrepreneurial instrument. The interesting thing here is that entrepreneurs do not necessarily need to develop a new product or service, in the sense of conducting basic research, but they can build on existing products and services, offering them with a new business logic. For example, they can produce products differently or in different places, sell them over alternative channels, can use different or new partners, etc. Based on this, new businesses can emerge. This is what authors such as Faltin say and what they understand by entrepreneurship. Accordingly, analysing and refining existing business logic may serve as basis for new entrepreneurial ventures. An excellent example for illustration is the ‘Tee-Kampagne’ (Faltin 2008): Faltin has launched a business selling tea by applying a

⁸ The original quotation can be found in German as follows (Faltin, 2001, p. 60). “*Entrepreneure sind die Akteure, die im Sinne Schumpeters, Kirzners, Drucker und Hayeks (vgl. den Aufsatz „Markt als Entdeckungsverfahren“ aus dem Jahre 1968) Marktchancen entdecken, Produktionsfaktoren und -prozesse neu kombinieren und so innovative, gegenüber den bestehenden Strukturen effizientere Geschäftsmodelle entstehen lassen*“.

different business logic. The tea is sold in higher quantities compared to existing sellers. Furthermore, he just sells one sort of tea but the highest quality (Darjeeling). The tea is just sold on the web. This makes the 'Tee Kampagne' unique representing a case in point of a business model innovation.

Furthermore, business models can also be understood as 'opportunity facilitators' where they serve as a link between entrepreneurial opportunity appraisal and its exploitation by designing organisational structures (based on the business model concept) to enact a commercial opportunity (George & Bock, 2011). Assessing such opportunities may be facilitated by creating a number of alternative business model approaches to be contrasted and discussed (Leschke, 2013) – and the choice of the 'right' business model may influence a venture's performance (Zott & Amit, 2007).

Additionally, business models can be categorized into static and dynamic. Because of human activities, the dynamic approach is favoured since business model components are always in interaction (Demil & Lecocq, 2010). Activities and interactions define how business models really work; they form relationships within the model and among partner networks (Nielsen & Montemari, 2013). Considering business models as 'living organisms' consisting of human individuals performing interacting activities, the question of personal characteristics arises and is controversially discussed in literature (Jacobsen, 2003; Read & Sarasvathy, 2005). On the one hand, personality traits or psychological characteristics combined with environmental circumstances are considered key success factors in entrepreneurship (Jain, 2013). On the other hand, based on the complex nature of business models, it is argued that there has never been found evidence of entrepreneurial success factors such as characteristic traits. Instead, entrepreneurship is argued to be a complex social phenomenon where the interaction and interdependence of various components are fundamentally important (Jacobsen, 2003). It is argued that the performance of a business depends on many variables making the analysis highly complex (Wiklund & Shepherd, 2005).

Consensus for explaining entrepreneurial success has been achieved in terms of individuals' background, experience and skills (Ripsas, 2004). It can be observed nevertheless that, very often, the individual's background serves as starting point, not

market needs (Faltin, 2001). Furthermore, the character and resilience of an entrepreneur plays a dominant role when it comes to the question whether to stop searching and end the experiment or to continue (Sosna et al., 2010), a circumstance which may significantly contribute to the success of a (new) venture, or the implantation of a new business model.

To conclude, entrepreneurship is a comprehensive discipline anchored in various fields of research such as strategy, since entrepreneurs are faced with different (competing) business model alternatives from which to make choices or to run several models simultaneously – an idea controversially discussed in the strategy domain. Considering entrepreneurship from a dynamic perspective, systemic aspects become relevant because new venture creation is not just a matter of combining various elements in a linear way; by contrast, those elements may interact systemically making complexity theory and its implications highly relevant (e.g. trial and error vs. self-organisation). The business model concept may have adopted quickly in the domain in order to explain phenomena such as value capturing but also to argue that business model generation may be an activity that entrepreneurs have been doing ever since; hence the business model in fact may be nothing really new but just a new label for an existing activity – however, the argument here is that through the introduction of the concept so far implicit activities may have become explicit.

2.16 Business models as a teaching instrument

The business model concept, most often represented by the Osterwalder (2010) Business Model Canvas, has found its way into classrooms as an accepted method for entrepreneurship education (Kaufmann, 2016). The Osterwalder (2010) Business Model Canvas is integrated in curricula as a tool for illustrating (fictional) business model ideas. Furthermore, the Canvas serves as a tool to present the ideas in front of the class and helps evaluating feedback from peer students (Jaroschinsky & RÓZSA, 2015). In university classrooms (such as the Harvard Business School), students are often taught to apply the Lean Start-up methodology in combination with the business model concept; the business model concept is used to formulate business hypotheses to be tested in the market (Nobel, 2011). A study in Australia

has investigated the current state of entrepreneurial education in the Australian higher education sector. One of the findings was that out-dated business plan thinking has been replaced by the Ries (2011) Lean Start-up methodology and the Osterwalder (2010) business model Canvas (Maritz, Jones, & Shwetzzer, 2015).

Entrepreneurial ideas do not develop in people's minds at first when entering the business world – as often assumed – but tend to be forming out in an early stage of socialisation. Since entrepreneurs keep our economy going, it is important to teaching entrepreneurial thinking to the young. By learning key competences regarding entrepreneurial self-employment, new business models must be developed, discussed and applied (Lindner, 2015). However, ever since, there has been a debate whether entrepreneurship can be taught at all. Having concluded 'yes' it can be, there has been a debate which pedagogy would be most suitable. Current research has revealed the Osterwalder (2010) business model Canvas to be an appropriate instrument for teaching ideas such as entrepreneurial finance (Jackson, Scott, & Schwagler, 2015). The Canvas has been identified to be particularly useful because it meets six characteristics. According to Neck and Greene (2011) *“it provides a set of transferable skills and techniques for new venture creation; students walk away with a toolkit applicable for all start-ups; is founded on and reinforces the creative problem solving process; relies on iterations for optimal results; encourages experimentation; and is practiced again and again – not just in one class but across the curriculum”* (Jackson et al., 2015, p. 100).

Due to radical new educational offerings on the Web, as radical new ways of (free) online learning programmes have raised, a rapid shift and evolution of online entrepreneurial educational opportunities has been observed. In these environments, the Osterwalder (2010) Canvas has been used for developing and outlining business model ideas; ideas which then have been graded by peers (Welsh & Dragusin, 2013).

As the literature shows, the business model concept is a recent arrival in the management world, as such in teaching entrepreneurship. The literature reveals that business models are mostly represented by the Osterwalder (2010) Canvas and are often used in combination with the Ries (2011) Lean Start-up methodology, as this

combination offers a new thinking paradigm of how new ventures should be created – by developing minimal viable products to be quickly tested in the market with minimal waste of time and resources (the Canvas is often used as a blueprint for formulating ‘business hypotheses’ to be tested in the market using the Lean Start-up methodology). A finding which also reflects the author’s experience in the domain. Since only few studies can be found regarding the application of business models in entrepreneurship training and education, this domain would offer opportunities for future research too.

As could be shown, the Osterwalder (2010) Canvas is the most often used framework in entrepreneurial education. However, there are other frameworks too – mostly as the product of conceptual studies.

2.17 A lack of empirical studies

Although the concept has emerged in the mid-nineties only, it has widely spread and has been adapted by many disciplines, such as strategy, technology management, value creation, innovation management, complexity theory, start-up and venturing, and entrepreneurship.

An argument is that these days, it is ‘trendy’ to talk about business models because the term is generally used *“to show that we know what a firm does”* (Goethals, 2011, p. 47). The business model concept is seen by many scholars as something managers use to explain various phenomena (Zott et al., 2011). The dramatic increase in the number of publications referring to the business model concept and to the term ‘business model’ clearly indicates a high interest in the idea (Ghaziani & Ventresca, 2005). Based on its popularity many disciplines see potential by integrating the business model concept in their reasoning, which has led to many industry-specific understandings (Günzel & Holm, 2013). Trimi and Berbegal-Mirabent (2012) consider business models popular by academics and practitioners, but literature suffers from a lack of serious research in the domain, so they see a plenty of definitions with an insufficient theoretical grounding of the concept and no generally accepted definition of the term ‘business model’; As a consequence, the

term is often used interchangeably with concepts such as 'business strategy' and 'economic model'.

Based on its popularity in a wide range of disciplines, the concept has not only been used but also understood differently. In the academic domain business models *"have yet to develop a common and widely accepted language that would allow researchers who examine the business model construct through different lenses to draw effectively on the work of others"* (Zott et al., 2011, p. 1020). Hence, the term business model is often broadly defined or unspecific (Osterwalder et al., 2005), or, authors give no definition when using it (Timmers, 1998); hence, there is still much confusion about the nature of business models (Shafer et al., 2005). Accordingly, DaSilva and Trkman (2014, p. 2) argue that *"It is time to relearn what the term 'business model' encompasses and prove its relevance and utility to both the academic and the business community"*, not least because researchers often view the business model concept subjectively (Al-Debei & Avison, 2010). Furthermore, practitioners are often overwhelmed by the task of developing – or even at understanding – their business model; the topic is hyped in the popular press and there is a lack of proven knowledge in practice (Frankenberger, Weiblen, Csik, & Gassmann, 2013). Since the term 'business model' is used widely only little has been said on the business world's perception of the use of business models (Osterwalder & Pigneur, 2004). Accordingly, business model innovation is perceived difficult; not only do firms understand the term business model inconsistently but also (as a consequence) are they incapable of understanding their current business model, so they do not recognise when changes would be necessary nor how to perform those changes (Johnson et al., 2008).

On a high level of abstraction, consensus has been achieved in the academic world that business models reflect *"management's hypothesis about what customers want, how they want it and what they will pay, and how an enterprise can organise to best meet customer needs, and get paid for doing so"* (Teece, 2010, p. 191). Klang et al. (2014) brought in an additional perspective arguing that the term 'business model' is suffering from a paradox between outstanding popularity and severe criticism. Thus, the business model concept is considered fuzzy and vague and there is only limited consensus concerning its compositional parts. Because there is a wide variety of

interpretations of the term 'business model', a firm's business model may be the result of a social negotiation process (Page, 2014).

Since the business model concept is understood in various ways among researchers and practitioners, the argument is that there may exist a wide array of meanings, or as stated by Magretta (2002, p. 6) *"Today, 'business model and 'strategy' are among the most sloppily used terms in business; they are often stretched to mean everything – and end up meaning nothing"*. Supporting this view, DaSilva and Trkman (2014) argue that there has been achieved no consensus about the meaning of the term 'business model', which often encompasses everything, including strategy, economic model or revenue model. Hence, the relationship between these similar terms and the term 'business model' remains unclear, and the term is used erroneously and haphazardly among managers (Goethals, 2011). Thus, due to the absence of a common definition of the business model concept, the meaning is evolving through research and practical applications (Lambert, 2015). The term is a relatively recent arrival in the management literature, and often a generic term carrying an intermediate level of details – compared to other areas such as economic theories of a firm. Accordingly, business models are considered always subjective since different perceptions exist of what a firm does (Page, 2014).

Taken the term's broad understanding and meaning, hence its fuzziness, the legitimization of the term has generally been questioned (DaSilva & Trkman, 2014); a result of the fact that business models are mostly studied without explicitly defining the concept (Zott et al., 2010). Through a theoretical literature analysis DaSilva and Trkman (2014) concluded that the business model terminology has been criticised from three main perspectives. The business model concept as an idea of the dot-com area with questionable success stories, poor management practices from this Internet bubble era have been linked to the business model idea, and the fuzziness associated with its meaning has divided the opinions about its value and usefulness in the management field. Additionally, Klang et al. (2014) see a paradox between the concept's simultaneous popularity and criticism so they argue that the similarity of separation and attachment of publications forms the main antecedent of this paradox. Thus, recurrent themes represent the core of the concept upon which scholars build their specific meaning of the label 'business model'. Klang et al. (2014) argue that

simultaneity of publications under the same term result in a core understanding and in tensions. The core reflects the meaning academics and practitioners create when confronted with the term 'business model'. This core constitutes of recurrent themes. The relationship of the concept to the concept of strategy, the relationship of the concept to the notion of value, and the relationship of the concept to other concepts that specify its nature and consider the perception and application of the business model concept as a phenomenon. However, the proliferation of the term 'business model' was motivated by new technologies, mainly Internet related. Accordingly, publications have adopted the terminology in order to describe the way firms make business. Broken down, the validity of the concept has been questioned arguing that it invites faulty thinking and as having a thin conceptual base, and definitions have been developed to the individual researchers' perspectives (Klang et al., 2014; Zott et al., 2010). Furthermore, the concept has been critiqued insofar that it would be an *"invitation for faulty thinking and self-delusion"* (Porter, 2001, p. 13), *"There is still much confusion about what business models are and how they can best be used"* (Shafer et al., 2005, p. 199), and *"The literature is developing in silos, according to the phenomena of interest of the respective researcher"* (Zott et al., 2011, p. 1019).

To conclude, the argument is that a wide variety of concepts in various domains has led to a plethora of understandings, perceptions, meanings, and applications of the business model concept, and despite its vagueness the term has become an indispensable part of managerial vocabulary (Tikkanen et al., 2005). As can be observed with other nascent fields such as small enterprise and organisational science, a lack of empirical studies may lead to an increasing number of concepts (Lambert, 2015), accordingly *"In the absence of careful empirical analysis, a plethora of conceptually based models have emerged"* (Hanks, Watson, Jansen, & Chandler, 1993). Already Osterwalder and Pigneur (2004) noticed that only little research has conducted in order to describe the confrontation between the business model concept and the business world. Yet, more than 10 years later Hacklin et al. (2015) found that there is still no consistent consensus regarding the business model construct and that only few empirical studies around the business model idea have conducted. Hence, empirical studies may generate the link between business models and other organisational phenomena such as performance (which the business

model concept is used for as an instrument of reasoning); yet, most business model studies remain conceptual and theoretical in nature. Im and Cho (2013) go even a step further to say that a lack of empirical studies has limited the concept's use for practical purposes; Lambert and Davidson (2013) see a tendency of an emergence of empirical research, which either tests the concept or is exploratory in nature. Accordingly 69 empirical research papers have been investigated for the period 1996 and 2010 by identifying three dominant themes: Business models as the basis for enterprise classification, business models and enterprise performance, and business model innovation (Lambert & Davidson, 2013). Having identified a lack of empirical studies, the next section is devoted to a selection of the few empirical studies that have been conducted in the business model domain.

2.18 Empirical studies of business model application

Only few empirical studies have been conducted in the business model domain, or as argued by Hacklin et al. (2015, p. 1): *“Much of the empirical research around the BM (business model) rests on anecdotal evidence.”* Those which have been conducted followed various methodological schools (Lambert & Davidson, 2013).

This statement from Hacklin is particularly important for the present research. It offers the voice of another researcher in the field, very explicitly supporting the author's conclusion (on the current body of literature) that very little empirical research has been conducted in the business model domain. It not only highlights a lack of empirical studies but also indicates that a lot of current business model research builds on anecdotal evidence.

This section introduces and summarizes a selection of the few existing empirical studies using different research approaches. This section will inform the methodology chapter, where alternative research purposes and research strategies are discussed. The review starts with quantitative approaches, then narrows down to qualitative studies conducted in the domain. The section closes with a discussion of the most relevant studies identified.

2.18.1 Quantitative research

In a quantitative research project, Eriksson, Kalling, Åkesson, and Fredberg (2008) explored the e-newspaper case from a consumer view. They aimed at exploring points of view by dealing with the implications of the consumer perspective on future m-service innovations on business models, finally proposing an integrated framework. An online survey at three Swedish newspapers was conducted, incorporating 3,626 respondents. Because the e-newspaper concept was expected to be poorly understood by the respondents, additional information was provided to them. A non-probability sample approach was used. The participating respondents – with a strong opinion to the subject – were expected to be overrepresented, an issue to be corrected in the data evaluation.

George and Bock (2011) investigated ‘The business model in practice and its implications for entrepreneurship research’. The aim of the study consisted of reframing the business model concept through an entrepreneurial lens. A discourse analysis of 151 surveys with practising managers was conducted. The survey asked two open-ended questions to the respondents:

1. “What is a business model?”
2. “What is your firm’s business model?”

The responses were analysed using discourse analysis (also often referred to as content or textual analysis) and categories and sub-categories were developed. In order to develop and test the inductive research strategy, exploratory interviews were conducted in which the respondents were asked to describe their business models.

Beside survey-based studies, business models have also been researched using secondary data analysis techniques or mixed method approaches consisting of an exploratory study (framing the content of the study), followed by the main phase analysing quantitative secondary data found in databases, such as performed by the study from Moyon and Lecocq (2010). The aim of this study was to investigate the interactions of organisational change and the actors’ strategic behaviour. The research was conducted in two stages. The first stage encompassed 17 semi-structured interviews with experts from the field confronted with change in the music

industry, allowing for better understanding of the context as basis for the second stage, the main study. In the second stage, secondary data were collected that allowed for understanding the behaviour of two selected major firms. Therefore, all articles dealing with strategic responses toward change in the period of 1997 to 2000 that could be found in public sources (databases) were collected and analysed.

2.18.2 Case studies

Highly complex research topics can be investigated using case study approaches as demonstrated by Kindström (2010). This study was about product-based firms moving towards a service-based business model to increase firm competitiveness. Comparing and contrasting cases is an approach that allows for dealing with complex problems and situations. Mezger (2014) used six case studies to demonstrate how firms systematically pursue business model innovation, arguing that current business model research lacks a conceptualisation of core elements and relevant organisational capabilities. An inductive case study research strategy was applied, aiming at analysing complex processes in organisations. The case studies were used to compare and contrast data, allowing for developing richer and more valid theory.

Complex problems may not only be investigated by the means of interviews but also by a mixed method research approach, as emphasized by Feller, Finnegan, and Hayes (2008). This research examines a network of open source firms cooperating and delivering the 'whole product' by investigating the influence of participation on the business model development of the participating firms. The emerging phenomenon of business network firms has been explored via single case study method, which allows for exploring relationships between variables in their given context.

2.18.3 A Delphi study approach

A Delphi study represents another research approach, which has been applied in the business model research domain. The study 'A network based perspective on business models for emerging technology-based services', conducted by Ulkuniemi, Pekkarinen, Palo, and Tähtinen (2011), is based on such a Delphi approach, which

aimed to identify the generic elements of a business model in the technology-based field, and developed a networked business model. A qualitative Delphi study using expert's opinions in a structured communication process was used to identify and empirically ground a framework. Data collection was by means of questionnaires, which were sent to the experts in two rounds.

Delphi studies allow a group of experts to deal with complex problems where opposing views are debated around complex issues (Linstone & Turoff, 1975; Loo, 2002). *“The method was chosen for this study as there are various definitions of the concept of business model and thus also a variety of its core elements. The Delphi empirically grounds the concept with a variety of views, perceptions, and opinions of managers that use the concept in their everyday practice“* (Ulkuniemi et al., 2011, p. 380).

2.18.4 Action research

Another approach, standing out as a research strategy on its own right (as a special form of case study design), was chosen by Heikkilä et al. (2015), using action research in order to investigate the setting up of a new network-based business model in four cases in the Finnish eHealth sector, jointly providing a new service. Although action research is considered an alternative methodology, this study represents an interesting approach to dealing with complexity. In the study by Heikkilä et al. (2015), an integrative framework and a set of corresponding performance indicators were proposed. Accordingly, new empirical knowledge was contributed by combining the business model concept with performance evaluation. Broken down, this study concludes that existing frameworks such as the Canvas should be complemented by performance metrics; this has been evaluated in a design science (action research) project consisting of 4 participating firms. The originality of this study is the use of an action research approach to innovate a business model framework.

2.18.5 Qualitative studies

Already in 2004, Osterwalder recognised in his doctoral project that the business model concept may be perceived and used differently in practice. Thus, he investigated the use of the business model concept through interviews (Osterwalder & Pigneur, 2004). Although the paper has never been published in a journal it is considered relevant to the present research since it deals with a broadly similar research aim by investigating the business world's perception and use of business models. The paper states that the term 'business model' is widely used in practice with no clear meaning. In the research, 8 managers, from different sectors and firm sizes, and 3 consultants were interviewed about possible uses of the business model concept. The study was exploratory in nature. However, before the interviews had been conducted, the respondents were provided with an a priori framework, the business model ontology developed by Osterwalder and Pigneur (2004), which served as an instrument for structuring the interviews. In total, 11 semi-structured interviews were conducted, recorded, transcribed, and coded for developing emerging themes. Although their study appears to be close to this research in terms of the chosen methodology and sample – and because they also argued that the business world does not understand and use the business model concept consistently – it differed greatly in an important aspect of its design. Essentially, (Osterwalder & Pigneur, 2004) focused on investigating the strengths of their own developing model, introducing it to the respondents at the outset, which then represented the main issue of the discussion – accordingly, their study was more deductive in nature because it aimed at testing an already existing idea.

By contrast, in the present study, the respondents are not provided with an existing conceptualisation or framework, hence, it is more inductive in nature. Furthermore, Osterwalder and Pigneur (2004) did not explain the logic of their sample (which seems to be chosen following a judgmental strategy but without justification) nor did they explain what they meant by 'concepts' and 'tools', which they used to structure their study. By contrast, the present study aims at obtaining maximum diversity among and between the samples (as outlined later), an aspect that was not discussed in the Osterwalder (2004) paper.

Another study conducted by Combe, Mason, and Mouzas (2012) aimed at investigating the perception of business models through interviews. The study examined the flexibility of different business models to achieve higher firm performance. Therefore, a matched-pair sample of 20 high and low-performing firms were investigated and compared (10 of each type). The study explored the flexibility offered by alternative business models; hence an exploratory-descriptive research design was applied using in-depth semi-structured interviews as a data collection method allowing for collecting the richest data. The open questions dealt with the way firms adapted their business model and how they perceived their models' link to market orientation. However, the managers were not asked directly about their business model but to describe their network architecture and market focus. The samples were chosen following a judgmental sampling strategy by identifying 'key respondents' who can provide the most genuine insights into the research issue. The interviews were taped, transcribed and analysed using methods of inductive reasoning and comparative methods. Codes were developed looking for factors having influenced a firm's ability to achieve a customer and competitor focus.

The complexity of business model research was addressed by an empirical qualitative study conducted by Storbacka (2011), who aimed at developing an adapted business model framework with their study. The research aim was to develop a solution business model framework, which allows for designing solution business models by categorising capabilities and management practices. The research was conducted by including a group of ten firms from different industries. The research followed an abductive strategy; hence, a combination of induction and deduction. The aim was to finding matching patterns, which included going forth and back between the framework, data sources and analysis – an approach that allows for matching theory and reality in a non-linear, path-dependent way by systematically combining empirical observations with insights from literature. The research was conducted in three phases:

1. Framework development
2. Explication of capabilities
3. Interpretation

In total 10 interviews with experienced senior managers were conducted. The respondents were selected following a purposive sampling approach building on the responses of previous interviews, which allowed for building the framework during interview progression. The data were analysed by building emerging categories. In order to increase the trustworthiness of the developed framework, full-day research workshops were held in the participating firms aiming at getting comments to the developed framework.

Wallnöfer and Hacklin (2013) conducted a qualitative study in Switzerland. Their research deals with an early stage perspective by introducing the business model as an early stage marketing narrative device towards potential business angels. The research investigated the role of the business model in the decision-making process of business angels. Therefore, 17 business angels were interviewed using in-depth, semi-structured problem-centric interviews, which were divided in two parts:

- Firstly, the professional track and the investment history of the respondents, familiarisation of the business angels with the business model concept (between steps 1 and 2).
- Secondly the investment behaviour of the business angels with reference to the business model perspective.

The research purpose was exploration so the interviews were loosely structured with the aim of exploring the different meanings, perceptions and interpretations of business angels with respect to the underlying research question. Based on the theoretical argument that early ventures still lack external validation from the market, the group of respondents, considered the most critical in this stage, was carefully selected. The sample was chosen following a pre-defined set of 3 critical characteristics (early stage investors, seeking active or passive investments, in the context of the German speaking part of Switzerland). The interviews were recorded, transcribed and coded. The analysis was guided by the research question, with no a priori hypothesis. The aim was to identify emerging patterns and dominant themes, by comparing categories.

Bukh and Nielsen (2010) conducted a study that focused on the health care sector. This research deals with the way financial analysts understand the strategy of health care firms, and which elements form the basis of a health care firm's business model. The empirical part of the study consisted of semi-structured interviews covering four themes, which were identified via literature review. The researchers accordingly explored the analysts' backgrounds, experience and specialisation, then investigated perceptions about the strategy, value creation etc. of a firm which is part of the analysts' portfolio, about information that is used to interact with the firms, and the use of annual reports. The interviews were structured using a guide with pre-determined questions consisting of themes and sub-themes. However, the analysts were able to create their own structure during the interview.

2.18.6 Discussion of relevant empirical studies

Figure 14 summarises the empirical business model studies, which have been reviewed in the previous sub-sections. Three of them have been rated as highly relevant for the present study and are discussed in-depth as follows.

Author(s)	Paradigm	Research Design	Relevance
Combe et al. (2012)	Qualitative	Interviews	high
De Reuver and Haaker (2009)	Qualitative	Interviews	high
Wallnöfer and Hacklin (2013)	Qualitative	Interviews	high
Bukh and Nielsen (2010)	Qualitative	Interviews	medium
Osterwalder & Pigneur(2004)	Qualitative	Interviews	medium
Storbacka (2011)	Qualitative	Interviews + Focus Groups	medium
Moyon and Lecocq (2010)	Mixed methods	Interviews + Secondary Data Analysis	low
Kindström (2010)	Mixed methods	Multiple Case study	low
Mezger (2014)	Mixed methods	Multiple Case study	low
Feller et al. (2008)	Mixed methods	Single Case study	low
Heikkilä et al. (2015)	Qualitative	Action Research	low
Ulkuniemi et al. (2011)	Qualitative	Delphy Study	low
George and Bock (2011)	Quantitative	Discourse Analysis	low
Eriksson et al. (2008)	Quantitative	Online Survey	low

Figure 14: Empirical studies reviewed. Source: Author (2016).

Essentially, the empirical part of the present research has been mainly inspired by the following empirical studies covering several relevant methodological aspects of the project, as discussed in the previous sections. The Combe et al. (2012) study forms an important pillar of the present project because it shows that semi-structured interviews represent a viable research instrument in exploratory studies, a comparing or triangulating approach increases the validity and credibility of the research, a judgmental sampling strategy is appropriate in order to get maximum richness of data, and inductive reasoning combined with comparative methods represent an adequate instrument of analysis.

The study from De Reuver and Haaker (2009) was useful as inspiration in the process of exploring the contexts and the individuals' backgrounds in a first step, then turning to the main questions of the research in a second step. Thus, the argument is that the individual backgrounds and experiences play a significant role to the way the business model is perceived and applied.

The Wallnöfer and Hacklin (2013) study is a main pillar of the present project design too since it explored the views, perceptions and meanings of business angels using loosely structured interviews (in the Swiss context), which is in many areas close to the research aim of the present study (despite different social actors and research questions). This study is particularly interesting because the research was conducted in two parts: part one dealing with the respondents' backgrounds – aiming at better understanding the various contexts – and part two, the business angels' investment behaviour, as the main part of the study. This again backs the argument that the respondents' contexts and backgrounds represent an inevitable contextual variable to be included. Finally, and most importantly, the samples were judgmentally selected – to provide maximum richness of data – according to the following three selection criteria: early stage investors, seeking active or passive investments, in the context of the German speaking part of Switzerland. This approach can be adapted to the present project as follows: academics, support professionals and small-business owners having an affinity to a technical environment, working with small businesses, in the context of the German speaking part of Switzerland. Additionally, Wallnöfer and Hacklin (2013) used thematic analysis in order to build codes, themes and find patterns in the data. Thematic Analysis – or a slightly adapted version of it – also builds up the backbone of analysis of the present thesis, as further elaborated and justified in the methodology chapter.

2.19 Conclusion to the literature review and implications for the research

2.19.1 A concept dispersed over many disciplines

The business model concept first became popular in the Internet bubble era in the late 1990s but has rapidly become a tool of analysis for businesses of all kind, so these days it has promising implications in a dispersed landscape of various disciplines such as strategy, entrepreneurship, technology management, or new venture creation. The concept's popularity is also reflected by a plethora of definitions scholars have developed (often in silos), supporting the author's observation that the term 'business model' is used with only limited meaning in practice; an observation that represents the starting point of the present research project.

Thus, the business model concept is often used interchangeably with concepts such as business plans, business process models or strategy. However, business plans, for instance, are argued to be an instrument for collecting venture capital in an early phase of a new venture, while business models describe the logic of a business. A business model is also different from strategy; nevertheless, the two concepts reinforce each other in many areas such as in terms of the question how many business models a firm can run simultaneously. Zott et al. (2011) posit that a conceptual consolidation of the business model concept is needed as basis for more cumulative research, which also includes a further 'integration' of the still young business model concept in traditional research streams such as strategy.

2.19.2 A lack of empirical studies as research gap

As shown in the study conducted by Lambert and Davidson (2013) the argument is that most empirical research deals with areas such as classification, performance and innovation, but the arguably most basic question, how the term 'business model' is perceived and understood, and how the concept is applied by social actors confronted with the idea, remains unaddressed. Building on the argument that *"scientific fields are word systems created and maintained through a process of negotiation between adherents to alternative theoretical languages"* (Astley, 1985, p. 499), Klang et al. (2014) argue that key terms in management – such as the term 'business model' – are part of that conceptual language. Accordingly, the comprehension of the term 'business model' may be the product of linguistic conventions rather than empirical observations. Thus, the argument here is that bridging the gap between those linguistic conventions and empirical data dealing with the way the business model concept is conceptualised and applied in practice, represents a viable research gap.

2.19.3 Technology management and the practical contribution

Furthermore, and highly relevant for the present research – representing the practical anchor point – business models are strongly related to the world of new technologies. For example, the Swiss building technology sector – the context of the author's firm – is confronted with challenges, i.e. induced by the fourth industrial revolution (industry

4.0), which means that the business model debate has become more important than ever, particularly regarding the disruptive potential of many Internet-based technologies.

As a case in point, several disruptive ‘threats’ can be observed. As an example, engineering offices tend to focus on higher market segments, while installation firms start offering planning services in areas traditionally occupied by engineering offices – a phenomenon described in Christensen’s seminal (2002) book ‘The innovator’s dilemma’. Hence, confronted with disruptive challenges, engineering offices (such as the author’s firm PlanFabrik) need to reconfigure their business models in order to stay competitive in the longer term rather than ‘escaping’ to seemingly more lucrative segments. As a consequence, the present project is important because it aims at better understanding the business world’s perception of the business model concept, an aspect that finally allows for deriving implications of how to apply the concept more effectively in practice.

2.19.4 Business model frameworks as output of conceptual studies

On the one hand, a lack of empirical studies dealing with way the business model concept is conceptualised and applied in practice has been identified as a research gap. On the other hand, a plethora of conceptual studies has been conducted thus far, many of which offering frameworks. Particularly important is the Osterwalder (2010) framework called ‘Business Model Canvas’, which may have significantly contributed to the business model concept’s popularity. Accordingly, the argument here is that we must distinguish two periods: the time before, and the time after the Canvas. Although the Canvas unifies existing ideas, the way they are presented are new and appealing. Combined within an attractive, practice-orientated book containing interesting examples of application (famous business success stories), Osterwalder succeeded in making the concept popular.

2.19.5 Business models as highly complex systems

Not only are business models used in various disciplines but they are also highly complex constructs. As a consequence, investigating the understanding and use of

business models is a complex endeavour. Thus, the author concludes that the research process finally requires a qualitative approach that allows for including complexity rather than reducing it. This means integrating many diverse perspectives in an exploratory study in order to better understand the concept's perception and application. Hence, the need for inclusion of many diverse perspectives in order to achieve maximum richness and diversity of data represents the starting point of the research design.

2.20 Conceptual conclusion of the literature review

2.20.1 Current knowledge in the 3 communities

As can be concluded from the literature review, there are only few empirical studies in the business model domain. Moreover, no researcher has explored perception and understanding of the business model concept within the three communities of academics, support professionals, and owner-managers (as those three groups using and applying the business model concept). The present research addresses these gaps. This section offers an idea what will be found when the research questions (see 1.4.3) of the present study are applied to the literature.

Figure 15 depicts several bodies of knowledge including the three communities' perspectives on current business model knowledge as provided by the literature. These bodies of knowledge are:

- Business books.
- Conceptual studies.
- Empirical research.
- Anecdotal writing.

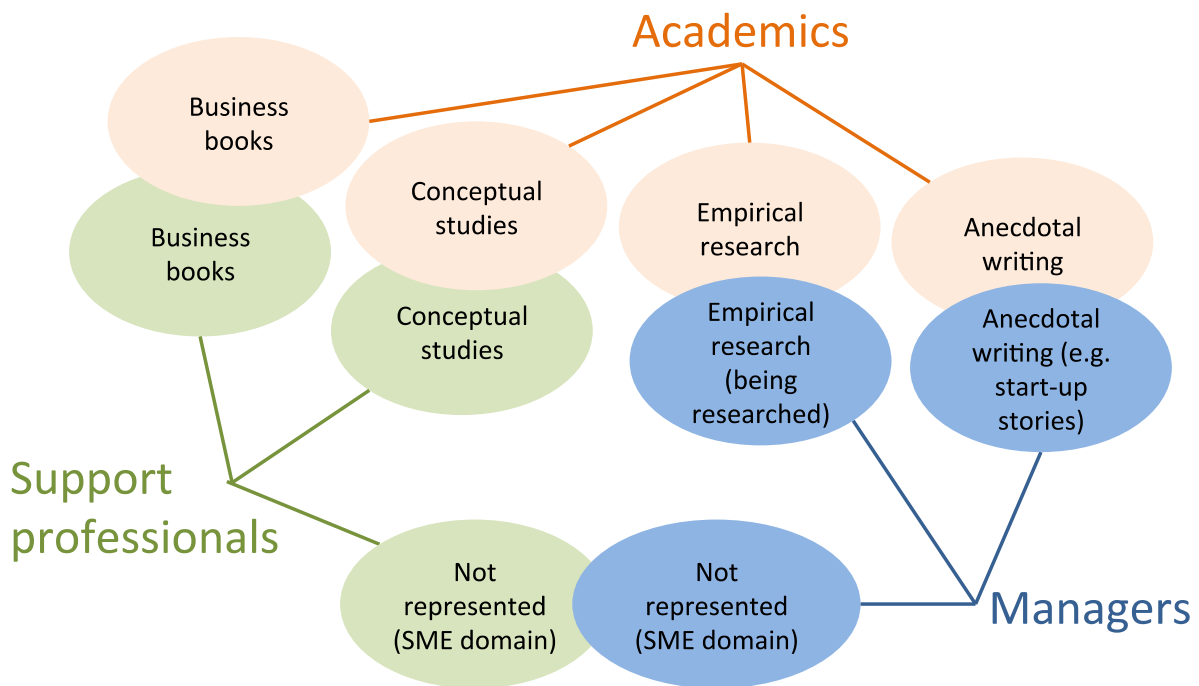


Figure 15: Perspectives of the three communities (Author, 2018).

The three communities' perspectives are shown in different colours. There are overlapping areas, which are identified by the overlapping ovals in Figure 15. In the following sub-sections the three communities' perspectives are elaborated step by step.

2.20.1.1 Academics

There is a plethora of conceptual studies in the literature, mainly produced by academics. Academics are those people that ultimately have the most impact on the business model concept as they have produced most of the extant literature in the domain and continue to do so. Currently, there is a tendency of developing new or adapted frameworks. The literature further shows that the business model concept was adapted by academics in many field fields – since it offers an integrative perspective for many domains it was widely applied. By consequence, current literature mainly reflects the ideas of academics – ideas often developed in silos and on the conceptual level.

Academics do no work in isolation. There are various examples of collaborative developments between academics and the business world. Quite often, the

perspectives from managers are included, but finally interpreted by academics. Such examples are Christensen's famous job-to-be-done concept as a tool to develop value propositions (Christensen, Hall, Dillon, & Duncan, 2016), or Chesbrough who developed the open innovation concept with firms such as Xerox (Chesbrough, 2003). Swiss academics such as Gassmann also have strong relationships with the business world; for instance firms such as Hilti were included when the 55 business model archetypes were developed (Gassmann, Frankenberger, & Csik, 2013). However, one has to be careful to differentiate between 'real' empirical work and anecdotal stories told by academics, which are often included in American business model literature.

Empirical fieldwork has been done in various areas, often informing the perspective of academics. For instance, there was research on the way the business model concept is used for entrepreneurial marketing (Wallnöfer & Hacklin, 2013), the way the concept can be reframed through an entrepreneurial lens (George & Bock, 2011), to investigate organisational change (Moyon & Lecocq, 2010), or to identify generic elements of business models (Ulkuniemi et al., 2011) – to name just a few. These studies were conducted following various methodological schools. Case studies, such as those conducted by Kindström (2010), show how firms use the concept, for instance to improve competitive advantage. Academics bring in their perspectives by conducting such research and writing papers and reports.

Some academics not only publish papers but also produce business books. These books can be informed by anecdotal stories, by empirical research, or by reflection and personal opinions. Academics are those who work on the conceptualisation of the business model concept. They further research the concept's historical evolution, are concerned about definitions, and develop new or adapted frameworks. On the application stage, they investigate different domains of application and reflect on the purpose of business models – however, there are only a few integrative works, since most academics apply the concept to their own area of interest, so the concept tends to be researched in silos. Academics dominate the concept's development on all stages. However, currently most popular is the development of new or adapted frameworks.

To conclude, the perspectives of academics have found their way in the business model domain in many ways: conceptual studies (often developed in silos), anecdotal 'research', empirical studies, or business books. One could assume that this community may be best represented by the literature – or when interested in the academics' perspectives on business models, one might readily conclude to simply review the literature. However, the present research goes beyond this by explicitly talking with a sample of academics in the domain – not least in order to establish whether the literature represents them adequately (primarily in the Swiss context).

2.20.1.2 Support professionals

In broad terms, the community of support professionals is very diverse. On the one hand, it includes huge consulting/support institutions, such as McKinsey, Boston Consulting Groups (BCG), or PricewaterhouseCoopers (PWC), often collaborating with universities. An example of an often cited publication on business model innovation is by Lindgardt et al. (2009) from BCG.

As such, the conceptualisation of the business model concept has mainly been co-influenced by the support professional world, so their perspectives are dominantly reflected by the literature. The argument here is that they not only bring in new ideas discovered in their work with practitioners, but also have considerable influence on the work of academics as sources of inspiration.

There are also support professionals who test their (former) ideas in practice – by consequence, new or adapted concepts flow back to the literature. Examples are the entrepreneurship book by Stähler (2014) or the Value Proposition Designer (VPD) from Osterwalder et al. (2015), a plugin for the Canvas, which was developed in consulting practice outside academia, in collaboration with the University of Lausanne. Both are examples of former Swiss academics who have influenced the concept's evolution by reflecting and refining ideas from their former academic career. They write business books inspired by their practical experience and learning.

Support professionals are mostly concerned with the application of the business model concept, which is reflected by the publications of this community. Some of

them have contributed to the definition or the conceptualisation of the concept in their former careers as academics.

To conclude, support professionals' perspectives are either represented directly through their own publications in the scientific domain, indirectly through collaborating with universities, or through business books in which they reflect best practice. It is mainly the ideas and perspectives of support professionals working in large consulting firms, or from individuals with a strong academic background, that have found their way to the extant literature. However, most support professionals, especially in the SME support domain, are not of this type and their ideas are not reflected in the literature thus far. Accordingly, because the present study has a strong focus on the small business world, it makes an original contribution by investigating their perspectives and application practice.

2.20.1.3 Owner managers

Managers, mostly from large firms, do collaborate with universities, so ideas are exchanged at this level and their perspectives find their way to the literature, for instance through interviews in case studies or through questionnaires in quantitative studies, or just based on discussions and exchange with academics – sometimes also as basis for anecdotal stories. However, the author's argument is that their voices flow in indirectly, as they are those people being researched, such as in the study conducted by Kindström (2010). In Switzerland, universities tend to collaborate with large firms rather than SMEs. Accordingly, executives of large firms have influenced the business model literature, e.g. through the work of Osterwalder (2004) or Gassmann (2013). By contrast small business managers are under-represented in the currently dominant business model literature. The practical side of business model application at present is mainly dominated by research on large firms. Furthermore, there are many examples of experienced managers writing articles about business model application in the popular or business press, or of managers being interviewed within these publications, so the broader literature contains plenty of ideas from managers beyond those within the academic literature.

The literature also offers a plethora of business perspectives from the start-up and new venture domain. A famous example is Eric Ries, who commented on his

entrepreneurial journey in a blog⁹ and finally developed the lean start-up concept (Ries, 2011). Another example is Steve Blank, a Silicon Valley serial entrepreneur condensing his experiences in a new methodology of business model application (Blank, 2013). This body of knowledge is concerned with the application of the business model concept.

To conclude, there are 'direct' perspectives from large firm managers in the literature, often from managers writing articles or in interviews outside the academic literature. These managers mostly reflect on business model application issues and indirect perspectives can be found within empirical studies. By contrast, the literature contains plenty of start-up and new venture stories in the business model application domain – however, these are mostly dominated by US Silicon Valley Internet firms. In comparison, the voices of Swiss SME owner-managers regarding business models are only rarely represented in the literature, offering ground for an original contribution to be made with the present research.

2.20.2 A conceptual framework of the reviewed literature

The present sub-section offers a conceptual overview of the literature showing what is known about business models on a thematic level. On a condensed level, the reviewed literature can be mapped using the following three dimensions:

1. Topic development.
2. Theoretical stage.
3. Application stage.

The current body of knowledge, not only represented by the literature but also by practical experience, builds up the basis of the three stages. The practical experience is shaped and influenced by the individuals applying the concept in practice. Figure 16 depicts a visual representation of the business model landscape according to the literature review. Concepts from the literature are in black, while the practical context is marked in blue.

⁹ www.startuplessonslearned.com (retrieved on July 2018).

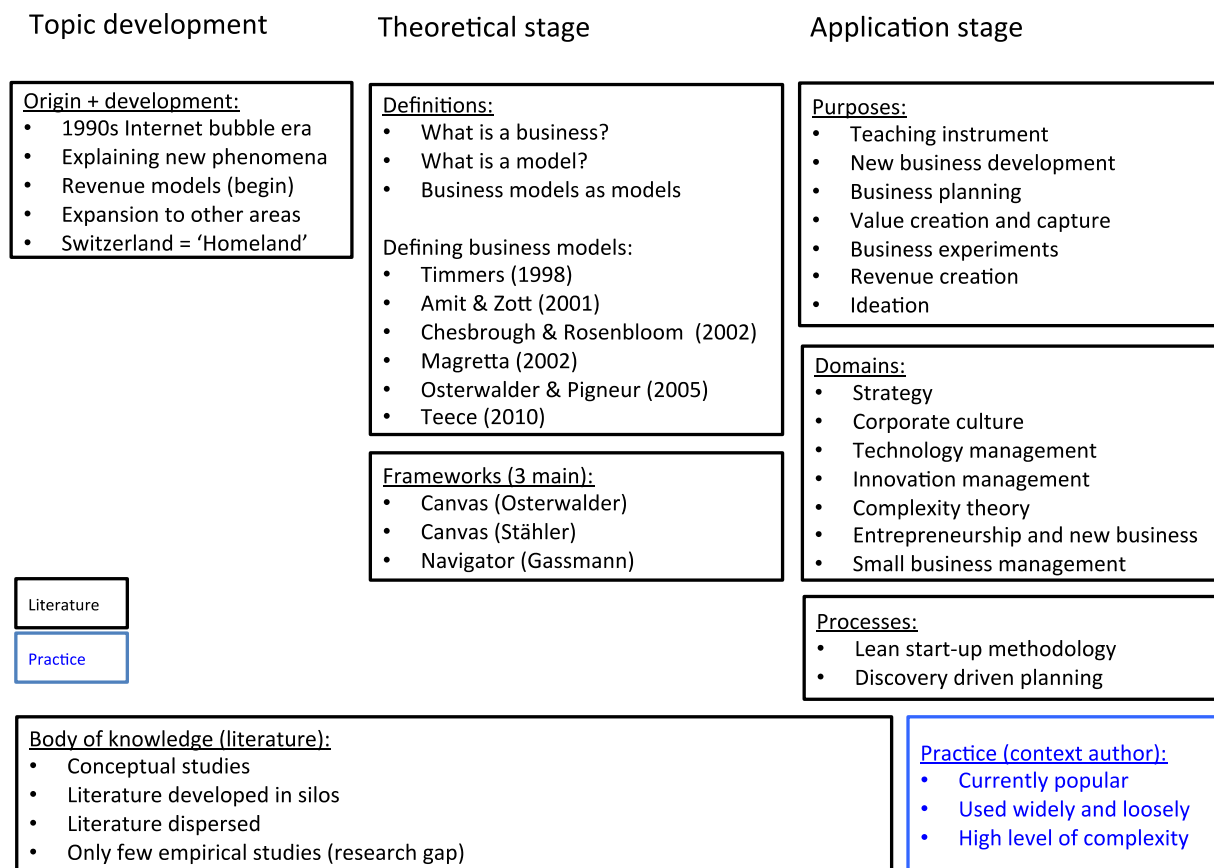


Figure 16: Conceptual framework literature review. Source: Author (2018).

2.20.3 The framework explained in depth

2.20.3.1 *Topic development*

The first level, the development stage, deals with the business model's historical development, its roots in the first US Internet bubble era, and shows that business models were initially used to think about revenue compositions. The present thesis argues that Switzerland is the 'home' of many influential contributions to the concept, especially ideas around the value proposition perspective (while early US publications mainly focused on revenue compositions).

2.20.3.2 *Theoretical stage*

The second level, the theoretical stage, not only deals with the various definitions of the business model concept but also refers to the basic terms 'business' and 'model' – two terms making up the business model idea. It investigates the role of models in the business world in general. Furthermore, the theoretical stage deals with

frameworks – the three most popular of which are shown in the diagram (although there are many more in the literature). Frameworks thus form the theoretical grounding of the concept. They not only help to understand what the business model actually 'is' but have also contributed greatly to the concept's popularity in practice – above all through the rise of the Osterwalder (2010) Canvas.

2.20.3.3 Application stage

The third level, labelled the application stage, describes the purpose of business model application: the business model concept is used as teaching instrument, to develop ideas, to plan businesses, or to create and capture value (as non-exhaustive list). The concept is used in various domains such as strategy, innovation management, technology management, small business management etc. The literature shows that the concept was developed in silos, which is illustrated by its application in a broad landscape of areas. Additionally, the application stage also offers ideas of how to implement a new businesses model, on a process level. The most popular ideas in this context are the Steve Blank (2013) Lean Start-up methodology and discovery-driven planning ideas proposed by McGrath (2010).

2.20.3.4 The basis of the framework

The 3-stage conceptual framework presented above is grounded in the current body of knowledge. The literature shows that business models have mainly been researched on a conceptual level, so a lack of empirical studies represents a research gap in the domain. It also shows and addresses the issue that the concept was developed in silos dispersed over a wide variety of domains.

Not only the body of literature but also the author's practical experience supports the conceptual framework. The author has been working for many years with the business model concept. He has identified it to be a popular idea in the Swiss business world (particularly in the start-up domain). However, the concept often has no clear meaning and 'real' business models are highly complex and only barely possible to be developed using simple frameworks – an insight that represents a key motivation to investigate the topic.

2.20.4 The application of the framework in the present study

The framework is used as an instrument for structuring the present thesis. As such, it links the current stage of knowledge (literature review) with the findings from the data and the final conclusions.

1. In the literature review chapter: It provides a conceptual landscape of the reviewed literature. It shows the various bodies of knowledge on a conceptual level – how they are positioned relative to each other – and provides structure, clarity, and understanding. It offers a basis for a critical discussion of the current literature.
2. In the findings chapter: It is used to ‘position’ the main findings (that emerged in data). Therefore, the main findings are depicted in the framework as an extra dimension. Furthermore, the framework is used to discuss the findings from the data in the context of the contributions to be made.
3. In the conclusion chapter: It is used as a ‘positioning tool’ for the final contribution of the present study. The final contribution is anchored in the existing business model landscape, finally determining the scope of the research.

2.21 **Critical discussion of the current body of literature**

The business model concept offers an appealing approach to structure a complex reality in a straightforward way, reducing reality to a few building blocks. A considerable part of extant literature is devoted to frameworks that deconstruct a business into its constituent parts. However, the concept’s reductionist character may lead to ‘simplistic’ applications in mechanistic ways. On the other hand, its reductionist character may explain the concept’s popularity, since the author’s argument is that many people feel comfortable using models, perhaps particularly those with a natural scientific or engineering background, as models have proved to be highly effective in the technical domain. Side note: In this context, it is worth noting that many people in core positions in Swiss SMEs have a technical background, which can be explained by the Swiss dual education systems offering attractive perspectives for those starting off their career with vocational training. Those

embarking in a technical career are confronted with drawings, schemes and models early on, an effect that manifests in the form of broad familiarity with model-based thinking.

From a scholarly perspective, the business model concept offers new ground and a new and appealing concept to investigate phenomena of various domains in a new light. This shows through a wide variety of application areas and application purposes, making up a considerable body of current business model literature. Since the concept is a new arrival in the management world, it offers academics of any type an excellent opportunity to make an original contribution in their fields – often through adapted frameworks. This explains the huge volume of definitional and conceptual studies dispersed over many areas. However, this explosion of conceptual studies and frameworks has only limited significance for practice, since managers tend to be overloaded with all the may frameworks in use.

The existing body of literature reveals two eras in business model development. Up to the early 2000s and the popularity of Osterwalder's work, most of which was condensed in his dissertation (Osterwalder, 2004), business modelling was mainly dominated by revenue and business logic thinking. But then the value proposition perspective dropped in and changed the concept's positioning – in academia and in practice. Due to the popularity of the value proposition's centrality, the original ideas of the concept (revenue and business logic) faded in the background. One can argue that value proposition thinking is attractive and appealing for those using business models – much more than the 'technical' business logic is. But on the other hand, through the inclusion of the value proposition idea, the concept's complexity took off since value proposition design is a highly complex idea in its own right. Hence, two rather complex ideas (business logic and value proposition design) were unified in a single concept. Paradoxically, they were unified within a framework that reduces a very complex reality to a few building blocks.

To summarise:

- On the one hand, the business model concept reduces the complexity of reality, making it both helpful in simplifying reality but at the risk of becoming

simplistic. On the other hand, people often feel comfortable and familiar working with models and their reductionist character – since models have proved to be effective in other domains such as engineering.

- The business model concept is a new idea that is appealing for academics of all kinds, which has resulted in various areas of application.
- The inclusion of two complex concepts (business logic and value proposition) has produced an even more complex concept. Through the value proposition centrality of the business model and an appealing framework (particularly the Canvas), it has become popular in practice.
- A popular reductionist approach finally has led to some interesting phenomena in practice, whereby people have started to simplify reality in their business development activities.

To conclude, the literature review not only reveals the dominance of conceptual studies and anecdotal stories within the existing body of knowledge concerning business models, but also highlights a significant deficit of empirical studies. In particular, because of this deficit, understanding of how the business model concept is perceived and applied in practice is very limited. This gap offers opportunities for empirical research among users of the business model concept, such as in the present study.

3. An exploratory study

The origin of the present research project is represented by the author's observation that the term 'business model' is used with no clear meaning in practice. This observation has been verified by a comprehensive literature review, revealing a lack of empirical studies in the business model domain. The focus of the present chapter is an exploratory study comprising 8 preliminary interviews, which complement the author's personal observations and the literature review. The interviews were conducted in the period between June and September 2015.

The author had an excellent opportunity for interviewing 5 managers from different firms in a business model workshop, organised by a governmental innovation-promoting agency, where he acted as a coach. These interviews have been complemented by 3 interviews with managers from the author's personal network. This initial study, following a grounded theory based approach (aiming at achieving saturation of data), was initiated to better understand the business model concept's perception and application in practice.

Since nobody knew at the very beginning of the present research what 'diversity' really means in the business model perception and application context, the present exploratory study served at gaining an initial idea of that diversity; the findings served to informing the research design of the main study, as discussed in Chapter 4.

3.1 Interviewing 8 Swiss business managers

A total of 8 SME managers were interviewed: 5 interviews (with employed managers) were conducted in a business model workshop and an additional 3 interviews were conducted with managers from the author's personal network (1 employed manager, 1 owner-manager, 1 start-up manager). The interviewed managers are responsible for firms with between 5 and 110 years in business and have between 1 and 400 employees. The 5 SME managers who were interviewed in a business model workshop have in common that they had learned about the term 'business model', or the business model concept, before signing up for the workshop. All firms were from different sectors (most within a technology-based context), and were represented by

executives or board members. The managers of the following firms were interviewed (short summary):

Firm	Short description	Contact
1	Firm in the packaging business (one of the Swiss market leaders in terms of innovative packaging solutions), almost 110 years in business with around 400 employees.	Workshop
2	Firm in the software development business (systems for online learning courses), almost 5 years in business with around 5 employees.	Workshop
3	Firm in the process engineering and waste management business, almost 15 years in business with around 35 employees.	Workshop
4	Firm dealing with the development and engineering of electronic components for industrial solutions, almost 40 years in business with around 25 employees.	Workshop
5	Firm acting as distributor of specialised cables for the telecommunication sector, almost 30 years in business with around 150 employees.	Workshop
6	Trading firm for alternative energy systems such as solar hot water systems, almost 5 years in business with 1 employee.	Network
7	Established Swiss engineering office (electrical and energy engineering), almost 65 years in business with 160 employees.	Network
8	Swiss/US Internet start-up (social media sector), almost 3 years in business with 5 employees.	Network

Except for the start-up (firm 8), all firms are technology-based. Interview data from the firms 6 to 8 (from the author's network) are enriched with more contextual information than the interview data from the business model workshop (since the time for conducting the interviews was limited there). However, the workshop represented an excellent opportunity for gathering high quality first hand data and to get access to a variety of firms from different sizes and sectors.

3.2 Interview aims and questions

The interviews aimed at gaining an understanding as to whether the respondents:

- know the term 'business model';
- know the business model concept the way it has been described/defined in literature (academic, business or specialist literature);
- know or work with any of the currently popular business model frameworks (such as the Osterwalder (2010) Canvas or the Gassmann (2013) Navigator);
- use any other related business or management concept(s);
- understand the emergence of their existing/running business model and the dominant model of their sector such as their competitor's model;
- have implemented business model innovation initiatives.

Accordingly, the following questions were posed to the respondents:

- 1) What do you understand by the term 'business model'?
- 2) Which tools do you use in order to describe/analyse your existing business model?
- 3) Can you describe your existing business model (in your own words/concepts/ideas)?
- 4) How has your existing business model evolved?
- 5) What were key events in the forming process of your business model / what are key components in your business model / what is special in your business model?
- 6) Have you ever started any business model innovation initiative(s)? If yes, which one and why. If not – why not?

3.3 Analysing the interviews

3.3.1 Presenting the findings

The responses were analysed using a matrix mapping the responses (Figure 17). The responses to the closed questions were coded by using a four-category coding system: yes, no, don't know (based on the firms' answers no clear categorisation possible), and no information available (e.g. the circumstances didn't allow for elaborating a certain issue). Important qualitative responses are further elaborated by using references (r) and quotations (q). The firms from the business model workshop were familiar with the term 'business model' since they already had learned about the concept's existence before participating at the workshop. Hence, this group may be biased in terms of former knowledge about business model idea (as further elaborated below).

		Age of the company (years)	Company size (employees)	Business school education	Awareness of the term 'business model' (BM)	Knowledge about the BM concept as described/defined in literature	Applying BM frameworks described in literature	Alternative concepts and ideas associated with the term BM	Understanding the origin of the current BM	Running BM innovation initiatives
BM workshop	Company 1	Packaging	110	400	yes	no	no	yes		no
	Company 2	Software development	5	4		yes	no	yes	q1	no
	Company 3	Waste management	35	15		yes	no	yes		no
	Company 4	Electronics manufacturer	25	40		yes	yes	yes		no
	Company 5	Cable distribution	25	150	yes	yes	no	yes		no
Network	Company 6	Solar energy systems	5	1	no	no	no	yes	q2	no
	Company 7	Engineering office	65	160	yes	yes	no	yes	q3	no
	Company 8	Swiss/US Internet start-up	3	5	no	yes	yes	yes		yes

	yes		don't know
	no		no information available

Figure 17: Findings from the exploratory study. Source: Author (2016).

3.3.2 Discussion of the findings

In essence, the majority of the firms were aware of the term 'business model'. However, beside the start-up (r14) only one firm was informed about the concept as described in literature (r4) – this firm knew the Osterwalder (2010) Business Model Canvas.

On the one hand, just one out of the 8 firms had ever applied a framework such as the Canvas or the Navigator in practice (r15) – it was a start-up. On the other hand, 7 out of 8 firms had their own (alternative) ideas associating a specific meaning to the term 'business model', such as linking the idea to the Blue Ocean Strategy (r5); customer, product, cost and revenue analysis (r6); value chain analysis (r7); customer as central unit of analysis in combination with the value chain (r8); customer and value proposition (r9); a marketing and stakeholder model combined with environmental and political spheres (r10); a business process model that aims at achieving service-market-fit (r11).

Three firms have an understanding of how the dominant logic of their business has evolved: *"It has grown organically"* (q1), *"Market forces have shaped the running business model towards a 'standard model' of the sector although we tried to make things differently"* (q2), and *"'Evolutionary forces' have formed the existing business model, which has not significantly changed for almost 40 years or longer"* (q3).

Three firms may have running business model innovation initiatives although not under the label 'business model innovation' (r12). One firm (the start-up) explicitly focuses on the development of a new business model as a main source of differentiation (r17).

At first glance, a formal business school education may play a role in terms of answering the question whether a manager knows the business model. The sample was far from representative of the business population as a whole, nor was there comprehensive contextual information available, e.g. regarding the backgrounds of the managers. Nevertheless, in three cases the executives had a formal business school training but had not learned about the business model concept (as described in the literature); this may have two reasons:

1. They went to business school more than 15 years ago when the business model idea did not exist in any elaborated form;
2. Depending on the specialisation many business school curricula do not discuss the business model idea in detail.¹⁰

By contrast, the only 'real' start-up (following the definition from Blank and Dorf (2012) stating that a start-up is temporary organisation looking for a repeatable scalable business model) is actually familiar with the concept and has already worked with respective frameworks such as the Osterwalder (2010) Canvas or the Gassmann (2013) Navigator, although the founders had no formal business school education.

3.3.3 The case of a start-up

The analysis of the start-up very closely reflects the authors' experience in the field. The business model idea has become popular in the start-up community through the Silicon Valley Internet start-up 'industry', inspired by the work of influencing entrepreneurs and scholars such as Steve Blank (Blank, 2006, 2013; Blank & Dorf, 2012) and Eric Ries (Ries, 2011). But above all, the Canvas developed by Alex Osterwalder (Osterwalder & Pigneur, 2010) may have significantly contributed to the popularity of the business model idea in the start-up community. In Switzerland, business model workshops are part of almost every start-up promoting and funding program, so the concept (and so the Canvas) has become very popular. The analysis of firm 8 reflects this insight since the founder had no formal business school training but knew the business model concept and had already extensively worked with it.

¹⁰ For instance, as illustrated by a selected Swiss business school (university), 4 areas of specialisation are offered (general management, international management, innovation management, business creation) whereby only in two of them (innovation management, business creation) the business model idea is discussed comprehensively and in just one (business creation) the students are encouraged to actively work with the business model Canvas of Osterwalder.

3.4 Conclusions from the exploratory interviews

In summary, most of the interviewed firms knew the term 'business model'. This reflects the author's perception that the term is currently popular in the Swiss business world, but, as a possible bias, also shows that most managers were interviewed in a business model workshop context, assuming they must have learned about the term in front of the workshop/interviews. Although the managers knew the term, they were not necessarily familiar with the concept as described in literature (academic, business, and specialist literature), nor have they ever applied a business model framework in practice. However, all firms (except the start-up) have their own (alternative) interpretations of the term 'business model' – interpretations that may have emerged and developed through the interaction with the researcher. Those interpretations range from different management concepts such as the Blue Ocean Strategy (Kim & Mauborgne, 2005), to various kinds of business process models and marketing instruments, up to some isolated business model components such as customer value propositions ('isolated' components, compared to the 9 building blocks of the Osterwalder (2010) Canvas). Furthermore, it has been learned that some firms have a concrete idea how the dominant business model of their sector has evolved and about the way their business model has found its place in this ecosystem.

A first key learning from the interviews is the insight that each firm is different, leading to a high level of complexity and ambiguity. This manifests in a huge number of variables such as different firm ages, individual histories, specific sectors they are doing business in (even among firms operating in technical domains there is an enormous variety of different (sub-) sectors), ownership and management structures, firm cultures, resources, processes and values (RPV) finally determining the business model they employ – an idea linking to the RPV-theory from Christensen (Christensen, 2002), claiming that business models are determined by these RPV-factors. Thus, the point here is that the managers were very different from each other regarding the way they perceived, understood and applied the business model concept in practice. As a consequence, there were many variables and rich contextual information to be included and discussed. This has immediate implications to the methodology of the main study: on the one hand, quantitative empirical

research strategies such as positivistic or post-positivistic survey approaches isolating individual variables by building hypotheses are inappropriate because such variables cannot be isolated since we only have a very limited understanding about the perception of the business model concept in practice. Instead, a qualitative approach allowing for dealing with complex multi-variable phenomena in even more complex contexts is required – an approach that allows for accessing the respondents' thoughts, and that allows for investigating maximal diversity of ideas,

A second key learning point is that the level of diversity to be explored (of the business model concept's perception, and above all the concept's application, in Switzerland) is limited by interviewing business managers only. Although it was recognised that each firm is different, having its own history, culture, etc. (making an investigation highly complex), the exploratory study also revealed that only limited diversity regarding the business model concept's perception and application can be uncovered focusing on business managers only – firms may know the term, but gaining diverse ideas about its application is another issue. In the exploratory study, a grounded theory based approach was applied and saturation of data – regarding the business model concept's perception and application – could already be achieved in the sample of 8 respondents.

Accordingly, as a key learning point, the sample of the main study would have to be adapted by including owner-managed firms rather than firms managed by employed managers; the rationale was the idea that diversity may be enhanced focusing on owner-managers since this group should be more interested in new concepts as they develop their own business. The second learning was to adapt the research design of the main study by including two additional communities (support professionals and owner-managers). A research design that allows for building a coherent chain between academia and practice, for drawing a “360-degree picture” and for enhancing diversity.

4. Methodology and methods

The present chapter describes the setup of a methodological research design (for an empirical inquiry), which aims at best answering the research questions by addressing the phenomena under study. It builds upon a thorough literature review (chapter 2) and the learnings gained from an exploratory preliminary study (chapter 3).

4.1 Philosophical fundamentals

4.1.1 A rationale for the importance of philosophical considerations

As basis of every social research study, the philosophical fundamentals must be discussed because *“whether we are aware of it or not, we always bring certain beliefs and philosophical assumptions to our research”* (Creswell & Poth, 2017, p. 15). There is a set of three main arguments why philosophical considerations form the backbone of a viable research design or, as succinctly stated by Easterby-Smith, Thorpe, and Jackson (2012, p. 17): *“There are at least three reasons why an understanding of philosophical issues is very useful. First, it can help to clarify the research designs. This not only involves considering what kind of evidence is required and how it is to be gathered and interpreted, but also how this will provide good answers to the basic questions being investigated in the research. Second, knowledge of philosophy can help the researcher to recognize which designs will work and which will not (...). Third, it can help researchers identify, and even create, designs than may be outside his or her past experience. It may also suggest how to adapt research designs according to the constraints of different subject or knowledge structures”*.

For the present study, a profound consideration of philosophical issues helps in forming a coherent link between the phenomena, the research questions, the research design, the data and the findings. If the research design is built upon a sound philosophical foundation, these are more likely to be in balance and the findings are more likely to provide credible answers to the research questions – in this research, the way the business model concept is perceived and applied in practice.

4.1.2 Phenomena under study

Derived from (1) the author's observation of only limited significance of the concept in practice, (2) from a thorough literature review revealing a lack of empirical business model studies, representing a viable research gap, and (3) from an exploratory study giving a first impression of diversity in the business model perception and application context, the research aims and the research questions have been developed. The underlying phenomena to be addressed can be described as follows:

"The way people perceive and apply the business model concept".

These phenomena are considered elusive because people interpret the business model concept in whatever way they think may be appropriate in their given contexts and situations. This represents the starting point in a consideration of the ontological issues (what is reality) and epistemological issues (how to get knowledge about this reality).

Before entering discussion of these ontological and epistemological issues, some fundamental thoughts regarding various dimensions of complexity of the phenomena under study need to be considered. Since the phenomena under study have been characterised as multi-dimensional, the following aspects define the various dimensions.

- Firstly, we are confronted with a set of several diverse phenomena: the way the business model concept is perceived, understood, and the way it is applied, represent different phenomena to be researched. These phenomena are diverse in nature since they address different levels of understanding, but are also interrelated in a complex way since they build up on each other. The perception and understanding may form the basis, upon which application issues are built. Accordingly, the idea of application is located on a higher level of complexity.
- Several communities to be investigated (academics, support professionals, owner-managers) – each including individuals confronted with the various phenomena – represent a second additional dimension of complexity.

- In a third dimension, various ideas of understanding and different ways of application are to be uncovered within the various communities. However, not only the communities (as a unit), but also the individuals within the communities may understand and deal with the concept differently, in their own idiosyncratic way. What is more, they are embedded in unique contexts, forming and influencing understanding and application of the concept.
- Fourthly, the various phenomena (perception, understanding and application of the concept) have their own idiosyncratic meanings for individuals within the communities. What is more, the ideas to be uncovered are not ‘hard facts’ to be ascertained using ‘measuring procedures’ inspired by methods of the natural sciences, but perceptions, meanings, motives, and perhaps emotions, all of which existing in people’s minds.

To conclude, the phenomena to be investigated encompass a high degree of complexity, organised within several highly complex dimensions.

The phenomena were also expected to be diverse in nature, both within and between the three communities of academics, business support professionals and business owner-managers. Furthermore, as was discovered within the exploratory interviews, some of the opinions had not previously been expressed verbally and resided at the tacit level, requiring discussion to elicit them. These insights inform the ontological and epistemological considerations as discussed in the following sub-sections.

4.1.3 Ontological considerations

4.1.3.1 *Introduction*

Ontological considerations deal with an assumption of the nature of reality, concentrating on “*what’s out there to know?*” (Grix, 2002, p. 180). They are “*claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes social reality*” (Blaikie, 2010, p. 8). Arguing that reality is an object of our interpretation, Berger and Luckman (1994, p. 33) state that “*everyday life presents*

itself as a reality interpreted by men and subjectively meaningful to them as a coherent world. As sociologists we take this reality as the object of our analyses“.

4.1.3.2 Ontological perspectives

In literature, several types of ontological perspectives are described, in different forms. On the one hand, Blaikie (2010) distinguishes between four main types of realist perspectives (shallow, conceptual, depth, and subtle), all of which having in common that phenomena do exist independently from us (albeit with different manifestations and with different nuances). On the other hand, relativist ontology sees reality as the construction of our mind, and social reality made up of shared interpretations. Easterby-Smith et al. (2012) see four main ontological positions: Realism (single truth; facts exist and can be revealed), internal realism (truth exist but is obscure; facts are concrete, but cannot be accessed directly), relativism (there are many ‘truths’; facts depend on the viewpoint of the observer), nominalism (there is no truth; facts are all human creations). Saunders, Lewis, and Thornhill (2011) distinguishes between objectivism, as social entities exist independently of social actors, and subjectivism, by understanding the meanings that individuals attach to social phenomena. Braun and Clarke (2013) see ontology on a continuum ranging from realism (a pre-social reality exists that we can access through research), critical realism (a pre-social reality exists but we can only partially know it), and relativism (reality is dependent on the ways we come to know it).

As the various sources (and authors) show, on the highest level of abstraction there are two main concepts defining ontological positions (realist and relativist). However, they are often labelled differently, such realism and objectivism on the one side, and idealism, relativism, or subjectivism, on the other side of the spectrum. In summary:

1. A realist perspective considers reality independently from us, with a single truth and facts to be revealed, with pre-social reality that exists and can be accessed.
2. A relativist perspective understands reality as a construction of our mind, based on shared interpretations, no truth existing, by meanings individuals attach to social phenomena.

4.1.3.3 Considerations of the research context

As discussed above, the phenomena under study in this research are how the business model concept is perceived, understood and applied by members of three communities. The ontological assumption of reality here concerns people's subjective attitudes and evaluations of the business model concept, their perceptions of the idea and their beliefs about what business models really are. Furthermore, these ontological assumptions must include people's personal evaluations of the usefulness of business models, their beliefs about how the concept can be applied, for the solutions to which problems they think it can be used, which strengths and shortcomings they attribute to the business model concept, and beliefs about how it should be adapted to overcome these shortcomings. These fundamental ideas are further elaborated in the following paragraphs.

Since ontology deals with the nature of reality, the argument is that we have not just one, but multiple realities to deal with, as comprehensively discussed by Berger and Luckman (1994, p. 35): *"I am conscious of the world as consisting of multiple realities. As I move from one reality to another, I experience the transition as a kind of shock. This shock is to be understood as caused by the shift in attentiveness that the transition entails. Waking up from a dream illustrates this shift most simply. Among the multiple realities there is one that presents itself as the reality par excellence. This is the reality of everyday life."* Following this line of reasoning, the business model concept can be seen as an everyday life reality. This reality is not a concept that only exists in an isolated way in peoples' minds, but is formed through social interaction as *"the reality of everyday life further presents itself to me as an intersubjective world, a world that I share with others. This intersubjectivity sharply differentiates everyday life from other realities of which I am conscious. I am alone in the world of my dreams, but I know that the world of everyday life is as real to others as it is to myself. Indeed, I cannot exist in everyday life without continually interacting and communicating with others"* (Berger and Luckman, 1991, p. 37). Following these arguments, reality of the perception and understanding of the business model concept not only exists only in the minds of individuals, but is also shared with other social actors. Thus, the business model concept only can exist within a society that includes multiple social interactions.

Based on the above ontological considerations regarding the nature of the business model concept, special attention shall be given to social constructionism, by contemplating it through an ontological lens, hence focusing on ideas in peoples' minds (constructionism is also part of the epistemological discussion, since it represents a basic epistemological position). The phenomena we are looking at are formed in peoples' minds because people read, follow debates, listen to others, immerse themselves in educational environments, in short, are confronted with various types of social interactions with others. As argued by Boghossian (2001, p. 3), "*money, citizenship and newspapers are transparent social constructions because they obviously could not have existed without societies*". The same is true for business models. The concept is given subjective meaning through multiple social interactions, through social construction between various actors and through personal reflection.

The business model concept is considered an object of everyday life in the worlds of special groups of social actors (such as owner-managers, support professionals, and academics). However, what does everyday life mean in their contexts? Berger and Luckman present an answer for this question, as "*the world of everyday life is not only taken for granted as reality by the ordinary members of society in the subjectively meaningful conduct of their lives. It is a world that originates in their thoughts and actions, and is maintained as real by these*" (Berger and Luckman, 1994, p. 33). However, we not only use our thoughts, but also our experience, backgrounds, and above all, our everyday interactions with others to form our idiosyncratic reality: "*We invent concepts, models, and schemes to make sense of experience, and we continually test and modify these constructions in the light of new experience. Furthermore, there is an inevitable historical and sociocultural dimension to this construction. We do not construct our interpretations in isolation but against a backdrop of shared understandings, practice, language, and so forth*" (Schwandt, 1994, p. 197).

This insight supports the idea of changing perceptions and meanings during social interactions. However, ideas and phenomena may change in the social discourse. A realist perspective does not accept this. For the realist, ideas are consistent and non-changing. Data are independent of the researcher. In contrast, following the ideas of

social constructionism, the meaning and understanding of what a business model concept 'is' and what it might be used for may be built through the interaction between social actors – such as research respondent and researcher.

4.1.3.4 The adopted ontological perspective

For the purposes of this research, the business model is considered a concept that first has to be built, constructed (or further developed, or maybe adapted, depending on prior knowledge) in the minds of respondents, and the outcome of this process is highly idiosyncratic and may have resulted differently if discussed in another setting or context. This argument is backed by the reasoning of Boghossian (2001, p. 1), because *“to say of something that is socially constructed is to emphasize its dependence on contingent aspects of our social selves, It is to say: This thing could not have existed had we not built it; and we need to have built it at all, at least not in the present form. Had we been a different kind of society, had we had different needs, values, or interests, we might well have built a different kind of thing, or built this one differently“*.

The business model is a socially constructed concept, which would not exist without society, in which it has meaning and can contribute to developing new or improving existing firms. A concept constructed by social interaction.

To conclude, the 'reality' of the business model concept only exists in peoples' minds and cannot exist independently from us. There is therefore no single truth about what a business model 'is'. Moreover, the reality of the concept is not static but is subject to continuous change through social interaction. For these reasons, a realist perspective is considered an inappropriate position.

By contrast, the business model concept is a social construction – accordingly, meaning is given to it through social interaction of many kinds. As such, the research process, investigating the perception of the business model concept, further shapes and develops its understanding by the respondents. Accordingly, the adopted ontological perspective is that of relativism.

Terminological note: Constructionism is widely considered an epistemological position, although it is anchored in both ontological considerations (ideas in peoples'

minds) and epistemological considerations (accessing constructed data). In the literature, these concepts are not used consistently, since social constructionism may be part of both ontological and epistemological discussions, but social constructionism is sometimes also referred to as a paradigm.

4.1.4 Epistemological considerations

4.1.4.1 *Introduction*

Epistemological considerations are concerned with the ways of how to access knowledge about the phenomena under study. They deal with *“what and how can we know about it?”* (Grix 2002, p. 180). More specifically, epistemology is about *“the possible ways of gaining knowledge of social reality, whatever it is understood to be. In short, claims about how what is assumed to exist can be known”* (Blaikie, 2010, p.8). Thus, it is an assumption about the most appropriate way to build knowledge based on the ontological assumption concerning the nature of reality.

There is a strong link between assumptions concerning reality and the knowledge we can build about it. Berger and Luckmann (1991, p. 13) see *“reality as a quality appertaining to phenomena that we recognize as having a being independent of our own volition (we cannot 'wish them away'), and to define 'knowledge' as the certainty that phenomena are real and that they possess specific characteristics”*. In other words, given the possibility of accessing characteristics of phenomena, by gaining knowledge about them they become part of reality. Thus, it is important to deepen understanding of the way knowledge can be built concerning the phenomena under study, in this research the perception and application of the business model concept. However, *“knowledge is socially distributed and the mechanism of this distribution can be made the subject matter of a sociological discipline“* (Berger and Luckman, 1994, p. 28).

4.1.4.2 *Epistemological perspectives*

Blaikie (2010) distinguishes between several types of epistemological perspectives:

- Empiricism, which sees knowledge as produced and verified by the use of human senses.

- Rationalism, which understands knowledge as produced by the direct examination of the structure of human thoughts.
- Falsificationism, which understands knowledge production as a process of trial and error.
- Neo-realism, which sees knowledge produced as the causes of observed regularities.
- Constructionism, seeing producing knowledge as the outcome of social scientists reinterpreting every-day knowledge into a technical language.
- Conventionalism, in which scientific theories are created by scientists as convenient tools for dealing with the world.

As some combinations of ontological and epistemological assumptions are often used in pairs, the idealist ontology and the constructionism epistemology are often seen in combination (Blaikie, 2010). Easterby-Smith et al. (2012) distinguishes between positivism (independent observer, irrelevant human interests, explanations must demonstrate causality, concepts need to be defined so that they can be measured, etc.) and social constructionism (the observer is part of what is being observed, human interests as the main driver of science, explanations as increasing the general understanding of the situation, concepts should incorporate stakeholder perspectives, etc.). Saunders et al. (2011) see positivism as working in the tradition of the natural scientist, as objects exist independently of our knowledge (realism), and interpretivism, by understanding differences between humans as social actors. Braun and Clarke (2013) distinguish between positivism, as a straightforward relationship between the world and our perception of it (closely aligned with empiricism, separating the observer and what is being observed), and constructionism, as the world and what we can know of it may change. But also, truths and meanings change. There is no one truth we can access; there are 'knowledges' rather than knowledge.

To conclude, most authors distinguish different epistemological perspectives on a continuum ranging from positivism to constructionism, also by using different labels for these terms. Some authors, such as Blaikie (2010), make some more nuanced distinctions within classical perspectives. In the following discussion, the two main

perspectives of positivism and constructionism are used to discuss and contrast epistemological thinking.

1. Positivism, with an independent observer, concepts to be measured, a direct relationship between our world and our perception of it, data capturing aligned with ideas from the natural sciences, and perception and meanings that are static, which do not change.
2. Constructionism, as knowledge based on the interpretation of our everyday world (reading a book, watching a debate, discussing, or any other form of social interaction) forms the understanding of an issue, with the observer being part of what is observed, concepts incorporating the stakeholders' perceptions, changing truths and meanings, and knowledges rather than knowledge. The data are co-created through the interaction between researcher and respondents; hence, they are socially developed. Constructionism contrasts with positivism since it *"opposes the naïve realist and empiricist epistemology that holds that there can be some kind of unmediated, direct grasp of the empirical world and that knowledge (i.e., the mind) simply reflects or mirrors what is 'out there'"* (Schwandt, 1994, p. 197). However, some authors refer to interpretivism rather than constructionism in order to discuss the counterpoint to positivism. Interpretivism acknowledges knowledge not to be complete and comprehensive, hence interpretation is needed, while constructionism builds on the idea that knowledge is co-created, through the interaction between researcher and respondent. Knowledge is thus always the product of social interaction.

Terminological note: Since constructionism may be understood through ontological, epistemological and paradigmatic perspectives, contemplating it through an epistemological lens means accessing the data constructed in people's minds.

4.1.4.3 Considerations of the research context

To meet the research aims and answer the research questions, it is necessary to build understanding about how people perceive, evaluate and apply the business model concept. The epistemological assumption must follow that knowledge can best be built by accessing the respondent's thoughts, as it requires an exploration of their subjective beliefs.

However, there are two further complications to this process. The first is that an interaction with respondents shapes the understanding of the business model concept of both the respondent and the researcher, since *"I know that there is an ongoing correspondence between my meanings and their meanings in this world, that we share a common sense about its reality"* (Berger and Luckman, 1994, p. 37).

An important additional point, making the knowledge gathering process a highly complex endeavour, is the argument that ideas about the business model concept are not only part of people's explicit knowledge, but also reside at the tacit level. Polanyi (2009) recognises the importance of tacit knowledge by stating that *"I shall consider human knowledge by starting from the fact that we can know more than we can tell"* which means that we must distinguish between tacit knowledge and explicit or codified knowledge (Gertler, 2003). Tacit knowledge is a complex idea, however, *"one of the characteristics of tacit knowledge is that it is difficult to write it down, or to formalize"* (Ambrosini & Bowman, 2001, p. 812). Furthermore, tacit knowledge is argued to be personal knowledge, having a cognitive dimension, consisting of mental models individuals follow in certain situations (Ambrosini & Bowman, 2001). Accordingly, people may 'know' more about business models than they can articulate. They may have heard about the term although the issue is not really developed in their mind, so it may not be fully understood when talking about it. Supporting this view, *"only a small part of the totality of human experiences is retained in consciousness. The experiences that are so retained become sedimented, that is, they congeal in recollection as recognizable and memorable entities"* (Berger and Luckman, 1994, p. 85). Since knowledge of the business model concept may be only partly in the domain of explicit knowledge (and partly in the domain of tacit knowledge), some respondents may start seriously thinking about the

concept when talking about it – when prompted to do so. This means that their thoughts and ideas develop and mature in the reflection process, when accessing this knowledge.

What is more, not all respondents may have the same initial understanding of the business model idea; they do not have the same prior (tacit or explicit) knowledge. Some of them, who are already working with the concept (predominantly academics and support professionals), may have a more refined understanding, i.e. familiarity with the ideas described in literature, may already have had debates, or their own experiences with the concept, and may already have (rigorously) reflected on it. On the other hand, those either just having heard about the concept, having read an article or having witnessed a discussion about it, having a vague, diffuse understanding of the idea, may have to develop and refine their own ideas when confronted with the concept – ideas based on fragmented information they have in mind only start their maturation at this stage. Accordingly, people may have ideas located somewhere on a wide continuum ranging from completely explicit to solely tacit knowledge (or most probably a mixture of both). This manifests in different levels of consciousness of data. Accordingly, in some way, data collection is a kind of a knowledge transformation process ('catalyst') in that a mixture of prior tacit and explicit knowledge becomes explicit – through reflection. During data collection, there may be some sort of circular idea forming processes in people's minds resulting in more concrete ideas – ideas that may not have been considered before.

4.1.4.4 The adopted epistemological perspective

The underlying principle of positivism is that knowledge is directly accessible in ways aligned with the natural science methods, assuming that knowledge is static and does not change. By contrast, a constructivist perspective accepts the changing, evolving nature of knowledge, which is not static but part of an ongoing learning process, influenced by social interaction, in this case with the researcher investigating the topic.

The reasons for adopting a relativist ontological perspective for this research were explained above (4.1.3.4). In summary, this was that the business model concept is a product of social construction, one that cannot exist without society, existing in

peoples' minds and shaped by social interaction. Given this view of the nature of the phenomena under study, the epistemological position adopted in the present research is constructionism, satisfying the need for accessing knowledge that is both formed and drawn out as an ongoing interactive process.

In this sense, data collection is part of a dynamic face-to-face situation, where both the respondent and the researcher influence each other, as: *“every expression of mine is oriented towards him, and vice versa, and this continuous reciprocity of expressive acts is simultaneously available to both of us. This means that, in the face-to-face situation, the other's subjectivity is available to me through a maximum of symptoms”* (Berger and Luckman, 1994, p. 43). Hence, face-to-face interactions are considered the most important form of social interaction, since *“the most important experience of others takes place in the face-to-face situation, which is the prototypical case of social interaction. All other cases are derivatives of it”* (Berger and Luckman, 1994, p. 43). To conclude, the research thus requires an interactive situation to access the data but it is an inescapable fact that the researcher helps to form and develop the respondent's stated views. Moreover, through the interaction both the respondent and researcher will learn to think in new ways.

4.2 Research paradigms

4.2.1 Paradigms

“A paradigm is a conceptual framework within which scientific (and other) theories are constructed, and within which scientific practices take place. Major changes in thought and practice have been referred to as paradigm shifts” (Braun and Clarke, 2013, p. 333). The term paradigm often leads to confusion since *“it tends to have multiple meanings”* (Saunders et al., 2011, p. 118). Paradigms are often used to summarise and clarify ontologies and epistemologies (Saunders et al., 2011). Saunders et al. (2011) proposes 4 main paradigms for analysing social theory:

- (1) Interpretive (we as humans attempt to make sense of the world around).
- (2) Functionalist (ontology of objectivism, rational explanations of particular problems).

- (3) Radical humanist (subjectivist and radical change dimension, with a subjectivist ontology).
- (4) Radical structuralist (achieving fundamental change based on the analysis of organisation phenomena, adopting an objectivist perspective).

Blaikie (2010) distinguishes between classical and contemporary research paradigms. 'Classical' paradigms include:

- Positivism, which *“regards reality as consisting of discrete events that can be observed by the human sense”* (Blaikie, 2010, p. 97).
- Critical rationalism which *“rejects sensory experience as a secure foundation for scientific theories thus making ‘pure’ observation impossible”* (Blaikie, 2010, p. 98),
- Classical hermeneutics, which *“arose as a way of discovering the meaning of ancient texts and then, through a number of phases, developed into alternative positions”* (Blaikie, 2010, p. 98).
- Interpretivism, in which *“social reality is regarded as the product of its inhabitants, it is a world that is interpreted by the meanings respondents produce and reproduce as a necessary part of their everyday activities together”* (Blaikie, 2010, p. 99).

Guba (1990) sees a research paradigm consisting of three elements as follows:

- Ontology – What is reality?
- Epistemology – How do you know something?
- Methodology – How do you go about finding it out?

4.2.2 The adopted paradigm

Following the structure provided by Guba (1990), the 'paradigm' of the present study is unified under a relativist ontology, constructivist epistemology, and a single interviewing-based methodology. Adopting one of Blaikie's (2010) 'classical' paradigms, the present research will be conducted under the paradigm of interpretivism. This paradigm is congruent with the adopted ontological and epistemological perspectives as discussed and justified above. To recap, this is

because the phenomena under study (perceived meanings, evaluation and application of the business model concept) are socially constructed within and between the communities that will be the focuses of the study.

4.2.3 Methodology

Methodological considerations must answer the question of *“how can we go about acquiring that knowledge?”* (Grix 2002, p. 180). Accordingly, *“methodology is concerned with logic, potentialities and limitations of research methods, so the term is often confused and used interchangeably with the research methods themselves”* (Grix, 2002, p. 179).

According to Guba (1990), methodology is the third component of a paradigm, being the broad approach to conducting an enquiry. A researcher is faced with a large number of possible methods and techniques for sampling, data collection, analysis and other aspects of the research. All of these involve choices, although these choices may be limited or constrained by the chosen paradigm.

A further influence on methodology is the purpose of the research, which is discussed below, after which the research design will be considered in more detail.

4.3 Research purpose

According to Saunders et al. (2011), there are three basic types of research purposes to be distinguished, namely exploration, description, and explanation. These are outlined and contextualised for the present research below.

4.3.1 Exploratory studies

“An exploratory study is a valuable means to finding out ‘what is happening; to seek new insights; to ask questions and to assess phenomena in a new light” (Saunders et al., 2011, p. 139). Familiarity with the phenomena under study must be gained to understand what is happening as part of a complex learning process; hence the problem has not yet been clearly defined. Accordingly, the research *“seeks to find out how people get along in the setting under question, what meanings they give to their*

actions, and what issues concern them. The goal is to learn 'what is going on here?' and to investigate social phenomena without explicit expectations" (Schutt, 2011, p. 11).

The purpose of this research is exploratory. One defining characteristic is that there is very limited extant knowledge, in the form of previous empirical studies of the perceived meaning, evaluation and application of the business model concept. Accordingly, the research will be breaking new ground, with few guidelines provided by prior research. The aim is to gain an initial understanding of the phenomena under study, rather than to develop causal explanations or generalizable knowledge.

4.3.2 Descriptive studies

According to Saunders et al. (2011, p. 140) *"the object of a descriptive study is 'to portray an accurate profile of persons, events or situations'. 'Descriptive work aims to 'give voice' to a topic or a group of people, particularly those we know little about"* (Braun & Clarke, 2013, p. 174). Furthermore, *"this may be an extension of, or a forerunner to, a piece of exploratory research or, more often, a piece of explanatory research"* (Saunders et al., 2011, p. 140). A descriptive study could perhaps have been used to characterise and portray the people using the business model concept. This could have been a valid alternative in researching categories of users, for instance to portray those who successfully makes use of the concept. However, given the aim of the present study – to gain initial understanding through embracing and exploring diversity – a descriptive study is not appropriate, although it could be a useful element of a pre-study.

4.3.3 Explanatory studies

"Studies that establish causal relationships between variables may be termed explanatory research" (Saunders et al., 2011, p. 140). Explanatory studies could be used with prior ideas in mind to be tested, for instance as part of a survey – verifying or falsifying previously developed hypotheses, using a questionnaire, for instance – or an experimental study, by isolating variables to be tested in terms of cause and effect relationships. However, this contrasts significantly with the present situation

where no prior ideas regarding the phenomena under study exist. While explanatory studies deal with causal relationships, theory building is a 'higher level' purpose based upon causal relationships, providing a whole picture of how everything fits together within an integrated framework. However, given the lack of extant knowledge, dealing with causal relationships is not currently a viable research purpose and neither is theory building.

4.3.4 Rationale for an exploratory study

The fundamental argument for an exploratory study is that there is very limited extant knowledge of the phenomena under study, due to a lack of prior empirical research. The topic is therefore new and so ideas appropriate to serve as a basis for hypotheses do not yet exist. Instead, many diverse perspectives must first be uncovered, which justifies an exploratory research purpose and design.

Due to the research purpose of exploration, no universal laws are expected to be developed as research outcomes. By contrast, the outcomes are context bound, help better understanding of particular phenomena (perception, understanding and application of the business model concept) within specific communities. It allows for drawing conclusions about which aspects of the business model idea are most relevant when working with people belonging to the investigated communities. It will also facilitate a better understanding the usefulness of the concept, its perceived strengths and weaknesses, and which ways of application are most promising – and also why they are. Accordingly, the findings are not to be generalized. Nevertheless, conclusions can be drawn and inferences can be made to other contexts; but, by contrast to generalizable theories, it is up to the reader to evaluate whether the findings fit in the context he is interested in; hence, to decide which findings may be transferable.

4.4 Unit of analysis

“The unit of analysis is the entity that forms the basis of a sample” (Easterby-Smith et al., 2012, p. 65). According to the literature, ontological and epistemological perspectives may determine the importance of defining the unit of analysis: *“In*

positivist forms of research, including multiple case studies informed by an internal realist perspective, it is important to be clear about the unit of analysis in advance, because this is the basis for collating data that will subsequently be analysed” (Easterby-Smith et al., 2012, p. 65). Having a clear idea about the unit of analysis at the very beginning of the project is regarded less relevant when adopting a constructivist perspective as *“it is not essential in constructivist forms of research, but with highly unstructured data it can help to provide an initial guidance for analysis”* (Easterby-Smith et al., 2012, p. 65).

However, in the present research project, defining the unit of analysis is considered important because, based on the question as to what reality actually is, how it manifests, and how knowledge can be built about it (ontological and epistemological questions), the argument is that the ‘places’ where the investigated phenomena exist are peoples’ minds. The phenomena therefore cannot exist independently from people or from society, and perceptions and beliefs concerning the business model are formed through social interactions of many kinds. Due to these considerations, the unit of analysis must be individual people, as these phenomena can only be investigated by researching individuals, since perception, understanding and evaluation are characteristics of individual people.

Accordingly, the research is focused on individual actors, who are both the ‘owners’ of the phenomena under study and also the ultimate reason for their uniqueness and diversity. It must be acknowledged that the social context in which individuals are embedded plays an important role in the formation of their perceptions, meanings and understandings. However, researching these contexts would not contribute to answering the research questions, since the phenomena to be understood are located in peoples’ minds only. Accordingly, this research does not aim to build an understanding of these social contexts but about exploring the perceptions, beliefs and evaluations made by individual actors within those social contexts.

4.5 Qualitative and quantitative research

The discussion of qualitative and quantitative research may start with some definitions. Braun et al. (2013, p. 3) defines qualitative research as: *“The most basic*

definition of qualitative research is that it uses words as data, collected and analysed in all sorts of ways". By consequence, quantitative research is understood as follows: *"Quantitative research uses numbers as data and analyses them using statistical techniques"* (Braun et al., 2013, p. 4). These views are supported by Saunders et al. (2009, p. 151) stating that *"quantitative is used predominantly as a synonym for any data collection technique or analysis procedure that generates or uses numerical data"*, whereas qualitative *"(..) generates or uses non-numerical data"*.

Both types of research, qualitative and quantitative, are often associated with specific paradigms and are differently applied among various disciplines. On the one hand, *"by qualitative we mean that it relies primarily on human perception and understanding"* (Stake, 2010, p. 11). On the other hand, *"by quantitative we mean that its thinking relies heavily on linear attributes, measurements, and statistical analysis"* (Stake, 2010, p. 11). Easterby-Smith et al. (2013) assign 'numbers and facts (collected in experiments)' as well as 'number and words (collected in surveys)' to a positivistic epistemology – with an ontology of realism. They assign 'words and numbers (in cases and surveys)' as well as 'discourse and experience (engagement and reflexivity)' to constructionism – with an ontology of relativism. This explains why quantitative paradigms often dominate the natural sciences (i.e. in experimental settings), and that qualitative paradigms are anchored in disciplines such as sociology or psychology (i.e. in a reflexivity-based design). However, there are also overlapping areas such as argued by Stake (2010, p. 11): *"But each of the divisions of science also has a qualitative side, in which personal experience, intuition, and scepticism work alongside each other to help refine the theories and experiments"*. Alternatively, qualitative and quantitative research is sometimes regarded as 'two sides of the same coin' complementing each other or, as stated by Braun et al. (2013, p. 5): *"Qualitative methods can be used as precursor for quantitative research"*.

Qualitative, quantitative or mixed method designs are equally suitable to accessing respondent's thoughts, for instance in form of a questionnaire in a quantitative study. However, the main argument for a purely qualitative approach to be applied in the present research lies in the exclusive ability of qualitative studies to accessing people's thoughts and ideas as they emerge, evolve, develop, and get mature in their

minds during the research process. Accordingly, depending on the respondents' prior knowledge on business models (there are different levels of explicit or tacit knowledge among the various respondents), the chosen design must allow for data co-creation between the researcher and the respondents, following the paradigm of social-constructionism (as elaborated in section 4.1 philosophical fundamentals) – only a qualitative design can afford this. Secondly, there is a need for flexibility in the process of data collection. Interesting new themes that emerge during the interaction between researcher and respondent must be given the opportunity to be flexibly pursued and investigated in-depth – while collecting and/or co-creating the data.

To conclude, basic philosophical considerations about the nature of business model perception and application phenomena, the way knowledge can be built about it, calls for a qualitative design, which allows for accessing respondents' thoughts as they evolve, in an interactive way. Possible research designs could be action research, focus groups, or individual interviews, as further elaborated in the following section.

4.6 Research designs

4.6.1 Experiment

Experimental designs traditionally are inspired by the natural sciences. Easterby-Smith et al. (2012, p. 40) see experimental designs as follows: *“Classic experimental method involves random assignment of subjects to either an experimental or a control group. Conditions for the experiment group are then manipulated by the experimenter/researcher in order to assess their effect in comparison with the control group who are receiving no unusual conditions”*. Experiments are normally associated with an explanatory research purpose. The prerequisites of an experiment are prior hypotheses or models to be tested (i.e. causal relations between variables). Because of the lack of prior knowledge, an experimental design is not applicable to the present exploratory project.

4.6.2 Survey

A survey is a research technique by which a standardised research instrument such as a questionnaire is employed consistently across a substantial sample. Surveys are normally used within a quantitative research design: *“The survey strategy is usually associated with the deductive approach (...). It tends to be used for exploratory and descriptive research. Surveys are popular as they allow the collection of a large amount of data from a sizable population in a highly economical way (...), often using a questionnaire”* (Saunders et al., 2011, p. 144). As with experiments, surveys are normally part of an explanatory research purpose.

Surveys may also be used within an exploratory study, for example to capture a large range of data of limited depth in order to build an initial picture of diversity. However, this would not apply to the present study, whose emphasis is depth, rather than breadth. Depth of data is necessary to meet the research aim of understanding the respondents' perceptions, evaluations and thoughts on the application of the business model concept. Moreover, these thoughts will almost certainly evolve and mature during the data collection process, when a mixture of tacit and explicit knowledge becomes more explicit through a reflection-based transformation process. A questionnaire would not be able to capture ideas as they evolve in this way and much more flexible, intervention-based methods, such as in-depth interviews or focus groups, are needed.

4.6.3 Case study

A case study can be defined as *“a phenomenon of some sort occurring in a bounded context”* (Miles, Huberman, & Saldana, 2013, p. 28). Robson and McCartan (2016, p. 178) define a case study as *“a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context, using multiple sources of evidence”*. Case study research is about investigating particular contemporary phenomena in a real-life context. One of the key features of a case study is that it *“relies on multiple sources of evidence, with data needing to converge in a triangulation fashion”* (Yin, 2014, p. 17). In a case study design a small number of units of study are selected, often in a natural setting,

not requiring particular data collection methods, to be used for wider generalisations, and can be used for theory development (Blaikie, 2010).

The present research could be conducted using a case study research design. For instance, a number of case study firms could be recruited. It could be followed the owner-manager and other employees in their application of the BM concept. Alternatively, a number of case studies based on business support professionals working with client firms could be developed. However, by applying a case study design the sample would be limited – due to a limited time budget of a doctoral project – which would finally mean to sacrifice the diversity of data.

4.6.4 Action research

According to Herr and Anderson (2005, p. 3) *“action research is inquiry that is done by or with insiders to an organisation or community, but never to or on them. It is a reflective process, but it is different from isolated, spontaneous reflection in that it is deliberately and systematically undertaken, and generally requires some form of evidence be presented to support assertions”*.

The perception and understanding of the business model concept could be investigated using an action research approach. For instance, the author could accompany students (or university graduates, respectively), recruited from his network, who develop their own business as an action researcher, as he coaches these founders regarding business model issues. The way their understanding and application of the concept evolves – and why it evolves – could be investigated in several cases in a longitudinal fashion. Studying (exploring) a maturation process on a new venture journey could show ‘when’ and ‘what for’ the business model concept is most useful, and also, how and why the perceptions and evaluations change over time. On the other hand, the sample would also be limited, so diversity would be sacrificed. The main reason why action research was rejected as a research design was that the exploratory study had reinforced the importance of extending the sample to the three communities of owner-managers, business support professionals and academics.

4.6.5 Grounded theory

The term grounded theory describes a study in which theory is ‘grounded in the data’, rather than adopted from pre-existing literature. Grounded theory is sub-divided into several categories, one of which – the classic version – is called ‘Full Grounded Theory’, an approach that aims at theory building from the data (Braun & Clarke, 2013). *“Full Grounded Theory aims to build a theory from the data. Therefore, theoretical sampling is used, saturation is achieved and similar concepts are grouped together into categories and used to generate a theory”* (Braun & Clarke, 2013, p. 176). A key idea of grounded theory is that *“theory development does not come from ‘off the shelf’, but rather is generated ‘grounded’ in the data from respondents who have experienced the process”* (Creswell & Poth, 2017, p. 83).

As the literature shows, grounded theory is close to the research purpose of explanation (showing casual relations and theory building) rather than exploration, following very strict procedures. Accordingly, grounded theory is considered less relevant for the present project, which does not aim at theory-building but at exploring diverse ideas using flexible, interactive methods for data collection.

Side note: Saturation of data is a concept from the school of grounded theory (Creswell & Poth, 2017). In the exploratory study, the aim was to achieve saturation within the sample of 8 managers regarding their understanding of the business model concept, in order to obtain an initial understanding of what diversity could mean in the research context (for more details refer to chapter 3). The concept of saturation was useful because it offered the argument that interviewing additional but similar respondents would most probably not provide additional information.

4.6.6 Ethnography

Ethnography is the study of people interacting within groups, such as communities, organizations, tribes, clubs or other subdivisions of society. As such, its focus is the exploration of cultural phenomena. *“The key principle of ethnography is that the researcher should become part of the group under study in order to understand the meanings and significances that people give to their behaviour and that of others”*

(Easterby-Smith et al., 2012, p. 51). An ethnography research *“focuses on an entire culture-sharing group. (...), Typically, it (the group) is large, involving many people who interact over time.”* (Creswell & Poth, 2017, p. 90).

Given the opportunity to get immersed in a context to be studied for a certain time, this approach would certainly be an interesting strategy. The question is whether phenomena regarding perception and application of the business model are an appropriate topic for an ethnography approach. Compared with investigating indigenous people living on an island, by spending many years with them, for example, the phenomena of business model perception and application may be difficult to access by indirect means. The focus of the study would have to change, for instance by immersion in a start-up environment and accompanying the team day by day over an extensive period of time (but not by intervening in the scene such as with action research). This could be an alternative approach to investigate business model development, although by addressing different research aims and questions. However, for several reasons, ethnography is not an appropriate research design for the present study. Although it is reasonable to argue that business models are cultural products, and perhaps even that the concept itself is reflective of Swiss national culture, it would be difficult to answer the research questions without specific intervention. Even if it were feasible to access the focal phenomena using an ethnographic approach, it would be impractical to research the three communities of academics, business owner-managers and support professionals in the course of a single study.

4.6.7 Archival research

Archival research involves the study of documentary evidence. *“It is not always necessary to gather new data when conducting research. An enormous amount of data already exists in the public domain as corporate and government reports, and as statistical and financial databases that can be accessed online”* (Easterby-Smith et al., 2012, p. 50). Due to a lack of empirical studies in the business model domain, archival research would provide only little new knowledge about contemporary phenomena of business model perception, understanding and application. As the literature review shows, previous research, with the aim of summarizing existing

knowledge, has already put together and compared existing empirical business model studies – revealing a research gap regarding knowledge of how the business model concept is perceived and applied. Another approach could consist of investigating non-academic records about business models (such as newspapers or non-academic journals), firm knowledge such as white papers, webpage and blog entries, or practitioner conference papers. However, exploration of the core phenomena requires methods to access peoples' knowledge in a way that accepts a mixture of tacit and explicit knowledge to be consolidated during the information capturing process. Only an interactive design allows for dealing with the complexity investigating respondents' thoughts and their ideas, as they evolve and mature in the data collection process. The analysis of archival records would not facilitate this.

4.6.8 Individual interviews

Individual interviews are considered a research design in its own right. The importance of in-depth interviews is *“the opportunity for the researcher to probe deeply to uncover new clues, open up new dimensions of a problem and secure vivid, accurate inclusive accounts that are based on personal experience”* (Easterby-Smith et al., 2012, p. 131). In individual interviews the motives, meanings and perceptions of individuals, confronted with a topic or phenomenon of interest are accessed. Particularly in combination with an exploratory research purpose, that aims at achieving maximum richness of data and maximum diversity of perspectives, interviewing individuals is considered an adequate research design. By contrast to case studies, it is not about investigating contexts. But individual interviews allow for accessing the thoughts of respondents as they develop. An approach ideally suited to investigate the perception of phenomena.

4.6.9 Focus groups

A focus group is a group of research respondents convened for the purpose of a discussion that is guided by the researcher. *“Interviews need not necessarily take place on a one-to-one basis, and for some types of investigation, group interviews can be very useful. They take the form of loosely structured ‘steered’ conversations”* (Easterby-Smith et al., 2012, p. 133). A key benefit is that it has the potential for

additional insights being generated through interaction between the respondents. For the purposes of this study, focus groups could indeed serve as a potentially interesting data collection method, as groups comprising members of the three communities could create interesting for a discussion.

However, the intended respondents in this study (academics, business owner-managers and business support professionals) are all very busy people and organising a setting to bringing various of these people together would be difficult to achieve. Accordingly, although possible in principle – and while providing valuable data – the use of focus groups has been ruled out of the present study because of this practical difficulty.

4.6.10 The adopted research design

To conclude, an individual interview design was chosen for this research, due to its characteristics as a design that best allows for investigating the phenomena under study. The reasons have been addressed in the above discussion; to summarize, they are:

- An in-depth interview offers the best opportunity to explore the phenomena under study, namely respondents' beliefs about the nature of the business model concept, its applicability and its usefulness. This is because these beliefs are likely to be highly diverse, potentially idiosyncratic and to some extent held at the tacit level.
- Interviews best allow for an interactive approach, facilitating access to respondent's thoughts as they emerge, develop, evolve, and mature during the interview, guided by the researcher in a social interaction process.

4.7 Collecting data through guided in-depth interviews

The choice of appropriate data collection methods deals with the question "*Which precise procedures can we use to acquire the knowledge?*" (Grix, 2002, p. 180). In the present study the data were collected through guided, in depth-interviews because in exploratory studies in-depth interviews are useful to "*find out what is happening and to seek insights*" (Saunders et al., p. 322). The aim is to gain insights

into the phenomena under study by exploring the views, perceptions and opinions of respondents through the language they use (Blaikie, 2010; Easterby-Smith et al., 2012). Generally, according to Stake (2010, p. 95), for a qualitative researcher the main purposes of interviews are:

1. *“Obtaining unique information or interpretation held by the person interviewed;*
2. *Collecting a numerical aggregation of information from many persons;*
3. *Finding out ‘a thing’ the researcher was unable to observe themselves”.*

In addition, interviews are ideally suited to experience-type research questions, but also for exploring understanding and perception – and construction-type research questions (Braun & Clarke, 2013). First, the exploratory nature of the study represents the rationale for conducting in-depth interviews. Second, the researched topic is highly relevant for the author in his working environment and the phenomenon to be investigated have emerged in his professional context, so a further point here is that *“Interviews are especially well-suited when the respondents have a personal stake in the topic aiming at exploring understanding, perception or construction of things but also in order to explore practice-type research questions”* (Braun & Clarke, 2013, p. 81).

Among the qualitative interviews ‘guided interviews’ are argued to be the most suitable in combination with interviews investigating interpretations, perspectives and attitudes of respondents (also often referred to as ‘experts’). An interview guide therefore contains pre-defined issues to be discussed in the interview. However, neither the concrete formulation nor the order of the questions is considered binding. More importantly, a natural course of conversation is to be established (Gläser & Laudel, 2010). If the purpose is to investigate a so far poorly understood phenomenon, the exact type of question(s) has first to be learned, including the way to ask the questions (Schensul, Schensul, & LeCompte, 1999). Accordingly, the whole interviewing process may be fluid so that the researcher is making adjustments in real time (Guest, MacQueen, & Namey, 2011). Hence, the interview guide is developed and iteratively refined based on the learnings from some preliminary interviews (exploratory study chapter 3) but also continuously refined in the course of the whole interviewing process.

As a further point, it was acknowledged in an earlier discussion that business model knowledge has both tacit and explicit components, possibly with fluid boundaries at the outset, but mature through reflection during the interview. Consequently, the data collection methods must be interactive in nature, allowing for information gathering as it develops through an interactive process between researcher and respondent. Loosely structured in-depth interviews facilitate this.

To conclude, due to the diverse types of knowledge people may possess concerning the business model concept, a research design that allows for capturing this knowledge is required. Accordingly, survey-based questionnaires or fully structured interviews are not suitable for this because these instruments are not flexible enough to allow the respondents to develop their knowledge in an interactive way or to combine their idiosyncratic fragments of tacit and explicit knowledge through reflection and argumentation. Semi-structured interviews (or focus groups, as an alternative) are much better suited for collecting such types of data.

4.8 Sampling

4.8.1 Introduction: what is sampling and why it is important

When data can be collected for the whole population, no sampling is necessary (Blaikie, 2010). If there is no possibility of investigating the whole population, the question must be posed as to whether statistical inferences are to be made from the sample and whether the sample must be representative. This, in most cases, separates quantitative (statistical) studies from exploratory studies. While quantitative studies often aim at drawing conclusions about pre-defined populations, exploratory studies, such as the present project, may aim at achieving maximum richness, variety and diversity of data because the purpose of such studies is finding out what is going on. This suggests that sampling may have a different meaning across types of study and the research questions to be answered.

In the present project, the research questions aim at investigating three communities in an exploratory way. Sampling is important because it must ensure diversity of respondents among and within the samples. Accordingly, the research design must allow for achieving this diversity. Consequently, probability sampling approaches,

used to draw conclusions about a population, are not appropriate because statistical choices would randomly select the respondents with no criterion of diversity. Diversity could only be guaranteed by interviewing a sufficient number of randomly selected respondents but this would require more time and processing capacity than is available.

In contrast, a purposive or judgemental sampling strategy allows the researcher to construct a sample as appropriate to the research aim. The aim of this study is to gain an initial understanding of the different experiences and beliefs of respondents concerning the business model concept. To achieve this within the constraints of the study, it is important to achieve a high level of diversity in the sample. The respondents must then be carefully selected with a view to the unique information and insights that they can contribute, that allow for illuminating the phenomenon from multiple perspectives. The best way to ensure this is a judgemental sampling approach, by which the researcher decides who to include in the sample – a decision to be made based on his knowledge and experience in the field.

4.8.2 Time horizon

Two time dimensions are distinguished. Having a 'snapshot' character, one refers to a cross-sectional study. Having a 'diary' perspective, one refers to longitudinal studies (Saunders et al., 2011). The time dimension is an important factor in setting up a viable sampling approach because it defines whether follow-up sessions are an integral part of the study, or a voluntary extension – useful for gaining interesting extra information.

- Cross-sectional studies: They are about “*a particular phenomenon (or phenomena) at a particular time*” (Saunders et al., 2011, p. 155). The aim of the present project is to draw a coherent “360-degree-picture” of the business model concept’s perception, understanding and application in Switzerland, calling for a cross-sectional study. The project does not aim at studying the way the concept’s perception evolves or develops over time. By contrast, it is about making a ‘snapshot’ of the current situation. This provides an argument for a cross-sectional study.

- Longitudinal studies: “*The main strength of longitudinal research is the capacity that it has to study change and development*” (Saunders et al., 2011, p. 155). A longitudinal study can be discussed along two dimensions in the present study. First, an argument would be that it calls for an alternative research aim (including different research questions). The research would have to concentrate on questions dealing with the evolution of the concept’s perception and application, for instance as part of a study accompanying start-ups on their journey over a longer period.

The rationale for the choice of a cross sectional approach is that an aim of the study is to include as much diversity as possible rather than understanding the dynamics of a longitudinal study. While the latter would be a laudable aim, it is not possible to accommodate both within the constraints of this doctoral study, so a cross-sectional study is better suited to the initial task of mapping diversity. Moreover, other research designs might make better use of a longitudinal study. For example, a dynamic understanding of the emergence and development of a business model might be gained through an action research project, in which a researcher had direct involvement in a start-up business, or one, which she or he was advising.

4.8.3 Rationale for a judgmental sampling strategy

When it comes to gaining empirical evidence the leading question is “*Which data can we collect?*” (Grix, 2002, p. 180). Generally, exploratory studies are a means for generating primary data based on non-probabilistic samples (Guest et al., 2011). Furthermore, according to a constructivist’s stance focusing on meaning and understanding within the particular, the selection of cases or larger theoretical or methodological designs are less relevant (Moses & Knutsen, 2012). Accordingly, the samples are collected following a purposive (judgemental) sampling strategy (Saunders et al., 2011). A judgmental sampling strategy is not about generalisations but about generating “*insight and in-depth understanding of the topic of interest*” (Braun & Clarke, 2013, p. 56). Samples are selected according to the information they can contribute; hence, different ‘types’ of respondents are not sampled in order to generalise to other entities of ‘that type’ (Braun & Clarke, 2013). Instead, important

are inclusion and exclusion criteria: “*who or what do we want to hear from, and who or what do we not want to hear from*” (Braun & Clarke, 2013, p. 56).

For the present project, the rationale is that the author is best able to judge which respondents are most suitable to answer the research questions, to meet the research objectives and to provide most diversity of data. A possible use of the judgmental (or purposive) sampling approach is to select a variety of different types of cases for in-depth investigation. However, diversity shall be achieved along two dimensions: (1) across different communities – also as basis for comparison and triangulation – and (2) within the communities. Accordingly, the sampling must be considered ‘two dimensional’, as outlined below.

4.8.4 The choice of 3 communities (diversity across the samples)

Derived from the research questions, the methodological aim of the present thesis is to achieve maximum diversity of data regarding the way the business model concept is perceived and applied in Switzerland. Based on the findings of 8 exploratory interviews, maximum diversity cannot be achieved through investigating managers only; a grounded theory based approach showed saturation in the way the business model concept is perceived and applied in this very community (see chapter 3 for more detail).

Consequently, the research design of the main study has been refined; it has been concluded that an adapted design should allow for drawing a “360-degree picture” of the business model concept’s perception and application. Accordingly, three communities that comprise a logical and consistent chain between academia and practice have been chosen for study. Based on the author’s activities as an entrepreneur, business school lecturer, and innovation coach, he not only has connections in the owner-manager world, but also to academics and support professionals. Due to his in-depth understanding of these two additional groups through his professional activities (as a coach he has also been in contact with numerous support professionals), a second pre-study (exploration study) was not considered necessary.

The rationale for opting for sampling from these three communities was as follows:

1. Swiss local academics: Switzerland is considered the 'homeland' of the business model concept, through scholars such as Pigneur, Osterwalder, Gassmann, Stähler, and Tucci. Accordingly, ideas in the conceptual domain from the academic community are expected to enrich the data. Those academics included in the research deal with business models as part of their research activities. Thus, only academics with a professional foothold in this particular domain were included in the sample frame.
2. Swiss support professionals delivering training, advice and funding to (small business) entrepreneurs. The rationale for selecting this community is that its members may represent the link between academics and practitioners, insofar that they often have an academic background. This allows them to systematically observe and critically reflect on what happens in practice – most often are up to date in terms of new ideas (such as the business model concept), and have a strong foothold in practice through their extensive collaboration with the business world (advising/consulting/funding). In several ways, this community may represent the bridge between academia and practice.
3. Small business owner-managers: The third sample is represented by the business world, which is focused on small technology-based businesses. The rationale is that the author has its professional background in this area and is co-owner of a firm in that sector. Furthermore, technology-based firms represent an important pillar of the Swiss economy, and technology-based firms are assumed to have a high affinity to frameworks and models. A further rationale for narrowing down to owner-managed firms links back to the exploration study, namely the finding that employed managers made only little contribution to diversity. This insight supported the idea that owner-managers (rather than employed managers) may be different since the development of their own business makes them more open for new concepts and ideas.

To conclude, the sampling follows a funnel-like structure by incorporating academics dealing with the concept on a high level of abstraction on the one hand, and a very focused group of business people on the other end of the spectrum. The gap

between those two groups is bridged by support professionals, 'talking the language' of both sides. Accordingly, the choice of sample not only allows for achieving diversity of data, but also represents a coherent chain between academia and practice.

4.8.5 Choice of respondents (diversity within the samples)

Not only high diversity of information shall be achieved among the samples, but also within the samples. The following considerations form the basis of selection of the different interview respondents.

1. Respondents that allow for achieving maximal richness and diversity of data, through contemplating the business model concept from as many diverse perspectives as possible.
2. Respondents to be recruited through the author's personal network, which is based on the following areas of activities:
 - (1) network in the new venture and start-up domain,
 - (2) network based on his activities at university,
 - (3) network based on his activities as coach in governmental teaching programs,
 - (4) friends (some of whom working as consultants or entrepreneurs), and
 - (5) also respondents that could be acquired through 'blind inquiries' based on their special knowledge they can contribute in a certain domain.
3. The number of respondents for each group has been determined following Creswell and Poth (2017, p. 78): *"The exploration of a group of individuals who have all experienced the phenomenon. Thus, a heterogeneous group that may vary in size from 3 to 4 individuals to 10 to 15"*.

4.8.6 Sample profiles

Accordingly, 10 local academics were selected for an interview (Figure 18). In order to achieve maximum variety, varied disciplines were considered such as strategic foresight, marketing, finance, technology management, social sciences, online marketing, or design at the school of arts. The main criterion of inclusion was that

their research in some way focuses on business models, either as a main topic or, at least at the periphery.

No	Specialisation
A1	Strategic foresight, innovation management
A2	Global strategy and marketing
A3	Business models in the Swiss energy sector
A4	Business models in the finance industry
A5	Sustainability and technology
A6	Design thinking, systemic thinking
A7	Business models in investment product marketing
A8	Online-Marketing und Social Media
A9	Entrepreneurship
A10	Communication design (school of arts)

Figure 18: Academics sample. Source: Author (2017).

As Figure 19 depicts, 13 support professionals from various disciplines dealing with the business model idea were selected for interview. Following the criterion of achieving maximum richness of data, support professionals from different areas such as strategy, finance, funding, marketing, governmental innovation support, innovation management, business book authors, early adopters, (business) philosophy, or future management have been included. The main criterion of inclusion was that they work with Swiss small business owner-managers in their consulting practice, ideally in technology-based sectors.

No	Specialisation
S1	Early evangelist
S2	Strategy (incl. military), technology, finance
S3	Marketing and sales
S4	Governmental innovation promotion
S5	Innovation (service oriented)
S6	Private investment fund, management consultancy
S7	Business angel, management consultancy
S8	Innovation management, entrepreneurship, business book author
S9	Entrepreneur, researcher, business book author
S10	Innovation (technology oriented), business book author
S11	Philosophy, management consultancy, author
S12	Pension fund investment
S13	Future management

Figure 19: Support professional sample. Source: Author (2017).

In total, 12 technology-based small business owner-managers were selected for interview. The aim here consisted of gaining interview partners from firms with a varying number of employees and a varying time in business. Three out the sample (M3, M5, and M10) are considered start-ups following the definition of Blank and Dorf (2012) in that a start-up is a temporary organisation looking for a new viable business model. The main criteria of inclusion were that the sample should include different firm sizes and ages, that the businesses were related to a technical domain and located in the Swiss German part of Switzerland.

No	Specialisation	Employees	Company age
M1	ICT engineering	5	20
M2	Dairy (quark and yoghurt)	52	75
M3	Energy production solutions: manufacturing and sales	6	4
M4	Sales company (technical products)	1	6
M5	Building technology engineering	6	4
M6	Architecture (housing and industry)	4	2
M7	Cutting tool manufacturing	500	80
M8	Furniture production (niche markets)	30	90
M9	Energy production and distribution	1000	50
M10	Start-up investment (11 investments)	1	20
M11	Electrical Engineering	200	65
M12	Vegetable producton (high tech greenhouse)	160	30

Figure 20: Owner-manager sample. Source: Author (2017).

4.8.7 Respondent recruitment

The research respondents were recruited through the author's personal networks (small business and university contexts), either directly or on the recommendation of other members of the networks. 9 of the 35 respondents were invited to interview by telephone or in person, as they were members of the author's closer network (i.e. friends or colleagues). The remaining 26 were recruited by email for the interview. In total, 31 email requests were necessary as there were 5 non-responses but no direct refusals.

4.9 **Ethical considerations**

All social research involves some ethical issues. According to Blaikie (2010), good ethical practice includes the ensuring of voluntary participation, the right to withdraw at any time, obtaining informed consent of research respondents, protecting the

interests of the research respondents (protecting privacy, ensuring anonymity and conducting the research with integrity (i.e. research conducted according to acceptable standards). Braun and Clarke (2013) see four main ethical principles to be addressed, namely respect, competence, responsibility, and integrity. Solutions to ethical issues can be summarised as follows, paraphrased from Easterby-Smith et al. (2012, p. 95):

- Avoidance of harm to the respondents, whether physical or psychological.
- Respecting the respondents' dignity.
- Fully informed consent.
- Protection of respondents' privacy.
- Ensuring the confidentiality of data.
- Protecting the respondents' anonymity.
- Avoiding deception regarding the nature of the research and the aims.
- Clarifying possible conflicts of interest.
- Ensuring honesty and transparency.

In this study, the most important ethical issues were resolved as follows. The respondents were clearly informed about the purpose of the research and the way the data were to be used, right at the beginning of the project. The respondents were given the chance to withdraw from the interviews at any time. Furthermore, their anonymity was guaranteed. Some respondents would have accepted to be cited by name after having signed off the respective text passages on their own initiative; an issue which has been addressed by treating all respondents anonymously as an overall research standard. In all, the ethical standards of the University of Gloucestershire have been followed.

4.10 Development of research instruments

4.10.1 Considerations for developing the interview guide

The literature review reveals that the business model concept is used in various management disciplines. This finding can be confirmed by an exploratory study revealing a wide range of different understandings, conceptualisations and

applications in areas such as innovation, strategy, business plans and processes, or entrepreneurship, hence a high variety of variables making the research highly complex. The following issues have been addressed in order to deal with the complex nature of the investigated phenomena:

- First, the business model concept is highly complex in itself, since the individual elements that are often unified within a framework (such as the Canvas from Osterwalder) do not interact linearly but are interlinked in highly complex ways, producing emergent properties.
- Secondly, various dimensions of the phenomena are to be taken into consideration, as discussed in 4.1.2 above.
- Third, considerations regarding the nature of knowledge (tacit, explicit) must be considered, such as discussed in 4.1.4 above.
- Fourth, the research instrument must allow for capturing ideas as they emerge and develop in peoples' minds when prompted to consider the business model concept.

In summary, these considerations show that the research should be approached as a highly complex learning process. Although there is a debate about the complex nature of business models in literature, the review shows that complexity themes represent a topic at the periphery of most empirical business model research initiatives. By contrast, the literature review and the exploration study show the importance of this debate, since each firm is different, leading to a plethora of highly interlinked variables. As the review shows, only few studies recognise that extraordinary high level of complexity inherent in the topic.

Accordingly, the chosen methodological design aims at exploring diverse perspectives, achieving maximum richness and diversity of data, so conducting in-depth interviews finally must allow for accessing the respondents' thoughts as ideas emerge.

4.10.2 Lessons learned from the exploratory study

The following questions used in the exploratory study are well suited for use in the main fieldwork, as they were understood and could be readily answered by the respondents:

- 1) What do you understand by the term 'business model'?
- 2) Which tools do you use to describe/analyse your existing business model?
- 3) Can you describe your existing business model (in your own words/concepts/ideas)?

The following question proved to be more complex:

- 4) How has your existing business model evolved?

Respondents who had founded their firm could answer this fourth question; however, for those respondents managing an established firm that may have been in business for decades, question 4 was harder to answer. From a methodological perspective, question 4 must address the challenges of dealing with post-hoc justifications. As a consequence, questions addressing historical developments should be avoided. Furthermore, answering questions regarding business model evolution, having a time dimension, would call for a longitudinal research strategy, such as an action research approach, rather than a cross-sectional design.

The respondents also found it difficult to answer the following rather complex questions:

- 5) What were key events in the formation process of your business model / what are key components in your business model / what is special in your business model?
- 6) Have you ever started any business model innovation initiative(s)? If yes, which one and why. If not – why not?

First, question 5 contains two elements, it should be formulated as 2 separate questions. Combining these aspects in one question is rather confusing and leads to unclear answers. Furthermore, in question 5, the 'key' events the respondents should

remember in most cases cannot be assessed and interpreted adequately in retrospect. Thus, there is a danger of post-hoc justification, which means that there may exist a 'time bias' in the respondents' interpretations so that they selectively remember isolated facets, and create new stories, which in retrospect draw a coherent picture – which in fact may not represent reality (Salow, 2017). Accordingly, a longitudinal design would be more appropriate for this question too. Question 6 implicitly assumes that the respondents have a clear idea about the business model concept – if they do not (as was found to be the case), it is not wise to ask this question. Since business model innovation builds upon the concept of business models (the understanding of its perception and application is the subject of the present study), introducing another complex term (innovation) building upon the term business models, is too complex a question.

4.10.3 Conclusions from the exploration study for the interview guide

Broken down, there are some important conclusions regarding the development of the questions building up the interview guide.

- Asking about past events in the business model development process is difficult since the respondents may not remember the details or may construct 'stories' in a post event justification manner. Managers in firms running the same business for decades may not be able to reconstruct the way their business model has evolved.
- During the evaluation of the exploration study, it has been learned that rich contextual information plays an important role in understanding the conceptualisation and application of the business model concept; such contextual information contributes to the diversity within the sample. Such information may contain the respondent's backgrounds (education, prior jobs, the way they learned about the concept), contextual information about the firms (such as resources, processes, values) and the firms' environments. However, the type and extent of contextual information must be adapted for the individual groups to be interviewed (academics, support professionals, small business owner-managers).

- The questions shall not be too narrow since the interviews must allow for free discussions, in which emerging topics can be investigated in-depth. The exploratory nature of the research must allow topics to emerge, must allow for accessing respondents' thoughts as their ideas develop, and must allow for selectively "digging deeper" when interesting ideas emerge.

4.10.4 Developing the main categories of the interview guides

Derived from the research questions and the exploratory interview guide the following 'main' categories have been developed and used to build up the interview guides for the main study. However, the interview guides were slightly adapted for each community. For instance, academics and support professionals may develop their own frameworks, whereas business owner-managers may feel more comfortable by talking about their current business model in a concrete manner rather than discussing abstract concepts. More broadly, it should be recalled that the author has close professional connections with both the academic and support professional communities. On the basis of this familiarity, it was decided that the same interview guide would be appropriate for both samples.

- Understanding of the term 'business model'.
- Application of the business model concept.
- The respondent's background.
- Elements of a business model.
- First contact with the business model concept.
- Related concepts.
- Strengths.
- Weaknesses.
- Conceptualisation and contextualisation.
- Existing business logic (owner-manager sample).
- Business model challenges ahead (owner-manager sample).

These main categories link back to the research questions and will also be used for structuring the data analysis process. The three interview guides are documented in appendix 1.

4.11 The issue of bias

Bias is an important issue in all forms of research, as a researcher may exert an influence on the nature and quality of data collected in a study in many ways, both consciously and unconsciously. This can arise at any stage in research design and execution, from the framing of research questions, through the philosophical assumptions made about the nature of the study, to the choice of data collection techniques and the data collection process itself, as well as in the analysis of the data. At each stage of the design of this study, the researcher has been aware of these issues and has attempted to eliminate bias. However, data collection through interviews, particularly in face-to-face contexts, raises some particular issues of possible bias through influencing the responses of the respondents. Saunders et al. (2011, p. 326) explain this as follows: *“This is where the comments, tone or non-verbal behaviour of the interviewer create bias in the way that respondents respond to the questions being asked. This may be where you attempt to impose your own beliefs and frame of reference through the questions you ask”*.

There is potential for bias of this kind in any form of face-to-face research but it is of special importance when planning interactive, in-depth interviews with an exploratory purpose, as in this study. In this context, the researcher effectively becomes the ‘research instrument’, through which data for the study is collected (Poggenpoel & Myburgh, 2003). In such a situation, a researcher must be particularly careful not to influence respondents’ responses, for example by expressing strong personal opinions or values, or by suggesting a desired response.

The exploratory study for this research revealed a particular source of potential bias of this type, where it was found that SME owner-managers tend to have limited familiarity with the business model concept (see 3.4). Moreover, it was also recognised that knowledge of the concept and its application was incomplete and that some of it resided at the tacit level. During the interview, therefore, some of this tacit knowledge was accessed and converted to the explicit domain by a process of social construction that necessarily involved some degree of co-creation.

As this issue had become evident during the exploratory study, the researcher was aware of the potential for bias and was careful not to take the lead during the interview process, particularly when interviewing the business owner-managers. However, it is acknowledged that an element of bias is inevitable during interactive interviewing, especially when responses are effectively co-created.

4.11.1 Addressing the researcher bias

The researcher was a potential source of bias in several dimensions, as discussed below:

1. Bias on the topic level. Based on the literature, through discussions with peers, and due to his own practical experience, the author has developed his frame of reference before embarking the empirical part of the study (interviews). This had influence on the interview guide and on the themes that were explored in the interviews.
2. Bias by the choice of the respondents. The respondents were selected based on the author's frame of reference of who could contribute to the research in order to achieve maximum diversity. His frame of reference may have limited the choice of maximum diverse respondents.
3. Bias while conducting the interviews. Based on the existent knowledge the researcher decided which ideas are 'interesting' and worth being further investigated. The ideas the researcher considered to be new or worth exploring depend on his frame of reference, which was influenced through the literature, through debates, practical experiences, but also on prior interviews. This latter aspect means that the researcher's frame of reference changed during the interviewing process so that different ideas were further explored in early and late stage interviews.
4. Bias in analysing the data. In the process of analysing the data the bias not only was influenced by the frame of reference from literature, debates, practice, and reflection, but also from the empirical data. The researcher was more influenced by ideas from certain respondents compared with others. Some concepts resonated more with the researcher's own ideas than others did. This may have influenced the way the data were coded and analysed.

Accordingly, the several dimensions of bias were addressed as follows:

1. Cross checking the interview guide by other business model academics. Are there important issues ignored by reference to the research questions? Developing a broad literature review including themes at the periphery.
2. First, the list of respondents was cross-checked by some selected academics and support professionals from the authors network. Second, the list was also consolidated with the literature. Again, a broad range of themes, also the periphery, is important at this stage too.
3. A few early stage respondents were contacted a second time since the frame of reference has changed during the research process. They were asked for clarification on certain issues. Early stage respondents were selected carefully and thoughtfully; they mainly consisted of people the researcher has easily access to.
4. Ideas were not only further pursued based on the author's judgment as being most interesting but also on considering how often the theme was mentioned by different respondents across different communities. The number of occurrences was used as a kind of 'low-pass filter', limiting the passing on of ideas which were only interesting for the researcher but have no broader meaning in the samples.

4.11.2 Bias in researching academics

Bias may have occurred during the interviews with the academic sample for the following reasons:

1. Academics may be biased by their theoretical knowledge from literature. They may also mix up theoretical ideas and cases described in literature with their personal practical knowledge on which they reflect.
2. When researching the academic sample, the researcher could be biased through his theoretical understanding of business models too, so the research process (the interviews) might concentrate on issues which are in the domain of common sense. New ideas could then emerge only rarely.

Accordingly, these dimensions of possible bias were addressed as follows:

1. Asking academics about their own practical experience, e.g. from research projects or consulting activities (some academics are part time consultants). Deliberately asking them to reflect on these experiences rather than talking about ideas in the literature.
2. Preparing questions in the guide that explicitly prompt a discussion regarding the practical level of application. Confronting academics with standard application situations before exploring into their experiences with them.

4.11.3 Bias in researching support professionals

Bias may have occurred during the interviews with the support professional sample for the following reasons:

1. Support professionals may be biased by negative experiences using the business model concept or models in general. They may have applied the concept in a complex and difficult context that has shaped their thinking, so they conclude it to be an inappropriate idea in general. Or, by contrast, they may have used it successfully, so tend to overestimate its usefulness.
2. Peers having used the concept in a successful or unsuccessful way may have influenced their thinking, since support professionals often act in a dense network of other consultants. 'Myths' may influence the community.
3. Support professionals tend to have the ability to carefully and critically reflect on their application of the concept in practice. However, most support professionals have developed their own 'best practice'. Some have ideas and techniques the business model concept fits within; some have developed ideas and techniques contradicting the business model idea. The challenge therefore is to learn enough about the consultants' background and experience relative to the business model concept and its application.

Accordingly, these dimensions of possible bias were addressed as follows:

1. Asking the support professionals about more than one application scenario and to reflect on these different situations. Finding out about critical

experiences (if any) and the way these experiences have influenced their frame of thinking, in order to bracket out the effects of these events.

2. Asking them about their own experiences and about experiences of others (and also about experiences reported in the literature), to bracket out ideas from third parties.
3. Learning more about their current practice. What type of customers do they provide training and support with? What methods do they use? Do they also use other models, or do they avoid the application of models in general? Were they party to the early development stage of business models or have they started using them only since the rise of the Osterwalder (2010) Canvas? Such type of extra information helped in framing important statements. Such information was also important to build community sub groups – an approach that proved to be effective in analysing the data.

4.11.4 Bias in researching owner managers

Bias may have occurred during the interviews with the owner-manager sample for the following reasons:

1. Owner-managers often have only limited knowledge about the business model concept – ideas described in the literature are only rarely known. These ideas mainly reside on the tacit level, so they may mix up the business model concept with many other things they spontaneously associate with the term 'business model'.
2. Even those who already may have learned about the concept – in debates with peers, on conferences, in an article, etc. – often tend to ignore ideas such as business models. arguing them to be 'theoretical stuff'. This tends to create bias in their judgment of the concept's applicability and usefulness.
3. Researching owner managers: The main task of the researcher was to develop implicit knowledge (from the tacit level) to become explicit. He therefore had to encourage respondents to talk about business models, even though they may not be familiar with the concept, without influencing them with existing frameworks or tools. This proved to be difficult. Due to the exploratory nature of the study, the respondents were not to be prompted with existing

frameworks such as the Canvas. However, the researcher had to co-create knowledge by not influencing the respondents. This represented the most difficult issue to overcome in avoiding bias.

Accordingly, these dimensions of possible bias were addressed as follows:

1. Asking 'why questions' such as 'Why do you think this or that has something to do with the business model concept?' Asking 'why questions' often made respondents reflect on what they said and encouraged them to revise or refine their statements. Through asking such questions the researcher could indicate that something is not complete with the provided answers on a subtle level, without guiding the answer in a certain direction – perhaps at a subconscious level such direction is still possible, though this is difficult to control. As it showed multiple times, embarking on a reflective process proved to be a successful strategy, since most practitioners began to understand what a business model could be – at least parts of the concept, such as the revenue logic, could often be identified.
2. Asking owner-managers whether they have also learned about (or experienced) examples of 'theoretical stuff' to be useful rather than useless. Some respondents embarked on a reflection process resulting in some new and interesting ideas of business model understanding and application.
3. First, the researcher confronted the respondents with the term business model. In the case of only limited ideas about the business model concept, which was often the case, the researcher asked the owner managers to explain the logic and architecture of their business. This question encouraged them to embark on a complex reflective process, sometimes further stimulated by the researcher asking 'why questions'. The outcome of this strategy was that most owner managers started off by talking about their customers, what they sell to them, or in what business they are in, and how they create revenues. Most of them began realising what business models could be all about while reflecting on their own business's logic, often exploring the revenue logic of their business. They then 'connected the dots' with ideas residing in the tacit domain. They managed to draw a more comprehensive picture of the business model: a picture they had created in the interview

(often for the first time!). Asking about the business logic proved to be a straightforward question to co-create knowledge without too much influence over the respondents. The idea of asking owner managers about their existing business logic was provided by a professor of empirical social research out of the author's private network, who was contacted to cross-check the interview guide.

4.12 Data collection

4.12.1 Venue

The interviews with academics were conducted either at their university, via Skype, or in a restaurant close to the University where they work. Support professionals were interviewed in public places such as in restaurants, at different universities to which the author has access and where he could book a room, in the author's office, by means of Skype or telephone, or in their own office location (1 case). Small business-owner managers were all interviewed within their businesses. The author visited all of them personally; in many cases a company visit was offered after the interview.

4.12.2 Data capture

Each respondent was asked permission for the electronic recording of the interview; all respondents gave their consent. The data were captured using guided, semi-structured interviews. All but four of the interviews were conducted face-to-face; the remaining four were conducted via Skype or telephone in line with the respondents' preferences (three business support professionals and one academic). All of the interviews except for two were conducted in the respondent's and author's mother tongue of German, while two were conducted in English. One of the latter was with a respondent from the French speaking part of Switzerland; the interview was conducted in English due to the limited French knowledge of the author. The second interview in English was with a Swiss-German professor who preferred English, as this was considered the business language he normally uses in such contexts.

4.12.3 Transcription

During the interview process journal notes were taken. All interviews were audio-recorded and fully transcribed. All interviews were summarised (condensed) in English within a maximum of 2 pages each.

The permission was granted in all cases. Each of the interviews was transcribed in the original language. Initially an administrative assistant was asked to carry out the transcription, but found it difficult to deal with the terminologies. As a consequence, all interviews were transcribed by the author (including the one first transcribed by the administrative assistant, since due to these difficulties, many mistakes in meaning were found). The transcription process required a time multiple of between 5 and 8 (1 hour of interview time equals between 5 and 8 hours of transcription). Depending on the language style and speed of speech, considerable differences were noticed regarding this factor – some interviews were easy, others much more difficult to transcribe.

4.13 Data analysis

In exploratory analyses, the focus is on what emerges from the interaction between the researcher and the respondents. Hence, the content of that interaction forms the development of themes and identification of themes (Guest et al., 2011). The interview data were audio recorded, transcribed and analysed using the NVivo software package, aiming at assigning codes for relevant text passages, summarising these codes to categories and identifying concepts within the categories inspired by the '3 C-Methodology' (Gläser & Laudel, 2010). Accordingly, the method for analysing the data was thematic analysis; a method designed to identifying key themes in text. These themes are transformed into codes and aggregated in a codebook; consequently, thematic analysis is considered *"the most useful in capturing the complexities of meaning within a textual data set"* (Guest et al., 2011, p. 11). Thematic analysis can best be described as a method *"for providing a systematic approach for identifying, analysing, and reporting patterns – themes – across a dataset"* (Braun & Clarke, 2013, p. 178).

However, thematic analysis is “*relatively unique among qualitative analytic methods in that it only provides a method for data analysis; it does not prescribe methods for data collection, theoretical positions, epistemological or ontological frameworks. It really is just a method*” (Braun & Clarke, 2013, p. 178). It is especially useful, in combination with interviews, when the respondents have a personal stake in the topic, which represents a strong argument for applying thematic analysis in the present research project. On the one hand, the topic is strongly anchored in the author’s professional context, on the other hand, it is compatible with the data collection method. The data were analysed in order to identify themes and concepts and to construct typologies by comparing different sources from different research stages and between the cases. Table 1 depicts the main concepts of Thematic Analysis (Guest et al., 2011, p. 50):

- Data: The textual representation of a conversation, observation, or interaction.
- Theme: A unit of meaning that is observed (noticed) in the data by a reader of the text.
- Code: A textual description of the semantic boundaries of a theme or a component of a theme.
- Coding: The process by which a qualitative analyst links specific codes to specific data segments.

Table 1: Classification of terms and concepts (Guest et al., 2011, p. 50)

The data were analysed following a 6-phase thematic analysis approach as follows (adapted from Braun and Clarke (2006)):

1. Familiarising yourself with your data: Transcribing data, reading and rereading the data, noting down ideas.
2. Generating initial codes: Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.

3. Searching for themes: collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes: Checking the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes: Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
6. Producing the report: The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis, to the research question, and to literature. Producing a scholarly report of the analysis.

Themes emerging within the three groups/samples are analysed individually (within the group/sample), then compared with each other or merged in order to look for themes, respectively.

To conclude, the rationale for analysing the data using thematic analysis lies in its relatively flexible procedure that doesn't follow strictly pre-defined procedures, as it would be the case with other techniques such as grounded theory (Braun & Clarke, 2013). Therefore, it is an ideal research instrument for relatively inexperienced social researchers such as the author. However, thematic analysis is an established method on its own right compatible with the constructionist epistemology (Braun & Clarke, 2006; Guest et al., 2011).

4.13.1 Developing an adapted data analysis process

While thematic analysis formed the basis of the data analysis process, the author adapted the procedures described in the literature, tailoring a unique procedure, which best meets the specific needs of the project, and, above all, reflecting the author's way of thinking. For instance, the data were not only analysed using NVivo software, but were structured using a traditional 'analogue' mind map technique (using pencil and paper), as well as using an Excel spreadsheet for visualisation purposes. The rationale is that the complexity – and a huge amount of data – could

better be managed using visual approaches since the author is very much a visual thinker. The logic and use of this combination of analysis techniques is explained below.

The overall aim of the analysis process is *“to focus on describing what all respondents have in common as they experience a phenomenon. The basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence (a ‘grasp’ of the very nature of thing).”* (Creswell & Poth, 2017, p. 76). Since the way the business model concept is perceived and applied is considered an elusive phenomenon, the process described in this chapter was designed to ‘grasp’ the very nature of the phenomena under study, based on common experiences among and within the three groups.

The leading idea behind the newly designed (or adapted) thematic analysis (TA) process is that in phenomenology, *“data analysis can follow systemic procedures that move from the narrow units of analysis (e.g. significant statements), on to broader units of analysis (e.g. meaning units), and on detailed descriptions that summarize two elements, ‘what’ the individuals have experienced and ‘how’ they have experienced it”* (Creswell & Poth, 2017, p. 79). Accordingly, the process has been designed to systematically structure the data from the ‘narrow units of analysis’ by inductively identifying themes in the data – based on the respondents experiences –, and comparing the findings in order to form broader meanings, representing the *“essence as the culminating aspect of a phenomenological study”* (Creswell & Poth, 2017, p. 79).

Accordingly, the whole analysis process was aligned to the idea of *“going through the data, and highlight significant statements, sentences or quotes that provide an understanding of how the respondents have experienced the phenomenon”*. Next, *“the researcher develops clusters of meaning from these significant statements into themes”* (Creswell & Poth, 2017, p. 82). In the following section, the data analysis process is outlined step by step, as depicted in Figure 21.

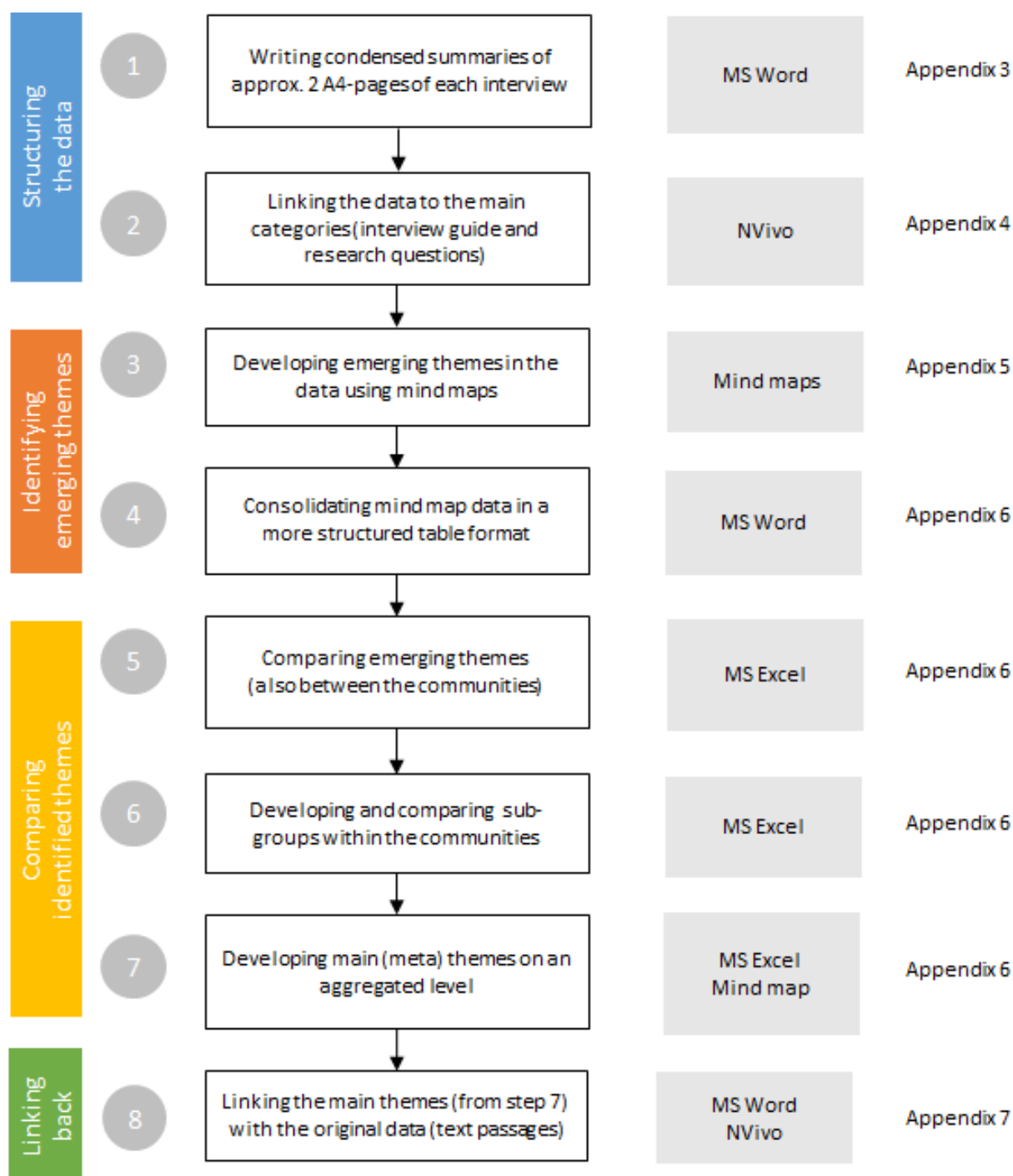


Figure 21: Process of data analysis. Source: Author (2016).

However, the process, as depicted in Figure 21, builds up on the ideas of TA, hence structuring the data, building codes and themes to be compared. Finally, a process containing 8 subsequent steps has been developed. The steps are organised in 4 main categories as follows (coloured structure on the left side of the figure):

1. Structuring the data.
2. Identifying emergent themes.
3. Comparing the identified themes, developing subgroups of the involved respondents (subgroups within the communities).
4. Linking the themes back to the original data in order to find those text passages building the themes up.

In the following section, the 8 steps of the data analysis process are outlined in detail, justifying the choice of methods within each step. The four categories listed above (containing the 8 steps) are used to structure the section.

4.13.2 Step by step description of the analysis process

4.13.2.1 *Step 1 – Writing condensed summaries*

A condensed summary of each interview was written containing the main aspects of each interview. The original interviews were conducted and transcribed in German, while the summaries were written in English. The summaries can be found in Appendix 3. An example of an original transcript is documented in Appendix 2.

4.13.2.2 *Step 2 – Linking the raw interview data with the interview guides*

Relevant text passages within the interview raw data were linked to the main categories, building up the structure of the interview guide. Hence, the categories were derived from the research questions. Related text passages were linked to the categories using NVivo. The respective text passages, linking to the main categories, were exported from NVivo into a MS Word document. An example can be found in Appendix 4.

4.13.2.3 *Step 3 – Developing emerging themes in the data using mind maps*

All text passages associated with a certain category (interview guide) were exported from NVivo into a MS Word file (as described in step 2). This was done for each community. The result consisted of about 10 individual files for each of the 3 communities to be printed out (in total, around 30 files have been produced, for an example see Appendix 4). Themes were identified inductively using a traditional ‘analogue, by hand’ mind map technique. In total, the result of this stage was a set of

around 50 mind maps containing emerging themes for each of the 3 communities. For illustration purposes, three mind maps can be found in Appendix 5.

4.13.2.4 Step 4 – Consolidating and cleaning up the emerged themes

The identified themes were transferred from the mind maps into MS Word documents. The structure of each document is organised as follows:

- (1) Community (A/S/M).
- (2) Themes (emerged in the data).
- (3) Individual statements/ideas from respondents (building up the identified themes)

A first consolidating/cleaning process was applied in this stage (see Appendix 6).

4.13.2.5 Step 5 – Comparing the emerged themes

The themes were transferred into an Excel file and compared (between the communities) – they have been evaluated showing which themes were unique (within a community) and which were part of more than one community. Some first ideas for high level main themes (meta themes) were developed.

Based on a huge number of emerging themes, a filter mechanism was applied as follows. Themes that were either relevant in more than one community or new in the business model context (according to the author's valuation and based on the literature review) were used for further investigation. The respective Excel spreadsheet containing the various themes and their valuation is depicted in Appendix 6.

4.13.2.6 Step 6 – Developing sub-groups within each community

Sub-groups in each of the 3 communities were developed. A detailed analysis of the themes within the sub-groups was conducted using Excel – the relevance of a certain theme within and between the various sub-groups could be shown (Appendix 6). Therefore, 3 levels of categories have been used:

1. A theme is exclusively relevant for a certain community.
2. A theme has mainly been discussed within a certain sub-group but is also relevant for other sub-groups.
3. A theme cannot be associated to a sub-group.

The following sub-groups have been identified.

For the academic community (A):

- A1: Have developed their own framework (5/10).
- A2: Working with existing models/frameworks (5/10).

For the support professional community (S):

- S1: Using business models as thinking models (7/10).
- S2: Seeing people and their values at the centre, a philosophical perspective (3/10).
- S3: No use of the business model concept (3/10).

For the owner manager community (M):

- M1: “Classic” Start-up (3/12), according to the definition of Blank and Dorf (2012).
- M2: New venture but no start-up (3/12).
- M3: Traditional family business or management buy-out (5/12).
- M4: Listed firm (1/12).

The sub-categories were developed based on the author’s judgment by comparing the emerged themes as described in step 5. Simple statistical means such as counting the number of themes within a sub-group have been applied to compare and sort out competing sub-group alternatives. However, advanced statistical means such as correlation analysis techniques (e.g. to mathematically prove the relevance of a sub-group/theme) have not been applied because of the exploratory nature of the present research project and the aim of identifying rich (new) ideas that may not yet be statistically significant. The development of the various sub-groups is shown in Appendix 6.

4.13.2.7 Step 7 – Developing main themes on an aggregated level

The data were finally aggregated within a mind map providing an overview of all categories and (sub-) themes. Figure 22 shows the main themes that were developed for the academic sample. Those themes are:

1. Wide variety of applications and interpretations.
2. Developing adapted frameworks.
3. Philosophical considerations.
4. The importance of revenue thinking.
5. The implementation of new business models in practice.
6. Business models and complexity management.
7. The role of business models in ecosystems.
8. Business models are used in start-up not in SMEs

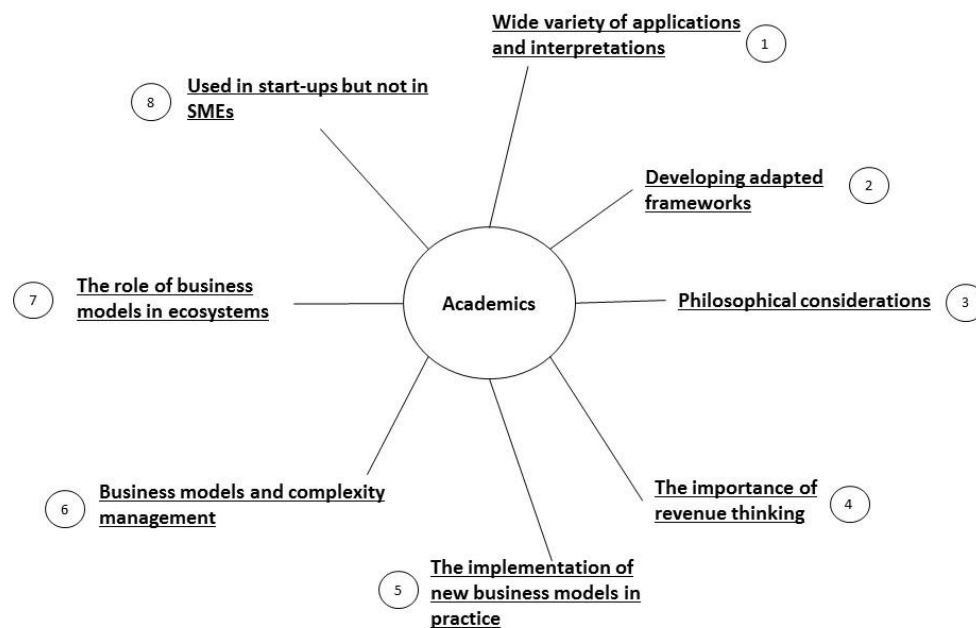


Figure 22: High level data aggregation (main themes) for the academic community. Source: Author (2017).

The same process was carried out with respect to the support professional community. Figure 23 shows the main themes that were developed for the academic samples. Those themes are:

1. Wide variety of applications and interpretations.
2. Developing adapted frameworks.
3. Philosophical considerations.
4. The importance of revenue thinking.
5. The implementation of new business models in practice.
6. Business models and complexity management.

7. The role of business models in ecosystems.
8. Business models are used in 'start-ups' but not in SMEs.

The main themes discussed in the support professional community are the same as in academic sample. However, the issues discussed under the various themes are different, as discussed in detail in Chapter 5.

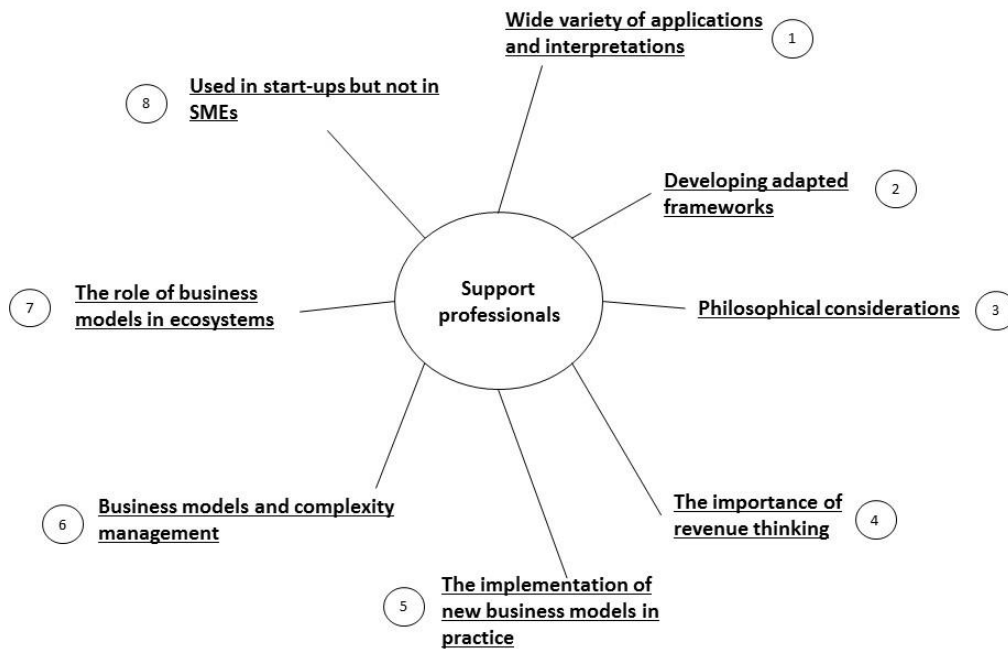


Figure 23: High level data aggregation (main themes) for the support professional community. Source: Author (2017).

Finally, Figure 24 shows the main themes that were developed for the owner-manager samples. Those themes are:

1. Wide variety of applications and interpretations.
2. The importance of revenue thinking.
3. The role of business models in ecosystems.
4. Business models are used in start-up not in SMEs.

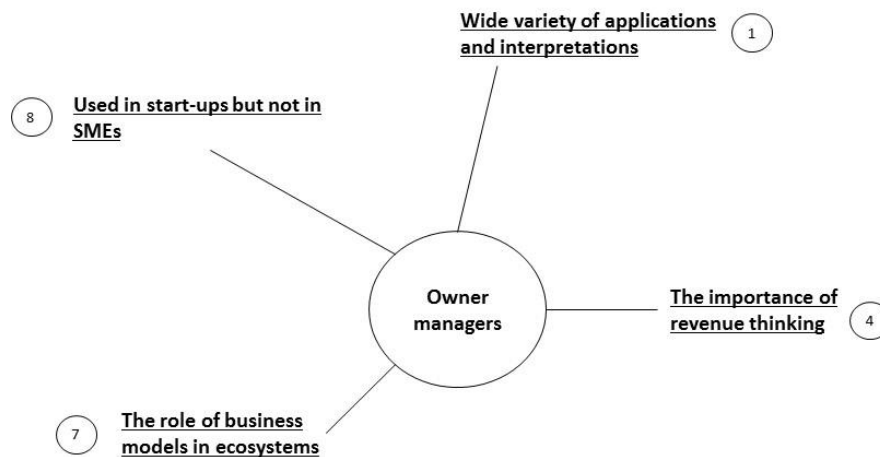


Figure 24: High level data aggregation (main themes) for the owner manager community. Source: Author (2017).

In the owner-manager community, only a limited number of main themes were discussed. The main themes are all the same for the three investigated communities. The rationale is that emerging themes have been developed before the three samples were separated. Hence, the main themes represent the findings on their highest possible level of abstraction. Accordingly, due to the volume and richness of data various sub-themes have emerged, which are considerably different across all three communities (see chapter 5).

4.13.2.8 Step 8 – Linking the themes back to the respective text passages

The developed main themes were linked back to the data as a basis for analysis, interpretation and discussion. Accordingly, each theme was traced back to the respective text passages (building up the themes) containing relevant information and statements from the respondents. The relevant text passages were identified using the condensed summaries and the original data.

The following paragraph shows the visualisation and valuation of relevant text passages – exemplified with theme 8. The very same procedure has been applied for all themes identified. Figure 25 shows an overview of the text passages dealing with the conceptualisation and application of the business model concept in SMEs, start-ups and large established firms.

In the vertical axis, the 35 respondents are listed, organised into the main communities: academics (A1 to A10), owner-managers (M1 to M12), and support professionals (S1 to S13). Furthermore, the main communities are sub-divided, which is marked with different shades of grey (sub-groups). In the horizontal axis, the total number of text passages per respondent is shown, ranging from 1 to 10. Each text passage has been labelled using a unique code. For instance, the code 'A2S2' is the second relevant text passage of respondent A2. S stands for the code of the theme analysed (each main theme has been labelled with a specific letter). An example of the passages referring to a specific topic can be found in Appendix 7.

Used in start-ups but not in SMEs (S)

	1	2	3	4	5	6	7	8	9	10
A1	A1S1	A1S2								
A2	A2S1	A2S2	A2S3							
A3	A3S1	A3S2	A3S3							
A4	A4S1	A4S2								
A5	A5S1									
A6	A6S1									
A7	A7S1	A7S2								
A8	A8S1									
A9										
A10										
M1	M1S1	M1S2	M1S3							
M2	M2S1	M2S2								
M3	M3S1	M3S2	M3S3							
M4	M4S1	M4S2								
M5	M5S1	M5S2	M5S3							
M6	M6S1	M6S2	M6S3	M6S4	M6S5					
M7	M7S1	M7S2	M7S3	M7S4	M7S5	M7S6				
M8	M8S1									
M9	M9S1	M9S2								
M10	M10S1	M10S2	M10S3	M10S4	M10S5	M6S6				
M11	M11S1	M11S2	M11S3							
M12	M12S1	M12S2	M12S3							
S1	S1S1	S1S2	S1S3							
S2	S2S1	S2S2								
S3	S3S1	S3S2								
S4	S4S1	S4S2	S4S3	S4S4	S4S5	S4S6	S4S7			
S5										
S6	S6S1									
S7	S7S1	S7S2								
S8	S8S1									
S9	S9S1	S9S2	S9S3							
S10	S10S1	S10S2	S10S3							
S11	S11S1									
S12	S12S1									
S13	S13S1									

Academics (A)

	Have developed their own framework
	Working with existing models/frameworks

Owner Managers (M)

	"Classic" innovative start-up
	New venture but no start-up
	Traditional family business or mgnt buy out
	Listed company

Support Professionals

	Using BM as thinking models
	Seeing people and their values at the centre
	No use of the business model concept

Figure 25: Evidence in the data. Source: Author (2017).

4.13.3 Rationale for using a mind map based analysis

At the centre of the data analysis process stands a visual 'by hand' mind map technique (steps 3 and 7). Mind maps have been used because:

- Using mind map techniques allows for dealing with highly complex data where no pre-defined structure exists. The structure has been developed linking related themes from different respondents visually, finally showing aggregated high-level themes at a glance.
- Mind maps assisted and promoted visual thinking rather than just textual thinking. The author feels more comfortable using visual techniques and new themes were better identified this way (according to his characteristic as a visual thinker).
- The use of various colours is considered helpful because it allows for distinctively marking themes and ideas in the different 'analogue' mind maps. This way of analysing the data provides an additional 'dimension' (the colour), which proved to be useful to a visual thinker.

4.14 Presenting the findings

The research is reported by following a linear-analytic structure aiming at identifying the research questions. An orienting paragraph informs the reader about the main findings (Guest et al., 2011), and the 'cases' or respondents, respectively, are presented by discussing the following criteria (adapted from Anderson (2010)):

- Criteria for selecting each of the respondents (maximum diversity in the data).
- A description of the study samples.
- Sufficient data (including key statements of the respondents) so that the reader can assess whether the interpretation is supported by the data.
- Discussion of the data in relation to any previous research and theory.
- Discussion of the transferability to other settings.

- Presentation and discussion of deviant findings.
- Discussion of strengths and limitations.
- Comparisons between the samples, if adequate.
- Discussion of relevant literature in relation to the data and the conclusions.
- Reflection and discussion of the influence of the researcher on the data.

Since the data are highly complex and many equally valid ways of presenting them are possible, the first step is to find the 'anchor' of the research (what leads the story such as the main finding), upon which the rest follows logically (Guest et al., 2011). Tables are used as anchors in order to introduce a section, e.g. by showing questions asked to respondents including the most common themes identified in responses associated with a specific question (Guest et al., 2011). Another complementary way for presenting the findings is concept mapping, hence a diagram showing the relationship between different concepts (Guest et al., 2011).

4.15 Ensuring the quality of the research

In exploratory research it is crucially important to conduct quality checks in order to gain some sense of whether what emerges is likely to be more or less inclusive of what may have potentially emerged (Guest et al., 2011). Accordingly, the present section is organised in two parts as follows:

- First, quantitative research criteria, normally used to discuss research quality, are outlined, and a rationale is provided why they are not applicable for the present study.
- Second, more appropriate qualitative criteria are introduced and contextualised with the specifics of the present study.

4.15.1 Quality criteria of quantitative research

4.15.1.1 *Reliability*

Reproducibility and stability of the data: *“Will similar observations be reached by other observers?”* (Easterby-Smith et al., 2012, p. 78). The argument is that reliability is a non-appropriate criterion for judging qualitative research since it originates in a realist stance, assuming that there is only one reality out there, to be removed from context; however, following a constructionist philosophy there are many realities and a context-bound nature of reality (Braun & Clarke, 2013). However, in a much broader context by incorporating ‘trustworthiness’ and ‘dependability’, some version of reliability becomes applicable (Braun & Clarke, 2013). Additionally, all possible influences on the research are considered by keeping a journal, regularly reflecting on the process and looking for rival explanations (Yin, 2014).

4.15.1.2 *Validity*

Honesty and genuineness of the research data: *“Have a sufficient number of perspectives been included?”* (Easterby-Smith et al., 2012, p. 78). Does the research show what it aims to show (Braun & Clarke, 2013)? Since validity refers to the idea of how accurate the research may capture reality, the concept of validity is problematic with qualitative research since many realities are acknowledged (Braun & Clarke, 2013). However, Braun and Clarke (2013) distinguish between four types of validity: (1) construct, (2) internal, (3) external, and (4) ecological validity. Thus, the argument is that the ecological validity should be considered the most relevant in qualitative studies because *“it tends to gather data in ways that are less removed from the real world than quantitative measures”* (Braun & Clarke, 2013, p. 280).

4.15.1.3 *Generalizability*

In term of generalizability the question to be posed is: *“Is the sample sufficiently diverse to allow inferences to other contexts?”* (Easterby-Smith et al., 2012, p. 78). Since the aim of the present study is not statistical but analytical generalizability (Yin, 2014), or theory building, respectively, the findings cannot be broadly generalised. In qualitative research, a concept more often used than ‘generalizability’ is ‘transferability’, referring to *“the extent to which (aspects of) qualitative research can*

be transferred to other groups of people and contexts” (Braun & Clarke, 2013, p. 282). Hence, it is important to describe the specific contexts, respondents and circumstances so that the reader can decide to what extent the findings are applicable in his own context (Braun & Clarke, 2013); thus, *“the burden of transferring results is placed on the reader”* (Lincoln, 1985, cited in Braun & Clarke, 2013, p. 282).

4.15.2 Quality criteria for qualitative research

Braun and Clarke (2013) offer quality criteria for qualitative research, namely ‘member checking’ and ‘triangulation’.

4.15.2.1 *Member checking*

Member checking refers to the practice of checking one’s own analysis with the respondents and can therefore be considered some kind of qualitative version of ‘reliability’ – by checking whether the results are credible and dependable, from the respondents’ view (Braun & Clarke, 2013). Hence, member checking has been considered as a type of ‘credibility check’ (Lincoln, 1985). Furthermore, the findings are compared and interpreted by looking for rival explanations providing alternate explanations of the phenomena observed (Yin, 2014). In summary, member checking, hence returning to the sources (respondents), represents an additional iteration cycle increasing the ‘reliability’ of the findings.

4.15.2.2 *Triangulation*

Triangulation is referred to the use of different data collection techniques (Saunders et al., 2011) but also to gathering the multiple views and perspectives from diverse individuals (Easterby-Smith et al., 2012). Thus, triangulation may become the way of capturing multiple voices and truths to the topic, instead of just using the one ‘right’ result (Braun & Clarke, 2013). In the present study, the views and perspectives from three different samples are used for triangulation purposes by comparing the findings from the three communities (samples).

Besides member checking and triangulation, the author has found that the two criteria authenticity and trustworthiness, as often used for ensuring the quality of

qualitative studies. Accordingly, the next two-sub-sections are devoted to outlining and contextualising these two criteria with the present study.

4.15.2.3 Authenticity

As a quality criterion for qualitative research, the concept of authenticity has been applied. *“Authenticity involves convincing the reader that the researcher has a deep understanding of what was taking place in the organisation”* (Easterby-Smith et al., 2012, p. 53).

Through the author’s long-standing experience in the start-up domain and as a university lecturer in the innovation domain, he is very familiar with the business model concept, the way it is perceived and applied in practice. Accordingly, he has a deep understanding of what is going on in this very context – and within the various communities interviewed.

4.15.2.4 Trustworthiness

Trustworthiness has been described as a concept consisting of 4 criteria: credibility, transferability, dependability, and confirmability. *“(…) Researchers seek to satisfy four criteria. In addressing credibility, investigators attempt to demonstrate that a true picture of the phenomenon under scrutiny is being presented. To allow transferability, they provide sufficient detail of the context of the fieldwork for a reader to be able to decide whether the prevailing environment is similar to another situation with which he or she is familiar and whether the findings can justifiably be applied to the other setting. The meeting of the dependability criterion is difficult in qualitative work, although researchers should at least strive to enable a future investigator to repeat the study. Finally, to achieve confirmability, researchers must take steps to demonstrate that findings emerge from the data and not their own predispositions”* (Shenton, 2004, p. 63).

In the present study, the four criteria have been addressed as follows:

1. Credibility: Presenting a true picture, which is achieved by contextualising the findings with literature and by comparing the findings among and between the communities. Furthermore, the findings have been discussed with some

respondents, which allowed for enhancing the perspectives on what has been found.

2. **Transferability:** The applicability of the findings to other contexts is left to the reader. However, the respondents' backgrounds and their current position within their organisation is part of the contextual information provided by the study, as well as the sampling design of focusing on clearly defined samples achieving maximum richness of data. This allows the reader to draw conclusions for his own context.
3. **Dependability:** As discussed in the philosophical issues discussed of the present study, the respondents have not developed their ideas independently from the researcher (social constructivist epistemology) so a possible repetition of the very same study (or, more precisely, the findings of the study) is barely possible. On the other hand, the methods of evaluation and analysis follow clearly defined procedures, making the process traceable, which would allow other researchers to achieve similar (but not the same) findings. The conditions for this would be that the same data basis is available and the same analysis procedures are followed.
4. **Confirmability:** A rigorous process of analysis and contextualisation of the findings (with the respective text passages, but also with literature) ensures that the findings have emerged from the data and are not a construction of the researcher's mind. However, as outlined in the limitations section, there may be some 'weak noise' concepts that have been lost in the analysis process (filtered out) since concepts stated repeatedly by different respondents were treated with priority – due to the sheer amount of data, some filter mechanisms were needed.

4.16 Overview of the research design

The present chapter has revealed the complexity of the phenomena under study (perception, use, and application of the business model concept), which are complex along several dimensions, such as (1) the existence of not only one but multiple interrelated phenomena (perception, understanding, application), (2) diversity of perceptions by the various respondents, (3) various meanings the business model

concept may have for the various people, and (4) that everything happens in peoples' minds. The business model concept has been recognised to be part of both tacit and explicit knowledge, which may not yet be fully developed, but matures as people talk about it.

As there may or may not exist prior ideas about the understanding, perception and application of the business model concept, creating knowledge by accessing respondents' thoughts in an exploratory way, clearly assign the present project the purpose of an exploratory study. Hence the research is not about description or explanation, such as proving causal relations or theory building, but about exploring "what is going on here".

Due to the exploratory research purpose, the data collection method must allow for accessing respondents' thoughts as they emerge, as they develop, through an interactive way (researcher-respondent). Survey-based questionnaires and structured interviews would not allow for this, so semi-structured interviews were considered the most adequate research strategy.

A cross-sectional rather than a longitudinal study design best meets the research purpose and strategy, since the aim is drawing a coherent "360-degree-picture" of the current situation regarding the perception, understanding and application of the business model concept, rather than exploring changes of perception etc.

The rationale for a judgemental sampling approach is that the author can best decide which respondents to include for achieving maximum diversity within and across the three communities of academics, support professionals and SME owner-managers. Thematic analysis (TA) allows for developing themes as they emerge in the data in a structured yet flexible way, since TA is not a methodology, but 'just' a method. An adapted version of TA was proposed in order to best address the project's characteristics (high level of complexity) and the author's trait as a visual thinker.

5. Findings

5.1 Introduction

5.1.1 Chapter structure

In this chapter, a number of themes that emerged from the data analysis process are outlined and discussed. A discussion of each theme forms a major section (5.1, 5.2 etc.) which is organised as follows:

- Firstly, the findings are presented for each community (i.e. academics, business support professionals and owner-managers) in sequence. The emergent findings are discussed by linking the ideas back to the interview data, using quotations linked to a unique code (see 5.1.3), making the text passages traceable.
- Secondly, the findings are contextualised within the literature, with an accompanying discussion that clarifies which findings are in accordance with the current literature and which are complementary and/or contradictory to it.
- Thirdly, the main findings are presented in a condensed way, community by community.

The concluding section of the chapter provides a summary of the key findings. It thus represents a basis for answering the research questions and clarifying the contributions to knowledge in the final chapter.

5.1.2 Community codes

Throughout the chapter, the codes A, M and S refer to the three communities as follows:

A: Academics.

M: Small business owner-managers.

S: Business support professionals.

5.1.3 Quotation codes

The respondent quotations are referenced by a coding system that was used throughout the analysis and is explained in 4.12.2.8 above. In brief, the code identifies the respondent (initial letter/number combination), the theme category (following letter) and the passage in the interview that relates to the theme (numerical passage number).

For example, quotation code A1F3 identifies the interview passage as follows:

- A = respondent 1 from the academic community.
- F = Theme code F: 'Developing adapted frameworks'
- 1 = The third passage in the interview transcript for respondent A1 that relates to theme F.

Many respondents made related points within the same theme category more than once during the interview. Where this occurs, the quotation reference is of the format A1F1-F3 if the references are contiguous, or A1F1,F3,F6 if they are non-contiguous.

The following theme codes were used:

- A: A wide variety of interpretations and applications.
- S: Used in start-ups but not in SMEs.
- F: Developing adapted frameworks.
- P: Soft issues and philosophical considerations.
- R: Considering revenue thinking important.
- I: The implementation of business models in practice.
- C: Business models and complexity management.
- E: The role of business models in ecosystems.

5.2 Theme 1: Wide variety of applications and interpretations (A/S/M)

Table 2 depicts a cross-reference matrix linking the understanding and application of the business model concept with the various respondents. The table contains the multifaceted views and perceptions on the term 'business model', which emerged in the 35 interviews. In total, 23 different ways of understanding and 38 ways of application could be identified. In the matrix, the respondents are referenced to their individual understanding and application, as in the following example:

A4 (a professor of finance) understands the concept consisting of "*The three dimensions of strategy, structure and culture*" (line 4) and applies it for "*analysing the core value chain*" (row 3).

Some special entries (combinations) are marked with numbers (coloured in blue) rather than respondent references; this is the case if more than one respondent understands and applies the concept identically (there is a legend showing the respective respondents). Furthermore, cells marked in red stand for negative quotations. The following abbreviations are used: academics (A), support professionals (S), owner-managers (M).

Table 2: Understanding-Application-Matrix. Source: Author (2017).

Understanding	Application																																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38							
None	None	Analysing a business	Transforming / re-inventing a business	Analysing the core value chain	A means to deal with complexity	A checklist for start-up compensating experience	Reframing problems	Highly dynamic sectors, reinvention of the BM quickly	Developing scenarios / thinking in alternatives	Communication tool	Internal document serving for a pitch	A teaching instrument	The nucleus of a ("wicked") problem	Showing the flow of resources in an ecosystem	Lean start-up approach - formulation hypotheses to be tested	Collaboration tool	In combination with other tools such as PEST analysis	The implementation of a company's future strategy	Sensitization	Sketching out early stage ideas	Working with customers	A a thinking model	Gaining deep customer understanding, philosophical question	Understanding pains and gains	Taking responsibilities for whole systems	Sharing the same language	A means to story telling	A means to develop a new business	Developing innovations based on existing businesses	Having emerging ideas	Future management framework	Developing ideas	Analysing the 'job-to-be-done' (Christensen)	How to move in the market, fulfilling customer needs	Understanding the point of sales	Software industry	Scaling the business	Blurring prices	To say "...this is not our business model!"						
1 How to track your money / revenue mechanisms	1												A10																S10									M9	M10	M10					
2 Business modelling is strategy	A2																						S8																						
3 Abstract representation of an organisation / business	M9	A3	A3									S5																																	
4 Three dimensions strategy, structure and culture				A4																																									
5 A resource based view					A5	A5	A7																																						
6 About how an organisation creates value for its stakeholders (not monetary only)							A6																																						
7 Business theory, rent seeking strategy							A7																																						
8 The link of a product and the value it creates for company							A8	A8																																					
9 The smallest unit of a business to be defined so that a business works								A9	A9																																				
10 Canvas from Osterwalder	S6	M5	S5					4	S3	5	S1	S1	S2		S4	S4	S7	7							M3	S5	9			S13	8	M5													
11 Transaction model								S1		6																																			
12 Tightly associated with marketing	M4	S7															S3																												
13 Lean Canvas from Ash Maurya		S7																S7	S7																										
14 The value chain	2																																												
15 Value proposition, customer benefit, revenue mechanisms, cost structure																							S8	S8	S8																				
16 "The story of how you create, deliver, and capture value"		S9					S9	S9																																					
17 Ownership structures of a company	3																																								M7				
18 Something big reduced to something small	S11																																												
19 Reorganisation of a company	M2																																												
20 Mission statement	M2																																												
21 Something like gear wheels of a watch	M5																																												
22 Tightly linked with the business plan	M6																																												
23 A business model is not something static, rather it is always changing																																													M7

■ negativ quotations

- 1 A2/S10/S12/S11
- 2 S7/M9/M11
- 3 M2/M7/M12/S11
- 4 S1/S7/M1
- 5 S1/M5
- 6 S1/M3
- 7 S7/M7
- 8 A3/M1/M3/M5/M10
- 9 S10/M10

The results are presented using a table (matrix) because due to a high variety of perspectives clusters of themes can only hardly be built and assigned to communities such as done with the other 7 main themes discussed in the present chapter. In the following sub-sections, the various themes are presented in the community in which they emerged. Due to a plethora of data, a filter was applied. Those ideas were included for further considerations, which are unique and not yet covered or widely discussed in the existing literature (selection according to the author's judgment). The aim is to provide new additional perspectives and insights. Accordingly, the research questions will be answered focusing on new perspectives that the three communities may bring in the business model debate rather than repeating those already outlined in the literature.

5.2.1 Findings in the academic community (A)

The following interpretations have emerged in the academic community:

1. How to track your money / revenue mechanisms (A/S/M).
2. Business modelling is strategy (A/S).
3. Abstract representation of an organisation / business (A/S/M).
4. Three dimensions strategy, structure and culture (A).
5. A resource-based view (A).
6. About how an organisation creates value for its stakeholders (not monetary only) (A).
7. Business theory, rent seeking strategy (A).
8. The link of a product and the value it creates for a firm (A).
9. The smallest unit of a business to be defined so that a business works (A).
10. Canvas from Osterwalder (A/S/M).

Some unique insights are that business models must be seen as a 'three-pole' consisting of strategy, value and culture. Furthermore, the academic community has a resource-based view of the business model concept, anchored in business theory, hence rent-seeking strategies are included.

The following applications have been identified in the academic community:

1. Analysing a business (A/S).
2. Transforming / re-inventing a business (A/S/M).

3. Analysing the core value chain (A).
4. A means to deal with complexity (A/S).
5. A checklist for start-up compensating experience (A).
6. Reframing problems (A).
7. Highly dynamic sectors, reinvention of the BM quickly (A).
8. Developing scenarios / thinking in alternatives (A/S).
9. Communication tool (A/S/M).
10. Internal document serving for a pitch (A).
11. A teaching instrument (A/S).
12. The nucleus of a ("wicked") problem (A).
13. Developing ideas (A/M).

The academic community applies the business model concept as a checklist for compensating for gaps in experience and knowledge for new business founders. They also use the business model concept to deal with complexity; however, there is a debate whether complexity is included or reduced. The concept also serves at reframing problems since the argument here is that after having really understood a problem, solutions can be developed (business models are considered solutions in this context). A further unique insight is that complex problems often are 'wicked problems' (a term known from design science), hence problems that cannot be solved applying any existent concept. Hence 'wicked problems' must be solved from scratch each time. The question is whether business models are suitable for this type of problem.

5.2.2 Findings in the support professional community (S)

The following interpretations have emerged in the support professional community:

1. How to track your money / revenue mechanisms (A/S/M).
2. Business modelling is strategy (A/S).
3. Abstract representation of an organisation / business (A/S/M).
4. Canvas from Osterwalder (A/S/M).
5. Transaction model (S/M).
6. Tightly associated with marketing (S/M).

7. Lean Canvas from Ash Maurya (S).
8. The value chain (S/M).
9. Value proposition, customer benefit, revenue mechanisms, cost structure (S).
10. "The story of how you create, deliver, and capture value" (S).
11. Ownership structures of a firm (S/M).
12. Something big reduced to something small (S).

Some unique insights are provided by support professionals, advocating the idea that business models may reflect the ownership structure of a firm. Furthermore, support professionals have controversially discussed the aspect of having something big to be reduced to something small, and vice versa. The debate is whether information may be lost through reduction since business models are complex social systems to be treated differently from technical systems.

The following applications have been identified in the support professional community:

1. Analysing a business (A/S).
2. Transforming / re-inventing a business (A/S/M).
3. A means to deal with complexity (A/S).
4. Developing scenarios / thinking in alternatives (A/S).
5. Communication tool (A/S/M).
6. A teaching instrument (A/S).
7. Showing the flow of resources in an ecosystem (S/M).
8. Lean Start-up approach - formulation hypotheses to be tested (S).
9. Collaboration tool (S).
10. In combination with other tools such as PEST analysis (S).
11. The implementation of a firm's future strategy (S).
12. Sensitization (S).
13. Sketching out early stage ideas (S).
14. Working with customers (S) → negative quotation.
15. A thinking model (S/M).
16. Gaining deep customer understanding, philosophical questions (S).
17. Understanding pains and gains (S) → negative quotation.

18. Taking responsibilities for whole systems (S).
19. Sharing the same language (S/M).
20. A means to storytelling (S).
21. A means to develop a new business (S/M).
22. Developing innovations based on existing businesses (S).
23. Having emerging ideas (S).
24. Future management framework (S).

The support professional community sees business models – such as the academic community – as a means of dealing with complexity, although there is a debate whether complexity is included reduced. They also address the flow of resources within an ecosystem by following a dynamic perspective. However, most existing models are considered static in nature. A support professional also stated that the business model concept should be used for sensitisation only since the concept itself (such as the Canvas) would be too complex an idea for most small owner-managers to be easily understood in full, but sensitisation would help them in evaluating the usefulness of the concept for their given situation. A further perspective that emerges within the support professional community relates to ‘philosophical’ considerations, which must represent the starting point of a business model journey. Further ideas focus on how something new, such as a new business model, may emerge, as an incubation process. This is an idea that contrasts with traditional planning processes. Additionally, support professionals often use the business model concept just as a thinking model, not including it directly in their daily work with clients (SME firms) because SMEs mostly have a running model, so they tend to react against ideas that question their model.

5.2.3 Findings in the small business owner manager community (M)

The following understandings have emerged in the owner manager community:

1. How to track your money / revenue mechanisms (A/S/M).
2. Abstract representation of an organisation / business (A/S/M).
3. Canvas from Osterwalder (A/S/M).
4. Transaction model (S/M).

5. Tightly associated with marketing (S/M).
6. The value chain (S/M).
7. Ownership structures of a firm (S/M).
8. Reorganisation of a firm (M).
9. Mission statement (M).
10. Something like gear wheels of a watch (M).
11. Tightly linked with the business plan (M).
12. A business model is not something static, rather it is always changing (M).

Such as the support professional community, owner-managers also relate the concept to ownership structures. In this context, they emphasize succession plans. An entrepreneur handing over his firm to the next generation may set up a different business model compared to someone intending to sell his firm – aiming at generating highest possible profit. This has also a lot to do with reorganisations or the mission statement. A respondent considered the business model like gear wheels of a watch. This view may imply a rather static understanding of the concept, comparable to technical designs, a perspective relating to the complexity debate, hence to the question how much complexity an abstract representation such as a business model can actually include.

The following applications have been identified in the owner manager community:

1. Transforming / re-inventing a business (A/S/M).
2. Communication tool (A/S/M).
3. Showing the flow of resources in an ecosystem (S/M).
4. A thinking model (S/M).
5. Sharing the same language (S/M).
6. A means to develop a new business (S/M).
7. Developing ideas (A/M).
8. Analysing the 'job-to-be-done' (Christensen) (M).
9. How to move in the market, fulfilling customer needs (M).
10. Understanding the point of sales (M).
11. Software industry (M).
12. Scaling the business (M).

13. Blurring prices (M).

14. To say "...*this is not our business model*" (M).

Regarding the application of the business model concept, the owner manager community links the concept to several practical-oriented ideas. They use the concept to show the flow of resources in an ecosystem. However, most frameworks are considered static rather than dynamic, so they use so-called transaction models rather than static representations such as the Canvas (an input from the start-up sub-community). They often do not use the business model directly in their daily work, but use it as a thinking model, such as support professionals do. Furthermore, they use the business model concept as an instrument that allows them to better understand the point of sales, having direct contact with their customers. Another issue, which is still rarely debated in literature (according to the author's judgment), is the scaling process of business models as well as 'blurring' of prices, which means that an offer should not be too transparent for customers: An example is selling service units rather than hours since the costs per hour are easily comparable making a firm easily exchangeable. Another interesting input is from an entrepreneur (established Swiss engineering office), who has never heard about the business model concept, using the term only to say "...*this is not our business model*" (M11S2). This is often said when someone has an idea that is not in line with what the firm does.

5.2.4 In-depth investigation of business model application

The various dimensions of business model application were further analysed. Therefore, the 38 applications, as resulted in the empirical data and as depicted in table 2 in the present chapter 5.2, were further analysed, re-grouped and condensed. By consequence, 20 dimensions of business model application could be identified (across the three communities). The 20 dimensions of application were further categorised using an inductive approach of analysis. As the investigation revealed, on the highest level of abstraction, four dimensions can be built. One the one hand, these four dimensions contain 2 main business model sub units:

1. Value proposition: Business modelling is about dealing with value propositions (customer value).

2. Business architecture/architecture/logic: Business modelling is about business architecture/logic, consisting of key resources, key processes, and the profit formula.

On the other hand, 2 main application purposes could be identified, which the business model concept is used for:

1. Analysis: Business model thinking is used to analyse value propositions and business architecture/logic.
2. Creation: The business model concept is used to create new value propositions and new business architecture/logic.

Figure 26 depicts the 20 refined application dimensions and the four 'meta dimensions' (main sub units and main application purposes). This analysis is important for the main contribution of the present thesis representing the empirical ground.

Dimension of application	Purposes		Sub units	
	Analysis	Creation	Value proposition	Business architecture/logic
Teaching students	x	x	x	x
Hypothesizing businesses	x	x	x	x
Developing business strategy	x	x	x	x
Developing pricing strategies	x	x	x	
Scaling businesses		x		x
Visualizing ecosystems	x			
Managing complexity	x	x	x	x
Developing scenarios		x		x
Managing the future		x	x	x
Transforming businesses		x		x
Developing existing businesses		x		x
Analysing businesses	x			x
Sensitizing managers	x			x
Developing new businesses		x	x	x
Developing ideas		x	x	
Communicating ideas			x	
Analyzing customer needs	x		x	
Creating value		x	x	
Understanding and reframing problems	x		x	
Collaborating with others			x	

Figure 26: Dimensions of application derived for the empirical data. Source: Author (2018).

Although the respondents' various application purposes can be categorised and conceptualised in four dimensions, they were mixed up in the data. In the interviews, the respondents made no comments on such categories. In some cases it may not be obvious which category (purpose and sub unit) can best be associated to the 20 dimensions of application. Accordingly, the interview data were consulted to make a correct allocation (following the meaning that was given by the respondents).

5.2.5 Contextualizing the findings with literature

Since the business model concept is understood in various ways among researchers and practitioners, the argument is that there may exist a wide array of meanings, or as stated by Magretta (2002, p. 6) *“Today, ‘business model and ‘strategy’ are among the most sloppily used terms in business; they are often stretched to mean everything – and end up meaning nothing”*. Since the term ‘business model’ is used very widely, only little has been said on the business world’s perception of the use of business models (Osterwalder & Pigneur, 2004). The concept has been critiqued insofar that it would be an *“invitation for faulty thinking and self-delusion”* (Porter, 2001, p. 13), *“There is still much confusion about what business models are and how they can best be used”* (Shafer et al., 2005, p. 199), and *“The literature is developing in silos, according to the phenomena of interest of the respective researcher”* (Zott et al., 2011, p. 1019).

Accordingly, it is time to relearn what the term ‘business model’ encompasses and prove its relevance and utility to both the academic and the business community, not least because researchers often view the business model concept subjectively (Al-Debei & Avison, 2010). Due to the absence of a common definition of the business model concept, the meaning is evolving through research and practical applications (Lambert, 2015). The term is a relatively recent arrival in the management literature, and often a generic term carrying an intermediate level of details – compared to other areas such as economic theories of a firm. Accordingly, business models are considered always subjective since different perceptions exist of what a firm does (Page, 2014). Practitioners are often overwhelmed by the task of developing – or even at understanding – their business model; the topic is hyped in the popular press and there is a lack of proven knowledge in practice (Frankenberger et al., 2013). Accordingly, business model innovation is perceived difficult; not only do firms understand the term business model inconsistently but also (as a consequence) are they incapable of understanding their current business model, so they do not recognise when changes would be necessary nor how to perform these changes (Johnson et al., 2008).

The literature confirms the empirical data and vice versa: regarding the understanding and application of the business model concept, a plethora of different ideas can be found in practice. This means for the three communities investigated: 35 respondents provided 34 (23) interpretations, and 51 (38) ways of application. (Note: the numbers in brackets are adjusted with double entries). However, many ideas are already reflected by existing literature (see literature review). Although the Canvas may have become a 'quasi standard' in some communities (e.g. the start-up world) there still exist a wide variety of additional ideas tightly linked to the term 'business model'. Some 'uncommon' (in literature not yet elaborated) aspects have been outlined representing the main output of the present section, in combination with the finding that a plethora of ideas are tightly linked with the term 'business model'.

5.2.6 Key findings

5.2.6.1 *Academics*

10 different Interpretations and 13 different ways of application were provided by 10 academics, reflecting the view of literature, namely that the term business model has no consensual meaning.

However, the academic community addresses new insights in that two conflicting ideas were discussed:

1. Using the business model concept for resource-based rent seeking strategies.
2. Applying the concept for re-framing complex problems.

Furthermore, a special type of complex problems, so-called 'wicked problems', was discussed in the academic sample. However, the business model concept was also questioned by academics to be a viable approach to solve such 'wicked problems'.

5.2.6.2 *Support professionals*

12 different interpretations and 24 different ways of application were provided by 13 support professionals, the community with by far the most associations. New insights were revealed in that ownership structures should be included in the business model

debate. This reflected a more complex set of underlying issues, including culture, values and goals.

Furthermore, whether the use of business models includes or reduces real-world complexity represents a conceptual issue of debate. Support professionals also relate business modelling to ecosystem thinking. They pose deep philosophical questions that each entrepreneur should ask, and suggest the business model concept to be a thinking model, only to be used for sensitisation, but never to be applied in the work with SME clients.

5.2.6.3 Owner-managers

12 different Interpretations and 14 different ways of application were provided by 12 support professionals, reflecting the view of literature too, in that the term business model has no clear meaning.

A new input from the owner manager community is that business models should reflect ownership structure and succession plans – finally defining the choice of a viable business model. They also use the business model concept for better understanding of ecosystems and the point of sales. Furthermore, a good business model should allow for ‘blurring’ prices. The finding that one entrepreneur uses the term only to say “...*this is not our business model*” (M11S2), very well reflects Christensen’s (2001) RPV theory (resources, processes, values).

5.3 Theme 2: used in start-ups and large firms but not in SMEs (A/S/M)

5.3.1 Findings in the academic community (A)

In the academic community the following themes have emerged in the data and will be further elaborated as follows.

5.3.1.1 Start-ups as the nucleus of the business model concept

According to a professor of sustainability, the Osterwalder Canvas may usefully serve as compensating for gaps in experience:

“The Osterwalder and Pigneur (2010b) Canvas has become part of the basic repertoire in the start-up and the new venture community: The business model is some kind of check list that allows to compensate for missing experience“ (A5S1).

A professor of innovation management has observed that big firms are also interested in business modelling:

“New specialised knowledge has been developed so that it can be observed that there is an increasing interest of established large firms in specific start-up knowledge, ideas such as business model thinking” (A1S2).

5.3.1.2 Changing existing business models

A professor of international marketing pointed out that changing existing business models is only barely possible:

“An argument is that through the work of Osterwalder, the business model concept has become popular. Based on the work of Osterwalder, there are many people who know the term business model today. However, there are still just very few who really manage to take advantage of the essential things of the concept (‘the essential things’ are considered revenue thinking). An argument is that most firms have their dominant business model which they feel comfortable with, butadding a new one, forget it” (A2S2-S3).

A professor of empirical innovation research supports this line of argumentation:

“Although the business model concept is considered useful in a start-up context, it is considered inadequate for transforming an existing business from model A to model B! Instead, transforming an existing business model must be seen as an individual and unique endeavour, where such a framework may not be useful at all since most entrepreneurs deal with their business model intuitively correctly, without the need for a formalised concept” (A3S2).

A professor of finance provides an argument why business models cannot easily be changed – the concept is considered too radical an idea for most managers, who were trained in other management paradigms:

“A rationale for why business models cannot easily be changed could be a main weakness of the Canvas, namely the fact that ‘traditional managers’ are not able to cope with it. It is too radical. They feel more comfortable with more traditional models such as the general St. Gallen model. If managers can choose they almost always decide for alternatives allowing them to expand their hierarchy. But new business models are to be found in processes. This causes disorientation” (A4S2).

5.3.1.3 Role of the sector a firm is in

A marketing professor links business models with the sector a firm is in:

“The value of business modelling depends on the sector a firm is in. Hence, business model thinking may be particularly interesting in highly dynamic sectors where you have to reinvent your firm and your services at a high pace” (A7S1).

This view is supported by a professor of international marketing, although he argues that, due to the specifics of the sector, static business model frameworks may be not flexible enough:

“I have never worked with a business model framework in a real context (consulting or firm teaching activities) as I have never used the business model concept in practice. Instead, at the beginning the business system is analysed. This is more flexible and confronts the realities of a specific sector” (A2S2).

5.3.2 Findings in the support professional community (S)

In the support professional community, the following themes have emerged in the data and are accordingly discussed below.

5.3.2.1 Mainly used in start-ups

An experienced governmental innovation coach sees business models as important in the early stages of a start-up:

“In early stage start-ups, the Canvas has replaced the business plan. At the very beginning firms sketch out their ideas using the Canvas” (S4S7).

Complementing this view, an internationally acting innovation consultant sees the Canvas as a standard tool in the start-up scene:

“The Canvas has become a standard tool in the start-up community, not only in Switzerland, but worldwide” (S9S2).

The very same consultant, who had developed a business model framework in his earlier career as an academic, restricted his framework to the context of start-ups and large firms:

“SMEs were ignored. Essentially, even today I have only few contacts with SMEs” (S9S1).

5.3.2.2 SMEs do not actively work with the BM concept

An early business model evangelist and business school lecturer sees only little evidence that business models are popular in SMEs:

“In most established firms there are still no standard business modelling processes” (S1S2).

This insight is supported by a strategy consultant:

“Most firms have not yet realised that they should put their business model on paper. They may have a business plan they revise regularly by (just) changing the numbers in it. Many CEOs use ‘proven best practice’ structures and tools so they only care about new concepts when their organisation is in crisis” (S2S2).

The rationale may be that for most firms the daily business has priority, so they do not deal with concepts such as the business model. Accordingly, a respondent who works as governmental innovation consultant (he has coached several hundred SME firms in his career) has so far never received feedback from firms regarding their application of the business model concept. He doubts that firms really go into the details. He has never seen a firm actively working with the business model concept:

“The problem is that you have to work with these 9 building blocks. You have to understand them; this takes time and energy. It is not that easy and firms do not

normally invest time for this. I have worked with several hundred firms in the past 10 years and have learned that most firms (SMEs) do not have the resources to deal with such concepts, particularly firms in the range of 1 to 30 people. Not a single firm I know has ever actively worked with the business model concept” (S4S2-S4). Furthermore, it is argued that “although firms know the concept, they do not work with it – working with it is a different thing” (S4S5).

An experienced small firm coach argues similarly:

“Missing resources are a current topic according to the support professional community: SMEs do not often work with the business model concept because they do not have the required resources to do so” (S3S2).

Another innovation consultant stated that he has never used any of these tools (such as the business model concept) in his daily work with customers. He just uses them as mental models, as thinking models:

“When you have customers with a working firm you must be careful not to say to them, hey, your business model is rubbish. Neither can you use theoretical models they do not understand. They need revenues, instantly” (S7S2).

An experienced innovation consultant, university lecturer and business book author supports this view by arguing that business models may scare people:

“An aspect is that the business model concept will never be commercially interesting for consultants; an insight which often has been misunderstood. The rationale is simple: We scare people with business model thinking. Many people would experience some sort of cognitive dissonance by reflecting on their job, asking the question ‘does it make sense what I do?’” (S8S1).

Even though some firms may apply the concept, it is questioned whether the concept is applied properly in practice:

“Based on my experiences of how people apply the SWOT framework in practice, I question the correct application of the Canvas by most firms” (S13S1).

5.3.2.3 *The role of consultants*

The support professional community also discusses the role of consultants. An experienced small business coach and former management member of a quoted Swiss firm (more than 3000 employees) states that firms often rely on consultants when changing their business model:

“When it comes to business model considerations, most managers (not entrepreneurs!) heavily rely on consultants because such discussions (about business model) are often uncomfortable – and consultants can easily be dismissed if necessary” (S3S2).

Furthermore, one respondent (a consultant himself) stated that he mostly works with technology-based firms, in most cases not SMEs but big firms where consultants act as catalysts:

“The rationale is that, normally, bigger firms have a higher affinity to external consulting services. I have learned that technology-based firms are ahead in terms of innovation, compared to other sectors, such as banking” (S10S1).

5.3.2.4 *Firm type and sector*

A governmental innovation coach argues that business model thinking is not adequate for each and every firm type:

“The business model concept is not suitable for each and every (type of) firm. This simply does not work. A small firm with production facilities can normally not just get rid of its infrastructure following a new business model. An Internet business is different, of course, also in terms of its scalability. Not every firm is scalable” (S4S6).

It is further argued that business model thinking is especially important in highly dynamic sectors:

“However, the concept is particularly useful in sectors with rapid modifications such as the telecom industry” (S9S3).

5.3.3 Findings in the small business owner manager community (M)

In the owner manager community the following themes have emerged in the data and are further elaborated in the discussion.

5.3.3.1 *Business models in the start-up community*

A clean technology start-up founder considers the business model concept very useful for developing his business:

“Basically, in the start-up context the business model concept has been popular for many years. Thanks to Osterwalder the idea has become a standard concept” (M3S1).

This same respondent further considers the concept to be very useful for his business. But he also considers another aspect important, business model innovation:

“I try to find combinations that allow for new products combined with new business models. This is what I feel really fascinated about and what motivates me working on” (M3S2-S3).

As a high-tech serial start-up (co-) founder (and co-owner of more than 10 start-ups), another respondent is familiar with the Canvas from Osterwalder, a well-established framework that he considers to be widely used in the start-up scene. However:

“The application of the Canvas depends on the task at hand. When developing a new business, the Canvas may be useful. However, to adapt a critical perspective people often are not interested in ‘theoretical stuff’; they want to talk about practice. In the high-tech IT sector, the Canvas is widely used. In a start-up, the business model is simply the ‘thing’. It is all about business modelling. Hence, the business model concept is considered a useful tool, as long as properly and carefully applied (using sticky notes! – and not online tools)” (M10S1-S6).

Another respondent, an entrepreneur with an established firm in the furniture business (with around 30 employees), stated:

“In fact I do not know any (business model) frameworks such as the Canvas. I assume that established SMEs (such as my own firm) are confronted with different issues than start-ups” (M8S1).

5.3.3.2 No use of business models

In the owner-manager community (except for the ‘start-up’ owner-managers who have recently founded their business), the business model concept is not very popular as an idea. An ICT engineering entrepreneur argued:

“Since I had a good order situation most of the time in the past 20 years I have never really cared about such concepts. Only recently, in crisis time, I have started thinking about such ideas” (M1S1).

A respondent, owner of an established SME, stated that:

“... I have not yet used a business model or any other management framework or concept at all” (M2S2).

An architect (with 3 employees) argued that he never had time enough for concepts such as the business model:

“The rationale is that I simply have never had time for this and there are no obvious added values to do so. I run a business as an architect; this essentially is my business model – even not in the founding process of my office I have used a management concept, since at the beginning there was no plan, but there was plenty of work to do. I have been working hard all the time, day and night, but for the ‘real work’ rather than the organization of my office” (M6S3-S4).

Essentially, the owner of a mid-sized SME (around 200 employees) stated:

“The term ‘business model’ or the business model as a concept on its own right does simply not exist in my vocabulary; the only exception is to say ‘this is not our business model’ (when a new idea does not fit with current or possible new activities)” (M11S2).

Another argument from an respondent who had used the concept at the very beginning of his entrepreneurial career was:

“Today, he has all these things in mind and knows exactly how the market functions and how his competitors act, so the model would not be necessary and useful for him anymore” (M4S2).

5.3.3.3 Ways of understanding and using business models

Those using the business model concept describe its application in various ways, such as described by a start-up founder in the building technology sector:

“The Canvas may be applied either to use it as a means for developing ‘wild’ ideas from scratch (the way it tends to be primarily used), or we can use it for reflecting on an idea very much in detail by focusing on specific elements such as the value proposition and the customer segments” (M5S3).

Another respondent, co-owner of a big-sized SME with 700 employees, sees value in understanding the point of sales:

“The point of sales is considered a firm’s most worthwhile element. This is also where competitive advantages originate. Mostly, firms develop their business model based on existing capabilities. However, they also deal with new technologies that may become a threat for the existing model in the future. Models such as the Canvas are just thinking models. We have structured our firm using a system directly derived from the Balanced Score Card” (M7S2-S4).

A serial high-tech entrepreneur and shareholder of more than 10 start-ups argues:

“The Canvas, on the other hand, can be useful for developing something new, hence new ideas from scratch. On the other hand, once having a running business, the Balanced Score Card is considered a more viable concept” (M10S3).

Furthermore, as argued by a large firm manager with more than 1,000 employees:

“The customers are willing to pay because they have an added value. However, such business models usually do not last forever. In short, the less I have to invest for this added value, the better the business model is” (M9S2).

5.3.4 Contextualizing the findings with the literature

On the one hand, the literature reveals that the business model idea has become popular in the start-up context (Osterwalder & Pigneur, 2010), simultaneously concluding that start-ups are not just small versions of large firms but have their own ‘spirit’ (Blank, 2013; Blank & Dorf, 2012; Ries, 2011). In the start-up and entrepreneurship domain, business model thinking can lead to more informed decisions (Trimi & Berbegal-Mirabent, 2012). Furthermore, in the start-up and new venture context the business model concept has become a quasi-standard and is currently part of many MBA curricula (Nobel, 2011). On the other hand, the concept is widely used in large firms, as demonstrated by plenty of literature in domains such as technology management (Johnson et al., 2008; Pateli, 2003) or innovation management (Chesbrough, 2007; Christensen, 2002). However, a current model from Christensen, Bartman, et al. (2016) shows a 3-stage business model journey, leading to the argument that SMEs are located in the second or third stage of the Christensen (2016) model, caring more about efficiency rather than creation, so are not primarily concerned about developing value propositions as start-ups. Furthermore, the start-up development model from Blank (2013) argues that start-ups and established (mainly large) firms are fundamentally different.

A tool for start-ups: The data show that each community assigns business modelling with start-ups. There are plenty of arguments ranging from developing new creative business ideas using the Canvas, up to the insight that existing firms must first get rid of their existing model before implementing a new one. These ideas are also reflected by the literature where the main purpose of a start-up is often described as finding a new viable business model (Blank, 2013; Blank & Dorf, 2012; Christensen, Bartman, et al., 2016). Once having found a working model, a firm must change its ‘mode’ from search to implementation. The argument here is that established SMEs mostly have a working business model, so they are in the implementation state;

hence business model thinking is regarded as less relevant, since the firm would first have to get rid of its existing model, which is often too demanding a task.

Significance of the sector: According to members of the academic and the support professional communities, a firm's sector plays a dominant role. Business modelling is argued to be most important in highly dynamic high-tech domains and Internet-based firms, where scalability is important. This idea is also discussed in the literature (business models as enablers of new technologies). However, most established SMEs are in rather static environments – compared to high-tech Internet-based start-ups; this line of argumentation may serve to explain the absence of serious business model thinking, by simultaneously contrasting start-ups and established firms.

Not used in established SMEs: Whereas most other themes may indirectly explain the absence of business model thinking in established SMEs, this point very directly provides insights regarding a lack of business model thinking. The rationales stated by the respondents are multifaceted, ranging from having no resources available due to full-time engagement in the daily business, to a lack of understanding of the concept, up to philosophical issues provoking a cognitive dissonance with existing activities. On the one hand, the literature acknowledges that the concept is still fuzzy and vague, so accordingly there is no common / shared understanding. On the other hand, the absence of the business model concept in established SMEs (in contrast to start-ups and large firms) has not yet been addressed explicitly by the literature, thus representing a research gap.

Changing business models: The academic community argues that changing an existing business model would be too demanding a task for most firms, therefore the concept is just relevant for start-ups. This argumentation is in line with the literature stating that business model thinking depends on the phase a firm is in, finally reinforcing the finding that established SMEs do not deal with the business model concept. On the other hand, large firms experiencing disruption at the low end of their customer base are forced to think in the business model dimension as well – an argument discussed in literature, based on the thinking of Christensen (2002). However, compared with SMEs, the argument here is that large firms may have the

required resources at hand that allow them to actively deal with business model thinking.

The role of consultants: The support professional community sees a special role of consultants in the business model development process as they may act as ‘catalyst’ within a firm. The use of consultants may show that business modelling is a very demanding task that deeply touches the values of a firm, an insight, which is in line with the finding that business models may have a philosophical dimension, which many entrepreneurs tend to ignore. The literature lacks acknowledgement and discussion of this issue.

Various ways of application: In the owner-manager community some additional insights of the various ways the business model concept is applied have emerged in the data by investigating the concept’s application in SMEs, reinforcing a perspective provided by the literature, namely, that the concept has still no clear meaning, making it intangible and, as a consequence, applied in various ways.

5.3.5 Key findings

5.3.5.1 *Academics*

Start-ups, as organisations looking for a new business model, are widely discussed by academics and also well reflected in literature, for instance by Blank (2013). Academics also take a firm’s sector into consideration, arguing that highly dynamic industries must be more concerned about business models, an idea to be found in innovation and technology management literature. This confirms that the business model concept is relevant for large firms.

Findings from the academic community add to literature by revealing that we must distinguish between start-ups, established firms and SMEs – a finding that is even better reflected by the support professional community. Since the process of finding a new viable business model is part of a start-up journey, established firms must first get rid of their existing business model, making the adoption of a new one much more complicated.

5.3.5.2 Support professionals

The key finding here, not yet covered by the existing business model literature, is that the business model concept is only rarely used by established SMEs. By contrast, it is a popular concept in the start-up community. Most of the interviewed support professionals do not know any SME firms actively working with it nor do they use the model in their work with clients (SME firms), but use the model as a thinking model. The start-up model from Blank (2016) and the 3-stage 'business model journey' model from Christensen (2016) reinforce this finding, since a start-up is different from established firms regarding the values and the tasks to be fulfilled, namely from developing working value propositions (product-market fit) and efficiency or scaling. Support professionals working with large firms state that the business model concept has become popular in large firm contexts and that some frameworks have been developed exclusively for large firms, simultaneously neglecting SMEs.

5.3.5.3 Owner-managers

On the one hand, all the interviewed start-ups used the business model concept (above all the Canvas from Osterwalder), a finding that can be confirmed by literature since business modelling has become part of each MBA curricula.

On the other hand, in the interviewed sample, there were only few established owner-managed SMEs knowing the business model concept and not a single one actively using it by applying a business model framework – a confirmation of what academics have indicated and what support professionals have extensively debated. Those having learned about the concept have no clear understanding about the meaning of the term 'business model', an aspect also reflected by literature in that the concept is not used coherently. Furthermore, business practitioners regard the concept as theoretical, not addressing their problems. At this point, the Christensen (2016) model can also be used to show that established SMEs are in the second or third phase of the business journey model, hence caring more about processes (efficiency) and scaling (profit formula).

Regarding their business model development activities, SMEs and their specific situation have neither been addressed conceptually nor empirically by existing

literature – in contrast to the business model concept's application in start-ups and large firms.

5.4 Theme 3: Developing adapted frameworks (A/S)

5.4.1 Findings in the academic community (A)

5.4.1.1 Expanding and complementing the Osterwalder (2010) Canvas

Inspired by the Canvas, a professor of strategic management has developed his own 3 x 3 matrix as an adapted business model framework:

“The Canvas is used but, due to its limitations, an adapted framework has been developed. This framework is primarily used in the start-up context, consisting of a 3 x 3 matrix containing resources, values, the potential of value, and the realization of value. Compared to the Canvas the framework is much more focused on the value architecture and the planning and realization of new businesses. The Canvas is considered descriptive but ignores the implementation of such a ‘mechanism’ (firm/start-up). The problem with the Canvas is the illusion that people think they understand what is going on – relatively quickly. However, this is considered a big problem. They do not understand it. This is the essence of working with 40-50 start-ups a year” (A1F1).

The same line of reasoning, namely that the ‘Canvas’ should be re-structured and complemented by additional fields, is applied by a professor of entrepreneurship, arguing:

“There are many models, the most popular is from Osterwalder (Canvas), but I have developed my own too. My model consists of 7 “keys” to be defined, namely customers, product, market development, money, competition, resources, and the team. The various models are similar. Nevertheless, the competition is missing in Osterwalder’s model, for instance” (A9F1).

However, the Canvas has also been used for developments and adaptations without major modifications. A professor for sustainability has only slightly further developed the Canvas:

“I have mapped the theory of impact into the Canvas, the most well-known framework, hence creating an ‘impact business model’” (A5F1).

5.4.1.2 Simplifying the Osterwalder (2010) Canvas

Not only has the Canvas has been expanded or modified, but simplified versions of it have also been proposed. The three dimensions of ‘strategy, structure and culture’ may be put together in building up a business model:

“We always see the three dimensions strategy, structure and culture. You cannot change one of them without influencing the others too” (A4F1).

But the Canvas also served as basis for a design thinking-based adaptation:

“The 9 fields of the Canvas are always difficult to understand by students, so I have developed a simplified 4-quadrant model, at the centre of which stands always the question ‘who can we create value for’? Starting from the value proposition, I have designed a 4-quadrant learning cycle/model (Q1: empathy, Q2: creativity, Q3: realisation, Q4: check). Within a typical session, a cycle of the model can be worked through – this is considered important” (A6F1).

5.4.1.3 Critical voices regarding the development of adapted frameworks

Perhaps one of the most prominent adaptations of the Canvas is known as the St. Gallen Business Model Navigator. However, there are also critical voices within the academic community regarding the adaptation of new business model frameworks, such as stated by a professor of global marketing and strategy:

“The St. Gallen framework is very theoretical and not very useful. It is a framework for the sake of a framework” (A2F1).

From a design researcher’s perspective models often are to be developed individually, they should be created each time from scratch:

“Models always imply generalisation, an idea often resisted at the school of design and arts. By contrast, ‘models’ are to be developed individually. However, there are some students starting with the Canvas (particularly in the entrepreneurship domain), who then develop their own model out of it” (A10F1-F2).

5.4.2 Findings in the support professional community (S)

5.4.2.1 *Having developed their own framework or adaptation*

In terms of developing adapted frameworks, an early business model evangelist advocates for combining different models:

“Combining the Canvas and the transaction model has proved to be highly effective. We need a new type of model that allows for zooming in and out between different levels, such as in technical 3D-plans” (S1F1-F2).

Another respondent, a former business model researcher, having developed a business model framework, advocates developing industry-specific patterns rather than new models:

“The development of my framework was restricted to the context of start-ups and large firms. Today, developing plug-ins for existing tools is considered superior to developing adapted models, since each tool has its purpose. Rather than creating newly adapted models, investigating industry-specific patterns (using existing tools) is considered far more valuable an approach for academics in the domain. Me and my team try to create tools that are useful for practitioners” (S9F1-F3).

A management consultant, describing himself a philosophical ‘impulsator’, has developed a model too, although emphasising different perspectives:

“Many important questions have already been answered. However, individuals often do not turn their individual answers into a ‘Welt-Frage’ (a question to the world). Entrepreneurs do exactly this. They are interested in the world. By contrast, those having answers for everything (know-it-alls) are considered cowards when they do not formulate questions out of it; hence, it is all about giving something back to the world! This way of thinking is some sort of business model thinking too; I just have not named it like that” (S11F1).

Another respondent specialized in future management has developed his own adapted framework to deal with the future:

“A model consisting of ‘future glasses’ to deal with diverse perspectives. The business model concept is included in this future management framework” (S13F1).

5.4.2.2 Critical voices regarding adapted frameworks

The development of new, adapted frameworks is discussed controversially in the support professional community. As an innovation consultant and lecturer stated:

“Creating another adapted model framework is ‘academic masturbation’. Instead, it would be much more sensible to think from the customer” (S8F1).

Another management consultant and member of a Swiss business angel association argued that we do not need more than a few models:

“We currently could see a trend that each university (interested in the domain) develops its own Canvas. Essentially, the Canvas from Osterwalder and the Lean Canvas from Ash Maurya are brilliant tools, also as a means for communication. I take notice of other (adapted) models but do not integrate them in my work” (S7F1).

In the support professional community, it is often referred to the Osterwalder (2010) Canvas, or, as stated by another respondent, a strategy consultant added a criticism that models rarely contain new ideas:

“The currently most popular framework is from Osterwalder. He substantially has not invented something new but combined existing concepts to a new big picture and developed it further focusing on customers and the value proposition. There are also other frameworks such as the Navigator from Gassmann, but most of them are adaptations of Osterwalder” (S2F1).

Gassmann developed another well-known framework called ‘Business Model Navigator’ (or just ‘Navigator’). However, according to an innovation consultant and business book author, this framework does not really represent a business model:

“...it is not clear whether the model from Gassmann is really a model. It could even be just an index. Hence, ‘the work from Gassmann, including the business model road map and the archetypes are interesting, very interesting, for historians” (S10F1-F2).

5.4.3 Contextualizing the findings with literature

As the literature reveals, a plethora of business model definitions and frameworks has been developed in the past 20 years since business model research has mainly focused on conceptual studies (Klang et al., 2014; Lambert & Davidson, 2013). Some of the possibly best known frameworks have been developed by authors such as Chesbrough (2007), Johnson et al. (2008), Wirtz (2010), Osterwalder and Pigneur (2010), Gassmann et al. (2013), or Stähler (2013).

The data confirm the view of the business model literature in that the Canvas has become the best-known framework (Wagner et al., 2015). The data furthermore confirm the literature in that personally-driven developments have been made, as can be seen by authors such as Chesbrough (2006), Chesbrough (2007), or Timmers (1998). The data also support the literature by showing that business modelling has its origins in the first US Internet bubble (Timmers, 1998), also revealing that some of the first publications in the domain focused on revenue perspectives, such as in the work of Linder and Cantrell (2001).

The data have revealed that some academics have simplified the business model concept, since it is considered too complex and not suitable for solving certain complex problems. This idea is neglected by the existing business model literature. The data further show that the academic community is divided into two sub-groups:

1. Those having developed their own models, which were mostly based on the Canvas. They either have expanded the Canvas, since their argument is that there are missing elements in it, or reduced it because it is considered too complex a concept.
2. Those questioning the adaptation of existing models, either with the argument that business modelling is still a question of revenue generation, that existing models are well suitable and no changes are needed, or that models must be questioned per se regarding their usefulness in solving today's complex problems.

The research revealed a similar division within the support professional community, within which there were also two sub-groups: those having developed their own

model and those questioning such developments or adaptations. However, the argument of the latter group is a little different from that put forward by the academics, emphasizing more practical issues: since the Canvas would have proved to be a useful model, why should they use another? It is better to just concentrate on one framework. This view, which can be interpreted as a concern regarding the capacity for absorbing various models in the practitioner market, has not yet been addressed by the current business model literature. Furthermore, support professionals also emphasize that models must be easily understandable and applicable in practice, a clear shortcoming of some of the models described in the literature.

5.4.4 Key findings

5.4.4.1 Academics

The research has revealed two sub-groups in the academic community; those having developed their own model by supporting the idea of further enhancing existing frameworks and those resisting this idea. As the literature shows, developing frameworks is fashionable – there are frameworks based on the Canvas but also very different frameworks.

The research uncovers and adds to literature: The proponents of developing adapted frameworks, on the one hand, may be more located in the worlds of design thinking and value proposition development. Their models either simplify existing frameworks, arguing that frameworks such as the Canvas would be too complex, or expand existing frameworks with the argument that there are missing elements. The model's critics, on the other hand, often argue that business modelling should be limited to revenue thinking, and that generalisation, as an inherent characteristic of models, must be questioned per se.

5.4.4.2 Support professionals

Support professionals can also be divided into two sub-groups; those supporting and those resisting framework development. Furthermore, although it might be fashionable to develop adapted models, the argument of the critics is that the practical world would not have the capacity for dealing with various models

simultaneously, nor would an adapted model help in dealing with revenue aspects. On the other hand, the proponents argue that models must address the needs of practitioners; to meet this need, visual, easily understandable models are required.

5.5 Theme 4: Soft issues and philosophical considerations (A/S)

This section considers the comments made by respondents concerning two related sub-themes:

- ‘Soft issues’ that address behavioural topics such as learning, culture, imagination and emotion.
- ‘Philosophical issues’ that address such issues as *raison d’être*, purpose and underlying meanings.

5.5.1 Findings in the academic community (A)

When talking about business models, we must take into account the cultural dimension at the periphery of philosophical considerations, or, as stated by a professor of finance:

“Today it is important to recognise the networked character of our world. Therefore it is important to work on a shared culture. Team cultures are still highly underestimated. Being dialogue-oriented and giving feedbacks will be a key element in the future. The argument here is that culture may also influence creativity, which is considered a key ingredient of business modelling” (A10P2-P4).

Culture and creativity may be a means to solve complex ‘problems’. In his projects, a professor of business development argues that he always tries to focus on the problem right at the beginning:

“... But, what exactly is the problem? Very often the problem must be (re-) framed. We should not try to find solutions too quickly; instead we must try to better understand the problem. Accordingly, ‘We have to ‘construct’ other people’s perceptions in a way that they end up saying this is good solution” (A6P1-P3).

According to a professor of sustainability, business models are a means to posing the right-to-exist-question, a question, which is considered philosophically motivated:

“On a more abstract level, by adapting a resource-based perspective, a business model finally answers the right-to-exist-question (raison d’être) of a firm” (A5P1).

However, even the word ‘model’ may be questioned philosophically, since, according to a design researcher, things are always questioned in the arts domain:

“Models imply structure of orientation. In the design institute these ‘structures’ are influenced by the arts, they are used less strictly. At the art academy things are always questioned. Accordingly, models per se are of only limited relevance. People do not start thinking with the model but instead with an idea. Design Thinking is a concept of this nature, starting from the nucleus of an idea” (A10P1-P2).

5.5.2 Findings in the support professional community (S)

It was widely felt that the human factor is underestimated in the business model debate. As an experienced small business coach stated:

“It is always important to treat customers as ‘humans’ to be understood. On the other hand, it was accepted that the Canvas (as a representation tool) is ideally suited in education contexts, where you want to quickly have complete ‘solutions’ – in an exercise, for instance. But reality is more complex and market structures may change daily because there are never firms doing business with each other - there are always people doing business with each other; something often ignored. Once having your business model in mind means continuously leaving your comfort zone (especially as a start-up). It is part of the game to continuously review the unpleasant side of what you do; having the will for this is essential” (S3P1-P3).

Regarding philosophical considerations to be made, a management consultant added:

“But business model thinking is also about a firm’s right to exist (“raison d’être”). Furthermore, we cannot plan everything. There is a factor called ‘luck’ and a saying ‘A fool with a tool is still a fool’. The customers do not want you to be a fool. Humans

should not be reduced to tools; a human vs. tool situation must be avoided” (S7P1-P3).

An experienced business model consultant and business book writer further argues that the focus of business modelling has changed from purely mechanistic perspectives towards ‘soft’ philosophical considerations:

“20 years ago, the human factor was ignored in business model thinking (as a trained computer scientist). But the team and entrepreneurial spirit are ‘new’ elements I have added in the past few years, as my perspective has changed. Developing a passion for something is key today. However, people in general do not like to question themselves. Nevertheless, you have to find your place in the world. It is not about values to be written down on a piece of paper, these are the values to be lived within a firm. Business modelling is often just a question of values. In many sectors, everyone acts rationally. But no one is motivated to say, hmm, can we do it differently? This way of thinking is required. We finally need a passion for what we do. This is business model thinking” (S8P5-P8).

Another respondent, a philosophically-orientated business support professional (describing himself as a ‘philosophical impulsator’), argues similarly. He emphasises the importance of being inspired by an idea and the role of ‘the heart’, although acknowledging that this may sound strange in an economic context:

“Being inspired by an idea is important although it may sound strange in an economic context. But without inspiration you are just a ‘Kopf-Füssler’ (a creature that is only head and feet: a cephalopod, i.e. without a heart). Without passion for something, you get demotivated. There are factors from inside – called ‘vergällen’ (denature) – and from outside, which may paralyze you. Often, people bypass the heart question. But in long-term, you need the heard, the passion for something. Having passion for something also includes suffering, it is not about just having fun. It is different. Passion includes suffering. A heart not just beats for itself, it needs a task, something sensible to do. It mustn’t end in itself. Our economy, can it really afford to ignore the ‘heart question’? However, it is not an economic question at first glance. Can it afford to ‘dehumanize humans’? Based on medical statistics the argument is that it cannot,

but it still does. We have to send ideas to the subconscious, a forced anaesthesia, not waking it up all the time. Suddenly, something new is about to emerge, as we can see in the history of science. You send your questions to sleep and wake up with an answer in mind! People must develop loyalty to their questions, not giving up too quickly. By the way, it may also be interesting to investigate which internal and external demotivating factors influence business models. Humans do not just want to learn from the world but they also want to give something back to the world. This is considered some kind of basic rhythm, maybe a world formula. It is an interval between appropriation and communication. Maybe what drives evolution, possibly an old principle?” (S11P7-P11).

An experienced innovation coach and consultant argued that we must learn to accept contradictions a basis for setting up new business models:

“Most models are too complex rather than being transparent, hence revealing contradictions. Quite often, his customers (i.e the business owner’s) expect him to calm a messy situation, but in fact I usually cause much more trouble! Not every client can cope with that. Accordingly, a business model is also a means to question existing assumptions! People focusing on security only have problems with that. A business model is like a sculpture. For the visitors contemplating it, the sculpture is complete, is perfect, but not so for the artist. For him, it is never perfect. Story telling is another interesting instrument in order to think about new customers. Although often misused and misunderstood these days, it helps, or forces you, to think your concept through rigorously. However, the problem with the business model concept is that it is still associated with the world of economics where everything is reduced to cause and effects” (S5P1-P8).

Other respondents made an interesting semantic point, questioning the meaning of ‘business’ itself:

“However, the possibly most basic question is: What is a ‘Geschäft’ (a business)? (in German the word ‘Geschäft’ is used for a business but also for a single deal. It is not that clear what ‘Geschäft’ means; and business model is translated as ‘Geschäfts-Modell’)” (S6P1).

A former business model academic, consultant and business book author sees giving meaning and asking deep philosophical questions as key to business modelling:

“Referring to the Osterwalder (2010) Canvas the value proposition represents more fundamental values than just the product; the latter may change over time but the fundamental values are constant. Or, as Steve Jobs once said: ‘Everything is changing. Everything. The product. Everything. But what we stand for, what our values are, has not changed for the last 20 years. We inspire people for great work’. Only few people understand this difference. The value proposition is what you stand for in your life. This is a philosophical question and has nothing to do with pains and gains. Accordingly, business model thinking is about creating something new and therefore we need soft skills, philosophical approaches. Business modelling is about gaining a deep customer understanding and about values within a firm. It is rather strange that we separate the value proposition and the customers segments – as done in the Osterwalder (2010) model. I cannot make a marriage proposal to a woman I do not know! This is really important. ‘The value proposition is all about giving meaning’” (S8P1-P3).

A philosophical consultant sees a danger of missing reality by reducing something big to something small:

“I am trying to develop situational intelligence’, something important for entrepreneurs. It is about “smelling” questions, something gaseous standing in the room, which has not yet condensed into something tangible. A model can be understood like a compass, but no one goes hiking for the sake of the compass. Essentially, everything starts with a question, an innovation, for instance. Let’s say, we have a so-called ‘Welt-Frage’ (a question to the world) for which I may have an answer, my personal answer, the ‘Ich-Antwort’. This ‘Ich-Antwort’ can be understood as an invention (not innovation!), based on which I pose a ‘Ich-Frage’ (my question to the world). To answer the ‘Ich-Frage’ I look for a ‘Welt-Antwort’ (a response from the world to my question). Depending on the reaction of the world the result could be an innovation. People very often do not take time to get involved with the world to explore and discover an answer. Real entrepreneurs do exactly this. They have answers, but they formulate a question to the world – based on their answers – and

see what happens. No doubt, the step from the 'Ich-Antwort' to the 'Welt-Frage' is risky. By contrast, just having an answer for something is quite easy. However, entrepreneurs are interested in humans and in observing them, 'smelling' and discovering what is in the 'air'" (S11P1-P6).

5.5.3 Contextualizing the findings with the literature

The academic community links philosophical considerations to the business model domain: They refer to corporate culture, problem re-framing, the right-to-exist question (raison d'être), and the idea that business models are emergent phenomena rather than the product of conscious planning.

Support professionals put humans at the centre of business model thinking, as they associate passion and inspiration with philosophical thinking, as well as a deep customer understanding and value creation. The value creation concept has extensively been discussed in literature by authors such as Johnson et al. (2008), Osterwalder et al. (2015), Teece (2010), or Zott and Amit (2010). Value creation is also part of the entrepreneurship literature, in which Drucker's age-old question of 'What does the customer value?' has been addressed (Drucker & Drucker, 2007).

However, only limited attention has been given in business model literature to 'philosophical' ideas, such as the importance of being inspired, developing passion for something, or sending ideas to the subconscious first, from where innovations – and subsequently new business models – may emerge. At the periphery of this debate the literature includes the concept of corporate culture by emphasizing the need for tolerance and accepting failures as basis for business model experimentation (Wolcott & Lippitz, 2007). A culture of experimentation and launching market experiments is considered particularly important for validating new business models, a concept widely outlined in the start-up literature (Blank, 2013). However, corporate culture is something to be 'intuitively sensed' rather than measured (Denison, 1984). This may link the concept to philosophy, social sciences, sociology, psychology etc. rather than to the natural sciences or to economics. The lack of philosophical considerations may be traced back to the business model concept's link to traditional economics.

5.5.4 Key findings

5.5.4.1 *Academics*

Academics relate philosophical questions to areas such as problem (re-)framing, using design thinking approaches or value (proposition) development. They also address the 'right to exist' question, which can be associated with philosophical considerations, since there is no 'right or wrong' but a question of specific values and worldviews. Existing business model literature only rarely covers these ideas.

A further point is that some academics accept the generalizing nature of models arguing that even through having 'all' at a glance, achieved through reduction, complexity can be successfully managed.

Others question whether business models are the product of conscious planning. They may be the product of an emergent process, which is often influenced by philosophical perspectives such as having passion for an idea. This debate also complements existing business model literature.

5.5.4.2 *Support professionals*

Support professionals tend to discuss philosophical considerations frequently, by going much deeper than we could perhaps expect from the literature. They deal with aspects such as developing passion for something, or being inspired by an idea as basis for new business models.

However, the human factor is discussed in domains such as entrepreneurship literature, focusing more on entrepreneurial success factors. Nevertheless, the point here is different since it touches on deep philosophical stances and values such as not only taking responsibility for isolated customer problems but for the whole 'problem chains', whole systems, or complete solutions, by developing a passion for customers and their problems.

Furthermore, philosophical considerations are also about 'swallowing' problems, sending them to the subconscious, so that solutions can emerge over time. These aspects are relatively new in the business model domain, where business models are

still understood as rather ‘mechanical’ concepts – influenced by their origin from economics.

5.6 Theme 5: The importance of revenue thinking (A/S/M)

5.6.1 Findings in the academic community (A)

An academic with expertise in sustainability management considers the way the business model concept is perceived to be very much influenced by Osterwalder and his Canvas:

“The way the business model concept is perceived has changed, mainly influenced by the Osterwalder (2010) Canvas; from purely revenue thinking towards a holistic picture” (A5R1).

In recognition that Osterwalder has significantly contributed to the concept’s popularity today, a professor of global strategy and marketing states that many people have replaced strategy with business models, by neglecting the revenue aspect:

“Because we collapse the two terms unfortunately we do not spend enough time on the revenue model” (A2R7).

Accordingly, another academic, a professor of strategic foresight and innovation management, adds that we must distinguish between narrower and wider sense thinking:

“A narrow definition using a colloquial approach focusing on the question ‘how to make money’ and a wider sense definition focusing on other aspects such as value proposition” (A1R1).

The importance of revenue thinking is supported by an academic in the online marketing and social media domain since business model thinking has allowed new revenue mechanisms such as ‘the long tail’ to emerge:

“Varying products may be used to influence the business model such as creating long-tail products” (A8R1).

According to a professor of global marketing and strategy, business modelling is all about revenue thinking:

“Business models are about the question of how to make money, hence the configurational strategy of a firm. ‘I think the real creativity is to think very hard about the revenue streams” (A2R1-R4). He further adds: “Accordingly, only few people manage to take advantage of the essentials of the concept. ‘We should always start thinking with the revenue flow at the beginning and then go out” (A2R6).

Another academic, a professor of investment marketing, supports this view by linking business models with rent-seeking strategies:

“Following the revenue-based line of argumentation, the main aim of a business model is to optimize the rent-seeking strategy, how to best exploit the market according to a resource-based view” (A7R1-R3).

The question now is when the best moment is for thinking about revenue models because:

“Before thinking about revenues, there are decisions to be made beforehand” (A9R1).

However, an academic in the design thinking and art domain adds that we must expand the concept of revenues to other dimensions:

“However, revenue thinking may not always be adequate nor it may be limited to monetary revenues only: for example, in the domains of arts and social enterprise revenue thinking (monetary) is not so important” (A10R1).

This idea of expanding the revenue concept is also supported by a professor of empirical innovation research:

“Revenues need not necessarily be monetary in nature; we can also have prestige or social recognition as ‘revenue” (A3R1).

5.6.2 Findings in the support professional community (S)

A sub-group within the support professional community argues that business model thinking is essentially revenue thinking since:

“The aim of a firm is to create value and to monetize this value” (S1R1).

A Swiss pension fund manager supports this view as follows:

“At the most fundamental level business modelling is about revenue generation” (S12R1).

A future management consultant argues similarly:

“The business model concept defines the logic of revenue generation” (S13R2).

Another innovation consultant and business school lecturer support this idea:

“Core business modelling is still thinking about revenue mechanisms although many people think about value propositions. ‘...the business model finally answers the question how do you make money? This also influences the value proposition; how do you charge something etc.’” (S10R4).

An innovation and management consultant argues that firms need revenues instantly, this is why revenue thinking may be that important, at the same time providing an argument why the business model concept may be not so important for firms:

“Firms need revenues, instantly. Therefore, they do not care about business models” (S7R1).

Another perspective from an innovation consultant includes a market perspective in the debate:

“Since most products have become commodities we must think about alternatives making the price war irrelevant, blurring the product prices” (S10R1). Furthermore, the same respondent summarises that: *“There is a link between innovation and business models since everything must be considered a business today. Therefore,*

‘It is important to think things through rigorously, particularly regarding your financial situation’ (S10R4-R5).

An experienced marketing and sales coach further emphasizes:

“Once having a product/service that fits to a customer need, firms must do some maths so that money can be earned” (S3R1).

To enrich the debate, a strategy consultant links available resources of a firm with a profit perspective:

“Having resources with which a firm wants to generate profits and rents may be a starting point of a new business initiative” (S2R1).

However, not only a firm’s internal resources are a key factor, but also the competitive context of a firm plays a significant role when discussing revenue aspects:

“A firm’s capability to make money depends on the sector the firm is in. We normally have tremendous differences of margins in different markets” (S6R2).

However, there are also critical voices regarding the revenue concept, as argued by a philosopher:

“Money should not be the motivation for entrepreneurship. Those who are motivated by money do have a problem, not necessarily an economic problem, but a philosophical one” (S11R1).

Similarly, an experienced start-up coach and small firm sparring partner is sceptical towards ideas focusing on earning money quickly:

“Business models that promise earning a lot of money quickly are hyped these days but are not sustainable” (S3R3).

A further critical perspective comes from a strategy consultant, arguing that academics only have limited financial background to successfully deal with revenue aspects:

“What is more, since business models are developed by academics with only limited financial background, many revenue concepts are mixed up” (S2R2).

5.6.3 Findings in the small business owner-manager community (M)

In contrast to the academic and support professional communities, the owner-manager respondents did not discuss revenue generation conceptually. The way they generate their revenues was an aspect accorded high priority and was outlined thoroughly, very much in detail. Revenue themes are among the most widespread ideas owner-managers had when confronted with the term ‘business model’.

Owner-managers associate the term business model with diversification of revenue streams. The term ‘diversification’ was used not only in the sense of new products/services but also (and mainly) of new ways to ‘exploit’ existing products/services:

- *“Add-on products/services complementing the traditional main product” (M7R1).*
- *“Offering more specialized and diversified ways to use the product, not just new products but also reworked products as part of the recycling process” (M7R3).*
- *“Exploiting the potential of the existing market by not just selling new products but also integrating the whole recycling process” (M7R2).*
- *“It is all about creating added value which customers are willing to pay for” (M9R1).*
- *“Offering the whole range of services rather than just serving a niche is an advantage today” (M1R2).*
- *“Customers are interested in complete solutions rather than specialized niche products; hence, the product line must continuously be expanded and diversified” (M4R3).*
- *“Having different product lines is also important regarding risk management; in case of problems with a product line, you have others too” (M12R3).*

Furthermore, SME owner-managers try to use developments in modular ways. The aim is to re-use resources in new combinations.

- *“Modular offerings are an ideal means for selling upgrades” (M3R1).*
- *Modular products can be re-used for other customers as well (M8R1).*
- *“A good business model allows for creating additional value with limited effort – at limited internal costs” (M9R2).*

Firms may have to change their dominant revenue generation logic or alternatively use several different revenue mechanics, adapted to a specific situation, i.e. depending on the customer or on the project character:

- *“For instance, in the context of a tool management service the model was changed from free to paid” (M7R1).*
- *“Various forms of revenues are used, depending on the type of project and customer: based on total construction costs (fix price or flat rate), or paid per hour (preferred model)” (M6R2).*
- *“Internally subsidized, in early pre-project phases, where you have to sell your project first” (M6R3).*
- *“Various revenue models are used: Getting paid per hour, according to the total construction costs, or using a flat rate model” (M11R1).*

An additional aspect is that firms also think about ways that allow for making prices opaque, such as in the service business:

- *“Firms should sell their products using a flat rate model, making the price opaque. However, this requires an excellent knowledge of internal processes. Entrepreneurs should be distinguishing what is profitable and what is fun” (M10R3-R4).*
- *“The unit of measurement has changed from hours to square meters, making the price opaque” (M5R1).*
- *“General contractors selling buildings at a fixed price – making individual costs opaque” (M6R4).*
- *“Customers often prefer flat rate agreements – due to cost security” (M1R1).*

An important issue is the generation of recurrent incomes, since firms are often interested in up-selling:

- *“Digitalization, combined with business model thinking, offers new opportunities for generating recurrent revenues”* (M3R3).
- *“Business modelling is about creating recurring revenues and about creating additional value for customers”* (M10R2).
- *“New services are used to generate new revenue streams”* (M9R3).
- *“New ‘innovative’ products are often door openers for existing ones”* (M2R3).

5.6.4 Contextualizing the findings with literature

The academic community sees a shift in business model thinking. Originally, revenue considerations were the driver behind business models. Business models first appeared in the 1990s US Internet bubble (Osterwalder, 2004). Some relevant (early stage) papers in the domain – around the year 2000 – deal predominantly with the revenue aspect, such as the publication from Linder and Cantrell (2001). Today there is a trend towards ‘advanced’ concepts such as value proposition thinking (with associated concepts such as design thinking). The revenue model is to be considered a sub-system model of the business model rather than a stand-alone concept (Amit & Zott, 2001; Kindström & Kowalkowski, 2014). It has become a substantial part of many currently popular business model frameworks such as the Canvas from Osterwalder (Osterwalder & Pigneur, 2010) or the Navigator from Gassmann (Gassmann et al., 2013). Not only is the business model concept designed to describe the logic of revenue generation (revenue mechanics) but also it has been used as a tool to capture value (often also related to revenue thinking), in a sense of Porter’s definition *“The amount buyers are willing to pay for what a firm provides them. Value is measured by total revenues.... A firm is profitable if the value it commands exceeds the costs involved in creating the product”* (Porter, 1985, p. 38).

Based on the interview data, the following revenue thinking-based categorisation can be made:

- 1) 'Narrow sense' business models, just focusing on revenue generation.
- 2) 'Wide sense' business models, including additional ideas such as the value proposition.

There is no consensus in the academic and the support professional community whether business model thinking should concentrate on narrower or wider sense considerations only. The proponents of the narrower sense idea argue that firms should think harder about diversifying their revenue streams and about exploiting their market. This first stream agrees with early stage authors/scholars in the business model domain (in the first US Internet-bubble era). On the other hand, the proponents of the wider sense idea see more value in expanding and enhancing the concept, so feel more inclined towards ideas complementing the traditional, revenue-based approach. Most academics within this latter stream have also developed their own frameworks (see 5.3).

While the academic and the support professional community discuss the revenue model conceptually, the owner-manager community see revenue ideas in very hands-on ways, describing various alternative possibilities of how to deal with revenue aspects in relation to their business – explained by real examples. This practice-oriented perspective represents an opportunity for more research devoted to frameworks that may assist business practitioners in their revenue diversification activities, not least because literature still lacks such easily applicable (e.g. visual) frameworks and practitioners tightly link the revenue concept with business models.

5.6.5 Key findings

5.6.5.1 *Academics*

In the academic community two main lines of reasoning must be distinguished:

1. Those relating the business model concept to revenue thinking (narrower sense).
2. Those having a broader understanding of the concept including ideas such as value proposition design or design thinking (wider sense).

Those having developed their own models/frameworks tend to advocate a wider sense perspective, while the narrower sense group tends to apply market exploitation thinking, linking their ideas back to the initial purpose of the business model, hence the question as 'how to make money'. This differentiation of views complements the existing business model literature.

5.6.5.2 Support professionals

The distinction of 'narrower' and 'wider' sense thinking can also be applied for the support professional community. This group regards revenue thinking as important, since firms need revenues quickly. However, there is also a debate whether monetisation is the only source of 'revenues' to be earned rather than including other dimensions too (the term revenue may be understood more broadly, for instance non-profit organisation may have different standards).

5.6.5.3 Owner-managers

What has been found in the present research, a finding that complements existing literature, is that owner-managers of established SMEs (as distinct from start-ups) often relate the term 'business model' to revenue thinking, not by describing abstract concepts but by outlining their business logic, particularly the revenue creation logic, in concrete, hands-on ways. The author therefore concludes that the owner-manager group would benefit from a revenue creation framework, since this group intuitively relates business models with revenue mechanics. In contrast, wider sense models are not only rarely known within this sub-community but are also not seen to be useful tools.

However, the start-up sub-group is different and reflects the views described in the existing literature. They mostly work with the Osterwalder (2010) Canvas. Many start-up entrepreneurs are taught to use business models as part of start-up training or educational courses such as MBA programmes.

5.7 Theme 6: The implementation of new business models in practice (A/S)

5.7.1 Findings in the academic community (A)

5.7.1.1 *A learning process*

A professor of strategic management and innovation sees business modelling as an emergent process:

“Developing a new business model is a development process, a trial and error process, which needs time and money. It is a maturation process. The business plan contains a business model but is a much more comprehensive document, also including the whole realization part” (A111).

Accordingly, a design researcher sees culture as an important aspect of business model implementation, so they have included such thinking in their study programs:

“A trial and error culture, as well as working with drafts, is part of some study programs at universities right at the beginning” (A10I4).

Business models can be compared with the implementation of strategy – to be reconstructed ex-post; it is not a process of conscious planning, as a professor of sustainability management argued:

“A good strategy can only be constructed in retrospect. You cannot plan this. It is the same with the business model. It is more an ‘error’ than a ‘trial and error’ process because you will learn things, which you did not have any hypotheses for” (A5I3).

In a similar way the director of an ‘arts and entrepreneurship’ programme stated:

“Most of the master’s students in the programme essentially need the entire training time to ‘just’ frame the problem to be solved. Then, changing their attention to the business world is something different. Accordingly, people do not start thinking with the model but with an idea. Design Thinking is a concept in the domain. Starting from the nucleus of an idea” (A10I1-I3).

Another perspective on a learning process may be that we always have to look for the impossible and then count back, as outlined by a professor of marketing:

“An excellent tool therefore is ‘Triz Ariz’ from Altshuller. Creatively solving problems. It is the exact opposite of the Canvas by creating fantasy worlds and then counting back until it becomes doable” (A7I2).

5.7.1.2 Start-ups vs. established firms

A professor for empirical innovation research considers the business model concept to be inadequate as a tool to transform an existing firm but more suitable for start-ups:

“Start-ups have many advantages: they can look for an adequate business model right from the beginning while established firms must get rid of their existing model first, something which is much more demanding. Hence, for a start-up the development of a new business model is part of the journey” (A3I1-I2).

However, for start-ups possibly the most fundamental problem we have concerns the scalability of business models, as outlined by a professor of entrepreneurship:

“We are not able to push promising business models with a lot of money such as the Americans do (example: Aribnb. This idea was originally developed and implemented in Lausanne, Switzerland). We spend a lot of money in research and development but do not push the market. It is not a business model problem we have but an execution problem, hence pushing and scaling the model, investing money. This is where we still have to learn” (A9I1).

5.7.1.3 An inside-out (or resource-based) perspective

From a resource-based perspective, a professor for sustainability sees the allocation of resources an important issue:

“Business modelling means sustainability of a business, hence viability, and in particular, ensuring that it always has the resources it needs. Theory of impact is about thinking through the whole value chain, about causes and effects within this chain” (A5I2).

From an inside-out perspective, the business model is about analysing the core value chain, as stated by a professor of finance:

“Just saying ‘let’s put the customer at the centre’ is not enough. Instead, steering the whole process including financial and process-based considerations would be necessary. Furthermore, agile forms of collaboration are needed in order to establish entrepreneurial ‘cells’ within an organisation, as a basis for an inside-out process” (A4I2).

In terms of an internal perspective, the resource-based advantage theory is linked with business models:

“Taking an internal view, the “resource based advantage theory“ is a good starting point for a firm (to think about its business model) by reflecting which resources do we have and what can we do with it” (A7I1).

A professor of international marketing argues similarly by understanding internal processes and resources the starting point for business modelling:

“Internal processes and resources may also be the starting point of revenue thinking. However, the unfortunate thing is that we do not think hard enough today about the revenue compositions, that this is a choice and not inherited from our grandparents. By following this line of argumentation, we can conclude that with the question ‘how can I change my value proposition’ you will not be able to find the solution. The solution originates somewhere else (in the revenue composition); the value proposition is an excellent means with which to communicate with your customers” (A2I1-I2).

Furthermore, a professor of finance links internal perspectives with external ones:

“Business models must change from inside, which, however, is only possible with inputs from the outside. Therefore, the most important element is a culture of self-responsibility within a firm” (A4I1-I3).

Accordingly, using a model for mapping internal structures, no matter which model, requires compromises to be made:

“In the discussion of how to set up a new business model, the Osterwalder (2016) Canvas and the Gassmann (2013) Navigator are often referred to. However,

projecting reality into a terminology is only possible with compromises, no matter which model we use therefore” (A5I1).

At this stage of discussing internal structures using models, the Navigator was compared with the Canvas by an online marketing researcher as follows:

“The Navigator has a set of advantages regarding analysis, implementation and testing of business models, it also supports the work with scenarios. Hence, the Navigator is much more a process than the Canvas. Furthermore, the Navigator is much better suited when we start with existing models. It allows for developing alternatives and variants. With the Canvas you start from scratch” (A8I1).

Similarly, the networked character of our world today is associated with the business model concept and may be connected with an internal perspective:

“Complementing the inside out perspective, the concept of emergence has been discussed. Today strategy and business modelling must be seen as something that emerges from inside out. Hence, agile models are needed such as those implemented by Japanese firms producing industry robots. Firms there have realized that they must be agile these days. However, this cannot be achieved through executives sitting in their offices on the 5th floor. Thinking from the customers, from the base, is required. I once joined a course teaching the respondents in collaborating in groups with no hierarchy. This is how future business models will emerge. To be successful with such emergent phenomena we need people with different skills to be brought together. Today it is important to recognise the network character of our world. Therefore it is important to work on a shared culture.” (A4I4-I5).

5.7.2 Findings in the support professional community (S)

5.7.2.1 *Can business models consciously be developed?*

An argument in the support professional community is that business models cannot consciously be created. Such a view was provided by a governmental innovation consultant, who has coached several hundred SMEs in his career:

“Creating a real ‘disruptive’ innovation is an illusion (disruptive innovations are considered business model innovations – see the literature review). How many firms do exist, which successfully launched a disruptive innovation, worldwide, described in literature? Not many. It is exactly the same with business models. We first have to think hard when, for what purpose, and in particular for what type of firm does it make sense to innovate the business model” (S4I2).

Accordingly, the Canvas is an inadequate tool for developing new business models, as argued by an innovation consultant and business school lecturer:

“It (the model) can be used for visualization purposes once the model has been created or for existing models. Most examples provided by Osterwalder are constructed ex-post. They cannot be derived directly from the Canvas” (S10I1).

However, a problem in this debate is that people still tend to think in the product domain:

“People tend to think in product categories rather than in the business model dimension” (S9I1).

Nevertheless, as argued by another consultant and innovation book author, the problem is that the term business model is often used imprecisely and often understood mechanically so its application is difficult:

“A further argument why business models are hard to be ‘created’ can be found in the use of the term ‘business model’ per se. Such as business models there are two additional buzzwords, namely innovation and sustainability, both are used in a “wishy-washy” way, losing their strength. The business model concept is applied rather mechanically following the building blocks from Osterwalder without thinking about the philosophical fundamentals behind it. Finally, the business model is nothing else than a conscious reduction to one specific question: what job do I solve. Everything else such as the market is left out consciously” (S8I2-I4).

5.7.2.2 Strategic decision-making

Basically, new business ideas can be created from two different places, as outlined by a strategy consultant:

“On the one hand, you may have a problem to be solved, a ‘disturbing factor’. On the other hand, you may have resources (capital, production) you want to use for generating profit or rents; hence a strategic decision. By the way, it is like strategy, you only see whether it works after many years in business; so viable strategies are often ‘constructed’ ex-post. Accordingly, most running strategies are just ‘rubbish’. What we need is the ability to learn and adapt quickly. Although the best strategies and business models ‘emerge between the ears’, the business model concept allows for writing ideas down and making them tangible” (S211-12).

As argued by a future management consultant, a business model represents a firm’s strategy:

“A business model may also be considered the implementation of a firm’s future strategy. It is the concrete implementation of what the firm currently does. However, before the business model comes into play it is important to define a mission, a crystal-clear positioning and a vision” (S1311).

Another consultant, an early business model evangelist and business school lecturer, stated that he was currently working on ideas that allow for validating business models as part of a strategic implementation plan. Therefore, the Lean Start-up methodology was applied:

“In this ‘methodology’ the Business Model Canvas represents the starting point and is used to formulate the most critical business hypotheses. It is a scientific approach aiming at minimizing risks and seeking the highest possible rents by doing many (cheap) learning cycles. It is about testing and validating new business models in the market. It is always about minimizing risks, a hot topic in the innovation context per se” (S111).

5.7.2.3 People and the team

The quality of the application of the business model concept depends on the people using it, as stated by an innovation consultant:

“The more relevant background they have, the more they know about the complexities in the market, and the more they can take advantage out of it. Generic tools such as the Canvas are like a screwdriver. You can do anything with it, not just driving screws but also hammering down nails or using it as a fixation for grilling sausages” (S5I3).

The president of a private investment fund and former university director further emphasized the importance of the team:

“On the one hand, in professional fund investments, having a good management team is the absolute prerequisite before money is spent. Accordingly, a good product to be sold in a ‘good’ market is by far not enough” (S6I1).

A strategy consultant expands the role of people to the idea that CEOs often neglect new ideas:

“They delegate the new concepts to their subordinates who have to find solutions quickly, ignoring the time this process normally requires. This is why so many sectors are really in crisis” (S2I3).

Accordingly, sensitization for new ideas is considered important, as outlined by a seasoned governmental innovation coach:

“It is not about working with the concept all the time but the firms must understand something is going on in this area. By contrast, firms work on their business model intuitively. They may ignore one or the other building block; this is why sensitization is important. The business model concept is considered useful as a means for sensitization, but not more” (S4I1-I3).

Another respondent, an innovation consultant and business book author, links people with the concept of learning:

“Another issue is that in some businesses there is no learning curve, the same mistakes are made again and again. However, people do ignore such findings categorically” (S8I3).

Furthermore, another innovation consultant sees the implementation tightly linked with internal firm structures:

“Although many firms are aware of current topics such as the business model concept, they have problems with its implementation. The problems are internal structures preventing firms from doing something new. Taking this into account, I use a technique called ‘structured creativity’, hence combining creativity with analytical sessions. They look for the nucleus of a possible innovation, in most cases building on something existing. Starting something from scratch is extremely difficult” (S10I3-14).

5.7.2.4 Entrepreneurship

An innovation consultant and business book author links entrepreneurship with business modelling as follows:

“On the one hand, entrepreneurship means that we must always have all elements in mind, all the time. People tend to focus on products only. This is still a problem. However, it does not matter where to start as long as you end up dealing with all of the 9 building blocks of the Osterwalder (2010) Canvas” (S9I2).

Similarly, a management consultant and business angel member emphasises the importance of ‘entrepreneurial execution and focus’:

“On the other hand, the success of a business has finally nothing to do with the Canvas. It is all about entrepreneurial execution. It is about the value you offer to your customers and about focus; leaving out irrelevant things is important. You can influence your luck through an excellent execution. You must be active so you will automatically meet people who can help you. Accordingly, an important issue for start-ups is ‘focus’. The business model is less important. It is all about focus and a good execution. You can be highly successful with an unattractive business model when the execution is brilliant (e.g. selling used cars). Nevertheless, a good

execution combined with a good business model is the key for a sustainable successful business” (S7I1-I2).

By emphasizing the role of entrepreneurship, a private investment fund manager and management consultant points out the importance of the gut feeling:

“We also have to remember that there are highly successful entrepreneurs who have never heard anything about business models but have founded ‘empires’; they have brilliant visions and strategies; they have a gut feeling for the market” (S6I3).

From a professional investor’s perspective, entrepreneurial means that the market, the products, and the team are to be equally considered:

“Is the team committed and do they tell a credible story? Their story must demonstrate a strategic intent and they must be able to see the future in a credible way. Above all, these points must be convincing and coherent” (S12I1).

5.7.2.5 An emerging phenomenon

An experienced innovation consultant states that dealing with contradictions is important in complex environments, so that new business models can emerge:

“Often there is no direct path to a business model vision. By contrast, you sometimes have to go ways that seems to be contradicting, at first glance. This is not adequate anymore in our complex world today. The younger generation is much better able to cope with such ambiguity. At the same time, most people think that loops are a waste of time. But in fact, they are not! Today there are ‘things’ we cannot understand intellectually. We must delegate them to our subconscious so we have to put things aside. Solutions often emerge when not actively worked on the problem” (S5I1-I2).

Leaving your comfort zone is also considered part of an emergent process, as stated by a new venture coach and business sparring partner:

“Simultaneously, having your business model in mind means continuously leaving your comfort zone (especially as a start-up). It is part of the game to continuously have a look at the unpleasant side of what you do; having the will for this is essential” (S3I2).

Not at least, the time factor is crucially important when discussing emergence in a systemic sense, as stated by a private investment fund manager and former university director:

“Another dimension is time. How (if at all) is the time dimension included in business models? The relationship between elements in a model change over time, hence the model is changing. This is a systemic perspective. Time is very important” (S6I2).

5.7.3 Contextualizing the findings with literature

Setting up new business models is regarded as a learning process based on market experiments through trial and error (Brown & Eisenhardt, 1997; McGrath, 2010). The implementation of a new business model is described in start-up literature; in particular, the lean-start-up concept has gained much attention in the start-up community (Blank, 2013; Blank & Dorf, 2012). In this context, the Canvas from Osterwalder is used for sketching out early stage business hypotheses to be empirically verified (Blank, 2013; Ries, 2011). Inside-out thinking, on the other hand, is argued to be associated to the entrepreneurship discipline, where *“entrepreneurs shift resources from areas of low productivity and yield to areas of higher productivity and yield”* (Drucker & Drucker, 2007). Accordingly, entrepreneurs develop new business models from inside out, based on existing capabilities and resources. Business modelling is often regarded as equal to entrepreneurship since each entrepreneur must deal with the interplay of factors such as people and resources by acting as some sort of movie director bringing all elements of a business model together into play (Faltin, 2011). The implementation of a business model is furthermore considered a consequence of strategic decisions (Magretta, 2002).

The academic community sees the implementation of a new business model in three dimensions:

1. As a learning process.
2. Start-ups are different to established firms.
3. As an inside out process.

While each of those three dimensions are reflected in the literature, they are discussed in different contexts. In this research, these three dimensions were highlighted by different academic respondents as dimensions of business model innovation.

The support community addresses different themes. They question whether business models are the product of conscious planning processes – such as debated in strategy literature, for instance by Magretta (2002). They further discuss the role of people and their skills and values, philosophical considerations, entrepreneurial activities, and the implementation as an emergent phenomenon. The question separating a conscious planning and an emergent phenomenon is addressed by complexity literature arguing that complex organisations may emerge, with the need for a ‘solution system’ to be more complex than the ‘problem system’ (Ashby, 1957). The implementation of a new business model is considered an emergent phenomenon rather than the outcome of a linear process; an aspect which links implementation issues and philosophical considerations – this represents an insight that has not yet been addressed by existing business model literature.

5.7.4 Key findings

5.7.4.1 *Academics*

Various ideas and disciplines were associated with the business model implementation process, such as launching market experiments, distinguishing start-ups and established firms in terms of their position in the business model journey, entrepreneurship as source of new business models, strategic considerations, or philosophy, as a concept at the periphery. These ideas are widely reflected by existing literature.

By contrast to ideas already published in the existing literature, the data from the academics have revealed that setting up a new business model must be considered an emergent phenomenon rather than the outcome of a linear process. What is more, successful business model implementations are often only explained ex-post. Additionally, business modelling can be understood as a problem re-framing concept.

Those ideas have not yet been addressed or just explained at the periphery of existing business model literature.

5.7.4.2 Support professionals

As an empirical study, this research has generated some unique insights into the perspectives of business support professionals. The investigated support professional community presents additional ideas such as putting humans at the centre, considering philosophical issues key aspects, and considering the implementation process an emergent phenomenon, not to be solved intellectually, but the result of an incubation process – an idea that is also reflected by the academic community. These latter ideas are only rarely addressed by literature but represent insights from support professionals reflecting their daily work with business practitioners.

To conclude, putting the debate on a higher level of abstraction, what the two communities (academics and support professionals) say is that business models are all too often understood mechanistically, the product of linear thinking rather than the result of a complex learning process. Philosophical considerations may help understanding business model application a highly dynamic process of opportunity detection and exploitation where the business model concept is too simplified a model or a tool, respectively.

5.8 Theme 7: Business models and complexity management (A/S)

5.8.1 Findings in the academic community (A)

5.8.1.1 Framing the problem

Business modelling is also considered a problem-framing process. However, the tension consists between reducing complexity on the one hand, and by not making the problem too simple on the other, or, as stated by a professor for entrepreneurship:

“The challenge generally (when developing a tool) is to create an instrument that allows to quickly ask the ‘right’ questions in practice. Therefore a reduced 4-quadrant model based on the Canvas was developed (but even simpler than the Canvas). We

need instruments which are simple enough so that we can easily use them but they mustn't be too simple so they still include enough complexity. This is the great challenge. Or as Einstein once said: 'Make it as simple as possible, but not simpler'" (A6C1).

In the art and design community, as the director of a design and entrepreneurship program stated, individuality is considered essential to dealing with complex problems, so-called 'wicked problems':

"The students mostly use visualisation techniques in order to visualize complicated problems, but they do it individually, each time from scratch. This is influenced by an artists' tradition, in which an artist distinguishes himself through his work. Furthermore, in design there is a category of problems, which have to be solved each time from scratch, so-called 'wicked problems' – and setting up a new business may also be a wicked problem. This is what designers are interested in. Wicked problems cannot be solved using algorithms. There are no models to solve these problems. They have to be solved from inside out. Most complex problems we have these days are considered wicked problems" (A10C1-C2).

5.8.1.2 Various elements acting together

Based on the various elements acting together, making business models highly complex, a professor for entrepreneurship and strategic foresight argued:

"People do not manage to deal with the complexity inherent in a business model. People do not know how the 9 building blocks act together" (A1C1).

By contrast, a professor for sustainability argued that the Canvas would be a perfect means to deal with complexity through integrating otherwise loosely structured elements:

"... because you always have to deal with the model as a whole, not just with elements of it (as often seen with business plans)" (A5C2).

5.8.1.3 Dealing with uncertainty

An aspect addressed by the complexity discussion is uncertainty. The argument here is that reflection is fundamentally important in order to activate an organization's transformative capacity, an issue outlined by a professor of sustainability:

“Complexity can only be managed by complexity. In innovative contexts you must learn to accept complexity and uncertainty. You have to accept several dimensions, which can be equally correct, there is no right or wrong anymore (as often assumed earlier). And reflection is therefore a means to deal with complexity. An excellent means to deal with complexity is a group reflection methodology derived from systems thinking. This prevents you from simplifying at an early stage showing you alternative perspective. This increases the needed complexity in the problem finding process” (A5C1).

Uncertainty may also be induced by incomplete information, as a professor of marketing argued:

“Another issue is that decisions are always made on an incomplete information basis. Business models need correct information to be evaluated but managers are incapable of getting this information. Even worse, we have big data these days, which is considered the solution for this problem – a complete misconception! Let us take the Canvas. Based on what do you put information in the 9 building blocks? This is the birth of the resource-based view. This prevents you from being paralysed through analysis. Instead, you try to make the maximum of what you really know” (A7C1).

Not at least, uncertainty and complexity is related with chance, as a professor of entrepreneurship summarised:

“An additional element of a business model – and a further aspect of uncertainty – should be ‘chance’. However, the respondent (a professor of entrepreneurship having developed his own framework) has not added this element because we cannot do anything with it. Furthermore you always need a bit of luck” (A9C1).

5.8.2 Findings in the support professional community (S)

5.8.2.1 *The strength of reducing complexity*

An early business model evangelist argued that reducing complexity through abstraction allows you to deal with highly complex systems:

“Reality is always considered more complex than the business model. Nevertheless, it is legitimate to deal with reality on a higher level of abstraction (flight altitude) since even this abstraction allows for coping with such highly complex systems because you always have the ‘whole’ in mind” (S1C1).

A management consultant argues similarly:

“As an early adopter of the business model concept it is used ever since. I consider it an excellent tool to deal with complexity through reduction” (S7C1).

By consequence of its reductionist character, a new model that allows for zooming in and out would be needed, as an early business model evangelist and business school lecturer stated:

“A further way to reducing complexity may consist of working with scenarios. Scenarios are often used to map different alternative contexts. Therefore, scenarios are used to discuss different possible futures in order to develop models of ecosystems based on which the most important hypotheses can be validated” (S1C3).

By contrast, a philosopher provided a divergent perspective on reducing reality into a model:

“A model has the character of something big reduced to something small. As a consequence, having it in small, we can just scale it. This may be a brilliant approach in the technical domain but its application in social systems must be questioned. With a small model of reality there is a danger of missing ‘real reality’” (S11C1).

5.8.2.2 Reality is more complex

A strategy consultant argues that a business model cannot cover everything:

“The strength of the Canvas is that it can easily be used as a means to generate new ideas, as some sort of guideline. However, this is also its main weakness. It does not cover ‘everything’ and each firm must be considered different” (S2C1).

Although tools such as the Canvas are popular, real expertise can only be achieved through experiencing the concept’s application, as an innovation consultant argued:

“These days, the business model concept is also a hot topic at business schools. A little bit of theory is always useful but it is much more important that students work it through in real cases in order to understand the inherent complexities” (S5C4).

Accordingly, the quality of business model application depends on those using such concepts, as outlined by another innovation consultant:

“Taking up the argument that people are using the concept, the quality of the business model application depends on those using it “(S5C3).

However, the design of the tools such as the Canvas is argued to be too simplistic, as stated by a future management consultant:

“The Canvas from Osterwalder is just too simplistic. It is popular, easy understandable for everyone, but maybe too simple. I also know the model from Gassmann in which basic business models have been described (55 archetypes). These archetypes are also often called ‘meta chances’, hence chances already thought ahead” (S13C1).

Nevertheless, real expertise depends on the application of business model concepts in practice, as argued by another consultant:

“Based on the complex nature of the business model idea, I have learned (in my workshops) that even people using the concept for years still learn new aspects. Accordingly, it has become good practice to show firms what good business models are and how to think in alternatives” (S9C3).

Business modelling also means questioning oneself, something people generally do not like to do, as argued by an innovation consultant:

“The argument here is that people in general do not like to question themselves! But they love having 55 business model archetypes; however, in fact there is an endless number of different business models since each firm is different, there are not just 55. Dealing with this high level of complexity can also be labelled entrepreneurship” (S8C2).

Beside the Canvas from Osterwalder or the Navigator from Gassmann, market structure models were also discussed since they may map more complex contexts, as a SME coach outlined:

“Additionally to the models from Osterwalder and Gassmann the idea of market structure models has been discussed arguing that the market structure model may be better suited since it allows for more complex considerations. The market structure model offers additional perspectives incorporating competitors, regulations, etc. It shows how a system is actually structured” (S3C1).

A philosopher provided a divergent perspective regarding the model idea per se – by comparing ‘idealists’ and ‘model-fanatics’:

“We have to distinguish between idealists and the model-fanatics. Idealists consider what life tells them, are able to react on something emerging. Controversially, models paralyze since we have the ‘model-security’. Hence, we are not able to get involved in something that emerges” (S11C2).

5.8.2.3 Dealing with uncertainty and contradictions

Today we must learn to accept contradictions – even this allows us to deal with the complexities of our time, as argued by an experienced innovation consultant:

“Essentially, a business model describes the organisation of a business. Business models describe how to act in the market but, on the other hand, must also be considered a process, ranging from the simple idea up to its complex implementation in the market. This is a highly dynamic process. This includes a lot of complexity.

Complexity means that we must learn to deal with contradictions. Not having a solution right at the beginning. This is in contrast to a traditional economic view aiming at reducing everything to simple cause and effect relations.” (S5C1).

5.8.2.4 Systems thinking and dynamic systems

The president of a private investment fund and former university director knows the Canvas from Osterwalder as well as the Navigator from Gassmann and introduces a systemic perspective on these tools:

“From a systemic perspective, models with arrows show the flow of resources and are more dynamic, hence the Canvas is considered a rather static model. Probably, a single model cannot afford to be used for everything, so combining different models may be more adequate (unifying static and dynamic views)” (S6C1).

Another innovation consultant and business book author argues that there is no single way to use the business model concept, emphasizing the concept’s systemic nature:

“The Canvas is either used to establish a common language or to re-invent the firm. This is what I have learned in large firms. In both cases the concept is used differently. There are so many ways to use the concept; it is impossible to make general statements. However, the concept is particularly useful in (highly dynamic) sectors with fast modifications such as the telecom industry” (S9C2).

5.8.3 Contextualizing the findings with literature

The academic community recognises the complex nature of business models. They see business models as a type of problem to be continuously (re-)framed in an iterative way. They understand the various building blocks as many interrelated elements acting together in non-linear ways, and see uncertainty, associated with non-linear behaviour and non-predictability, as inherent characteristics of complex systems (such as business models).

Essentially, there is a dominant but controversial debate in the support professional community regarding business models and complexity. While some argue that

through using models such as the Canvas, complexity becomes manageable through reduction. However, others argue that model-based reduction leads to oversimplification.

According to the debate in the literature, the argument is, on the one hand, that 'solution systems' must be more complex than 'problem systems' so reduction may lead to oversimplification (McGrath, 2010; Morris et al., 2005). On the other hand, reduction may be appropriate in order to understand the constituent parts of a problem, the basic mechanisms making up a system (Simon, 1996). Business support professionals see the business model concept as a means to deal with contradictions. The argument here is, according to literature, that contradictions may be a characteristic of complexity, since complex systems behave non-predictively, often producing contradicting outcomes (Ninck, Büriki, Hungerbühler, & Mühlemann, 2004).

A further point discussed in both the academic and the support professional communities is the controversy as to whether having all the elements in mind at once may help dealing with complexity. This perspective is in line with literature, particularly the law of Ashby (1957), which states that we need 'solution systems' that are more complex than the 'problem systems'.

5.8.4 Key findings

5.8.4.1 *Academics*

The academic community understands business models as systems consisting of various elements acting together in non-linear ways. This is a view which existing literature reflects very well.

However, an idea not yet covered is that academics link complex problem re-framing with the business model concept (as a re-framing tool). A further aspect complementing existing literature is the debate as to whether business models are useful to reduce complexity, or, by contrast, whether business models may help to increase complexity through showing 'everything at a glance'.

5.8.4.2 Support professionals

The same debate as in the academic community, namely whether to increase complexity in a system by applying the business model concept, or to reduce complexity with the danger of over-simplification, is discussed in the support professional community.

Furthermore, and complementing the literature, support professionals relate philosophical issues to complexity management. They propose the idea of swallowing problems and sending them to the subconscious as part of an incubation process. Additionally, they see business models as a means to dealing with contradictions and uncertainties – often characterising the complexity of our world today.

5.9 Theme 8: The role of business models in ecosystems (A/S/M)

5.9.1 Findings in the academic community (A)

A professor of innovation and strategic foresight argues that business models are not isolated any more but part of a wider ecosystem:

“The ecosystem idea becomes more and more important. In the Canvas, you have building blocks such as partners and customers. This idea is by far out-dated. Today the various players are considered to sit ‘somewhere in a cloud’ without clear borders making them indistinguishable according to a traditional view. Everything is very fluid today. Hence, the question not only is whether someone is a partner or a customer (or both) but whether he is also a key resource simultaneously. In this context, we have to clearly differentiate between cooperation and co-creation. With co-creation, we do not have to share values but collectively create something new” (A1E1).

Furthermore, an online marketing researcher discussed an outside-in perspective, especially for platform-based businesses, finally leading to an ecosystem perspective:

“These days, the traditional concept of the firm ‘that creates value’ must be questioned because it is hard to distinguish between what comes really from inside

and what from outside. Through blurring borders business models tend to change towards ecosystems. In ecosystems, you have overlapping 'clouds' of business models. You may have 5 or 6 business models running simultaneously, which is in contrast to the traditional business model literature stating that a firm can run only one dominant business model. However, the different business models are close to each other, but they are different. Through new online platforms and ecosystems even small firms will have the chance to participate, to take advantage of various channels. Today, only large firms have the resources to do that. Existing tools have not yet succeeded at integrating the ecosystem. In ecosystems customers can be partners and vice versa. We have various sectors consisting of strong ecosystems such as the healthcare system. Most existing business model concepts use an 'old language' that is not adequate anymore for dealing with the emergent ecosystem perspective" (A8E1-E3).

A professor of finance emphasizes the network character of our world today; an aspect influencing ecosystem thinking through the exchange of values between various stakeholders:

"We need dialogues in our networks that allow the integration of all stakeholders, this is important. Establishing trust in the process is important. Just giving orders from the top does not work anymore. Hence, to be successful we need people with different skills to be brought together. Today it is important to recognise the network character of our world. Therefore, it is important to work on a shared culture." (A4E1-E2).

5.9.2 Findings in the support professional community (S)

An early-day business model evangelist promoted the importance of ecosystem thinking by visualizing the flow of resources between various stakeholders; an idea finally leading to the concept of transaction models:

"It is about creating value within a business ecosystem. Within an ecosystem, it is very useful and sensible to visualize the flow of resources. Therefore, I use transaction models. Furthermore, scenarios are often used to map different alternative contexts (and ecosystems). However, the Canvas cannot be used to map out the ecosystem, a strong weakness of the tool. Furthermore, different levels of

complexity cannot be 'zoomed in and out', an additional weakness. On the other hand, there is no model that allows for combining different business models, dealing with the interaction in ecosystems" (S1E1-E3).

But ecosystem thinking also means taking responsibility for whole systems, as argued by an innovation consultant and business book author:

"Years ago we had advanced systems thinking at the HSG. This has been lost since science is becoming more and more focused, losing a holistic view of the whole. It is about taking responsibility for whole systems, not just for parts in it. This is what customers finally value." (S8E1).

An innovation consultant and former researcher points out that we still face a gap in knowledge of how business models work in ecosystems:

"From a research perspective, we still face a gap regarding business models and ecosystems, showing how to create value as a network, rather than individually. However, the gap may be expanded to the question, why do firms use business model thinking, what are the triggers? Many large firms state that their environment has changed. They have to react" (S9E1-E2).

One respondent, a philosopher, provided an alternative dimension to the ecosystem idea:

"A firm is embedded in a context since the basic question is: Why do we make business? It is a declaration of love to the world and to the people living in it" (S11E1).

5.9.3 Findings in the small business owner manager community (M)

5.9.3.1 *Specialisation in a customer network*

An ICT entrepreneur argues that networks are important today as source of relevant information:

"An aspect of ecosystem thinking is the information-gathering process, which has become much more complex these days. Most competitors may have a bigger

network since they are just bigger, offering the whole range of services required in the domain rather than just serving a niche. This is considered an advantage these days (more and more). I have learned that working with partners is not a viable approach to deal with this new situation because you cannot establish the needed pricing homogeneity (as the competitors internally have). However, the main challenge will be to work out better strategies that allow for getting the required project information” (M1E1).

A regional milk processing firm owner-manager sees one of the big challenges ahead in the trend of chain formation – as a form of ecosystem:

“The trend of chain formation. Customers cooperate by concentrating their purchase. So, you can participate in a competition process rather than acting as total supplier. This implies a downward pressure on the prices” (M2E1).

A clean technology entrepreneur uses transaction models to map out ecosystems since the business model concept is considered too static a concept:

“The business model concept is very static a tool. Quiet often, we need tools that allow for showing the flow of resources and money. Therefore, I work with the transaction model. Potential investors are interested in dynamic perspectives as well. They want to see the flow of money and resources within ecosystems. You also have to visualise partner networks and the flow between the different actors” (M3E1).

The owner-manager of a cutting tool manufacturer (500 employees) addresses ecosystem thinking as follows:

“Our firm is more and more focusing on models using data from anywhere in the process (data mining) that allow for better controlling the tool management process, i.e. automatically determining when customers need to revise their tools. Accordingly, you will even more become co-responsible for the customer’s success” (M7E1-E3).

The owner and CEO of an electrical engineering firm (250 employees) stated that new players will come into play as existing markets shift:

“The interfaces between the disciplines start blurring and will have to be managed differently compared to what we know today, so established engineering offices may only be able to fulfil a small part of the whole – not the full range anymore. In this new way of constructing buildings, we will build in highly modular ways, comparable to the automotive industry (more on this later). Today, my collaborators need competences in all fields ranging from strategy, to leading people on the site up to financial and controlling skills. This may change in the future so that you will have people managing the concepts, and people only responsible for the details, hence a new level of specialisation. The construction sector will be similar to software development with clearly defined interfaces, rather than the automotive industry, as often referred to” (M11E1-E2).

5.9.3.2 Working with external institutions

Another aspect of ecosystems consists of getting inspiration and ideas from outside, such as stated by a cutting tool manufacturer (500 employees):

“It is considered important to work with associations and to collaborate with universities as source of inspirations and new ideas” (M7E2).

The owner of a furniture production firm (30 employees) applies the same line of reasoning by stating that they consult external sources:

“We consult designers, engineers or universities if needed – when highly specialized know-how is required. But also, plenty of inputs from our customers serve as a basis for innovations. We often develop new products jointly with our customers so we can get worthwhile external knowledge” (M8E1).

5.9.3.3 Embedded in a wider environment

Not only the immediate context is considered, but also the wider environment (economy, state, nation, etc.). The owner of a small clean technology trading office (1 person) stated:

“The business plan is an instrument that allows for mapping the business model. A framework called the Marketing-Core-Model (‘Marketing-Kernmodell’) was often used. It shows the elements you may be able to influence, then elements you cannot

influence, then the environment, the economic situation etc. Basically, it is how you are embedded in an ecosystem. I have used this model as a means to working out my positioning, relative to my competitors” (M4E1).

What is more, as argued by a greenhouse farmer (160 employees), ecosystem thinking may also include governmental regulations to be taken into account:

“The challenges ahead are the Swiss agricultural politic including importation and custom taxes but also the costs of the harvesters, which are much higher than in the rest of Europe. Another challenge are public initiatives such as a current one aiming at protecting the ground water so agriculture should be prohibited in some areas” (M12E1-E2).

5.9.4 Contextualizing the findings with literature

Ecosystems are addressed in various dimensions such as to describe radical changes in the environment of a firm (Voelpel et al., 2004). Week (2000) finds that business model innovation has a strategic component regarding knowledge management since the traditional information processing mechanisms are challenged by radical changes in the business environment. Environmental factors are also argued to foster the detection of opportunities, and the motivation to detect them is fundamentally important. Those factors are interlinked and reinforce each other (Stevenson & Jarillo, 1990). The role of ecosystems is also widely discussed in complexity literature since the success of a business model depends on other innovators and its environment and the location of the firm relative to its ecosystem (Adner & Kapoor, 2010).

Most importantly for the present context, ecosystem thinking is further addressed by innovation literature suggesting that a firm should widen up its perspective from an inside to an ecosystem view depending on the type of innovation to be addressed, such as industry models, revenue models or enterprise models (Giesen et al., 2007). Firms should not only explore their internal innovation opportunities but also look at the peripheries in order to gain innovative ideas by cooperating with competitors and complementary firms (Casadesus-Masanell & Zhu, 2010). The open innovation idea states that firms not only develop their ideas internally but also use external

resources for creating inventions and possibly innovations – but also export their inventions (e.g. in form of licensing) if an idea may be more valuable in another context (Chesbrough, 2004). Another issue may be addressed by strategy literature since the question whether a firm may have more than one business model simultaneously (Christensen, 2002). More research is needed by focusing on value creation (and capturing) by understanding the business model as a boundary-spanning systemic activity system (Zott et al., 2011).

To complement existing business model literature, the academic community discusses today's business models as sitting 'somewhere in the cloud' and business models are not 'stand-alone' constructs anymore but embedded in an environment. Furthermore, business models are often overlapping each other, and a firm may have more than one dominant business model at once. The debate whether a firm may run more than one business model simultaneously, a hot topic in strategy literature (Christensen, 2002), is addressed as well in the debate of overlapping models. It is further argued that people with different skills must be brought together to face complex environments – an issue reflected in complexity literature (Casadesus-Masanell & Zhu, 2010).

Some support professionals understand the Canvas an inappropriate tool for dealing with ecosystems because it is considered static, not showing the dynamics within systems, such as the flow of resources; therefore, the transaction model is often used as a complementation of the Canvas – an aspect that adds to existing literature. Furthermore, support professionals argue that firms should take responsibilities for whole systems (or eco-systems) rather than just parts in it, which is what customers finally value. Furthermore, giving something back to the system might be considered *“a declaration of love to the world and to the people living in it”* (S11E1), as a rather philosophical perspective not yet covered by literature. Those ideas referring to the complex nature of ecosystems are covered by literature considering business models part of a wider ecosystem (Casadesus-Masanell & Zhu, 2010).

The owner manager community discussed the ecosystem idea in a hands-on way. They see themselves embedded in a wider value chain network, use external resources for inspiration and widen ecosystem thinking not just to their industry but

also to the governmental level. Their ideas are reflected and conceptualised in the complexity literature because they see themselves embedded in a complex network (Casadesus-Masanell & Zhu, 2010), and in the innovation literature in terms of getting external inputs, as outlined in domains such as open innovation (Chesbrough, 2004).

5.9.5 Key findings

5.9.5.1 *Academics*

Academics address many disciplines dealing with the ecosystem concept, such as composing teams that allow for increasing internal complexity to respond to an even more complex environment – an idea which is also reflected by complexity literature. But they also refer to the question whether a firm can run more than one business model simultaneously (Christensen, 2002), an aspect widely discussed in literature, even though not yet reflected in the ecosystem context.

Furthermore, some of the the academic community understand firms to be sitting somewhere in the cloud, recognising business models from different firms as overlapping constructs, often as part of a platform idea. This is an insight that is only rarely covered by literature.

5.9.5.2 *Support professionals*

Support professionals discussed philosophical aspects in the ecosystem context, such as “... *a declaration of love to the world and to the people living in it*” (S11E1). They consider the Canvas an inappropriate tool since it lacks a dynamic perspective. This represents an input that adds to existing literature. Furthermore, members of the support professional community argue that firms should take responsibility for whole systems. Systemic thinking may have been lost in the past years through the dominance of an even more specialising economy. The idea of specialisation versus systems thinking has not yet been debated in business model literature.

5.9.5.3 *Owner-managers*

Owner-managers relate the ecosystem idea to very concrete everyday situations such as collaborating with external research institutions, integrating knowledge from

external specialists if needed, or widening up the value chain for partners and suppliers. All these ideas are covered by existing literature.

In contrast, what can be learned is that the ecosystem concept is a very popular idea today within the owner-manager community. The author concludes that a clear definition of what an ecosystem really is, particularly in the business model context, is still missing, as the term ecosystem tends to be used very broadly; this may represent a viable area for further research.

5.10 Summary and interpretation of the key findings

The present section summarises the key findings, which serves as basis for answering the research questions and the contributions to knowledge in the final chapter. Furthermore, the author interprets the findings by bringing in his own voice.

5.10.1 A wide variety of applications and interpretations

5.10.1.1 Summary

Academics: 10 different Interpretations and 13 different ways of application were provided by 10 academics, mostly reflecting the view of literature.

Support professionals: 12 different interpretations and 24 different ways of application were provided by 13 support professionals. Support professionals are the community with by far the most diverse ideas.

Owner-managers: 12 different Interpretations and 14 different ways of application were provided by 12 support professionals.

5.10.1.2 Interpretation

The research has revealed that there still is no common understanding and no standardised application of the business model concept. The most diverse ideas have emerged in the support professional community. The rationale is that this latter group represents those people tightly linked with both academia and practice. Support professionals may represent a group familiar with abstract and conceptual thinking. Through their closeness to practice they not only observe how firms deal

with the business model concept but also have the ability to critically reflect on it. Based on their idiosyncratic reflections we see a high variety of ideas, offering opportunities to learn more about the business model concept.

5.10.2 A tendency for developing adapted frameworks

5.10.2.1 *Summary*

Two groups of academics have been revealed. On the one hand, those having developed or refined models and frameworks. They mainly focus on 'advanced' concepts such as design thinking and value proposition development ('advanced' compared to revenue thinking). They regard revenue thinking 'old school' business modelling. On the other hand, those academics using existing frameworks, or no frameworks at all think in the revenue domain too.

Support professionals can be divided in two sub-groups; those supporting and those denying the need for framework development. Some argue that business practitioners would take advantage of more refined, intuitive tools (such as the Canvas), while others see business practitioners already overloaded with the models we have.

5.10.2.2 *Interpretation*

The business model concept is a relatively new arrival in the management world that is not yet fully understood. For academics, this offers opportunities for research and conceptual studies, and to profit from a popular idea that offers room for contributions. This process finally results in numerous new (conceptual) frameworks. In contrast, business practitioners are often caught and absorbed in their daily business. They have no time and no resources to adapt new concepts. Furthermore, many business practitioners may have problems with abstract thinking; they are practitioners so they tend to react against new ideas unless they can see their benefits to practice. Thus, many of them refuse the business model concept and see no need for any frameworks. A gap between academia and practice opens up at this stage.

5.10.3 The role of philosophy in business model thinking

5.10.3.1 *Summary*

Academics tend to relate philosophical considerations to the 'right to exist' question (raison d'être) and emphasize the reductionist character of models. This may not be appropriate a concept for many business problems we have, and especially not for complex problems to be solved (one academic describes these as 'wicked problems'). Furthermore, they see earning money as not the only purpose of a business.

Philosophical considerations are widely discussed in the support professional community. These professionals emphasize the need for developing passion for something, e.g. a new business, or being inspired by an idea as a basis for new business models. It is about 'swallowing' problems, sending them to the subconscious, so that solutions can emerge over time. Sometimes it is also about suffering for the development of an idea.

5.10.3.2 *Interpretation*

Creating a new business model is more an 'art' than a 'science' – there are no 'scientific laws' to be applied guaranteeing successful business model application. Business model implementation strongly depends on the individual's ability to learn and to reflect. And in some way philosophy is reflection. This may explain why philosophical ideas have prominently found their way in business model thinking – philosophical ideas offer lines of reasoning and argumentation for solving complex problems that cannot be solved using 'scientific' approaches ('scientific' as derived from economics or natural sciences).

5.10.4 A missing intuitive framework for revenue stream generation

5.10.4.1 *Summary*

On its highest level of abstraction, there are two main ways the business model concept has been interpreted in the academic community. Those understanding the concept according to Osterwalder (2010), putting value proposition design at the centre, and those understanding it according to a firm's revenue logic, following the

question 'how to make money' – which is where business modelling originated at the time of the dot.com explosion. Some academics consider revenue thinking to be the true purpose of a business model.

Support professionals consider revenue thinking important, since it is argued that firms need revenues quickly. However, there is also a debate whether revenue could be understood in a broader sense, also including the needs of non-profit organisations (where revenue can be measured differently from money).

The interviewed owner-managers found it easy to describe the revenue logic of their firm. They felt comfortable with revenue thinking. By contrast, many of the interviewed owner-managers felt uncomfortable with the business model concept, such as described by Osterwalder (2010). It was considered 'theoretical stuff'. Start-ups are different; their understanding tends to be primarily influenced by the ideas of Osterwalder and less focused on revenue aspects only.

5.10.4.2 Interpretation

Business practitioners are aware of the importance of revenues and liquidity. They know that 'money is king' and running out of liquidity may kill their firm. As a consequence, they care much about developing their income streams. Although considered highly important in practice, there has not yet been developed an intuitive tool – such as the Canvas – assisting managers in their revenue diversification activities. Accordingly, the author proposes a framework to be developed, possibly as a plug-in for the Canvas, based on a morphological box splitting the revenue concept in its basic constituent parts. Such a box would allow for creatively re-combining existing and developing new income streams.

5.10.5 Business model application as an emergent phenomenon

5.10.5.1 Summary

An additional and important theme was not initially included in the coding but emerged from the analysis later and indirectly, through continued reflection on the data, the ongoing analysis and the author's personal experience. Several respondents made the point, in differing ways, that a specific business model is an

emerging phenomenon, rather than one that is decided on at the outset of a planning process, and that this may be a lengthy process in its own right. In other words, a business model is the outcome of a complex learning and maturation process that requires time to complete.

In terms of business model application, the interviewed academics reflect ideas described in literature, such as launching market experiments (the Lean Start-up approach) or distinguishing between start-ups and existing firms. On the other hand, the data have also revealed that academics see business model application as an emergent phenomenon and that business modelling must be seen as a complex problem re-framing (and understanding) activity.

Support professionals consider business model application an emergent phenomenon, a complex learning process, a process of maturation, not to be rushed. As can be seen in the history of science (as an analogy), new ideas are the outcomes of maturation processes rather than conscious planning. They consider it a process that cannot be solved intellectually. Furthermore, most of the famous business model application stories would just be explained 'ex-post'.

5.10.5.2 Interpretation

Since business models are a recent arrival in the management world, there are only few proven ideas offering models and procedures of how to successfully implement new business models. As academics often refer to those few ideas described in literature, support professionals reflect on their own experience, which shows that business model application is a complex learning process, a process of maturation. Furthermore, an argument here is that new venture founders should prioritize their tasks. Prioritization means following sequences rather than thinking all elements of a business model framework through thoroughly right at the beginning of the planning process.

An argument often provided by support professionals is that business models are used to explain successful businesses ex-post. The author posits that we only have a few examples that demonstrate the usefulness of the concept in business development. Since some firms (such as start-ups and large firms) have only just

started working with the business model concept we may know more about its real usefulness for business planning and development in the future. It is also worth noting that this offers plenty of opportunities for future research projects.

5.10.6 Managing real world complexity with business models

5.10.6.1 *Summary*

In the academic community, there is a debate as to whether business models may help increasing real-world complexity through showing 'everything at a glance', having a checklist-like effect for those not familiar with business ideas. Others advocate for simplified models, reducing real world complexity, so that founders may concentrate on the essential things, such as focusing on the value proposition at first.

The argument of many support professionals is that we must 'swallow' problems; send them to the subconscious as part of an incubation process. We need detours and must accept contradictions since there are no linear paths. Developing an understanding for non-cause-and-effect behaviour (often against 'best practice' in academia) in the context of business modelling may help dealing with complexity.

5.10.6.2 *Interpretation*

Complexity has been widely addressed. Two main perspectives have been revealed: including and reducing real-world complexity. The argument here for adopting one or the other perspective is that it depends on where to start a business model initiative. New venture founders (such as university graduates) may be better off focusing on a sequence of well-defined steps to follow (for example starting with the value proposition and the customer segments) and then work from there. Experienced entrepreneurs may map out the model of their business and then focus on the element that needs attention, such as the revenue mechanics, by always having the whole picture in mind (adapting a holistic view).

5.10.7 The role of business models in ecosystems

5.10.7.1 *Summary*

As some academics argue, today we often are confronted with business models 'sitting somewhere in a cloud'. They recognise business models from different firms as overlapping each other rather than stand-alone constructs (especially in digital businesses). In this context, they address the question whether a firm can run more than one business model, an aspect also controversially discussed in literature.

In terms of ecosystem thinking, support professionals consider the Canvas an inappropriate tool since there may be a lack of dynamic perspectives. Furthermore, the support professional community argues that firms should take responsibility for whole systems rather than just parts in it; this is what customers finally value.

Owner managers widely address ecosystems by referencing to very concrete situations, such as collaborating with external research institutions, integrating knowledge from external specialists if needed, or widening up the value chain for partners and suppliers.

5.10.7.2 *Interpretation*

Most business model frameworks are static in nature. Many frameworks (such as the Canvas) have an ecosystem interface with the key partners. However, for mapping an ecosystem, the author considers the business model concept an inappropriate tool. Business models, by definition, map the business logic, from an internal perspective and with the firm as entity of analysis. For mapping ecosystems, market structure models may be more useful. One should not use a hammer for tightening screws. As such, business models have not been designed to map ecosystems, although there are interfaces between the concepts.

5.10.8 Owner-managed SMEs are different from start-ups and large firms

5.10.8.1 *Summary*

Academics distinguish between start-ups and large firms. They argue business modelling is part of a start-up journey. However, changing an existing business

model is considered difficult. They emphasize the concept's importance in highly dynamic markets.

Support professionals argue that the business model concept is only rarely used by established SMEs. On the other hand, it is a popular concept in the start-up community. Most of the interviewed support professionals do not know any SME firm managers actively working with business model frameworks nor do they use the model in direct contact with their client firms. Some support professionals argue that the business model concept is often used in large firms, also based on their consulting experience.

In the interviewed sample, there were only few owner-managers of established SMEs who were aware of the business model concept and one actively applying any kind of business model framework. Start-ups tend to be different; they use the concept frequently because they have been taught to do so at business school and at start-up weekends.

5.10.8.2 Interpretation

Even though owner-managers of SMEs may know the term business model, or the business model concept, they do not recognise it useful for their current problems. They are different from start-ups, for which the business model concept is a very important tool today – also being taught as such by business schools. They are also different from large firms, many of which actively work with the business model concept. The rationale for this may be the circumstance that SMEs are in in the second and third phase of the Christensen (2016) model, having already created a viable value proposition and having found their position in their market – maybe already years or decades ago – hence they are concerned about 'sustaining innovations' and 'efficiency'. Compared to large firms, they do not have the resources to be active in all three phases. And start-ups, by definition, are in the first phase – which is where business modelling is considered important because in this phase it is all about developing value propositions and customer segments – activities that are often seen core to business modelling today.

5.11 The key findings in the context of the conceptual literature framework

The key findings from the data analysis are mapped in the conceptual framework, which was developed as a conclusion of the literature review. Figure 27 depicts the conceptual framework and the findings; the latter are mapped relative to their individual position within the framework (marked in green).

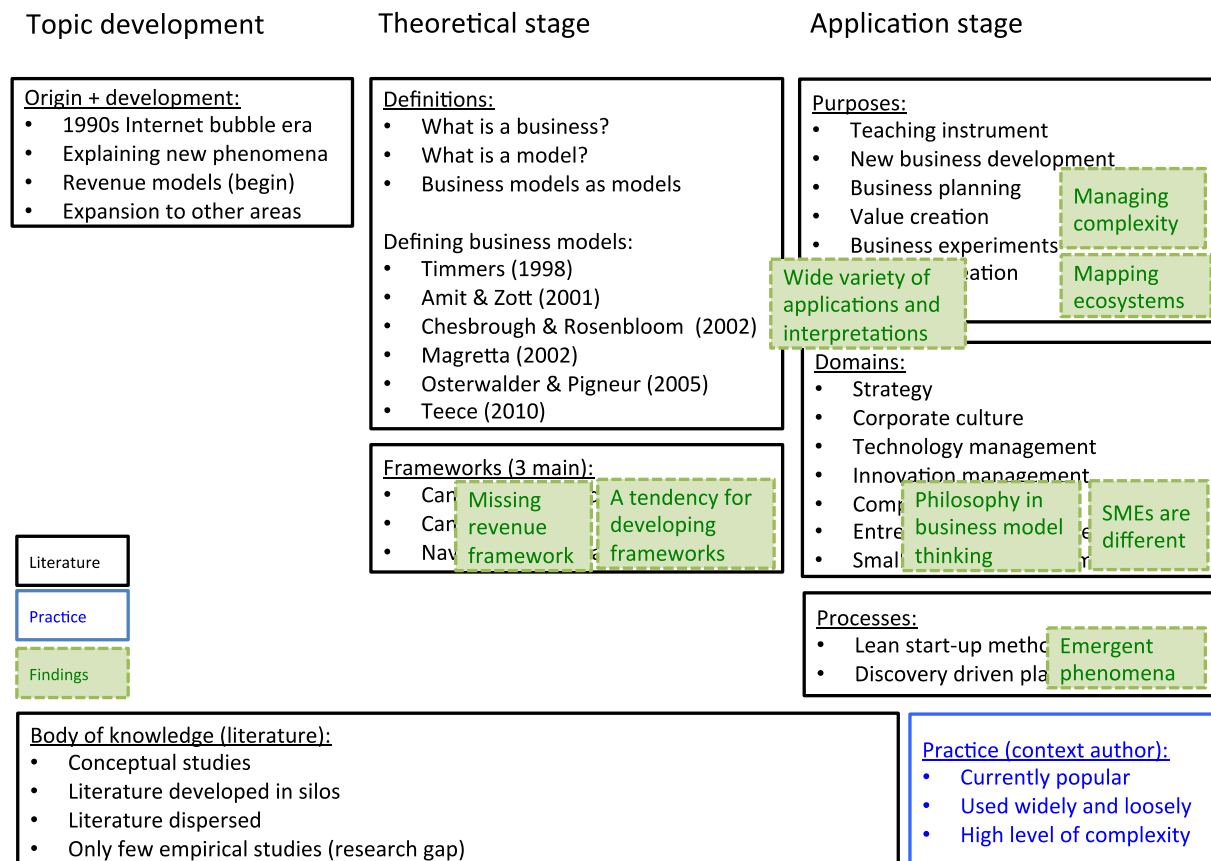


Figure 27: Key findings mapped in the conceptual framework from literature. Author (2018).

In the following sub-sections, the key findings are discussed in the context of a possible final contribution to be made. However, the thesis aims at making two types of contributions:

1. Several 'sub contributions'. These are 'typical' contributions of an exploratory study aiming at breaking new ground by outlining new ideas that emerged in the data and that are elaborated and contextualised with the literature. These contributions reside more on the descriptive level – they are neither

conceptual nor generalizable in nature since the reader must interpret and transfer them into his own context. These 'sub contributions' represent the backbone of the thesis. One of them, the most robust, serves as basis for the final conceptual contribution so it will be conceptually further developed.

2. A final conceptual contribution that aims at generalising the most promising finding of the thesis in an integrative way. This final conceptual contribution sets the anchor of the thesis by positioning the research in a certain domain.

In the following sub sections, the several main findings, which have emerged in the data, are evaluated in terms of their suitability for a final conceptual contribution to be made.

5.11.1 A wide variety of applications and interpretations

This finding can best be located at the interface between the theoretical and the application stage. It not only includes understanding issues, but also deals with the use of the business model concept. This finding provides an empirically grounded set of applications the business model concept is used for.

A final contribution, i.e. in form of a business model classification framework, may enrich extant knowledge since people do not yet fully understand how to best apply the business model concept – it also encourages the business world to make more informed business model decisions and to more systematically take advantage of the concept. Such a contribution may consist of business model application categories to be further classified and analysed, represented in a conceptual framework. Since they are tightly linked with the research questions, the interview data offer rich insights that support the development such a conceptual contribution.

5.11.2 A tendency for developing adapted frameworks

As the data show, it is currently popular to develop new adapted frameworks – above all in the academic community. Since 'everyone' currently deals with adapted business models (creating new building blocks or re-arranging the logic of existing elements), a final contribution in this area must be questioned. Not at least because

the data show that practitioners are already overloaded with the various models we have at present.

5.11.3 The role of philosophy in business model thinking

This finding represents a new domain in which the business model concept may be explored and further researched. It is located on the application stage dealing with application processes. On the one hand, this finding may offer plenty of possibilities for an original final contribution. Philosophical considerations are a hot topic in the support professional community – and partly in the academic group. On the other hand, compared to other findings, i.e. a wide variety of applications and interpretations, this finding is less grounded in the data and leaves too much room open for an integrative contribution; one that aims at condensing rather than expanding ideas.

5.11.4 A missing intuitive framework for revenue stream generation

This finding is also located on the theoretical stage. The same reasoning can be applied as for the tendency of developing adapted frameworks – in short, a new or adapted business model framework representing the business model concept in another (slightly) different way is not necessary these days and therefore not considered an original contribution to be made.

5.11.5 Business model application as an emergent phenomenon

This finding is an issue that mainly emerged in the support professional community. It would allow for an original final contribution in the domain of managing business model application processes. It is the only finding dealing with application processes. However, such a contribution would be most tentative since it has a lot to do with soft factors and reflection. As a final conceptual contribution and as the anchor point of the present research, this theme is not enough grounded in the data, since it is not covered by all three communities. Nevertheless, it reflects the authors own experience in the field.

5.11.6 Managing real world complexity with business models

This finding represents a high-level theme of reflection, which was addressed by academics and support professionals. Although representing an interesting issue on the application stage, it is difficult to make a contribution in this domain – no matter which type of contribution (sub or conceptual contribution). The rationale is that the complexity concept, as discussed in the data, is an abstract idea that may include ‘everything’ so it finally has no clear and no focused meaning. Such as the term business model, the term complexity must be seen an elusive idea that first needs clarification.

5.11.7 The role of business models in ecosystems

The academic and the owner manager community mainly have brought about this finding. Mapping ecosystems is considered an application purpose located on the application stage. Although ecosystem considerations are of growing importance, they represent a ‘system’ outside the business – explaining what is exterior a firm and how firms are interlinked and react with their environment. However, the present research concentrates on the business model concept with the individual firm as unit of analysis. The ecosystem concept is considered an important issue to be connected with, as a concept at the periphery, but is excluded from further investigation because it is outside the scope, or the ‘system borders’, of the present research.

5.11.8 Owner-managed SMEs are different from start-ups and large firms.

All three communities support this finding so it is well grounded in the data. It represents an important insight, not only according to the author’s own experience and expertise in the field, but also based on member checking (a quality criteria of qualitative research), as conducted in July 2018. An academic (professor of innovation management) and a support professional (strategy and innovation coach) from the author’s network were contacted in order to discuss this issue. Both of which regard this finding as a new and highly relevant insight.

The present finding offers opportunities to make the business model concept more accessible for small firms. A contribution would be in the domain of business model application. It could consist of a conceptual framework that helps SMEs refining their business model-based activities by addressing their specific needs. This finding potentially represents a promising area for both types of contributions (final conceptual contribution and sub-level contribution). In a final integrative contribution, this finding could also be combined with the first finding (applied widely and loosely).

5.11.9 Conclusion

Sub contributions are possible to be made on several findings. For a final conceptual contribution the following findings are considered most promising (for a rationale see discussion above):

1. A wide variety of applications and interpretations.
2. Owner-managed SMEs are different from start-ups and large firms.

However, the most robust final conceptual contribution may be built upon the first finding, 'a wide variety of applications and interpretations'. This finding is tightly linked with the research questions and there is enough empirical evidence available. All three communities support this finding. The finding offers an excellent basis (literature, data, practical experience and expertise) for a relevant integrating conceptual contribution in the business model application domain. The business model concept still lack of understanding and experience in the way it is applied. A framework structuring and clarifying application ideas, providing methodological security, is need in the academic and in the practical world.

6. Conclusion

The conclusion chapter aims to revisit and answer the research questions and present the contributions to knowledge that have resulted from the research. Due to the complexity of the findings, those relating to each of the three communities are discussed one by one. The contributions to knowledge are outlined, using a structure as follows: (1) presenting the finding as basis of the contribution, (2) giving evidence from the empirical data, (3) the contribution is contextualised within the literature. A separate sub-section is devoted to condensed summaries of the contributions. Limitations of the research are discussed before an agenda for future research activities is proposed. Contributions to practice are then discussed before the chapter concludes with the author's personal reflection on his research journey.

6.1 Key findings in the context of the research questions

In the present section, the key findings are presented in the context of the research questions. Each research question is discussed in turn.

6.1.1 Addressing research question 1

RQ1: How is the business model concept perceived, conceptualised and applied within three Swiss communities consisting of local academics, business support professionals, and technology-based small business owner-managers?

6.1.1.1 *Academics*

Two main perspectives

Out of 10 interviewed academics, 10 different interpretations and 13 different applications have been revealed. Most academics build their understanding upon the existing business model literature. A considerable number of academics apply the concept for solving or re-framing complex problems. Another group uses it as a concept for resource- and revenue-based considerations such as rent-seeking strategies. Accordingly, on a high level of abstraction, their personal conceptualisations can be divided into two main categories:

1. A 'narrower sense' perspective, focusing on revenue mechanics. This perspective includes new revenue creation, and the diversification of existing income streams.
2. A 'wider sense' perspective, enhancing the business model concept with additional ideas such as value proposition development, using design thinking approaches.

Those academics arguing for wider sense thinking have often developed their own (adapted) framework. Those not having developed or adapted any frameworks (building their understanding upon existing frameworks) also see revenue thinking an important purpose of the business model concept. Among the interviewed academics there are some just focusing on revenue mechanics.

Complexity management as a central theme

Academics consider business models as systems made up of various elements acting together in non-linear, non-predictable ways. A long-lasting debate is whether complexity can be satisfactorily embraced using the business model concept, or whether business models should be used to reduce real-world complexity. Academics also refer to special complex problem types such as 'wicked problems'. Wicked problems must be solved each time from scratch – a concept that has been described by design science.

Business model application

Academics have discussed the implementation of new business models in three categories:

- (1) A trial and error (learning) process.
- (2) Start-ups as sources of new business models.
- (3) As an emergent phenomenon, based on existing resources and capabilities.

Academics argue that business models may be useful for start-ups. They consider it ideally suitable for creatively developing ideas, and as a communication tool. By contrast, they tend to see the existing business models of established firms as much more difficult to be changed or transformed. However, as a professor of

entrepreneurship argued, there is an increasing interest in start-up methodologies (such as business model thinking) to be applied within large firms, as part of business development programs. Furthermore, academics argue that business modelling would be especially important in highly dynamic markets – mostly in the context of large firms.

6.1.1.2 Business support professionals

Many diverse perspectives

Out of 13 interviewed support professionals, 12 different interpretations and 24 different applications have been revealed; accordingly, support professionals were found to have the most diverse perspectives and ideas. Although many ideas are informed by literature, support professionals proved to have various additional ideas complementing literature. Among other things (see the findings chapter), they apply the model for visualising the flow of resources, for sensitisation, for raising soft issues and philosophical questions, as thinking models, or for describing ownership structures (an idea not yet described in literature, which was also addressed by owner-managers). Support professionals mostly refer to the Osterwalder (2010) Canvas. However, they do not use the concept in their work with clients, i.e. businesses with whom they are working.

Soft issues and philosophical considerations using the business model concept

Business support professionals have a strong focus on soft issues and philosophical considerations when applying the business model concept, such as putting the human factor at the centre, arguing for the importance of ‘passion’ and being inspired by a business idea, for a deep customer understanding, and the importance of the subconscious as a means for dealing with contradictions. They argue that a new business only rarely follows a direct path but instead takes many detours. There are also mechanisms leading to loops as necessary learning cycles – and they are not a waste of time. Core business modelling is considered a process of reflection rather than cause and effect reasoning.

Including or reducing real-world complexity

Complexity themes have been widely discussed by support professionals, such as the debate whether real-world complexity can be included or must be reduced by applying models. They debate whether something big can actually be reduced to something small and then be scaled back (in a social system context), such as has successfully been done in the natural science and engineering domain. Furthermore, support professionals emphasize the importance of systems thinking, hence having the whole in mind, reflecting on the whole system, rather than just parts of it.

Using existing or developing adapted frameworks

In the business support professional community there are two groups. The first group has developed their own adapted models. They see a need for more refined tools for practitioners. A second group argues that additional models would not provide any added value, since practitioners are already overloaded with the models we already have, including frameworks such as the Osterwalder Canvas.

Distinguishing between revenue thinking and more 'advanced' ideas

In terms of core business modelling, two lines of reasoning could be uncovered:

- (1) Those advocating revenue thinking as the main business model purpose. The argument here is that business modelling finally is nothing else than thinking revenue compositions through thoroughly and creatively. In short, it reflects the way a business makes money.
- (2) Those who question a sole focus on revenue thinking, arguing that business models should not be exclusively about monetary aspects but much more about the many 'philosophical' questions that surround any business. They argue that earning money is by far not the only purpose of a business. They consider creating value above monetary aspects an important aim of business modelling. They consider that developing a passion for problem-solving is one of the main drivers of business model thinking.

Business model application in practice

Support professionals question whether business models can be consciously planned. They interpret business model application as an emergent phenomenon rather than the product of conscious planning. Accordingly, a common argument in the support professional community is that they apply the concept to map out business ideas in order to quickly understand what is going on in a given context. They use the concept (mostly the Canvas) as a thinking model by mapping a given situation in their mind, which allows for understanding and thinking through business realities quickly. The business model concept is also considered useful for sensitisation, to show business practitioners that there are new ideas that might be useful for them. However, most support professionals avoid using any frameworks in direct contact with clients (see 6.2.4). Nonetheless, a few support professionals in the sample, particularly those working with large firms, consider the concept useful as a communication tool.

6.1.1.3 Small business owner-managers

Different interpretations

Among the 12 small business owner-managers interviewed, 12 different interpretations of the business model concept and 14 different applications were revealed. Start-up founders and large firm managers tend to be well informed by literature, while the SME owner-managers in the sample were relatively uninformed. Among other applications, SME owner-managers apply the concept for better understanding the point of sales, for 'blurring' prices or just to say "...*this is not our business model*" (M11S2). Their association with the term 'business model' also encompasses ownership structures and succession plans (an idea also discussed by support professionals).

Distinguishing between start-ups, SMEs and larger firms

As was revealed by the interviews, three main groups of businesses must be differentiated in terms of familiarity with, and application of, the business model concept:

- (1) Start-ups, understanding and using the concept (mostly the Canvas).
- (2) Established SMEs, mostly not understanding nor applying the concept.
- (3) Large firms, understanding and working with the concept (mostly the Canvas).

Start-ups typically encountered the business model concept at an early stage, often during start-up training or within an incubator. In contrast, owner-managers of established small businesses had much more limited exposure to the concept. As was emphasised by the business support professionals and demonstrated by the pilot study, employed managers in larger firms tended to have a strong familiarity with the concept, typically gained through education, training and prior employment.

Importance of revenue thinking

The small firm owner-managers who were less familiar with the business model concept tended to relate revenue thinking with the term 'business model'. Accordingly, most of the interviewed owner-managers could easily outline the very specific revenue logic of their business.

Ecosystems thinking

When confronted with the business model concept, some owner-managers related it to ecosystems thinking. They focused, in very hands-on ways, on specialisation in customer networks, working with external institutions as source of inspiration and solution developments, and the increasing importance of government policy.

6.1.2 Addressing research question 2

RQ2: What are shortcomings and limitations of the business model concept, as perceived by the three communities?

6.1.2.1 Academics

Neglecting dynamic perspectives

The business model concept is often considered inappropriate for dynamic environments. Accordingly, several academics saw difficulties with representing and visualising the flow of money and resources with static frameworks such as the

Canvas. As a consequence, they considered it useful to combine transaction models with static frameworks.

Side note: The idea of transaction models was also addressed by some support professionals and start-up founders. This shows the link between the communities as many start-up founders have been trained by academics as part of their business school education, and later by support professionals on their entrepreneurial journey.

Inappropriate building block design

Some academics, such as two professors of entrepreneurship, saw missing building blocks, or an inappropriate arrangement of these blocks, as the main flaw of most existing frameworks. For instance, they argued that the team should represent the core of a business model framework. However, one academic argued that value propositions couldn't be separated from customer segments, as they are conceptually interrelated (this separation was considered one of the major flaws of the Canvas and some other popular frameworks). A further argument, provided by a professor of design thinking, is that most existing models contain too many building blocks (such as the Canvas), so they are not easily understandable.

Application technologically out-dated

Two professors argued that existing business model frameworks were mainly used on paper, using pens and sticky notes. In their view, this was technologically out-dated in comparison with the potential of modern software applications.

Side note: By contrast, in the support professional and the owner-manager (start-up) world there are arguments that the Canvas is only a sensible tool when used analogously, on paper, with sticky notes. Their view was that people need to interact with each other in front of the Canvas, sharing ideas; this was seen the most valuable effect of application of the Canvas.

Not including real-world complexity

There is a controversial debate as to whether business models include real-world complexity. Some argue that real-world complexity cannot be mapped using any type

of model – reality is always much more complex than what a model could ever include. Thus, the concept's usefulness is called into question.

6.1.2.2 Business support professionals

Ignoring the emergent nature of business models

In the support professional community there is a debate regarding the time factor in business modelling. Some argue that creating a new business model is an emergent process, or phenomenon, that must not be rushed, but in which ideas must be sent to the subconscious to mature, a process that requires time in the form of learning cycles. In their view, this aspect is neglected by existing frameworks, often giving the impression that new businesses are just the product of linear planning by sketching ideas out on a framework. Additionally, business modelling is considered a consequence of a deep customer understanding, which cannot be gained through using business model frameworks – nor was investigating pains and gains, as proposed by Osterwalder (2013), considered an appropriate approach.

Successful business models are just explained 'ex-post'

A further point of critique by several support professionals is that business models cannot be planned using frameworks; by contrast, frameworks are almost always used ex-post to explain the logic of a successful business, the founders of which would only rarely have heard something about such concepts. Moreover, only few examples would be known (also in literature) where a business was successfully set up based on conscious planning using models and frameworks. Instead, it is much more usefully considered an emergent process.

An inappropriate tool for managing complexity

Some support professionals argue that through using a business model framework (such as the Canvas), the whole picture becomes apparent and allows for dealing with complexity, through 'having everything at a glance'. However, others argue that reality can never be adequately mapped using models. Accordingly, there is a debate as to whether business models are useful or harmful for dealing with complexity. One philosophically-inclined respondent questioned whether, in social contexts,

something large can be reduced to something small and then scaled back again. Thus, the applicability of an approach successfully applied in the engineering domain (using models and plans) to the business context is questionable.

Only rarely applied in practice

An experienced (start-up) consultant said that he worked with the Canvas, but just as a thinking model, as a means to quickly analyse a business, to quickly get an overview in his mind, but never in direct contact with client firms. Another innovation consultant argued that only novice consultants use models or frameworks in their work with clients – and then are surprised that customers do not follow their suggestions. The rationale is that working with models in direct contact with client firms may demonstrate incompetence of the consultant.

Furthermore, a governmental innovation coach, having worked with hundreds of SMEs in all sectors, claimed to have never seen any SMEs actively applying the business model concept in practice because such concepts would simply be too complicated, and that business practitioners would simply not have the time to deal with them.

Ecosystems thinking

Ecosystems are considered important in the world of support professionals by showing the flow of resources, by taking an integrated view of whole systems, and finally, as one respondent stated, by “*giving something back as a declaration of love to the world and the people living in it*” (S11E1). However, the business model concept is often argued to be a stand-alone concept, inadequately integrated within broader ecosystems (i.e. only few interfaces are defined).

6.1.2.3 Small business owner-managers

Missing dynamic perspectives

Start-up owner-managers often use the Canvas, or other representational frameworks, in combination. They often distinguish between static and dynamic perspectives. For dynamic considerations, one of the interviewed start-up

entrepreneurs considers most existing models, or frameworks (such as the Canvas), not appropriate so he uses transaction models (showing the flow of resources using arrows) in combination with the Canvas.

Neglecting revenue thinking

SME owner-managers (except start-ups) often gravitated to revenue perspectives. For those having a strong revenue focus, existing models may offer only limited entry points. As a consequence, they consider business models ‘theoretical stuff’ or only useful for start-ups.

6.1.3 Addressing research question 3

RQ3: How has the business model concept been adapted or further developed by the three communities – based on their perceived limitations and shortcomings?

6.1.3.1 *Academics*

Frameworks compensating for the shortcomings of the Canvas

Some academics have adapted and further developed existing frameworks. Some proponents of ‘wider sense’ business model thinking have created their own frameworks, often due to perceived shortcomings of the Canvas (all respondents referred to the Canvas as a framework of reference). For instance, they have created models containing additional building blocks, such as the team standing at the centre, or have re-arranged the building blocks in their own adapted frameworks, which would allow for better reflecting their individual needs, depending on their specific domain of research.

Models with a reduced number of building blocks

One professor felt that most frameworks, such as the Canvas, contain too many components (building blocks), so he has developed a reduced model to be easily grasped and understood, based on his experience with business students at university. His model has a strong focus on design thinking and on value proposition creation with just four basic building blocks. The argument here is that a business

model journey should start by concentrating on the customer problem to be solved, rather than all the other elements at once (as in many popular frameworks).

Online tools taking advantage of current Internet technologies

Two professors of entrepreneurship have developed online tools assisting business founders with mobile solutions, arguing that just using a framework on a piece of paper would technologically be by far out-dated and no viable online solutions would exist yet. A currently popular tool co-developed by Osterwalder (strategyzer.com) was held to ignore important opportunities offered by online resources, such as linking with funding platforms.

Using the Canvas as basis for adaptations

A further group of academics used existing models as basis for their own developments and adaptations, such as a professor for sustainability management, who created an 'impact business model' based on impact theory, arguing that building upon a commonly accepted, widely known framework, would be most fruitful. Accordingly, the Canvas has been identified as the most commonly accepted business model representation and visualization tool.

'Narrower sense' group making no developments or adaptations

A further group of academics, such as a professor of marketing and a professor of global business, put revenue considerations at the centre of business model thinking. Most proponents of this sub-group, advocating for 'narrower sense' thinking, have not adapted nor further developed any models or frameworks. They tend to use different representational models, such as market structure models, each time developed from scratch, depending on the specifics of the situation at hand.

6.1.3.2 Business support professionals

Adding or adapting building blocks

A few support professionals, above all those with an academic background, have developed or adapted their own frameworks, using the same arguments as the academic community; adding additional building blocks (such as the team) or re-

arranging building blocks (relative to the Canvas) in different ways to better meet their specific needs. There is one respondent who develops plugins for the Canvas – one who works with large firms and start-ups (but with only limited experience with SMEs). What is more, some support professionals combine static models, such as the Canvas, with dynamic models, such as the transaction model, in order to add dynamic behaviour – an idea that has also been identified by start-up owners and academics. This again shows the link between the communities as academics and support professionals deliver training to start-up founders.

Denying the need for the development of adapted models

There are also several support professionals who deliberately refuse the development of additional frameworks arguing that people in practice are already overloaded with the various existing models. Some support professionals, one of whom is an experienced marketing consultant, prefer alternative ways for the visualization of business situations by applying market structure models, the model being created from scratch each time.

6.1.3.3 Small business owner-managers

Neither SME owner-managers nor start-up founders had adapted or further developed any models.

6.2 Summary of the contributions

6.2.1 Contribution 1

The business model concept is perceived and applied in many different ways in Switzerland.

Although Switzerland might be considered the homeland of the business model concept, the research contributes to knowledge by showing that the concept is understood, perceived and applied in many different ways, both in academia and in practice. This has been demonstrated for three Swiss communities of academics, business support professionals, and small-business owner-managers, representing a coherent 'chain' between academia and practice.

6.2.2 Contribution 2

The business model concept is perceived and applied differently across the three communities of academics, support professionals, and owner-managers.

The research contributes to knowledge by revealing that the three communities are very different in regard their business model understanding, perception and application. While academics tend to reflect ideas described in the literature, support professionals tend to add new ideas and perspectives based on their own observations and reflections in practice, complementing existing literature. Owner managers only rarely apply the business model concept in practice, nor are they widely informed by theoretical ideas from literature.

6.2.3 Contribution 3

Revenue mechanics, although considered 'old school' business modelling, still play an important role today.

Two main perspectives, 'narrower' and 'wider' business model thinking (as described by a professor of entrepreneurship), could be identified on a high level of abstraction. 'Narrower' means focusing on revenue mechanics and rent-seeking strategies; 'wider' includes additional concepts such as value proposition design or design thinking. Although revenue aspects are often regarded as early day business model thinking, the research not only shows the idea still to be 'alive' but also to still be highly relevant these days.

6.2.4 Contribution 4

Owner-managed SMEs are different from start-ups and large firms regarding their business model needs. They represent a category of business that is not yet addressed.

Thus, owner-managed SMEs must be treated separately in the business model debate. While start-ups and large firms widely use the concept in practice (as found in the literature and in the empirical data), the research indicates that most Swiss

technology-based SMEs neither know of nor use the concept. This finding enriches and enhances the Christensen (2016) business model journey, with more in-depth Swiss market data showing that SMEs are in the sustaining innovation and efficiency phase rather than in the creation process (creation equals to start-up thinking in this context).

6.2.5 Contribution 5

The need for a missing framework for the creation of new revenue streams and the optimisation of existing ones has been identified.

The research has revealed that most technology-based owner-managed SMEs consider revenue thinking highly relevant, although revenue models are often argued to be 'old school' business modelling. As a contribution, the research has identified the need for a still missing visual, intuitive framework for discussing, elaborating and creating revenue mechanics. This should be an easily understandable framework comparable to the Canvas, maybe as a plug-in for the Canvas, assisting business practitioners in their revenue creation and diversification activities.

6.2.6 Contribution 6

Business model development is an emergent phenomenon, a complex process of learning and maturation, rather than the product of conscious planning.

The present research contributes to knowledge by proposing a set of factors finally influencing the time it takes to successfully establish a working new business model. These factors encompass passion and inspiration, learning and understanding whole systems rather than just parts in it, accepting the need for emergence and maturation – a process that may take considerable time. This finding complements existing literature in the entrepreneurship or start-up domain by emphasizing the role of time in knowledge building processes (in the business model context). This contribution contradicts the widespread existing belief that new businesses may be built by simply filling out one of the several existing business model frameworks, where time factors play a minor role.

6.2.7 Contribution 7

An application framework consisting of 4 dimensions is introduced. These dimensions differentiate between 2 main business model sub-units (value proposition and business logic/architecture) and between 2 main application purposes (creation and analysis/refinement).

Contribution 7 is different from the other contributions (1 to 6) through its conceptual nature. It provides a more generalizable contribution to knowledge, offering a 4-dimensional framework incorporating various aspects to be considered when dealing with the application of the business model concept. Such aspects are business aims, tools (concepts and frameworks) to apply, processes to follow, or different levels of complexity to consider. The framework assists academics and practitioners in making more informed business model application decisions.

6.2.8 Summary of the contributions

Contributions 1 to 6 have in common that they are in line with the exploratory nature of the study, in adapting the paradigm of social constructionism. They break new ground by revealing ideas and problems not yet addressed or neglected by extant literature. They facilitate understanding in the domain and offer a basis for in-depth reflection, i.e. as basis for future investigations.

However, adapting a critical perspective, i.e. considering the research from a realist's stance, the argument may be that these conclusions are all interesting and break new ground, but there can be made more out of it. There are plenty of data and reflections that could be used for 'creating' something integrative – something original on a conceptual level. Accordingly, these contributions may serve as basis for further conceptualisations, theory building, or maybe model development showing causal relationships. They offer a starting point rather than a final product.

Accordingly, contribution 7 builds upon business model perception and application (contributions 1 and 2) unifying different dimensions of the problem and transfers the findings onto a conceptual level that allows for more generalizable implications. As such, it provides a concluding anchor point for the thesis.

6.3 Contributions to knowledge in detail

The contributions to knowledge are discussed following a structure of three parts. First, the main finding is presented. Second, evidence from the empirical data is outlined, and third, the contribution is presented by contextualising the finding with relevant literature.

6.3.1 Different perceptions and ways of application

6.3.1.1 *Finding*

Although business model ideas first emerged more than 20 years ago, and although Switzerland is in some way considered the homeland of the concept because local academics and authors such as Stähler, Osterwalder, Pigneur, Tucci, Frankenberger or Gassmann have shaped the concept's evolution, the business model idea is still perceived and applied in many different ways, distributed across a wide spectrum of various disciplines.

6.3.1.2 *Evidence from the empirical data*

Various different interpretations and applications have been revealed in the three communities:

- Academics: 10 interviews, 10 different interpretations, and 13 different applications.
- Support professionals: 13 interviews, 12 different interpretations, and 24 different applications.
- Small business owner-managers: 12 interviews, 12 different interpretations, and 14 different applications.

6.3.1.3 *Contribution*

Since the early stage of the business model debate, the term has been acknowledged to have many meanings, as exemplified by Magretta (2002, p. 6): *“Today, ‘business model’ and ‘strategy’ are among the most sloppily used terms in business; they are often stretched to mean everything – and end up meaning nothing”*. Some years further on, after the concept has been further developed, not

only the term 'business model' but also the concept of business model innovation is still perceived as difficult. Not only do firms understand the term business model inconsistently but also (as a consequence) many are incapable of understanding their current business model, so they do not recognise when changes would be necessary, nor how to perform these changes (Johnson et al., 2008).

An argument advocating a dispersed business model landscape is the following statement: *"The literature is developing in silos, according to the phenomena of interest of the respective researcher"* (Zott et al., 2011, p. 1019). The term is argued to be a relatively recent arrival in the management literature, and often generic, carrying an intermediate level of detail, compared with other areas such as economic theories of a firm. Accordingly, business models are considered always subjective since different perceptions exist of what a firm does (Page, 2014). What is more, due to the absence of a common definition of the business model concept, the meaning is evolving through research and practical applications (Lambert, 2015). Not only there is no common understanding in the academic world, but also practitioners are often overwhelmed by the task of developing – or, more fundamentally, of understanding – their business model; the topic is hyped in the popular press and there is a lack of proven knowledge in practice (Frankenberger et al., 2013).

Authors such as Magretta (2002), Johnson (2008) or Zott (2011) commented on a dispersed perception, understanding and application of the business model concept, but with no comments on systematic empirical research. Accordingly, the present study contributes to knowledge by providing current empirical evidence supporting the idea of a heterogeneous business model perception, understanding and application. It not only confirms – specifically for the Swiss German context – what the literature discusses in general, but also makes a contribution by outlining that a wide array of interpretations, perceptions and meanings exists in the three groups of academics, support professionals, and small business owner-managers. Particularly in Switzerland, a common understanding was anticipated, since Switzerland is considered the homeland of the business model concept – an assumption that has been undermined.

6.3.2 Different interpretations and applications across the communities

6.3.2.1 *Finding*

The three investigated communities, of academics, business support professionals, and technology-based SME owner managers, were found to have different perceptions, interpretations, and ways of application of the business model concept.

6.3.2.2 *Evidence from the empirical data*

Some academics apply the concept for solving or re-framing complex problems, including the creation of new or re-framing of existing value propositions using methods such as design thinking. Others use the concept for resource-based considerations including rent-seeking strategies.

It is in the support professional community that the most diverse ideas regarding the concept's application have emerged. For instance, support professionals apply the business model concept for visualizing the flow of resources, for sensitisation purposes, as a means to reflecting soft issues and philosophical considerations, or as a thinking model. However, most of them do not use the concept in their work with customers. What is more, they claim to have only rarely seen SME managers actively working with the business model concept. Additionally, their interpretation encompasses several issues that are not yet addressed, such as ownership structures, or the debate as to whether something big can really be reduced to something small in a social system context.

Owner-managers only rarely use the business model concept. Those who do, apply the concept for better understanding the point of sales, for 'blurring' prices or just to say "...*this is not our business model*" (M11S2). Their association with the term 'business model' further encompasses ownership structures and succession plans – an idea already outlined by support professionals. The rationale is that business model development is based on personal interests of the owner. What is more, some owner-managers have spontaneously linked the term 'business model' with revenue thinking. By contrast, start-ups are different. They associate the concept with value creation and value proposition design, as taught at business schools and start-up courses.

6.3.2.3 Contribution

Traditional perspectives of business model application consider the concept to be a useful tool for investigating opportunities in the market, and for exploiting new technologies (Pateli, 2003). Business model thinking is especially important in environments where ‘the rules of the game’ change quickly (Voelpel et al., 2004), namely in the domain of disruptive innovations (Christensen, 2002). Due to its historical roots, the revenue model has often interchangeably been used with the term ‘business model’ (DaSilva & Trkman, 2014; Faber et al., 2003; Johnson et al., 2008; Morris et al., 2005; Petrovic et al., 2001).

Current ideas of application see the business model concept to be inseparable from value creation and a firm’s value proposition since a viable business model is always customer value proposition centred (Christensen, 2004; Johnson et al., 2008; Osterwalder et al., 2015). What is more, business modelling is considered the managerial equivalent to scientific experiments: stating a business hypothesis, testing, and adapting it if necessary (Magretta, 2002). This view has mainly gained a foothold in the start-up world where founders are encouraged to map their assumptions (also called ‘business hypotheses’) on the Osterwalder (2010) Canvas and verify them through customer feedback (Blank & Dorf, 2012). As a conceptual tool, a business model serves as blueprint showing how a business functions (Günzel & Holm, 2013). In the start-up and entrepreneurship domain, business model thinking can lead to more informed decisions in the context and management of new ventures (Trimi & Berbegal-Mirabent, 2012). Successful business model templates are often used as examples in the popular press to showcase successful entrepreneurial stories (Doganova & Eyquem-Renault, 2009).

As an application in educational settings, the business model concept, most often represented by the Osterwalder (2010) Canvas, has found its way into classrooms as an accepted method for business education (Kaufmann, 2016). The Osterwalder (2010) business model Canvas is integrated in curricula as a tool for illustrating (fictional) business model ideas. Furthermore, the Canvas serves as a tool to present business ideas in front of the class and helps in evaluating feedback from peer students (Jaroschinsky & Rozsa, 2015).

The contribution to knowledge here is that the three communities of academics, support professionals, and owner-managers are different from each other regarding their business model understanding, perception and application. The literature mainly comments on business model application in general. It does not distinguish between different groups of social actors (communities), but distinguishes between different types of firms, above all start-ups and large firms. It furthermore addresses various areas of application, such as market exploitation, value creation, revenue generation, or as a tool for educational purposes. The present research adds to the literature by offering three different perspectives from three different communities. The research reveals that academics tend to reflect the ideas provided by literature, mainly focusing on value proposition design or revenue logic, while support professionals tend to offer new insights – based on their own observations and reflections from practice. In the owner-manager community, there is little understanding of the business model concept as we find it described in literature.

Building on the contributions above, the following two sub-sections are devoted to in-depth ideas of the three communities. The sub-sections are structured as follows:

- A map of findings is drawn (6.3.2.4).
- Each community's understanding of the business model concept is outlined in terms of how they understand it, use it and value it (6.3.2.5).

6.3.2.4 A map of key findings concerning business model application

A set of key findings concerning differences in understanding, application and evaluation of the business model concept across the three investigated communities of academics, support professionals, and owner-managers were derived from the empirical data (for the details of analysis refer to section 5). The analysed data were condensed and further examined. The result is a map containing several phenomena as depicted in Figure 28. The map shows different colours for the three communities. Similar findings across different communities are identified by overlapping circles, which form the clusters or 'groups' that are discussed below.

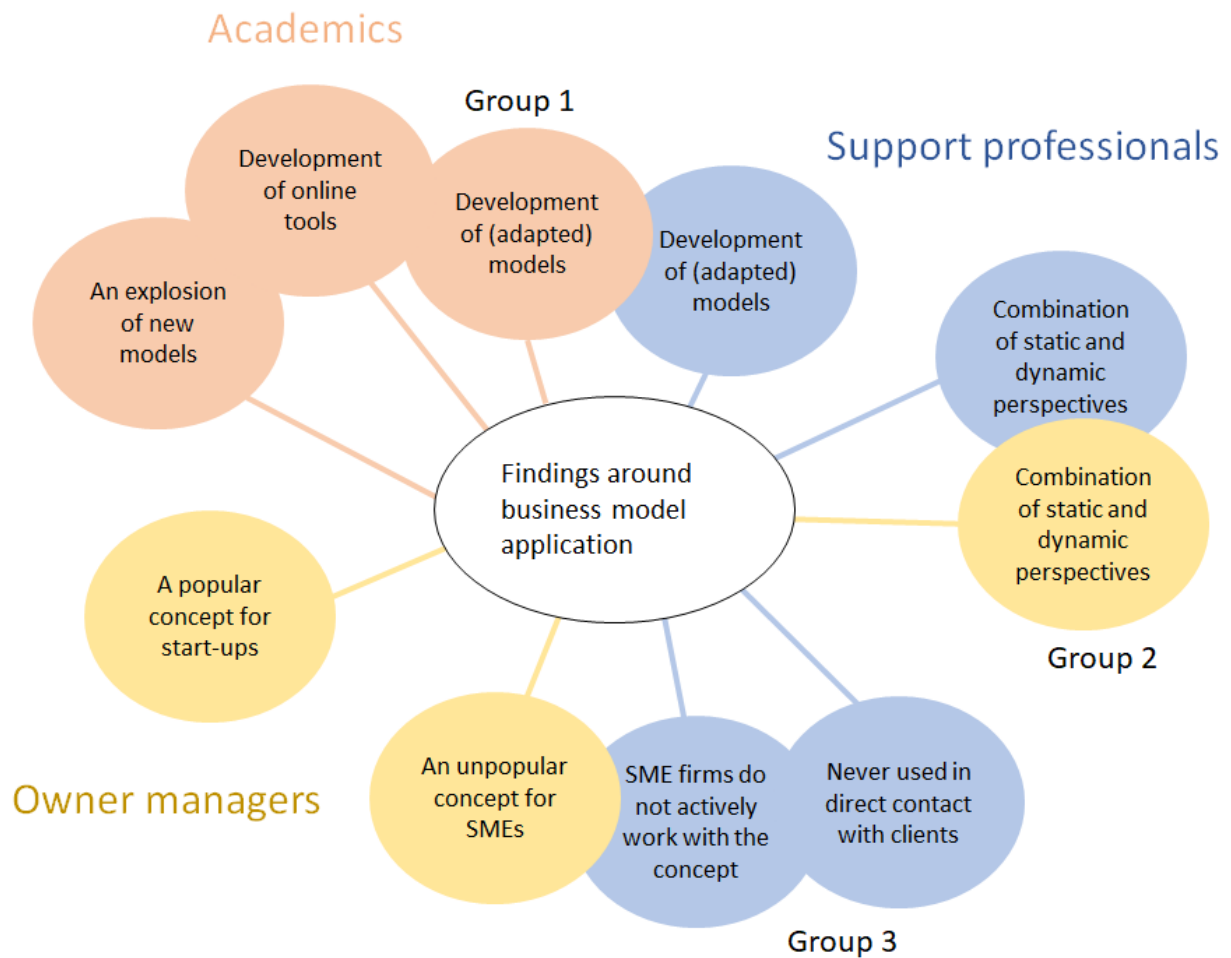


Figure 28: Findings around business model application. Source: Author (2018).

Some of the findings can be classified into groups, not only within the communities, but also across them:

- Group 1: Findings dealing with the development of new or adapted frameworks. These findings are in the academic and the support professional community. They also manifest in the development of online tools finally leading to an explosion of new models.
- Group 2: The finding is that support professionals and start-up founders combine static frameworks (such as the Canvas) with dynamic perspectives, such as overlapping business model frameworks with transaction models.
- Group 3: The finding is that SME owner managers do not use the business model concept in their work. First, this finding is supported by the investigated owner-managers who do not use it in their work. Second, support

professionals do not use business models in direct contact with their client firms. Third, most of the investigated support professionals have never seen SME firms working with the business model concept.

There is an additional 'isolated' finding as follows:

- The business model concept is currently very popular in the Swiss start-up context.

To conclude, the various phenomena reside on the application level of the business model concept. Accordingly, observations for which we still have no answers mostly reside on the application rather than the definition part of the business model idea. This supports the finding from the literature review showing a plethora of conceptual studies mainly dealing with definitions and frameworks. By contrast, there are only few empirical studies that focus on application issues.

6.3.2.5 Understanding, application and evaluation of the business model concept

The phenomena that emerged in the data are tightly linked with the following dimensions directly derived from the research questions:

- Understanding.
- Usage (application).
- Evaluation.

Figure 29 serves as a framework to present each community's understanding of the business model concept in terms of how they understand it, use it and evaluate it. This framework allows for discussing the communities in the context of the above dimensions. It provides a clear idea of how the business model concept is understood and used in Switzerland. Such a comparison among the three communities (i.e. those using the business model concept) has not been made in previous research and thus makes an original contribution to knowledge.

Understanding, application, and valuation map

	Academics	Support professionals	Owner managers
Phenomena	Development of (adapted) models. Development of online tools. An explosion of new models. Only limited practical experience.	Never used in direct contact with clients. SME firms do not actively work with the concept. Development of (adapted) models. Combination of static and dynamic perspectives.	<u>Start-ups:</u> A popular concept for start-ups. Combination of static and dynamic perspectives. <u>SMEs:</u> An unpopular concept.
Understanding	Mainly informed by the literature. Mainly refer to the Canvas. Both, value proposition and business logic/architecture centred ideas are popular.	Informed by the literature and own reflection in practice. Mainly refer to the Canvas. Both, value proposition and business logic/architecture centred ideas are popular.	<u>Start-ups:</u> Informed by the literature and practice. Mainly refer to the Canvas. <u>SMEs:</u> Mostly not informed. Often associated with revenue logic.
Use and application	As basis for their own adapted models. As a means for coaching start-ups. A means for reflection, for dealing with complexity. Communication of ideas.	Quickly understanding contexts. Using the Canvas in combination with transaction models in order to deal with dynamic environments. A means for reflection, for dealing with complexity. Analyse businesses. Communication of ideas. Never applied in direct contact with clients.	<u>Start-ups:</u> Development of new ideas. Sketch out of new ideas. Communication of ideas. In start-up events/weekends. Using the Canvas in combination with transaction models in order to deal with dynamic environments.
Evaluation	Open question: Including or reducing real-world complexity? Business models ignore dynamic perspectives. Application is a trial and error process. Useful for start-ups. Less useful for established firms. Useful for highly dynamic markets. A missing link to ecosystems thinking. Complex and 'wicked problems' (from design science). Application is an emergent phenomenon. Missing dynamic perspectives. Inappropriate building block design.	Open question: Including or reducing real-world complexity? Reducing to something small and then scale back - is that possible? Ideas such as passion, inspiration, dealing with contradictions are not included. Missing dynamic perspectives. Cannot be used to plan businesses. Practitioners are overloaded with many adapted models. An emergent phenomenon. Business models can only be explained ex-post.	<u>Start-ups:</u> Help- and useful for planning purposes. A missing dynamic perspective. A missing link to ecosystems thinking. <u>SMEs:</u> Theoretical stuff. Just useful for start-ups. Include ideas such as succession plans or ownership structures.

Figure 29: Understanding, application, valuation matrix. Source Author (2018).

In the following paragraphs the main points of the framework are briefly summarised and discussed community by community. The most significant aspects are finally compared between the communities.

Academics

Academics tend to develop new or adapted models; a tendency that has finally led to an explosion of concepts. Academics are well informed by the literature, mostly referring to the Osterwalder (2010) Canvas. They most often use existing models as basis of their own developments. They apply the business model concept to coach start-ups or to communicate ideas. Furthermore, they use the concept as a means to deal with complexity. Academics are among those criticising the concept in various dimensions (some examples as follows): it does not include real-world complexity, does not cover dynamic perspectives, is less useful for SMEs than for start-ups, and may have an inappropriate building block design, an argument often used to justify their own developments.

Support professionals

Some support professionals also tend to develop their own models (mainly those with an academic background). However, most of them do not use the concept in direct contact with their clients nor do they know any SME firms actively using it. Such as the academics, they are mostly informed by the literature but have built their own knowledge through application in practice and through reflection – this is a key characteristic of support professionals. They often use the concept to quickly understand business ‘situations’, and for reflecting complex situations. However, some of them also use the Canvas in combination with transaction models – to get a dynamic perspective. Support professionals are sceptical towards the idea of reducing reality by using models. By contrast, they emphasize the need for passion, inspiration and lifeblood. They argue that business models are not the result of conscious planning but of an emergent maturation process. Hence, business model creation is considered a phenomenon that only can be explained ex-post. They use the model for analysis, or as thinking model, but not in direct contact with their clients.

Owner-managers

The business model concept is useful for start-ups but only rarely used in established SME firms. On the one hand, start-up owners are informed by the literature and they most often refer to the Canvas. On the other hand, SME owner-managers are not informed about the concept as described in literature, but often refer to business logic/architecture when reflecting on the term 'business model'. Start-up founders use the concept for ideation processes, to develop business ideas, or for communication issues. They also combine static models with dynamic perspectives, by overlapping the Canvas with the transaction model. Start-up founders consider the business model concept to be a useful tool. However, it lacks dynamic and ecosystem perspectives. SME owner-managers often consider the business model concept 'theoretical stuff', or just useful for start-ups. However, some of them associate it with ownership structures and succession plans; ideas not yet included in the extant literature of business models. Start-up founders are those using the concept exactly as it is described in the literature – to develop and implement new business ideas.

Comparing the communities

Both academics and support professionals tend to adapt or develop their own models. However, only support professionals made the point that models should not be used in direct contact with customers – an insight that emerged from actively working with client firms. Support professionals and start-up founders commented on the idea of unifying static and dynamic perspectives in a similar way – as learned from using the concept in practice. All three communities agreed that the business model concept might not be used, or be useful, for SME owner-managers.

Academics mainly refer to the literature and to the Osterwalder (2010) Canvas. Support professionals are different since they additionally reflect a lot on their own consulting practice and expertise. Through this experience and reflection, they have generated their own idiosyncratic knowledge, which often contrasts with ideas from the literature. Differently from start-up founders, academics and support professionals more frequently question various characteristics of the business model concept. As such, they both commented on the complex real-world behaviour and whether models may include this complexity. Support professionals go a step further to pose

philosophical and soft issue questions and put passion and inspiration at the centre of business modelling. Start-up founders consider the concept a worthwhile planning tool as is, while SME owner-managers regard it as 'theoretical stuff'.

6.3.3 Two perspectives: 'narrower sense' and 'wider sense' thinking

6.3.3.1 *Finding*

On a conceptual level, two dominant perspectives of the business model concept have been revealed – two perspectives that tended to emerge in the academic and the support-professional community:

1. A 'narrower sense' perspective, focusing on revenue mechanics. This perspective includes new revenue creation, and the diversification of existing income streams.
2. A 'wider sense' perspective, enhancing the concept with additional ideas and frameworks, such as value proposition development using design thinking approaches, etc. Wider sense business modelling has also been labelled as advanced business model thinking.

6.3.3.2 *Evidence from the empirical data*

The understanding of the concept within the academic community can be divided into two categories (the term 'narrower' and 'wider' were used by a professor of entrepreneurship):

1. 'Narrower sense' thinking, focusing on revenue mechanics.
2. 'Wider sense' thinking, including additional elements such as design thinking or value proposition design.

Those academics having developed their own (adapted) frameworks tend to advocate a wider sense perspective. Among those not having developed (or adapted) a framework, there are academics who see revenue thinking as the main/only purpose of business model application.

As in the academic community, there are also two main perspectives in the support professional community. There are those advocating wider sense thinking (although

labelled differently, such as advanced thinking). This group also supported the development of new frameworks and the refinement of existing ones. By contrast, there was also a sub-group of support professionals who argued that revenue thinking is the real business model application.

SME owner-managers have not made such a clear distinction between wider and narrower senses. However, some owner-managers tightly link the term 'business model' with revenue thinking.

6.3.3.3 Contribution

The business model concept became a buzzword in the Internet bubble era in the 1990s (DaSilva & Trkman, 2014), and with the rise of e-businesses and the 'new economy' the concept of the business model has proliferated (Amit & Zott, 2001; Osterwalder, 2004). Ever since, the business model concept has raised attention from practitioners and academics in many fields, not only e-businesses, to describe the core logic of a firm (DaSilva & Trkman, 2014; Frankenberger et al., 2012). The business model has been used to describe the overarching logic of how firms work by illustrating the relationship of individual elements acting together (Demil & Lecocq, 2010; McGrath, 2010). The term business model is often used interchangeably with revenue model (Ballon, 2007; DaSilva & Trkman, 2014; Faber et al., 2003; Johnson et al., 2008), a reminder of its origins in the first US Internet-bubble era (Osterwalder, 2004). It is argued that the revenue model must be considered a sub-system model of the business model rather than a stand-alone concept (Amit & Zott, 2001; Kindström & Kowalkowski, 2014). It has become a component of most currently popular business model frameworks, such as the Canvas from Osterwalder (Osterwalder & Pigneur, 2010) or the Navigator form Gassmann (Gassmann et al., 2013). In the early days of the business model concept, the revenue model was considered core 'business logic' (Petrovic et al., 2001).

Today, the relevance of revenue thinking has changed. The business model concept has been expanded to various areas and applications, such as to be used as basis for a start-up evaluation methodology (Blank, 2013), or for developing value propositions using design thinking methods (Osterwalder et al., 2015). Furthermore, various frameworks have been developed for the technology management sector

(Chesbrough, 2007) or for thinking beyond the borders of a firm via an open business model approach (Chesbrough, 2006). Other frameworks have also taken aspects of managerial cognition into account (Tikkanen et al., 2005).

The concept of 'narrower sense' and 'wider sense' thinking reflects the concept's historical development from purely revenue-centred ideas in the 1990s, up to value proposition development today. The present research contributes to knowledge and adds to literature by showing, based on empirical Swiss data, that both perspectives are still present these days and have their relevance, both in academia and in practice. According to current literature, especially based on the famous works of Blank (2013) or Osterwalder (2010, 2015), one could assume that revenue perspectives would have been important in the early days of the business model idea, in the 1990s and around 2000, but then have lost their relevance. This assumption is undermined by the empirical findings of the present study.

6.3.4 SME owner-managers have different business model needs

6.3.4.1 *Finding*

On the one hand, the business model concept is a popular idea in the start-up domain and is widely used in large firms. On the other hand, Swiss SME owner-managers have given only limited attention to the concept thus far. Accordingly, SMEs are different regarding their business model needs and activities.

6.3.4.2 *Evidence from the empirical data*

The argument in the academic community is that business models are useful for start-ups. By contrast, they see existing business models of established firms much more difficult to be changed. Furthermore, academics argue that business modelling would be important in highly dynamic markets (in the context of large firms). Academics do not often work with SMEs.

Support professionals regard the business model concept useful for start-ups and large firms but do not recognise it as applicable for established SMEs. Some of them (one of whom who has already coached hundreds of small firms in his career) have

never seen any SMEs actively working with the concept (or indeed with any comparable framework).

The empirical data from the owner-manager sample have revealed three groups of businesses to be differentiated according to their understanding and use of the business model concept:

- 1) Start-ups, understanding and using the concept (mostly the Canvas).
- 2) Established SMEs, with a limited understanding of the concept. They only rarely apply business model frameworks in practice.
- 3) Large firms, understanding and working with the concept (mostly the Canvas).

6.3.4.3 Contribution

On the one hand, the business model idea has become popular in the start-up context (Osterwalder & Pigneur, 2010). However, start-ups are not just small versions of large firms but have their own purpose and spirit (Blank, 2013; Blank & Dorf, 2012; Ries, 2011). In the start-up and entrepreneurship domains, business model thinking can lead to more informed decisions (Trimi & Berbegal-Mirabent, 2012). Furthermore, in the start-up and new venture context the business model concept has become a quasi-standard and is currently part of many MBA curricula (Nobel, 2011). According to Blank (2013), the aim of a start-up is to develop product-market fit, hence to find a viable business model (search phase). Once having found a working business model, the organisation must be transformed from a developing organisation into a firm (they expect start-ups to be transformed in large firms through high growth rates), caring about scaling and efficiency (execution). Due to changing values and skills before and after the transition, managers may have to be exchanged at this point (i.e. 'start-up managers' need to be replaced by 'execution managers').

On the other hand, the concept is widely used in large firms, as demonstrated by plenty of literature in domains such as technology management (Johnson et al., 2008; Pateli, 2003) or innovation management (Chesbrough, 2007; Christensen, 2002). Christensen, Bartman, et al. (2016) distinguish 3 stages of a business model journey (Figure 30). In the first stage, the 'creation phase', it is all about developing a viable value proposition and the required resources (this is also often called the start-

up phase). In the second stage, called 'sustaining innovation', firms must develop their processes to scale up the model. In the third phase, the 'efficiency phase', firms develop their profit formula.

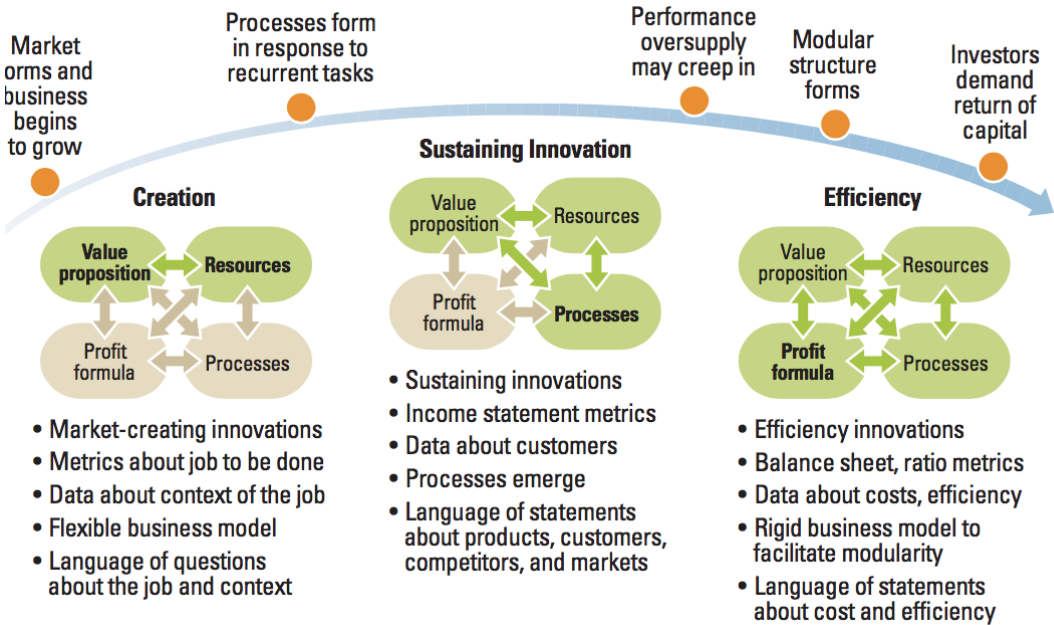


Figure 30: Three stages of a business model journey (Christensen, Bartman, et al., 2016).

As a contribution to knowledge, the research shows that three groups of firms must be distinguished regarding their business model needs, namely start-ups, SMEs, and large firms. Plenty of business model literature has been devoted to start-ups and large firms. Based on empirical data, the present research adds a third group to be considered in the debate: SMEs, which are different from the other groups. This is a contribution which builds upon existing literature, i.e. by adding to the Christensen (2016) model, showing that each of the three stages is associated with a company development stage. While start-ups are situated in the creation phase, large firms act in all three phases – they not only optimize their existing business but also create new businesses. By contrast, SMEs are just located in the second and third phase, caring about sustaining innovation and efficiency, but not about creation – they have found their position in the market, but often do not have the resources to act in all three phases simultaneously including the creation of new businesses, such as large firms do. The present research is one of only few studies addressing the business

model needs of technology-based SMEs and perhaps the first of this type for the Swiss context.

6.3.5 A missing framework for designing revenue mechanics

6.3.5.1 *Finding*

Although sometimes called ‘old-fashioned’ business modelling, revenue models are still popular in all three communities. Owner-managers often tend to describe the revenue logic of their business when confronted with the term ‘business model’. Although widely debated in early-day business model literature, the revenue concept still lacks easily applicable visual frameworks.

6.3.5.2 *Evidence in the empirical data*

Some academics see rent-seeking strategies and revenue thinking core business modelling. For instance, one respondent, a professor for global marketing and strategy, put it in a nutshell as follows: *“I think the real creativity is to think very hard about the revenue streams”* (A2R4). Accordingly, only few people manage to take advantage of the essentials of the concept (A2R6); thus, *“we should always start thinking with the revenue flow at the beginning and then go out”* (A2R6). The support professional community also have adherents of the revenue concept, such as stated by an innovation consultant: *“The aim of a firm is to create value and to monetize this value”* (S1R1). Owner-managers confirm this perspective indirectly by outlining their revenue logic when confronted with the term ‘business model’. However, a serial entrepreneur argued that we should distinguish *“what is profitable and what is fun”* (M10R4), backing the idea that revenue thinking is still an important – maybe the most important – variable in a business model.

6.3.5.3 *Contribution*

The term business model is often used interchangeably with revenue model (Ballon, 2007; DaSilva & Trkman, 2014; Faber et al., 2003; Johnson et al., 2008). However, the business model idea may have its origins in revenue thinking, a concept initially discussed in the first US Internet-bubble era (Osterwalder, 2004). It is argued that the revenue model is to be considered a sub-system model of the business model rather

than a stand-alone concept (Amit & Zott, 2001; Kindström & Kowalkowski, 2014). Not only is the business model concept designed to describe the logic of revenue generation (revenue mechanics) but also it has been used as a tool to capture value (often also related to revenue thinking), in a sense of Porter's definition "*The amount buyers are willing to pay for what a firm provides them. Value is measured by total revenues.... a firm is profitable if the value it commands exceeds the costs involved in creating the product*" (Porter, 1985, p. 38). Magretta (2002, p. 5) stated, "*When business models do not work, it is because they fail either the narrative test (the story does not make sense) or the numbers test*". The argument here is that most existing frameworks such as the Osterwalder (2010) Business Model Canvas, or the Osterwalder (2013) Value Proposition Designer, mainly focus on the 'story side' of a business model. Although revenue streams are outlined and discussed in early literature, a clear focus has been given to the value proposition in current literature, hence focusing on the 'narrative story'. Accordingly, the argument is that the revenue side, hence the 'number test', has been conceptually integrated in most currently popular business model concepts but the development of an easily applicable framework, for instance a plug-in for the Canvas, has been ignored.

Advanced business model ideas, for instance focusing on value proposition design, may have significantly contributed to the business model concept's popularity – and have influenced the way the concept has been perceived, investigated and further developed. Nevertheless, the concept's roots in the revenue domain seem to be neglected in current literature (but covered by early-day literature) although still offering opportunities for research, not at least since revenue aspects offer an ideal entry point for practitioners, who (still) have these ideas in mind.

Accordingly, the present research contributes to knowledge by having identified the need for an easily understandable, intuitive visual revenue development framework, assisting firms in their revenue creation and diversification activities. The literature lacks such a framework, although revenue mechanics have widely been discussed conceptually in early day business model literature. As the literature review shows, the dilemma is that early day business model frameworks, focusing on revenue mechanics, tend to be theoretical and abstract in nature – barely applicable for business practitioners. Osterwalder was among the first to develop intuitive tools

(such as the Canvas or the Value Proposition Designer), created for a broader audience. Accordingly, there is a gap between 'theoretical' early (revenue centred) studies and frameworks, and currently popular intuitive, visual frameworks for value proposition design. The necessary framework could close this gap, i.e. in form of a plug-in for the Canvas, and could provide real value for business practitioners struggling with the development or diversification of revenues they often need so urgently. Furthermore, such a framework could increase the popularity of the business model concept in the SME owner-manager context, offering a new entry point for this community.

6.3.6 The reality of application: the role of time and emergence

6.3.6.1 *Finding*

Business model application should start with a deep consideration of the role of time in the application process. The data have revealed that the time it takes to create a new working business model is by far longer than often expected and almost always underestimated. Furthermore, the data have revealed business model application to be an emergent phenomenon rather than the product of conscious planning.

6.3.6.2 *Evidence from the empirical data*

Time must be seen as the factor making business model creation a journey – in other words, an emergent phenomenon. This incorporates ideas often coupled with soft issues and philosophical considerations including culture, individuality, problem (re-) framing, or the right to exist question. These aspects have been most widely discussed in the support professional community, putting the human factor at the centre, arguing for the importance of passion and being inspired by a business idea, for a deep customer understanding, and the importance of the subconscious to deal with contradictions. All these aspects finally influence and determine the time it takes (duration) to successfully establish a new business model in the market – and new venture founders may often underestimate this time (no matter whether intrapreneur or entrepreneur).

6.3.6.3 *Contribution*

Business models are argued to be always customer value proposition centred (Johnson et al., 2008; Osterwalder et al., 2015), describing the logic upon which a firm creates and captures value (Shafer et al., 2005). The argument here is that forming viable value propositions take time; often need many time-consuming loops of iteration. This argument is supported by Urban and Von Hippel (1988), suggesting a lead user approach that allows for creating maximum value for potential customers by investigating people developing their own solutions for problems where no solutions yet exist; hence, lead users are people often considered at the forefront of an emerging trend (the 'avant-garde'). Identifying such lead users allows for building upon the learnings and ideas of others, with the effect of saving time.

Complexity management helps understanding a firm to be a highly complex social system (Hamel & Trudel, 2001) consisting of various sub-systems interacting with each other in non-linear ways (Simon, 1996). Time is a crucially important variable in complex systems, in that it (co-)defines non-linear and unexpected behaviour of constituting sub-units (Ninck et al., 2004).

A further concept advocating for the time dimension is entrepreneurship, which is about discovering opportunities (Casadesus-Masanell & Zhu, 2010; Faltin, 2001; Ripsas, 2004): an idea that refers to a deep customer understanding, which may evolve over time. This view is supported by Günter Faltin, professor in Berlin and possibly one of the most influential entrepreneurship scholars in the German-speaking part of Europe, emphasizing the importance of time and maturation of a new business model by recognizing that a new venture (or a new business model) at least requires 15'000 hours of (iterative) thinking, distributed over many years, to become mature (Faltin, 2008). Furthermore, the start-up literature provides ideas of how to deal with business model problems to be solved by formulating business model hypotheses to be tested in the market – as a means of time-efficiently testing business ideas (Blank, 2013; Ries, 2011).

The contribution to knowledge is an empirically-backed insight showing that developing new business models must address the time dimension as part of a complex learning process. This aspect has not yet been explicitly addressed in the

literature. Evidence of the importance of time can be found at the business model concept's periphery, such as in entrepreneurship or in start-up literature. However, the findings of this research contribute to knowledge in a different way by going a step further, by proposing time as a core issue to be addressed. The research offers concrete and hands-on 'time factors' influencing the time between a first business idea and a working business model:

- Passion and being inspired by an idea. Identifying a core passion for something (an idea, topic, etc.) as part of a complex learning process is an emerging, time-consuming phenomenon.
- Understanding whole systems rather than just parts in it – and developing passion for whole problem systems. This includes an understanding of markets, market dynamics, market structures and the competition. This process of gaining a deep understanding of relevant details is inevitably time-consuming.
- Accepting time for solutions to emerge by 'swallowing' problems – sending them to the subconscious and allowing the subconscious the time it needs to produce solutions.
- Accepting intervals between appropriation and communication, and interaction between founders and the world around them – as new ideas must exchange information as part of a diffusion process.
- Root building – as ideas must get anchored in their contexts and environments.
- Incubation cycles – as a basis for emerging processes, as ideas mature.
- Living with contradictions and uncertainty – so loops are not a waste of time (as often considered so in practice) but an important, time consuming, learning cycle.

These factors complement current practice at business schools and start-up events/weekends (but also current literature describing business models as teaching instruments), where students are often taught to fill out one of the various existing business model frameworks – as the 'evident' success factor – but thereby neglecting the role of time.

6.3.7 A business model application framework (conceptual contribution)

As the data show (see 5.2), various phenomena, challenges and unsolved problems can be found in the domain of business model application.

- The domain of ‘understanding’ is well served by various existing and developing concepts and frameworks. As such, it is ‘fashionable’ in the academic world to develop new or adapted frameworks.
- Most of the findings generated by the present research are located the application domain (see 6.3.2.4). This suggests that we still need more and in-depth research and understanding of the way the business model concept is applied in practice.

Rather than developing more refined models or frameworks, the author argues that it is more interesting to know how existing frameworks can successfully be applied in practice. Therefore, application issues need more attention. Accordingly, the area of business model ‘application’ is the main focus of the main final conceptual contribution made in this thesis (contribution 7).

6.3.7.1 *Interpreting the empirical data*

The final conceptual contribution is located in the application domain of the business model concept. It aims at further investigating the finding that the business model concept is applied in many ways within and across the three communities of academics, support professionals and owner-managers. This finding not only is anchored in the literature and in the empirical data (see section 5.2), but also reflects the author’s observations in practice and his reflections – as the concept is used with only limited consensus as to its meaning. The final conceptualisation aims at making a more generalizable contribution to assist academics and practitioners in making more informed business model application decisions.

The analysis of the empirical data has revealed two main dimensions for differentiation (the analysis process is outlined in section 5.2.4.):

- 2 main sub units (value proposition and business architecture/logic).

- 2 main purposes of business model application (analysis/refinement and creation).

On the one hand, the separation between value proposition and business architecture/logic, as emerged from the data, is not new. Support can be found in the four-box model from Johnson & Christensen (2009), as depicted in Figure 31. This model consists of four sub-system models: the value proposition, key resources, key processes, and profit formula. It shows that the value proposition can conceptually be unbundled from the business architecture/logic. In the present document, this four-box model will inspire the conceptualisation made in the following sections. Accordingly, the business architecture/logic consist of the key resources, key processes, and the profit formula. (For a more nuanced discussion of the four-box model refer to section 2.4 in the literature review).

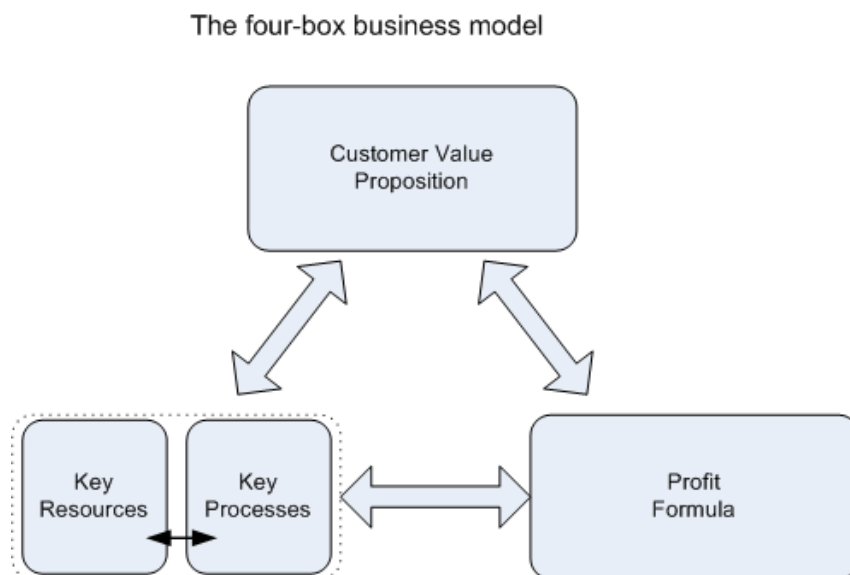


Figure 31: Business model from Johnson & Christensen (2009).

On the other hand, what is new in the present contribution is the idea (or insight) of separating 2 main sub-units and 2 main application purposes. This allows for creating a framework that sheds new light on business model application in 4 dimensions. Such a framework is presented and discussed in the following sub-section.

6.3.7.2 Conceptual framework of business model application

The 2 main sub-units (value proposition and business architecture/logic) and 2 main application purposes (analysis/refinement and creation), as emerged from the data (see 5.2.4) and discussed above, are summarised and visualised using a conceptual framework consisting of 4 application stages (see Figure 32).

In short, the stages 1 and 2 deal with the two main sub-units and the two main application purposes to be distinguished. After having reflected on the sub-units and the main application purposes relative to the 'business problem' at hand, appropriate tools (stage 3) and processes (stage 4) can be chosen. Following these four stages may help thinking more clearly and more rigorously about the business model idea and thus may facilitate the use of the concept in a more informed way.

The 4-stage process framework proposed below represents the first conceptual contribution of this thesis, providing an overview of the uses and applications of the business model concept. The second conceptual contribution will go a step further and will deal with the 4 stages in much more depth, using a table-format framework that will be presented in 6.3.7.3.

Conceptual Framework of Business Model Application

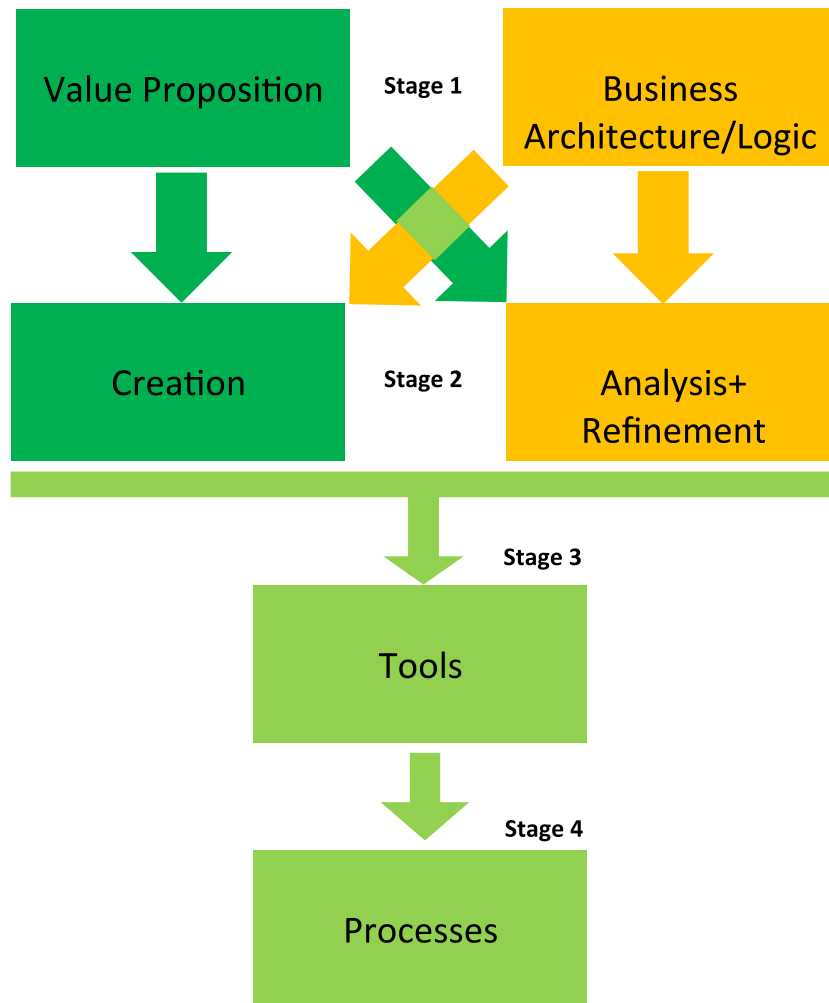


Figure 32: Business model application framework. Source: Author (2018).

In stage 1 we distinguish between two main sub units (the value proposition and the business architecture/logic). In stage 2 we further distinguish between two main purposes of business modelling (analysis/refinement and creation). From the author's experience in the field, it is most common that value propositions are 'created' (i.e. new products or services are developed) and that business architecture/logic is 'analysed and refined' (i.e. optimisation tasks or pricing strategies). However, value propositions can be analysed as well (e.g. as preparatory work for creation), and new business architecture/logic can be created too (e.g. in a start-up configuration, details follow later). However, business architecture/logic creation is considered most demanding since it includes the highest possible level of complexity – the argument

is that only few SME firms deal with business architecture/logic creation, an issue that is supported by the data, as some thoughtful academics and support professionals reflected on it (e.g. see 5.10.8).

As discussed later in this section, the debate may open up as to whether value propositions should actually be part of business modelling. There are some good arguments (in this section but also in 6.3.7.3) to separate value proposition design (as an activity) from business modelling, although the value proposition is an indispensable part of the business model concept. The conceptual inclusion of the value proposition in the business model concept, but its separation when it comes to actively working on it, must be considered a paradox, which the present contribution aims to resolve.

In stage 2 the business aims have to be adjusted with the business model initiative. These can either be refining existing or developing new products or services. But it can also encompass the adjustment of business model elements (i.e. for optimisation purposes) or the set-up of a disruptive business model organised as an external start-up.

Once having achieved alignment between purpose and business aim, appropriate concepts, tools and frameworks can be chosen. This is stage 3. In this stage we evaluate whether value proposition design, marketing instruments, or the Osterwalder (2010) Canvas should be applied. Ideas for appropriate concepts and tools to be applied will be provided in the table framework in section 6.3.7.3.

In stage 4, the application process must be defined. This process may be either linear or highly iterative and reflective in nature. Ideas for possible process types to be applied in different dimensions are provided in the tabular framework in section 6.3.7.3. The debate of different process types will include a discussion of complexity too. Depending on the business model application purpose, different levels of complexity must be considered. This is an issue that will be elaborated too in section

6.3.7.3. Conclusion and contextualisation

The analysis of the data (see 5.2.4) shows that we may distinguish between two main business model sub-units and two main application purposes. Based on the author's reflection on this insight, on the data, and on his experience in the domain, the above-presented framework was created (Figure 32). This framework has some implications as follows.

On the one hand, both ideas (value proposition and business architecture/logic) are equally relevant and must be considered in parallel. On the other hand, it is arguable that we should not work on both simultaneously. When creating and launching a new product, we are well advised to employ business architecture/logic that we already know; hence an architecture/logic from existing businesses in the domain (from the own business or from analogue businesses).

By contrast, when we aim at creating a new business architecture/logic we should build on a given value proposition (product or service), not developing a new one in parallel as well. This insight is supported by existing entrepreneurship literature suggesting the use of 'components' to build a new business, re-arranging them in new and more efficient or more valuable ways (Faltin, 2010)¹¹. The author suggests conceptually separating value proposition design from business modelling. The rationale is as follows:

- Business modelling is understood as working on the business architecture/logic, in which the value proposition is a constant parameter. Business architecture/logic consists of key processes, key resources, and the profit formula (Johnson et al., 2009). Working on the business architecture/logic can be labelled business design.
- Value proposition design is an engineering, design, and marketing task – located in different domains that overlap in a multidisciplinary way. Although

¹¹ However, new business constellations providing value through optimised business logic also have influence on the value proposition through a better price, or the like. This shows that the variables are all linked with each other. The present conceptualisation acknowledges the systemic nature of each social system such as a business. However, such indirect influences are conceptually different from value proposition creation, as we know it from the Value Proposition Designer (VPD), for instance.

part of the business model concept (as the two sub concepts may influence each other), value propositions should conceptually be separated. The paradox thing here is that value propositions stand at the centre of most business model concepts but should be separated in the business modelling application process. Such a separation reduces complexity and contributes to a better understanding of the business model idea because it brings about clarity.

The idea of conceptually separating the value proposition from business architecture/logic is supported by extant start-up literature – although not articulated that explicitly. First, Blank (2013) suggests to first achieve product market fit (developing the value proposition and making it compatible with a customer segment) before looking for new business architecture/logic. This supports the present conclusion, since the two sub-concepts are conceptually related but often mixed up – but they are ‘logically’ different since they reside in different domains, and working on them simultaneously is too complex a task to be successfully handled in most cases.

Second, the Osterwalder (2013) ‘Value Proposition Designer’ (VPD) represents a plugin for the Osterwalder (2013) Canvas. In some way, it separates the value proposition from the business architecture. However, it still assumes both concepts to be applied simultaneously and in parallel. This is where the above-presented framework, as a conceptual contribution (based on empirical findings and developed through the author’s reflection on the data), contrasts by suggesting a clear separation.

As a final conclusion, or perhaps a meta-reflection, a separation, at least on the level of a thinking model, would make the two concepts better understandable and would enhance transparency. The above presented framework argues that ‘value proposition design’ and ‘business design’ are different disciplines, requiring different approaches, skills and mind-sets.

6.3.7.3 In-depth conceptualisation using a table format application framework

Introducing the framework

The 4 stages of the business model application framework above (Figure 32, see 6.3.7.2), are further elaborated, organised, enriched, and visualised using a conceptual table framework (Figure 33). The basis is still the separation of the 2 main sub-units (value proposition and business architecture/logic) and 2 main application purposes (analysis/refinement and creation). This separation finally results in 4 dimensions.

In the framework (Figure 33), these four dimensions (horizontal axis) are enriched with additional contextual information (vertical axis), as such the purpose of application, business aim, relevant concepts, application processes, usefulness in a new venture context, and complexity of application (using 3 levels).

	Business model			
	Value proposition		Business architecture/logic	
	Analysis+Refinement	Creation	Analysis+Refinement	Creation
Dimension	1	2	3	4
Value Proposition	v	v	c	c
Key resources	c	c	v	v
Key processes	c	c	v	v
Profit formula	c	c	v	v
Purpose of application	Analysing an existing value proposition	Developing a new value proposition	Analysing existing business logic	Developing new business logic
Business aims	Refining existing products *, basis for new product development, market analysis, new venture	Creating new products, new product lines, new venture	Making adjustments on elements (i.e. key resources, pricing strategy), optimisation tasks (i.e. business processes), new	Creating a new business logic, i.e. for launching a market disruption or for scaling up the business, start-up
Concepts + frameworks from the literature and the data	VP designer, design thinking, marketing instruments, jobs-to-be-done concept	VP designer, design thinking, design principles, engineering methods, marketing instruments, jobs-to-be-done concept	Canvas, Navigator, 55 archetypes, four-box model from Johnson, transaction model, open innovation, entrepreneurship	Entrepreneurship, lean start-up (MVP), discovery driven planning, disruption theory, wicked problems, ambidexterity, design thinking, systems thinking
Application processes	Linear, iterative cycles, reflection-based, research (new data collection)	Iterative, learning and reflection, refinement cycles with customers, market experiments	Linear, iterative cycles, reflection-based	Iterative, agile, emergent, complex learning and reflection process, market experiments, holocracy
New venture context	Possible	Possible	Possible	Indispensable (start-up)
Complexity of Application	Level 1	Level 2	Level 1	Level 3 (highest)

Legend: v = variable, c = constant

* Note: The term 'product' also includes the service dimension.

Figure 33: Framework of business model application. Source: Author (2018).

A finding from the research was that without such a conceptualisation the four dimensions tend to be mixed up, which reduces the power of the business model concept. Furthermore, the framework above helps to explain the business model concept's loose and unfocused interpretation and application in practice (as discussed in the introduction section), because there is no structure today of how to

classify the various ideas forming the business model concept. In the next section, the vertical dimensions are elaborated. They provide contextual information making the framework a useful instrument for more informed business model application decisions.

Commenting on the vertical dimensions of the framework

In the following list the vertical dimensions of the framework are outlined.

- The first 4 dimensions represent the main components of a business model: value proposition, key resources, key processes, and profit formula. This is a categorisation developed by Johnson et al. (2009). Depending on the adopted perspective, they can either be variable (v) or constant (c).
- Purpose of application: This shows what a business model concept can essentially be used for (purpose). The two main application purposes 'analysis/refinement' and 'creation' resulted from the empirical data (see 5.2.4 figure 27). In the present framework, they are applied to both business model sub-units: to the value proposition concept and to the business architecture/logic.
- Business aim: Outlining the business aim of the 4 horizontal dimensions. Each dimension has its own business aim(s). For example, the aim of creating a new value proposition is to launch a new product (or product line). However, the creation of a new product may also serve as basis for a new venture. In parallel, refining an existing value proposition may form the basis for a new venture too. The framework not only shows that each dimension may include different business aims, but also a variety of overlapping aims between the various dimensions (e.g. a new venture may be the aim of various dimensions).
- Concepts and frameworks from the literature and the data: This dimension is core. There is a plethora of concepts (tools and frameworks) that are used in the business model world – often applied in un-reflected ways. This dimension provides structure and clarity in terms of the application of existing business model tools and frameworks, and assigns some of the most popular tools to a conceptual classification (in the present framework the concepts and frameworks from the literature review and the empirical data are used). As it

can be observed, the various concepts and tools are often mixed up, so they may end up meaning nothing. The present conceptualisation suggests and hypothesizes a new classification scheme. Some concepts and frameworks are better suited in the context of new product development. Others may be well designed to analyse and refine an existing business, but not to develop new business architecture. The present table offers a starting point of a possible classification – the various concepts and frameworks are classified according to the author's judgment. This represents a basis for further investigations and debates (future research agenda).

- Application processes: Similar to the concepts and tools, application processes are used in un-informed ways too. According to the author's interpretation of the empirical data and his expertise in the domain, the various application process types are mixed up and are often applied without reflection (especially in practice). The point here is that not each application process type is generally applicable for any business model task or any business model application purpose. For example, analysing a business model is more located in the linear domain compared to creating a new one; the latter is a highly complex learning process, one that needs iteration, emergence, and reflection. Some support professionals commented on the emergent nature of business model application. The framework offers a classification of various application processes (according to the author's judgment). This classification represents a basis for further debates and a future research agenda.
- New venture context: Each of the four dimensions may serve as basis for a new venture. For example, analysing and improving an existing value proposition may represent an ideal basis for a new business. As such, analysing and refining existing business architecture/logic is a good starting point for a new firm as well, for instance when it comes to produce something in a more cost-effective way – an idea often described in entrepreneurship literature (Faltin, 2011). By contrast, setting up a new business architecture/logic, which crucially changes the 'rule of the game' in the market, maybe 'disruptive' in nature, requires a robust start-up configuration because resources, processes and values cannot easily be changed in existing firms, as outlined in the RPV theory (Christensen, 2002).

- Complexity of application: The framework offers a classification using 3 different levels. Level 3 means the highest possible level of complexity (emergent processes, maturation, complex learning through reflection, no guidelines, no linear thinking). Level 2 refers to complex learning processes and iteration cycles. Level 1 means a moderate level of complexity where linear processes can be applied. In the following paragraphs, the 3 levels of complexity are further elaborated.

Different levels of complexity must be acknowledged when dealing with the business model concept. The author has decided on a 3-level classification hypothesis. The rationale is that in the proposed framework (Figure 33) two process activities (of two dimensions) are assumed to be equal complex (level 1), while two other dimensions include more complexity (level 2 and 3), as outlined in the following paragraphs. This classification represents a first attempt to structure complexity in business model application processes.

- Level 1 is to analyse existing business architecture/logic. Here we may use concepts and tools such as the Canvas. However, understanding existing business architecture/logic may be complex too, since there are many variables involved. In a working business these variables are tightly linked and have been fine-tuned in an incremental process, often over many years. But compared with designing the architecture/logic of a new business, the analysis/refinement of an existing one is may be relatively straightforward but may also be constrained by past decisions and investment.
- Level 1 also encompasses the analysis of the value proposition. This may be applied in the context of a market or competitor analysis, or as a pre-study for creating a new value proposition. However, understanding customer needs is also a complex task, often containing subtle customer insights. On the one hand, the job-to-be-done concept described by Ulwick (2002) and Christensen, Hall, et al. (2016) represents an excellent framework at this stage. On the other hand, empirical social research is another instrument for analysing existing value propositions.

- Level 2 is to create a new value proposition. This is a very complex task, which involves many disciplines, such as engineering, design, sociology, or marketing. It may involve many cycles of iteration and reflection.
- Level 3 is to create new business architecture/logic and to implement this in the market (when combined with a new value proposition it includes the highest level of complexity). Most of the existing tools – such as the Osterwalder (2010) Canvas or the Gassmann (2013) Navigator – may be helpful for analysis/refinement or ideation purposes (up to a certain degree). However, when it comes to the application of new business architecture/logic, eventually combined with a new value proposition, the inherent complexity is more than such models can deal with. However, many start-up courses suggest doing exactly this. By contrast, ideas such as discovery-driven planning (McGrath, 2010) or entrepreneurial thinking – i.e. according to Faltn (2001) – are more adequate concepts at this stage.

In summary, it is important to note that the framework (Figure 33) is not all-encompassing. It is a hypothesis, or a set of hypotheses, as the first attempt of this kind, to bring in structure in business model application, by offering categories that facilitate the business model concept's application. There are many more ideas that can be associated with the various dimensions – and there are perhaps additional dimensions to be included. As such, the framework provides an invitation to other researchers for making refinements and extensions (see also section 6.8.8 on future research).

6.3.7.4 Contribution to knowledge

The final conceptual contribution of the thesis is a conceptualisation of the term 'business model' in two main sub-system units (value proposition and business architecture/logic) and two main application purposes (analysis/refinement and creation). This categorisation is unique and adds to extant literature with an original conceptual framework.

In the extant literature (and in practice) it remains unclear whether business modelling is an analysis/refinement or a creation task. On the one hand, according to the author's expertise and reflection on the data, most existing business model

frameworks may be well designed to analyse a business. On the other hand, business model concepts and frameworks are only partially applicable to the creation of a new business model in the market – only few successful examples are known that show successful creation – as thoughtfully reflected (and supported) by some support professionals (for details see data analysis in chapter 5). The research adds to the extant literature with the hypothesis that most existing and currently popular concepts and tools (i.e. Canvas, Navigator, VPD, job-to-be-done) are only useful for analysis/refinement but not for creation.

The present research further suggests the separation of the value proposition from the business architecture/logic – at least as a thinking model. The value proposition represents a parameter within a business model, but actively working on it is more an engineering, design, or marketing task. A conceptual separation would facilitate the concept's perception and understanding. It would help resolving a paradox in extant start-up literature (such as Blank (2013), where value proposition development and business architecture/logic development are conceptually separated but interwoven in terms of application – arguably due to a missing differentiation between creation and analysis/refinement.

6.3.8 Positioning the contributions in the business model landscape

The 7 contributions are mapped in the business model literature landscape (Figure 34) representing the conceptual framework that was developed in the literature review (see section 2.20.2). This conceptual framework links the contributions with extant literature and the current body of business model knowledge (as reviewed in the present thesis). The various contributions are depicted in red boxes. A numbering system is used that refers to the sections in this chapter in which the various contributions are outlined and discussed in detail.

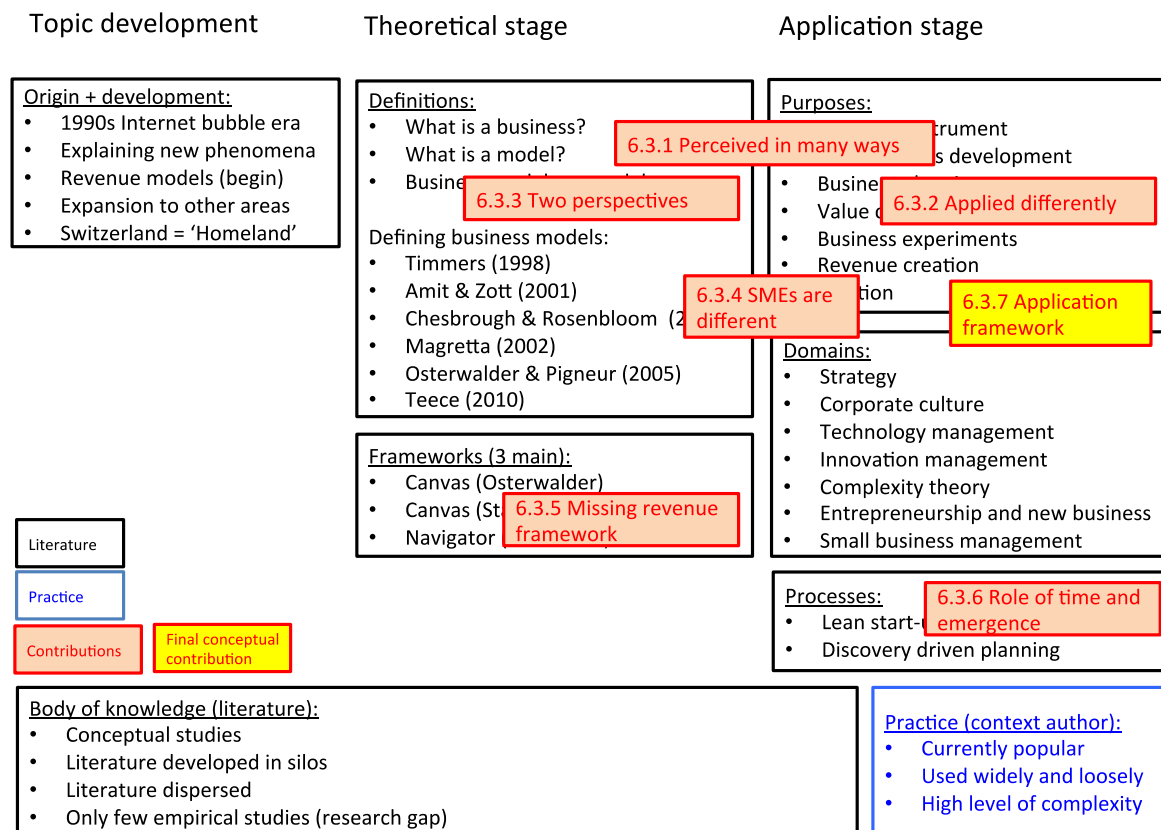


Figure 34: Conceptual literature review framework containing the contributions. Source: Author (2018).

The final main conceptual contribution, as outlined in section 6.3.7, is located at the application stage. It bridges 'application purposes' and 'application domains' by offering a new refined thinking model of how to apply the business model concept in practice more effectively. The developed framework is not a business model framework in a 'traditional sense (Osterwalder, Stähler, etc.) but an application framework so it is not located at the theoretical stage. It reduces ambiguity in the perception and understanding of the business model concept. The final conceptual contribution (6.3.7) essentially builds upon the two earlier contributions 6.3.1 (perceived in many ways) and 6.3.2 (applied differently).

6.4 Limitations of the research

6.4.1 Limitations regarding the geographical location

The research was restricted to the German-speaking part of Switzerland – with a few respondents from the western, French speaking part – more precisely, it was limited to north-western Switzerland and the area of Zürich. A slightly different picture may have emerged by expanding the research to other Swiss regions. Particularly interesting would have been the Western (French speaking) part of Switzerland, since some universities such as the HEC Lausanne or the EPFL Lausanne have actively contributed to the formation of the business model concept. Moreover, the French-speaking part of Switzerland in many ways has different cultural fundamentals, which would have enriched the data of the present work. Furthermore, the eastern part of Switzerland – with very specialised and strong industrial clusters in sub-regions such as the Rhine Valley – could have contributed interesting, complementing, or perhaps contrasting perspectives.

Since Switzerland is considered in some way the homeland of the business model concept, its use and application may be different from other countries. Of particular interest could be other German speaking countries (Germany and Austria), since the very same ideas are often spread equally in these three countries. More broadly, in order to get a more contrasting and diverse picture, ideas and perspectives from different cultural backgrounds – such as France or the UK (for instance) might also have revealed additional diversity within the findings.

The restricted geographical focus of the study is highlighted here as a limitation of the research, because it may have limited the diversity of the findings. On the other hand, and arguably more importantly, it is also considered a notable strength of the present study design, since it was conducted in the region that may reasonably be described as the ‘homeland’ of the business model concept.

6.4.2 A different balance between the samples

At the beginning of the research project, based on exploratory interviews, diversity was expected to be found in a research design made up of three communities of

academics, support professionals, and owner-managers, representing a coherent chain between academia and practice that allows for drawing a '360-degree picture'. However, it has been learned that academics often are detached from business practice, mainly having two lines of argumentation: 'narrower sense' and 'wider sense' business modelling, providing not as much diversity as initially expected. At the other end of the spectrum, owner-managers have a very limited view of the business model concept (except start-ups) since most of them do not know the meaning of the concept nor the term 'business model' itself, often just associating it with revenue thinking. In summary, they do not know much about the business model idea – and not really about the way the concept has been described in literature. Thus, their contribution to diversity in the data regarding the concept's perception and application is limited.

By contrast, business support professionals have a wide variety of perspectives and ideas – most of them have already worked with the concept in some way. They represent the link between academia and practice; not only are they familiar with 'high level' concepts but also with practical application issues – most support professionals have an academic background and have the ability to critically evaluate concepts and their meaning in practice. Accordingly, new and diverse ideas about business models and their application have mainly emerged within this community.

At the beginning of the present study, little was known about what diversity really means in the context of investigating the phenomenon of perception and application of the business model concept. In retrospect, if the author were tasked with the re-design of the study, much more focus would be given to support professionals in order to increase the diversity of perceptions and ideas. Hence, the sample size of academics and owner-managers would be reduced, while the sample size of support professionals would be increased.

Another possible limitation is that only a few start-ups and just one large firm were directly involved in the study. This is a limitation, since the results have revealed major differences in awareness and application of the business model concept across three categories of firms, namely start-ups, SMEs, and large firms. On

reflection, it would have been interesting and useful to have increased the representation of start-ups and large firms within the sample.

Data on large firms were only available through accessing the thoughts of academics and support professionals working with them, hence, the way large firms use the business model concept was evaluated indirectly. More primary data collected directly through interviews with large firms would also have enriched the study.

6.4.3 Adapting the interview guide

One important finding of this research is that three groups of firms must be distinguished in the business model debate: start-ups, established SMEs, and large firms – an insight that did not exist at the beginning of the project. Based on this learning, the interview guide would be refined accordingly, tailoring it to address the specific needs and situations of each of the three types of firm. In the interviews, the respondents often referred to all three groups, or mixed them up within a discussion. Accordingly, a tailored guide and questions would have enabled a more clearly focused discussion, which may have provided a more precise picture of the views of members of each group.

As another aspect, the questions in the interview guide proved to be appropriate for respondents already familiar with the business model concept, such as academics and support professionals. Although the questions for business owner-managers were different from those for academics and support professionals, being adapted in the light of the exploratory study, they still turned out to be difficult to answer for many of the participating owner-managers. In retrospect, it is clear that when interviewing owner-managers (except start-ups, who were well acquainted with the concept), it would be more fruitful to focus on their existing knowledge, not by asking questions about theoretical or abstract concepts. Instead, it could be more productive to discuss more practical, hands-on issues, such as different revenue channels they employ; however, as a consequence this would lead to adapted research questions focusing on concrete aspects rather than a broad conceptual understanding. Accordingly, small-business owner-managers must not be seen as an adequate group for exploring diverse ideas about business model understanding, perception and application –

although they are concerned with business model application issues, they tend not to reflect on it conceptually.

6.4.4 Re-designing the interaction process with the respondents

As elaborated in the methodological chapter, to answer the research questions it was necessary to access a mixture of tacit and explicit knowledge, depending on a respondent's level of prior familiarity and experience with the business model concept. Answers were therefore formed through interaction with the researcher, as the interview was an opportunity to reflect and respondents may have developed or refined their ideas when talking about the concept. In short, the answers may have been socially constructed through the interaction with the researcher. Although the present study has been designed following the paradigm of social constructionism, the true meaning and the consequences of these concepts have become evident when practically applied.

A key finding of the study is that different levels of prior knowledge exist in and among the various communities, so that the richness of ideas and perspectives is not equally balanced between the samples. To the researcher, influencing the answers through interaction became an important issue because the style of interaction with each respondent was adapted each time individually. If tasked with the re-design of the study, more attention would be given to interaction issues. An exploratory study would concentrate much more on the way the data have been 'co-created' through social interaction. The findings then would inform the interview guides and would allow the creation of more nuanced questions and more adapted styles of interaction with individuals. The point here is that designing and flexibly adapting the interaction process is considered a high-level qualitative researcher skill that needs to be developed and mastered. The author sees himself having embarked on a complex learning process to be continuously refined in future projects.

6.4.5 The need for follow-up interviews and focus groups

It has been learned that the support professional community represents the group with the most diverse ideas and perspectives concerning the business model

concept. Accordingly, more in-depth understanding of the business model concept and its application in practice would have been gained through follow-up interviews with some selected support professionals, such as those supporting start-ups in the business model application process, or those who are familiar with revenue diversification. At the beginning of the research it was not apparent that three groups of owner-managers must be distinguished (start-ups, SMEs, large firms). Accordingly, follow-up interviews would have contributed more specialised in-depth knowledge about these three groups. Furthermore, by bringing some selected support professionals (or academics, or owner-managers, or a mix of them) together in a focus group, an insightful debate may have been initiated regarding special issues such as business model understanding, design, application, but also regarding expanded and new ideas, such as the role of time and emergence. Through using a follow-up focus group research design – for instance as part of a longitudinal study – individuals would have informed and reinforced each other, which would have allowed for achieving richer information regarding special issues and new ideas.

In retrospect, the sample size consisting of 35 respondents provided a huge amount of very complex data, so in-depth information was limited. Accordingly, a smaller number of initial interviews within each community, as part of a first interview round, could have been more adequate an approach – showing in which community the most diversity can be found. This first interview round would then have followed by more in-depth interviews or focus groups, respectively. This would have provided: (1) more diversity, and (2) more focused findings and in-depth discussions of interesting emergent themes, such as the role of time and emergence (see contribution section). Based on what has been learned, a rather smaller number of 4 to 6 initial (first round) interviews in each community could be ideal for such a sequential research design. In short, if the author were tasked with the redesign of the study, the research design would be optimised with the aim of uncovering the maximum diversity of data, and only then digging deeper within groups and areas where the most interesting ideas emerged.

6.4.6 Limitations of the application framework

On the one hand, the framework offers an original contribution to business model application knowledge. On the other hand, the conceptual nature of this finding is also its main limitation. It needs more empirical refinement and evaluation (such as in-depth exploration or verification of the underpinning hypothesis), as further outlined in the future research section (6.5.8). The conceptual framework aims at making a generalizable contribution to knowledge, so it must be validated in a broader context. Its viability and robustness must be tested in various business situations and contexts. Although the author applied the framework in different scenarios, designed as thought experiments, and in discussions with respondents (member-checking), only well-designed empirical research can finally prove its applicability.

6.4.7 Conclusion: a point for refinement rather than a final product

To conclude, the limitations show that the present research must be considered a point for refinement as part of a further research agenda rather than a final product. The following aspects represent a summary of the limitations, offering a starting point for a further research agenda (as discussed in 6.5):

- The research was limited to the German-speaking part of Switzerland.
- The diversity of the samples was limited since it was unknown at the beginning of the project what diversity really means regarding business model perception and application in Switzerland.
- The samples were not optimally 'balanced' since support professionals offer more diverse perspectives and ideas than academics do and, above all, can contribute much more than can small business owner-managers.
- The questions within the interview guide tended to be designed for respondents with prior business model knowledge. However, in the light of the finding that owner-managers (with the exception of start-up owners) tend to have very limited awareness of the concept, this should have been addressed using questions that build on a more practical understanding.

- Since the respondents' answers and ideas were socially co-created through interaction with the researcher, a special focus would be given to a more nuanced way and style of interaction with the various communities, if tasked with the re-design of the research. However, adapting the interaction individually, for each respondent, is considered a high-level interviewing skill, which will be further refined in future research projects.
- Follow-up interviews and focus groups would have allowed for gaining richer, more in-depth, and more diverse perspectives on specific emerging themes within a selected sub-sample – such as support professionals. Accordingly, the research could usefully be split into 2 phases (1st: exploring sources of diversity and 2nd: digging deeper). This way, the total number of interviews could be reduced while simultaneously gaining more in-depth richness of data.

6.5 Implications for future research

6.5.1 Including other regions

The research was limited to the German speaking part of Switzerland. Accordingly, a further research agenda may aim at understanding the perception and application of the business model concept in other geographical areas. Therefore, other Swiss regions would be included, such as the French speaking part, but also other European countries. In particular, the French speaking part of Switzerland would be promising, since universities in this area have contributed to the development of the business model concept.

Further research may adapt the same methodology as applied in the present study. Individual interviews or, alternatively, focus groups could be conducted. In the French part of Switzerland, the academic sample could be expanded, since local academics in this region have contributed to the development of the business model concept (as it exists in the literature). However, the samples of other regions would mainly consist of support professionals as this group was found to contribute the most diversity of ideas.

6.5.2 Further investigating the support professional community

As the research has revealed, the greatest diversity and richness of ideas was found within the support professional community. Accordingly, a further research aim would be to get a richer and more diverse picture of business model perception and application within this community. The research would focus on enhancing diversity of perspectives and ideas, more in-depth understanding of already revealed topics, and gaining additional new insights. Accordingly, two different research designs could be applied:

(1) New respondents could be recruited in order to enhance diversity and to gain additional insights. An exploratory pre-study could be valuable in identifying consultants in areas not yet covered by the present research.

(2) More in-depth data could be gained through conducting follow-up interviews or through focus groups with selected respondents in order to elaborate specific themes.

6.5.3 Focusing on support professionals specialising on start-ups

First, the research has revealed that creating new business models is one of the main purposes of a start-up. Second, the research has also revealed that support professionals represent the group with the most diverse ideas and perspectives. Accordingly, future research may aim at investigating support professionals specialised on advising start-ups. They could be investigated by individual interviews or focus group settings.

6.5.4 Using a quantitative study

Further research may also consist of a quantitative study that aims at generalising the findings. Some selected issues may be picked out – such as the importance of revenue thinking in the owner manager community, the importance of time and emergence when founding a new business, or the applicability of the developed framework (therefore refer to section 6.3.7) – as a basis for a survey-based questionnaire, that allows for making inferences for a selected, pre-defined

population. Accordingly, the purpose of such a study would consist of explanation rather than exploration.

6.5.5 Creating a revenue generation framework

The research has revealed that the business model concept is mainly understood in two different ways: narrower and wider sense thinking, with narrow-sense thinking focusing on revenue generation. Although the revenue perspective is often labelled as 'out-dated' thinking, this study has shown that revenue perspectives still have their relevance and a right to exist, not at least since established SMEs often relate their business model understanding to revenue thinking. The aim of further research could be to better understand the role of revenue mechanics and how they are created and diversified, and to develop a framework assisting SME managers in their respective activities (an intuitive framework such as the Business Model Canvas within the 'wider sense' domain). To further investigate this aspect, the following research approaches may be used, also in combination:

(1) Further research may aim at better understanding revenue mechanics. Therefore, longitudinal case studies, in which the researcher accompanies entrepreneurial firms and observes their development, may be used to investigate the formation of a new firm's revenue structure.

(2) A new sample of respondents could be interviewed in an exploratory study that focused on revenue creation and diversification themes. An initial pre-study would guide the sample design by revealing which groups of people could provide most interesting and diverse ideas, then follow-up interviews or focus groups would be initiated in order to explore these ideas more deeply.

(2) An intuitive framework like the Canvas, or a plug-in for the Canvas, could be developed¹²; either based on a literature review or on pre-research studies, and

¹² Such a framework could consist of a morphological box decomposing revenue mechanics in their constituent parts (as introduced in chapter 5.9). Such a framework would allow for creatively designing and re-combining revenue streams. Such a framework could be developed and iteratively further developed.

gradually refined through a set of action research initiatives with several entrepreneurial firms. Then, the developing framework could continuously be further refined in iterative learning cycles.

6.5.6 Investigating business model needs of owner-managed SMEs

The research has revealed that Swiss owner-managed SMEs are different from start-ups and large firms regarding their business model needs and activities. Accordingly, the aim of further research may consist of developing a business model innovation framework assisting SMEs in evaluating their position within the Christensen (2016) business model journey. This may help firms in making more informed business model decisions.

Further research in this domain may focus on investigating SMEs, as the group whose business model needs are least investigated and understood, as revealed in the present work. An exploratory study would focus on better understanding the business model needs of owner-managed SMEs. As many diverse ideas as possible would have to be revealed in an exploratory study design. This could be achieved by interviewing owner-managers and support professionals closely working with owner-managers. The findings of the exploratory study could then be synthesized in a framework to be iteratively further developed, i.e. by applying an abductive research approach in form of an action research setting (or several action research settings).

6.5.7 The reality of application: the role of time and emergence

The research has revealed the importance of time and emergence in the business model building process. However, existing literature has only addressed this issue at the periphery. Further research would aim at gaining a more in-depth understanding of the time-dependent knowledge-building processes in the business model application context. For instance, the following research designs could be applied:

(1) More in-depth research in the form of follow-up interviews or focus groups could be conducted, to better understand the concept of 'emergence' by interviewing relevant actors having experience with business model application of firms in practice, such as support professionals.

(2) Further research could also consist of longitudinal case studies investigating firms on their business model application journey (e.g. university spin-offs), focusing on emergence and the role of time. The aim of such a study may be to better understand the sequence¹³ of dealing with business model elements (rather than the whole model), as part of a very complex learning process.

6.5.8 The role of the application framework for future research

The developed framework (according to section 6.3.7) resides on the conceptual level by hypothesizing the separation of the following ideas:

1. Separating the value proposition from the business architecture/logic.
2. Separating analysis/refinement from creation.

This offers plenty of future research opportunities:

- In-depth interviews or focus groups with support professionals (and maybe academics) would allow for further refining the developed framework. These people would be confronted with it. Such an approach would seek for confirmation by further exploring new aspects. It would show whether the framework reflects the respondents' practical experiences and how to make adjustments, if necessary.
- A case study or action research approach would be an ideal instrument to investigate the ways in which small firms or start-ups perform, by first applying the suggested framework as a thinking model. Different cases could be researched and compared, as well as reflected with existing literature. Such an approach may include an abductive perspective by going back and forth between the framework and data as an approach for making incremental improvements.
- In an experimental setting, two groups of business school students (for instance) could be investigated. One group, the control group, would use the

¹³ New venture founders may be better off focusing on specific elements of a business model in their founding stage (sequences). They may start with the opportunity and then expand to other business model building-blocks rather than focusing on the whole model right at the beginning.

business model concept in a 'traditional' way, as applied these days. The other group would first be reflecting on the sub-system units and the purpose as suggested by the developed framework – and also about the use of appropriate tools (such as the Canvas). Both groups would be tasked with the same problem to be solved. Accordingly, inferences could be made in terms of the framework's usefulness.

- Cause and effect relationships between various assumptions could be developed and mapped in a model, to be empirically validated using a questionnaire-based quantitative research design. The following two main hypotheses could be verified:
 - H1: If people differentiate between value proposition and business architecture/logic, the level of complexity in business model application can significantly be reduced.
 - H2: If people differentiate between analysis/refinement and creation, existing tools and frameworks can be used significantly more effectively.

6.6 Implications for practice

6.6.1 Perceived and applied in many different ways

Since there are many widely dispersed interpretations and ways of application, a common understanding of the business model concept cannot be taken for granted when working with firms. Instead, a clear definition of the term, its meaning and ways of applications, must be introduced and should be 'negotiated' when working with business practitioners. As it has been learned from the study, support professionals and other people delivering training and support to SME managers should confront their client firms with business model frameworks carefully, recognising the importance of understanding the managers' familiarity with these frameworks in particular, as well as their general feelings about abstract models.

6.6.2 Ownership structures and succession plans in family firms

It has been learned that ownership structures and succession plans (succession plans often change ownership structures) can play a dominant role regarding business modelling in owner-managed SMEs. For instance, when a firm is acquired, resulting in a new ownership structure, the new owner-manager must ensure that the business model still works for him, so existing partnerships must be maintained – partnerships are often tightly linked with a firm owner through personal relationships. The new owner must have access to the same products and services with the same (pricing) conditions. Losing existing products and services may influence the customer segments, and may influence the business model. In the case of firm integration/acquisition (bought by a larger firm, for instance) new products may become available for possibly better conditions, which again results in a business model change. And finally, the financing conditions and availability of additional capital must be guaranteed for the new owner. These are business model issues that owner-managers and support professionals should consider when confronted with changing ownership structures.

6.6.3 Changing needs for business model application

Start-ups, small owner managed SMEs, and large firms are different from each other regarding their business model needs and business modelling activities. Before thinking about business models, one should take into consideration the type of firm, as well as the business model journey phase that a firm is currently in – e.g. according to the Christensen (2016) model. The most important aspect here is that SME owner-managers are different from start-up and large firm managers regarding their business model needs.

There are two important implications for practice. The first is that SME owner-managers working on their existing business model are better off focusing on optimisation, i.e. working on their revenue streams. SMEs interested in creating a new business area may consider ideas from the start-up literature too. They may start dealing with value proposition design as well. The second implication is for those delivering training and advice to owner-managed SMEs (academics and

support professionals): Revenue thinking may represent an entry point for discussing business model issues when working with SME owner-managers who are inexperienced with the business model concept or consider it to be ‘theoretical stuff’ that is not usefully applicable to their businesses.

6.6.4 The reality of application: the role of time, emergence and maturation

Firms interested in business model development, innovation, re-creation, or application, are well advised to think in the time dimension at the very beginning of their project. People who aim at embarking on a model application journey should question their initial time schedule for this – a business idea normally takes much more time to develop than initially planned, since it needs time for emergence, for maturation, ideas must be swallowed and sent to the subconscious, ideas need time for root building and to get anchored in their environments, and iterative loops are not a waste of time but necessary learning cycles.

Therefore, business practitioners should ask questions such as whether there is enough passion and inspiration for an idea. Those people applying the business model concept (no matter whether entrepreneur or intrapreneur) should start by asking themselves whether there is ‘enough’ passion and inspiration, whether they are ready and willing to be suffering for the project, and whether they work in a cultural environment that allows for this. Moreover, they must take a very clear view of the challenges of learning and knowledge-building, not only in terms of information sources and research techniques, but of the time that this will require.

6.6.5 The question whether to increase or reduce complexity

The complexity debate revealed in the present research shows that reality is always more complex than what any type of model can ever map. Accordingly, a business model is never reality, but through showing various elements (such as the 9 building blocks of the Canvas) entrepreneurs may have a whole picture at a glance, providing a more complete view of the whole than what people could ever have in mind without using a framework – at least as a checklist that compensates for missing experience.

On the other hand, the application of a new business model may start with a focus on the opportunity, since new business founders cannot think of all the various elements simultaneously; hence starting with some selected elements may be more fruitful at the very beginning (in the sense of reducing complexity). The research has revealed a debate as to whether business models may help through increasing complexity or, by contrast, whether they should be used to reduce complexity in an informed way.

One means to deal with complexity is reflection. Owner-managers should establish settings in which teams applying the business model concept have the opportunity to reflect on their journey. They need an environment that allows for learning. And they need a culture that supports making mistakes, and which accepts that iterative are not a waste of time but important opportunities for learning. People then may decide which approach to take (including or reducing complexity). This is a decision depending on many variables. One of the most important variables may be the question whether to launch a new business, or whether to optimise an existing one. The author advocates a complexity-reducing approach when starting a new venture (first focusing on the opportunity and then expand), and for an approach that includes complexity when optimising an existing business model.

6.6.6 Practical impact of the developed application framework

The developed application framework (see section 6.3.7) may have considerable implications for practice. It offers an approach to separate two main sub-system units (value proposition and business architecture/logic) and two main application purposes (analysis/refinement and creation). This provides clarity and transparency for those applying the business model concept in practice.

Business practitioners should first reflect on the business aim and the possible impacts the business model concept may have on their goals – questions such as the following should first be asked: For what exactly is the business model concept a viable concept to deal with the problem(s) at hand? Based on such considerations, practitioners may be less likely to mix up the various tools and frameworks included in the business model concept.

The developed framework (see section 6.3.7) was first tested in the context of the author's firm by applying it to current and past business situations and reflecting on them (by the author and his management team). On the one hand, it could be concluded that analysis and refinement activities from both dimensions, namely value proposing and business architecture/logic, often are tightly linked. On the other hand, creating a new value proposition or creating a new business architecture/logic from scratch (e.g. for a disruptive innovation) are completely different. Reflecting on very concrete situations of the author's firm (a Swiss SME with 5 years in business) value propositions are often slightly adapted (e.g. introducing a complementary service, or a new feature), and small changes in the business architecture/logic are regularly made too (e.g. new partners, or an adapted pricing strategy). Both dimensions often go hand in hand. By contrast, creating something totally new (either value proposition or business architecture/logic) is very rare – an insight that might be transferable to other SMEs as well. If the managing team from the author's firms was tasked to create a new product or a new business architecture/logic from scratch, it would act completely differently from what it does when analysing and refining existing ones. The developed framework very well reflects these concrete situations. This small 'case study' supports the conceptual separation in 4 dimensions, as suggested by the developed application framework (see section 6.3.7).

6.7 Personal reflection on the research journey

In retrospect, the most difficult parts of the research journey were to identify a research gap, to formulate the research questions, and to develop an appropriate research design. With many ideas of possible business model research projects in mind at the very beginning of the doctoral journey, the research project, as presented in this document, took far longer and has become far more complex an endeavour than initially expected. Not only relevant theoretical inputs about research philosophy, reviewing literature, or the choice of methodologies and methods, had first to be developed, but also the time a doctoral project needs for maturation was underestimated. Accordingly, the following ideas, as widely discussed in the interview data as well (above all in support professional community), must be considered the mantra of any research endeavour too: we first have to swallow a problem, send it to

the subconscious, and allow it the time it needs for root building, and for emergence. Furthermore, it is an iteration process of communication and appropriation between an individual and the world – so inputs from as many people as possible (such as supervisors, at conferences, discussions with friends etc.) help shaping and forming an idea. Such as water erodes or ‘shapes’ the form of rocks over millions of years, the interaction with the world shapes an idea over time – if it gets the required time to do so. As a consequence, just as with a new venture, it has been learned that a doctoral project needs motivation, passion, inspiration, and sometimes suffering, as well as a lot more time that was initially envisaged.

Accordingly, a major learning point for future highly complex projects is the importance of building up networks within the domain, interacting with like-minded people, and allowing something to emerge over time. It is important to recognise that such projects should not be rushed. In contrast, occasionally putting the project aside for a while may help to get a fresh view on it. I had just such a break of about 3 months between 2016 and 2017. This experience showed me the importance of interacting with my own thoughts for a while, hence the ability to reflect on what has been reflected on a few months before. This kind of meta-level reflection is considered a worthwhile experience and a striking argument for allowing things the time they need to get mature – however, this insight may be a counter-trend in a world where time cycles tend increasingly to be compressed.

7. References

- Adner, R., & Kapoor, R. (2010). Value creation in innovation ecosystems: How the structure of technological interdependence affects firm performance in new technology generations. *Strategic Management Journal*, 31(3), 306-333.
- Afuah, A. (2000). How much do your co-opetitors' capabilities matter in the face of technological change?
- Afuah, A., & Tucci, C. L. (2000). *Internet business models and strategies: Text and cases*: McGraw-Hill Higher Education.
- Al-Debei, M. M., & Avison, D. (2010). Developing a unified framework of the business model concept. *European Journal of Information Systems*, 19(3), 359-376.
- Al-Debei, M. M., El-Haddadeh, R., & Avison, D. (2008). Defining the business model in the new world of digital business. *School of Information Systems, Computing and Mathematics*;
- Alt, R., & Zimmermann, H.-D. (2001). Introduction to special section-business models. *Electronic Markets-The International Journal*, 11(1), 1019-6781.
- Ambrosini, V., & Bowman, C. (2001). Tacit knowledge: Some suggestions for operationalization. *Journal of management studies*, 38(6), 811-829.
- Amit, R., & Schoemaker, P. J. (2012). Z STRATEGIC ASSETS AND ORGANIZATIONAL RENT. *Strategische Managementtheorie*, 14, 325.
- Amit, R., & Zott, C. (2001). Value creation in E-business. *Strategic Management Journal*, 22(6-7), 493-520. doi:10.1002/smj.187
- Amit, R., & Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review*, 53.
- Amit, R. H., & Zott, C. (2010). Business model innovation: Creating value in times of change.
- Andersen, T. G., & Bollerslev, T. (1998). Answering the skeptics: Yes, standard volatility models do provide accurate forecasts. *International economic review*, 885-905.
- Anderson, C. (2010). Presenting and evaluating qualitative research. *American journal of pharmaceutical education*, 74(8).
- Anderson, P. (1999). Perspective: Complexity theory and organization science. *organization Science*, 10(3), 216-232.
- Andrews, K. R. (1980). *The Concept of Corporate Strategy*, Homewood, Illinois: Richard D. Irwin. Inc.
- Ansoff, H. I. (1957). Strategies for diversification. *Harvard Business Review*, 35(5), 113-124.
- Ansoff, H. I. (1965). *Corporate strategy: business policy for growth and expansion*: McGraw-Hill Book.
- Ashby, R. W. (1957). *An Introduction to Cybernetics* (Vol. 2). London: Chapman & Hall Ltd.

- Aspara, J., Hietanen, J., & Tikkanen, H. (2010). Business model innovation vs replication: financial performance implications of strategic emphases. *Journal of Strategic Marketing*, 18(1), 39-56.
- Assink, M. (2006). Inhibitors of disruptive innovation capability: a conceptual model. *European Journal of Innovation Management*, 9(2), 215-233.
- Astley, W. G. (1985). Administrative science as socially constructed truth. *Administrative science quarterly*, 497-513.
- Baden-Fuller, C., & Morgan, M. S. (2010). Business models as models. *Long Range Planning*, 43(2), 156-171.
- Ballon, P. (2007). Business modelling revisited: the configuration of control and value. *info*, 9(5), 6-19.
- Baron, R. A., & Greenberg, J. (1997). *Behavior in Organizations: Understanding and Managing the Human Side of Work: Color Transparencies*: Prentice Hall.
- Bäumli-Roßnagl, M.-A. (1997). Sinnennahe Bildungswege als aktuelle Bildungsaufgabe.
- Becker, J., Rosemann, M., & Von Uthmann, C. (2000). Guidelines of business process modeling *Business Process Management* (pp. 30-49): Springer.
- Belcher, A. (2006). Imagining how a company thinks: What is corporate culture. *Deakin L. Rev.*, 11, 1.
- Bellman, R., Clark, C. E., Malcolm, D. G., Craft, C. J., & Ricciardi, F. M. (1957). On the construction of a multi-stage, multi-person business game. *Operations Research*, 5(4), 469-503.
- Berger, P. L., & Luckmann, T. (1991). *The social construction of reality: A treatise in the sociology of knowledge*: Penguin UK.
- Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, 42(5), 488-506.
- Bettis, R. A., & Prahalad, C. K. (1995). The dominant logic: Retrospective and extension. *Strategic Management Journal*, 16(1), 5-14.
- Bézivin, J., & Gerbé, O. (2001). *Towards a precise definition of the OMG/MDA framework*. Paper presented at the Automated Software Engineering, 2001.(ASE 2001). Proceedings. 16th Annual International Conference on.
- Blackwell, E. (2011). *How to Prepare a Business Plan: Create Your Strategy; Forecast Your Finances; Produce That Persuasive Plan*: Kogan Page Publishers.
- Blaha, M., & Rumbaugh, J. (2005). *Object-oriented modeling and design with UML*: Pearson Education Upper Saddle River.
- Blaikie, N. (2010). *Designing Social Research—The Logic of Anticipation* (2010: John.
- Blank, S. (2006). *The Four Steps to the Epiphany - Successful Strategies for Products that Win* (Vol. 2). Stanford: Lulu.com.

- Blank, S. (2013). Why the Lean Start-Up Changes Everything. *Harvard Business Review*.
- Blank, S. (2014). steveblank.com. Retrieved from <http://www.steveblank.com>
- Blank, S., & Dorf, B. (2012). *The Startup Owner's Manual - The Step-by-Step Guide for Building a Great Company* (Vol. 1). California: K&S Ranch, Inc. Publishers.
- Bock, A. J., Opsahl, T., George, G., & Gann, D. M. (2012). The effects of culture and structure on strategic flexibility during business model innovation. *Journal of management studies*, 49(2), 279-305.
- Bodenschatz, E. (2009). Complex Systems. Retrieved from <http://www.mpg.de> website:
- Boghossian, P. (2001). What is social construction?
- Bonaccorsi, A., Giannangeli, S., & Rossi, C. (2006). Entry strategies under competing standards: Hybrid business models in the open source software industry. *Management Science*, 52(7), 1085-1098.
- Börner, K., Boyack, K., Milojević, S., & Morris, S. (2012). An introduction to modeling science: Basic model types, key definitions, and a general framework for the comparison of process models. *Models of science dynamics*, 3-22.
- Bouwman, C. H. (2013). The role of corporate culture in mergers & acquisitions.
- Box, G. E., Hunter, W. G., & Hunter, J. S. (1978). *Statistics for experimenters: an introduction to design, data analysis, and model building* (Vol. 1): JSTOR.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*: Sage.
- Breslin, D. (2008). A review of the evolutionary approach to the study of entrepreneurship. *International Journal of Management Reviews*, 10(4), 399-423.
- Breuer, H., & Mahdjour, S. (2012). *Lean Venturing: Entrepreneurial Learning to Model and Grow New Business*. Paper presented at the 5th ISPIM Innovation Symposium - Stimulating Innovation: Challenges for Management, Science & Technology, Seoul.
- Brousseau, E., & Penard, T. (2007). The economics of digital business models: a framework for analyzing the economics of platforms. *Review of Network Economics*, 6(2).
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative science quarterly*, 1-34.
- Bucherer, E., Eisert, U., & Gassmann, O. (2012). Towards systematic business model innovation: lessons from product innovation management. *Creativity and Innovation Management*, 21(2), 183-198.

- Bukh, P. N., & Nielsen, C. (2010). Understanding the health care business model: the financial analyst's point of view. *Journal of health care finance*, 37(2), 8-25.
- BusinessDictionary.com. (2017). Definition of the Term Business. Retrieved from <http://www.businessdictionary.com>
- Caldwell, R. (2008). HR business partner competency models: re-contextualising effectiveness. *Human Resource Management Journal*, 18(3), 275-294.
- Calori, R., & Sarnin, P. (1991). Corporate culture and economic performance: A French study. *Organization studies*, 12(1), 049-074.
- Camponovo, G., & Pigneur, Y. (2003). *Business Model Analysis Applied to Mobile Business*. Paper presented at the ICEIS (4).
- Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of management review*, 4(4), 497-505.
- Casadesus-Masanell, R., & Ricart, J. E. (2007). Competing through business models.
- Casadesus-Masanell, R., & Ricart, J. E. (2010). From strategy to business models and onto tactics. *Long Range Planning*, 43(2), 195-215.
- Casadesus-Masanell, R., & Ricart, J. E. (2011). How to Design A Winning Business Model. *Harvard Business Review*.
- Casadesus-Masanell, R., & Zhu, F. (2010). *Business Model Innovation and Competitive Imitation*: Citeseer.
- Chandler, A. D. (1962). Strategy and structure: Chapters in the history of the American enterprise. *Massachusetts Institute of Technology Cambridge*.
- Chapman, R. L., Soosay, C., & Kandampully, J. (2003). Innovation in logistic services and the new business model: a conceptual framework. *International Journal of Physical Distribution & Logistics Management*, 33(7), 630-650.
- Chari, V. V., Kehoe, P. J., & McGrattan, E. R. (2000). Sticky price models of the business cycle: can the contract multiplier solve the persistence problem? *Econometrica*, 68(5), 1151-1179.
- Chesbrough, H. (2003). *Open innovation: the new imperative for creating and profiting from technology*. Boston, Massachusetts: Harvard Business School Press.
- Chesbrough, H. (2004). Managing Open Innovation. *Research Technology Management*, 47(1), 23-26.
- Chesbrough, H. (2006). *Open Business Models - How to Thrive in the New Innovation Landscape*. Boston, Massachusetts: Harvard Business School Press.
- Chesbrough, H. (2007). Business model innovation: it's not just about technology anymore. *Strategy & leadership*, 35(6), 12-17.
- Chesbrough, H. (2010). Business model innovation: opportunities and barriers. *Long Range Planning*, 43(2), 354-363.
- Chesbrough, H. (2012). Why companies should have open business models. *MIT Sloan Management Review*, 48(2).

- Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and Corporate Change*, 11(3), 529-555.
- Chesbrough, H., & Schwartz, K. (2007). Innovating Business Models with Co-Development Partnerships. *Research Technology Management*, 50(1), 55-59.
- Ching, H. Y. (2013). Criticisms, Variations and Experiences with Business Model Canvas. *European Journal of Agriculture and Forestry Research*, 1(2), 26-37.
- Christensen, C., Hall, T., Dillon, K., & Duncan, D. S. (2016). Competing against luck. *HBX Connex. Harvard Business School, Boston*, 6.
- Christensen, C. M. (2002). *The Innovators Dilemma*. New York: Harper Business.
- Christensen, C. M. (2004). *Seeing What's Next - Using the Theories of Innovation to Predeict Industry Change*. Boston, Massachusetts: Harvard Business Press.
- Christensen, C. M., Bartman, T., & Van Bever, D. (2016). The Hard Truth About Business Model Innovation. *MIT Sloan Management Review*, 58(1), 31.
- Christiano, L. J., Trabandt, M., & Walentin, K. (2011). Introducing financial frictions and unemployment into a small open economy model. *Journal of Economic Dynamics and Control*, 35(12), 1999-2041.
- Cocchi, A. (2013). *The Emerging Properties of Business Models: A systemic Approach*.
- Combe, I., Mason, K., & Mouzas, S. (2012). Flexible business models. *European Journal of Marketing*, 46(10), 1340-1367.
- Cooke-Davies, T. J., & Arzymanow, A. (2003). The maturity of project management in different industries: An investigation into variations between project management models. *International Journal of Project Management*, 21(6), 471-478.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*: Sage publications.
- DaSilva, C. M., & Trkman, P. (2014). Business model: what it is and what it is not. *Long Range Planning*, 47(6), 379-389.
- De Reuver, M., & Haaker, T. (2009). Designing viable business models for context-aware mobile services. *Telematics and Informatics*, 26(3), 240-248.
- Demarest, M. (1997). Understanding knowledge management. *Long Range Planning*, 30(3), 321374-322384.
- Demerjian, P. R. (2011). Accounting standards and debt covenants: Has the "balance sheet approach" led to a decline in the use of balance sheet covenants? *Journal of Accounting and Economics*, 52(2-3), 178-202.
- Demil, B., & Lecocq, X. (2010). Business model evolution: in search of dynamic consistency. *Long Range Planning*, 43(2), 227-246.
- Denison, D. R. (1984). Bringing corporate culture to the bottom line. *Organizational dynamics*, 13(2), 5-22.

- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*: John Wiley & Sons.
- Dess, G. G., & Davis, P. S. (1984). Porter's (1980) generic strategies as determinants of strategic group membership and organizational performance. *Academy of Management Journal*, 27(3), 467-488.
- Dicksee, L. R. (1910). *Business Organisation*: Longmans, Green, and Company.
- Dijkman, R., Sprenkels, B., Peeters, T., & Janssen, A. (2015). Business models for the Internet of Things. *International Journal of Information Management*, 35(6), 672-678.
- Djelic, M.-L., & Ainamo, A. (1999). The coevolution of new organizational forms in the fashion industry: a historical and comparative study of France, Italy, and the United States. *organization Science*, 10(5), 622-637.
- Doganova, L., & Eyquem-Renault, M. (2009). What do business models do?: Innovation devices in technology entrepreneurship. *Research Policy*, 38(10), 1559-1570.
- Drucker, P. (2001). *The essential Drucker: In one volume the best of sixty years of Peter Drucker*: New York: Harper Collins.
- Drucker, P. F., & Drucker, P. F. (2007). *Innovation and entrepreneurship: Practice and principles*: Routledge.
- Easterby-Smith, M., Thorpe, R., & Jackson, P. (2012). *Management research*: Sage Publications.
- Eastin, C. P. (1975). The Use of Models in Litigation: Concise or Contrived. *Chi.-Kent L. Rev.*, 52, 610.
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2012). *The impact of a corporate culture of sustainability on corporate behavior and performance*: National Bureau of Economic Research Cambridge, MA, USA.
- Engle, R. (2001). GARCH 101: The use of ARCH/GARCH models in applied econometrics. *Journal of economic perspectives*, 15(4), 157-168.
- Enkel, E., Gassmann, O., & Chesbrough, H. (2009). Open R&D and open innovation: exploring the phenomenon. *R&D Management*, 39(4), 311-316.
- Eriksson, C. I., Kalling, T., Åkesson, M., & Fredberg, T. (2008). Business models for m-services: Exploring the e-newspaper case from a consumer view. *DIGITAL INNOVATION IN THE VALUE NETWORKS OF NEWSPAPERS*, 146.
- Eriksson, H.-E., & Penker, M. (2000). Business modeling with UML. *Business Patterns at Work*, John Wiley & Sons, New York, USA.
- Etkina, E., Warren, A., & Gentile, M. (2006). The role of models in physics instruction. *The physics teacher*, 44(1), 34-39.
- Evans, J. R. (2000). Spreadsheets as a tool for teaching simulation. *INFORMS Transactions on Education*, 1(1), 27-37.
- Faber, E., Ballon, P., Bouwman, H., Haaker, T., Rietkerk, O., & Steen, M. (2003). *Designing business models for mobile ICT services*. Paper presented at the

Workshop on concepts, metrics & visualization, at the 16th Bled Electronic Commerce Conference eTransformation, Bled, Slovenia.

- Faltin, G. (2001). Creating a Culture of Innovative Entrepreneurship. *Freie Universität Berlin*.
- Faltin, G. (2008). *Kopf schlägt Kapital - Die ganz andere Art, ein Unternehmen zu gründen* (Vol. 7). München: Carl-Hanser-Verlag.
- Faltin, G. (2010). Kopf schlägt Kapital. *Die ganz andere Art, ein Unternehmen zu gründen. Von der Lust, ein Entrepreneur zu sein.* "Hanser Wirtschaft, München.
- Faltin, G. (2011). Das Gestalten von Geschäftsmodellen als Kern des Entrepreneurship (Business Model Creation as Core Entrepreneurial Activity) *Working Papers of the Institute of Management Berlin at the Berlin School of Economics and Law (HWR Berlin)*, 61.
- Favre, J.-M. (2004). *Towards a basic theory to model model driven engineering*. Paper presented at the 3rd Workshop in Software Model Engineering, WiSME.
- Feller, J., Finnegan, P., & Hayes, J. (2008). Delivering the 'whole product': business model impacts and agility challenges in a network of open source firms. *Journal of Database Management*, 19(2), 95.
- Flamholtz, E. G., & Randle, Y. (2012). Corporate culture, business models, competitive advantage, strategic assets and the bottom line: Theoretical and measurement issues. *Journal of Human Resource Costing & Accounting*, 16(2), 76-94.
- Frankenberger, K., Weiblen, T., Csik, M., & Gassmann, O. (2012). The 4I-framework of business model innovation: a structured view on process phases and challenges. *Manuscript prepared for the International Journal of Product Development (IJPD) special issue on Business Models*.
- Frankenberger, K., Weiblen, T., Csik, M., & Gassmann, O. (2013). The 4I-framework of business model innovation: A structured view on process phases and challenges. *International Journal of Product Development*, 18(3-4), 249-273.
- Galunic, D. C., & Eisenhardt, K. M. (2001). Architectural innovation and modular corporate forms. *Academy of Management Journal*, 44(6), 1229-1249.
- Gambardella, A., & McGahan, A. M. (2010). Business-model innovation: General purpose technologies and their implications for industry structure. *Long Range Planning*, 43(2), 262-271.
- Gassmann, O. (2012). Aus Alt mach Neu. *Harvard Business Manager*.
- Gassmann, O., & Enkel, E. (2006). Open Innovation - Die Öffnung des Innovationsprozesses erhöht das Innovationspotenzial. *zfo wissen*, 3(75. Jg), 132-138.
- Gassmann, O., Frankenberger, K., & Csik, M. (2013). *Geschäftsmodell entwickeln - 55 innovative Konzepte mit dem St. Galler Business Model Navigator*. München: Carl Hanser Verlag.

- George, G., & Bock, A. J. (2011). The Business Model in Practice and its Implications for Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 35(1), 83-111. doi:10.1111/j.1540-6520.2010.00424.x
- George, G., & Bock, A. J. (2012). *Models of opportunity: How entrepreneurs design firms to achieve the unexpected*: Cambridge University Press.
- Gertler, M. S. (2003). Tacit knowledge and the economic geography of context, or the undefinable tacitness of being (there). *Journal of economic geography*, 3(1), 75-99.
- Ghaziani, A., & Ventresca, M. J. (2005). *Keywords and cultural change: frame analysis of business model public talk, 1975–2000*. Paper presented at the Sociological Forum.
- Giesen, E., Berman, S. J., Bell, R., & Blitz, A. (2007). Three ways to successfully innovate your business model. *Strategy & leadership*, 35(6), 27-33.
- Gladwell, M. (2002). *The Tipping Point - How Little Things Can Make a Big Difference*. New York: Back Bay Books.
- Gläser, J., & Laudel, G. (2010). *Experteninterviews und qualitative Inhaltsanalyse (Expert interviews and qualitative context analysis)*: Springer-Verlag.
- Goerzen, A. (2007). Alliance networks and firm performance: The impact of repeated partnerships. *Strategic Management Journal*, 28(5), 487.
- Goethals, F. G. (2011). Mindfully innovating your business model. *Gestion 2000*, 28(5), 47-61.
- Goh, M., Lim, J. Y., & Meng, F. (2007). A stochastic model for risk management in global supply chain networks. *European Journal of Operational Research*, 182(1), 164-173.
- Goldberg, J., & Markóczy, L. (2000). Complex rhetoric and simple games. *Emergence*, 2(1), 72-100.
- Gopalakrishnan, S., & Damanpour, F. (1997). A Review of Innovation Research in Economics, Sociology and Technology Management. *International Journal of Management Science*, 25(1), 15-28.
- Gordijn, J., & Akkermans, H. (2001). Designing and evaluating e-business models. *IEEE intelligent Systems*(4), 11-17.
- Graham, J. R., Harvey, C. R., Popadak, J., & Rajgopal, S. (2017). *Corporate culture: Evidence from the field*. Retrieved from
- Griffith, E. (2014). Why startups fail, according to their founders. *Fortune Magazine*, September, 25.
- Griol-Barres, I., & Martinez, D. (2013). *A self-assessment tool for Business Models and Automatic Generation of Business Opportunities*.
- Grix, J. (2002). Introducing students to the generic terminology of social research. *Politics*, 22(3), 175-186.

- Grossman, T. A. (2006). Integrating spreadsheet engineering in a management science course: A hierarchical approach. *INFORMS Transactions on Education*, 7(1), 18-36.
- Grossman, T. A. (2007). Spreadsheet engineering: A research framework. *arXiv preprint arXiv:0711.0538*.
- Grundy, T. (2006). Rethinking and reinventing Michael Porter's five forces model. *Strategic Change*, 15(5), 213-229.
- Guba, E. G. (1990). *The paradigm dialog*: Sage publications.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*: Sage.
- Gummesson, E., Mele, C., Polese, F., Nenonen, S., & Storbacka, K. (2010). Business model design: conceptualizing networked value co-creation. *International Journal of Quality and Service Sciences*, 2(1), 43-59.
- Günzel, F., & Holm, A. B. (2013). One Size Does Not Fit All—Understanding The Front-End And Back-End Of Business Model Innovation. *International Journal of Innovation Management*, 17(01), 1340002.
- Hacklin, F., Minato, N., & Kobayashi, T. (2015). The business model bank: conceptualizing a database structure for large-sample study of an emerging management concept. *arXiv preprint arXiv:1503.01427*.
- Hai, D. (1986). *Organizational Behavior: Experiences and Cases*. St. Paul: West Publishing.
- Hall, D. (2002). *You've Got to Conform to Create: The Implications of Corporate Culture on*. Paper presented at the Workshop on Innovation in Government.
- Hamel, G., & Trudel, J. D. (2001). *Leading the revolution*: No longer published by Elsevier.
- Hampden-Turner, C. (1990). *Creating corporate culture: from discord to harmony*.
- Hanks, S. H., Watson, C. J., Jansen, E., & Chandler, G. N. (1993). Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organizations. *Entrepreneurship Theory and Practice*, 18, 5-5.
- Hayes, J., & Finnegan, P. (2005). Assessing the of potential of e-business models: towards a framework for assisting decision-makers. *European Journal of Operational Research*, 160(2), 365-379.
- Hedlund, G. (1994). A model of knowledge management and the N-form corporation. *Strategic Management Journal*, 15(S2), 73-90.
- Hedman, J., & Kalling, T. (2003). The business model concept: theoretical underpinnings and empirical illustrations. *European Journal of Information Systems*, 12(1), 49-59.
- Heikkilä, M., Solaimani, S., Soudunsaari, A., Hakanen, M., Kuivaniemi, L., & Suoranta, M. (2015). Performance estimation of networked business models: case study on a Finnish eHealth Service Project. *Journal of Business Models* (2014), 2(1), 71-88.

- Herr, K., & Anderson, G. L. (2005). *The action research dissertation: A guide for students and faculty*. Sage.
- Hestenes, D. (1987). Toward a modeling theory of physics instruction. *American journal of physics*, 55(5), 440-454.
- Heucher, M. (2002). *Planen, gründen, wachsen: mit dem professionellen Businessplan zum Erfolg (Planning, Founding, Growing - How to be Successful Using a Business Plan)*: Redline Wirtschaft bei Ueberreuter.
- Hidalgo, A., & Albors, J. (2005). *Innovation management techniques and tools: a review from theory and practice*.
- Hill, T., & Westbrook, R. (1997). SWOT analysis: it's time for a product recall. *Long Range Planning*, 30(1), 46-52.
- Hoffmann, F. (2013). *Visual Business Model Ideation*. (Doctor of Philosophy in Management), University of St. Gallen, Zürich. (4154)
- Holden, C., & Womack, K. (2000). Spreadsheet modeling in finance and investment courses.
- Honig, B., & Karlsson, T. (2004). Institutional forces and the written business plan. *Journal of management*, 30(1), 29-48.
- Horan, J. (2004). The one page business plan. *Berkeley, CA: The One Page Business Plan Company*.
- Horváth, P., & Kaufmann, L. (1998). Balanced Scorecard-ein Werkzeug zur Umsetzung von Strategien. *Harvard Business Manager*, 20, 39-50.
- Hu, B. (2014). Linking business models with technological innovation performance through organizational learning. *European Management Journal*, 32(4), 587-595.
- Huber, D., Kaufmann, H., & Steinmann, M. (2015). *Bridging the Innovation Gap-Bauplan des innovativen Unternehmens*: Springer-Verlag.
- Im, K., & Cho, H. (2013). A systematic approach for developing a new business model using morphological analysis and integrated fuzzy approach. *Expert Systems with Applications*, 40(11), 4463-4477.
- Ioana, A., Mirea, V., & Balescu, C. (2009). Analysis of service quality management in the materials industry using the bcg matrix method. *Amfiteatru Economic Journal*, 11(26), 270-276.
- Iqbal, A. (2012). Book Review: ADAPT – why success always starts with failure. *International Journal of Innovations in Business 2012*.
- Irani, Z., Beskese, A., & Love, P. (2004). Total quality management and corporate culture: constructs of organisational excellence. *Technovation*, 24(8), 643-650.
- Ireland, R. D., Hitt, M. A., Camp, S. M., & Sexton, D. L. (2001). Integrating entrepreneurship and strategic management actions to create firm wealth. *The academy of Management executive*, 15(1), 49-63.
- Jackson, M. (1995). *Software requirements & specifications: a lexicon of practice, principles and prejudices*: ACM Press/Addison-Wesley Publishing Co.

- Jackson, W. T., Scott, D. J., & Schwagler, N. (2015). Using the business model canvas as a methods approach to teaching entrepreneurial finance. *Journal of Entrepreneurship Education*, 18(2), 99.
- Jacobides, M. G., Knudsen, T., & Augier, M. (2006). Benefiting from innovation: Value creation, value appropriation and the role of industry architectures. *Research Policy*, 35(8), 1200-1221.
- Jacobsen, L. K. (2003). *Bestimmungsfaktoren für Erfolg im Entrepreneurship*. (Dissertation zur Erlangung des akademischen Grades Doktorin der Philosophie (Dr. phil.)), Freie Universität Berlin.
- Jain, R. (2013). A Review of Facilitators, Barriers and Gateways to Entrepreneurship: Directions and Future Research. *South Asian Journal of Management*, 30(3), 123-163.
- Jaroschinsky, A., & RÓZSA, J. (2015). Kompetenzorientierte Didaktik der Entrepreneurship Education.
- Johnson. (2010). *Seizing the White Space - Business Model Innovation for Growth and Renewal*. Boston, Massachusetts: Harvard Business Press.
- Johnson, Christensen, C. M., & Kagermann, H. (2009). Reinventing Your Business Model. *Harvard Business Review*.
- Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. *Harvard Business Review*, 86(12), 57-68.
- Jones, G. M. (1960). Educators, electrons, and business models: a problem in synthesis. *Accounting Review*, 619-626.
- Kadijevich, D. (2009). *Simple spreadsheet modeling by first-year business undergraduate students: Difficulties in the transition from real world problem statement to mathematical model*. Paper presented at the Mathematical applications and modeling in the teaching and learning of mathematics: Proceedings the 11th International Congress on mathematical Education, Mexico.
- Kambil, A., Ginsberg, A., & Bloch, M. (1997). Rethinking Value Propositions. *New York, NYU Center for Research on Information Systems*.
- Kaplan, R. S., & Norton, D. P. (2000). *Putting the balanced scorecard to work*. Harvard Business Review OnPoint.
- Kaplan, R. S., & Norton, D. P. (2001). Transforming the balanced scorecard from performance measurement to strategic management: Part II. *Accounting horizons*, 15(2), 147-160.
- Karlsson, T., & Honig, B. (2009). Judging a business by its cover: An institutional perspective on new ventures and the business plan. *Journal of business venturing*, 24(1), 27-45.
- Katila, R., Chen, E. L., & Piezunka, H. (2012). All the right moves: How entrepreneurial firms compete effectively. *Strategic Entrepreneurship Journal*, 6(2), 116-132.

- Kaufmann, M. (2016). Die Business Model Canvas als Lehrmethode der ökonomischen Bildung.
- Kerr, J., & Slocum, J. W. (1987). Managing corporate culture through reward systems. *The academy of Management executive*, 1(2), 99-107.
- Kim, C. W., & Mauborgne, R. (2005). *Blue Ocean Strategy - How to Create Unontested Market Space and Make the Competiton Irrelevant*. Boston, Massachusetts: Harvard Business Press.
- Kindström, D. (2010). Towards a service-based business model—Key aspects for future competitive advantage. *European Management Journal*, 28(6), 479-490.
- Kindström, D., & Kowalkowski, C. (2014). Service innovation in product-centric firms: A multidimensional business model perspective. *Journal of Business & Industrial Marketing*, 29(2), 96-111.
- King, R. (2010). Advanced Business Model Canvas: 3 Questions You Must Ask Before Mapping Your Business Model. Retrieved from <http://businessmodelhub.com/profiles/blogs/advanced-business-model-canvas>
- Kirner, E., Kinkel, S., & Jaeger, A. (2009). Innovation paths and the innovation performance of low-technology firms—An empirical analysis of German industry. *Research Policy*, 38(3), 447-458.
- Klang, D., Wallnöfer, M., & Hacklin, F. (2014). The business model paradox: A systematic review and exploration of antecedents. *International Journal of Management Reviews*, 16(4), 454-478.
- Kleppe, A. G., Warmer, J. B., & Bast, W. (2003). *MDA explained: the model driven architecture: practice and promise*: Addison-Wesley Professional.
- Kose, M. A., & Yi, K.-M. (2006). Can the standard international business cycle model explain the relation between trade and comovement? *Journal of international Economics*, 68(2), 267-295.
- Kotler, P., Berger, R., & Bickhoff, N. (2010). The quintessence of strategic management. *What You Really Need to Know to Survive in Business*, Berlin.
- Kotler, P., Keller, K. L., & Bliemel, F. (2007). *Marketing-management: Strategien für wertschaffendes Handeln*: Pearson Deutschland GmbH.
- Kotter, J. P. *Leading Change*. Boston: Harvard Business School Press, 1996.
- Kruck, S. E., & Sheetz, S. D. (2001). Spreadsheet accuracy theory. *Journal of Information Systems Education*, 12(2), 93-108.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5-6), 411-432.
- Kruse, P. (2013). *next practice - Erfolgreiches Management von Instabilität (Successful Management of Instability)*. Offenbach: GABAL management.
- Kühne, T. (2005). *What is a Model?* Paper presented at the Dagstuhl Seminar Proceedings.
- Kusiak, A. (2007). Innovation: The Living Laboratory Perspective. *Computer-Aided Design & Applications*, 4(6), 863-876.

- Lambert, S. (2015). The importance of classification to business model research. *Journal of Business Models*, 3(1).
- Lambert, S. C., & Davidson, R. A. (2013). Applications of the business model in studies of enterprise success, innovation and classification: An analysis of empirical research from 1996 to 2010. *European Management Journal*, 31(6), 668-681.
- Lasswell, H. D., Lerner, D., & Fisher, H. H. (1951). *The policy sciences: Recent developments in scope and method*. Stanford University Press.
- Leimgruber, J., & Prochinig, U. (2002). *Das Rechnungswesen als Führungsinstrument*. Verlag SKV.
- Lepore, J. (2014, 23 June 2014). What the gospel of innovation gets wrong.
- Leschke, J. (2013). Business Model Mapping: Application and Experience in an Introduction to Entrepreneurship Course. *Journal of Entrepreneurship Education*, 16(Special Issue, 2013), 77-91.
- Levins, R. (1966). The strategy of model building in population biology. *American scientist*, 54(4), 421-431.
- Lincoln, Y. S. (1985). *Naturalistic inquiry* (Vol. 75): Sage.
- Linden, A., & Fenn, J. (2003). Understanding Gartner's hype cycles. *Strategic Analysis Report N° R-20-1971*. Gartner, Inc.
- Linder, J. (2000). *Changing business models: surveying the landscape*.
- Linder, J. C., & Cantrell, S. (2001). Five business-model myths that hold companies back. *Strategy & leadership*, 29(6), 13-18.
- Lindgardt, Z., Reeves, M., Stalk, G., & Deimler, M. S. (2009). Business model innovation. *When the Game Gets Tough, Change the Game*, The Boston Consulting Group, Boston, MA.
- Lindner, J. (2015). Entrepreneurship Education für Jugendliche. *GW-Unterricht*, 140(4), 3949.
- Linstone, H. A., & Turoff, M. (1975). *The Delphi method: Techniques and applications* (Vol. 29): Addison-Wesley Reading, MA.
- Lombriser, R., & Abplanalp, P. A. (1998). Strategisches management. *Visionen entwickeln. Strategien umsetzen. Erfolgspotentiale ausbauen*. Zürich (Versus).
- London, T., & Hart, S. L. (2004). Reinventing strategies for emerging markets: beyond the transnational model. *Journal of international business studies*, 35(5), 350-370.
- Loo, R. (2002). The Delphi method: a powerful tool for strategic management. *Policing: An International Journal of Police Strategies & Management*, 25(4), 762-769.
- Magretta, J. (2002). Why Business Models Matter. *Harvard Business Review*.
- Mahajan, V., Muller, E., & Bass, F. M. (1991). New product diffusion models in marketing: A review and directions for research *Diffusion of technologies and social behavior* (pp. 125-177): Springer.

- Mansfield, G., & Fourie, L. (2004). Strategy and business models—strange bedfellows? A case for convergence and its evolution into strategic architecture. *South African Journal of Business Management*, 1.
- Manson, S. M. (2001). Simplifying complexity: a review of complexity theory. *Geoforum*, 32(3), 405-414.
- Maritz, A., Jones, C., & Shwetter, C. (2015). The status of entrepreneurship education in Australian universities. *Education+ Training*, 57(8/9), 1020-1035.
- Markides, C., & Charitou, C. D. (2004). Competing with dual business models: A contingency approach. *The academy of Management executive*, 18(3), 22-36.
- Markides, C. C. (2013). Business model innovation: what can the ambidexterity literature teach us? *The Academy of Management Perspectives*, 27(4), 313-323.
- Mason, C., & Stark, M. (2004). What do investors look for in a business plan? A comparison of the investment criteria of bankers, venture capitalists and business angels. *International Small Business Journal*, 22(3), 227-248.
- Mason, K., & Spring, M. (2011). The sites and practices of business models. *Industrial Marketing Management*, 40(6), 1032-1041.
- Maurya, A. A. (2010). Why Lean Canvas vs Business Model Canvas? Retrieved from <http://practicetrumpstheory.com/2012/02/why-lean-canvas/>
- McAdam, R., & McClelland, J. (2002). Individual and team- based idea generation within innovation management: organisational and research agendas. *European Journal of Innovation Management*, 5(2), 86-97. doi:10.1108/14601060210428186
- McClelland, D. C. (1961). *77ie achieving society*: Princeton, NJ: Van Nostrand.
- McGinn, D. (2012). Too Many Pivots, Too Little Passion. *Harvard Business Review*, 134-135.
- McGrath, R. G. (2000). Exploaratory Learning, Innovative Capacity and the Role of Managerial Oversight. *Academy of Management Journal*, 44(1), 118-131.
- McGrath, R. G. (2010). Business models: a discovery driven approach. *Long Range Planning*, 43(2), 247-261.
- McGrath, R. G., & MacMillan, I. C. (1995). *Discovery driven planning*: Wharton School, Snider Entrepreneurial Center.
- Meglino, B. M., Ravlin, E. C., & Adkins, C. L. (1989). A work values approach to corporate culture: A field test of the value congruence process and its relationship to individual outcomes. *Journal of applied psychology*, 74(3), 424.
- Mellor, S. J., Clark, T., & Futagami, T. (2003). Model-driven development: guest editors' introduction. *IEEE software*, 20(5), 14-18.
- Merrifield, D. B. (2000). Growth strategies for the "new" economy. *Research-Technology Management*, 43(6), 9-11.

- Mezger, F. (2014). Toward a capability-based conceptualization of business model innovation: insights from an explorative study. *R&D Management*, 44(5), 429-449.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2013). *Qualitative data analysis*: Sage.
- Mitchell, D., & Coles, C. (2003). The ultimate competitive advantage of continuing business model innovation. *Journal of Business Strategy*, 24(5), 15-21.
- Moore, J. F. (2006). Business ecosystems and the view from the firm. *The antitrust bulletin*, 51(1), 31-75.
- Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur's business model: toward a unified perspective. *Journal of Business Research*, 58(6), 726-735.
- Moses, J. W., & Knutsen, T. L. (2012). *Ways of knowing: Competing methodologies in social and political research*: Palgrave Macmillan.
- Motulsky, H., & Christopoulos, A. (2004). *Fitting models to biological data using linear and nonlinear regression: a practical guide to curve fitting*: Oxford University Press.
- Mowat, J. (2002). Corporate Culture. *The Herridge Group*, 3.
- Moyon, E., & Lecocq, X. (2010). Co-evolution between stages of institutionalization and agency: the case of the music industry's business model. *Management international/Gestión Internacional/International Management*, 14(4), 37-53.
- Najmaei, A. (2016). How Do Entrepreneurs Develop Business Models in Small High-Tech Ventures? An Exploratory Model from Australian IT Firms. *Entrepreneurship Research Journal*, 6(3), 297-343.
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: known worlds and new frontiers. *Journal of Small Business Management*, 49(1), 55-70.
- Nielsen, C., & Lund, M. (2014). A Brief history of the business model concept. *Available at SSRN*.
- Nielsen, C., & Montemari, M. (2013). The Role of Human Resources in Business Model Performance: The Case of Network-Based Companies. *Forthcoming in Journal of Human Resource Costing and Accounting*, 16(2), 142-164.
- Nijssen, E. J., & Lieshout, K. F. (1995). Awareness, use and effectiveness of models and methods for new product development. *European Journal of Marketing*, 29(10), 27-44.
- Ninck, A., Bürki, L., Hungerbühler, R., & Mühlemann, H. (2004). *Systemik - Vernetztes Denken in komplexen Situationen* (Vol. 4). Zürich: Orell Füssli Verlag.
- Nirjar, A. (2011). *Entrepreneurship Development*: Sanbun Publishers.
- Nobel, C. (2011). *Teaching a 'Lean Startup' Strategy*. Retrieved from Harvard:
- Norreklit, H. (2000). The balance on the balanced scorecard a critical analysis of some of its assumptions. *Management accounting research*, 11(1), 65-88.
- O'reilly, T. (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications & strategies*(1), 17.

- Oliner, S., Rudebusch, G., & Sichel, D. (1995). New and old models of business investment: a comparison of forecasting performance. *Journal of Money, Credit and Banking*, 27(3), 806-826.
- Orlikowski, W., & Hoffman, D. (1997). An improvisational model for change management: The case of groupware technologies. *Inventing the Organizations of the 21st Century*, 265.
- Ortt, J. R., & van der Duin, P. A. (2008). The evolution of innovation management towards contextual innovation. *European Journal of Innovation Management*, 11(4), 522-538. doi:10.1108/14601060810911147
- Osiyevskyy, O., & Dewald, J. (2015). Inducements, impediments, and immediacy: exploring the cognitive drivers of small business managers' intentions to adopt business model change. *Journal of Small Business Management*, 53(4), 1011-1032.
- Osterwalder, A. (2004). *THE BUSINESS MODEL ONTOLOGY A PROPOSITION IN A DESIGN SCIENCE APPROACH*. (Docteur en Informatique de Gestion), Université de Lausanne, Lausanne.
- Osterwalder, A. (2012). Value Proposition Designer. Retrieved from <http://businessmodelalchemist.com/blog/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html>
- Osterwalder, A., & Pigneur, Y. (2003). *Modeling value propositions in e-Business*. Paper presented at the Proceedings of the 5th international conference on Electronic commerce.
- Osterwalder, A., & Pigneur, Y. (2004). *Investigating the Use of the Business Model Concept through Interviews*. Paper presented at the ICEB.
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation*. Hoboken, New Jersey: WILEY.
- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015). *Value Proposition Design: How to Create Products and Services Customers Want*. John Wiley & Sons.
- Osterwalder, A., Pigneur, Y., & Tucci, C. (2005). Clarifying business models: Origins, present, and future of the concept. *Communications of the association for Information Systems*, 16(1), 1.
- Page, M. (2014). Business models as a basis for regulation of financial reporting. *Journal of Management & Governance*, 18(3), 683-695.
- Palocsay, S. W. P. S. W., & Markham, I. S. M. I. S. (2002). Teaching Spreadsheet Teaching Spreadsheet-Based Decision Support Based Decision Support Systems with Visual Basic for Applications Systems with Visual Basic for Applications. *Information Technology, Learning, and Performance Journal*, 20(1), 27.
- Panko, R. R. (2008). Spreadsheet errors: What we know. what we think we can do. *arXiv preprint arXiv:0802.3457*.
- Pateli, A. (2003). A framework for understanding and analysing ebusiness models. *BLED 2003 Proceedings*, 4.

- Petrovic, O., Kittl, C., & Teksten, R. D. (2001). Developing business models for ebusiness. Available at SSRN 1658505.
- Poggenpoel, M., & Myburgh, C. (2003). The researcher as research instrument in educational research: A possible threat to trustworthiness?(A: research_instrument). *Education*, 124(2), 418-423.
- Polanyi, M. (2009). *The tacit dimension*: University of Chicago press.
- Porter, M. E. (1985). Competitive advantage: creating and sustaining superior performance. 1985. *New York: FreePress*.
- Porter, M. E. (1996). What is strategy? *Published November*.
- Porter, M. E. (1998). Cluster and the new economics of competition.
- Porter, M. E. (2001). Strategy and the Internet. *Harvard Business Review*, 79, 62-78.
- Porter, M. E. (2008). *Competitive advantage: Creating and sustaining superior performance*: Simon and Schuster.
- Powell, S. G., Baker, K. R., & Lawson, B. (2008). A critical review of the literature on spreadsheet errors. *Decision support systems*, 46(1), 128-138.
- Rammer, C., Köhler, C., Murmann, M., Pesau, A., Schwiebacher, F., Kinkel, S., . . . Som, O. (2011). Innovationen ohne Forschung und Entwicklung. *Eine Untersuchung zu Unternehmen, die ohne eigene FuE-Tätigkeit neue Produkte und Prozesse*.
- Read, S., & Sarasvathy, S. (2005). *Knowing what to do and doing what you know: Effectuation as a form of entrepreneurial expertise*. (IMD 2005-17). Lausanne, Switzerland.
- Ries, E. (2008-2013). *Startuplessenslearned*. Retrieved from <http://www.startuplessonslearned.com>
- Ries, E. (2011). *The Lean Startup - How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. New York: Crown Business.
- Rifkin, J. (2014). *The zero marginal cost society: The internet of things, the collaborative commons, and the eclipse of capitalism*: Palgrave Macmillan.
- Ripsas, S. (2004). *Von der Idee zum innovativen Geschäftsmodell*. [EXIST-Workshops Entrepreneurship Education].
- Robehmed, N. (2013). What Is A Startup? Forbes Media & Entertainment.
- Robson, C., & McCartan, K. (2016). *Real world research*: John Wiley & Sons.
- Rode, V., & Vallaster, C. (2005). Corporate branding for start-ups: The crucial role of entrepreneurs. *Corporate Reputation Review*, 8(2), 121-135.
- Rogers, E. M. (2003). *Diffusion of Innovations* (Vol. 5). New York: Free Press.
- Rüegg-Stürm, J. (2003). *Das neue St. Galler Management-Modell: Grundkategorien einer integrierten Managementlehre: der HSG-Ansatz* (Vol. 2): Haupt.
- Sääskilahti, M. (2016). Business Model Based Concept Generation-Understanding, creating and managing concepts in business.

- Sadri, G., & Lees, B. (2001). Developing corporate culture as a competitive advantage. *Journal of Management Development*, 20(10), 853-859.
- Salow, B. (2017). Partiality and Retrospective Justification. *Philosophy & Public Affairs*, 45(1), 8-26.
- Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research methods for business students, 5/e*: Pearson Education India.
- Savenije, H. (2009). HESS Opinions" The art of hydrology". *Hydrology and Earth System Sciences*, 13(2), 157-161.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2): John Wiley & Sons.
- Schensul, S. L., Schensul, J. J., & LeCompte, M. D. (1999). *Essential ethnographic methods: Observations, interviews, and questionnaires* (Vol. 2): Rowman Altamira.
- Schumpeter, J. (1934). *The Theory of Economic Development. An inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge: Harvard University Press.
- Schutt, R. K. (2011). *Investigating the social world: The process and practice of research*: Pine Forge Press.
- Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. *Handbook of qualitative research*, 1, 118-137.
- Seddon, P. B., Lewis, G. P., Freeman, P., & Shanks, G. (2004). The case for viewing business models as abstractions of strategy. *The Communications of the Association for Information Systems*, 13(1), 64.
- Seila, A. F. (2005). *Spreadsheet simulation*. Paper presented at the Proceedings of the 37th conference on Winter simulation.
- Sensevy, G., Tiberghien, A., Santini, J., Laubé, S., & Griggs, P. (2008). An epistemological approach to modeling: Cases studies and implications for science teaching. *Science education*, 92(3), 424-446.
- Shafer, S. M., Smith, H. J., & Linder, J. C. (2005). The power of business models. *Business horizons*, 48(3), 199-207.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, 25(1), 217-226.
- Sheehan, N. T., & Stabell, C. B. (2007). Discovering new business models for knowledge intensive organizations. *Strategy & leadership*, 35(2), 22-29.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
- Siggelkow, N., & Levinthal, D. A. (2003). Temporarily divide to conquer: Centralized, decentralized, and reintegrated organizational approaches to exploration and adaptation. *organization Science*, 14(6), 650-669.
- Simon, H. A. (1979). Rational decision making in business organizations. *The American economic review*, 69(4), 493-513.

- Simon, H. A. (1996). *The sciences of the artificial*: MIT press.
- Smith, A. C. (2005). Complexity theory for organisational futures studies. *foresight*, 7(3), 22-30.
- Smith, W. K., Binns, A., & Tushman, M. L. (2010). Complex business models: Managing strategic paradoxes simultaneously. *Long Range Planning*, 43(2), 448-461.
- Sosna, M., Treviño-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. *Long Range Planning*, 43(2), 383-407.
- Spieth, P., Schneckenberg, D., & Ricart, J. E. (2014). Business model innovation—state of the art and future challenges for the field. *R&D Management*, 44(3), 237-247.
- Stachowiak, H. (1973). *Allgemeine modelltheorie*.
- Stähler, P. (2002). *Geschäftsmodelle in der digitalen Ökonomie* (Vol. 2). Köln: Josef Eul Verlag.
- Stähler, P. (2013). Business Model Canvas - Knowing the Value within Your Business Model is Vital. Retrieved from <http://blog.business-model-innovation.com/category/business-model-canvas/>
- Stähler, P. (2014). *Das Richtige gründen: Werkzeugkasten für Unternehmen*: Murmann Verlag.
- Stake, R. E. (2010). *Qualitative research: Studying how things work*: Guilford Press.
- Stephenson, J., & Mintzer, R. (2008). *Ultimate Homebased Business Handbook*: Entrepreneur Press.
- Stevenson, H. H., & Jarillo, J. C. (1990). A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal*, 11(5), 17-27.
- Stewart, D. W., & Zhao, Q. (2000). Internet marketing, business models, and public policy. *Journal of Public Policy & Marketing*, 19(2), 287-296.
- Stölzle, W., Heusler, K. F., & Karrer, M. (2001). Die Integration der Balanced Scorecard in das Supply Chain Management-Konzept (BSCM). *Logistik Management*, 3(2-3), 73-85.
- Storbacka, K. (2011). A solution business model: Capabilities and management practices for integrated solutions. *Industrial Marketing Management*, 40(5), 699-711.
- Swaminathan, J. M., & Tayur, S. R. (2003). Models for supply chains in e-business. *Management Science*, 49(10), 1387-1406.
- Talluri, K., & Van Ryzin, G. (2004). Revenue management under a general discrete choice model of consumer behavior. *Management Science*, 50(1), 15-33.
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15(6), 285-305.

- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2), 172-194.
- Teo, T. S., & Tan, M. (1999). Spreadsheet development and 'what-if' analysis: quantitative versus qualitative errors. *Accounting, Management and Information Technologies*, 9(3), 141-160.
- Tidd, J. (2001). Innovation management in context: environment, organization and performance. *International Journal of Management Reviews*, 3(3), 169-183.
- Tikkanen, H., Lamberg, J.-A., Parvinen, P., & Kallunki, J.-P. (2005). Managerial cognition, action and the business model of the firm. *Management Decision*, 43(6), 789-809.
- Timmers, P. (1998). Business Model for Electronic Markets. *Focus Theme Electronic Markets*, 8(2), 3-8.
- Trimi, S., & Berbegal-Mirabent, J. (2012). Business model innovation in entrepreneurship. *International Entrepreneurship and Management Journal*, 8(4), 449-465.
- Ulkuuniemi, P., Pekkarinen, S., Palo, T., & Tähtinen, J. (2011). A network perspective on business models for emerging technology-based services. *Journal of Business & Industrial Marketing*, 26(5), 377-388.
- Ulwick, A. W. (2002). Turn customer input into innovation. *Harvard Business Review*, 80(1), 91-98.
- Urban, G. L., & Von Hippel, E. (1988). Lead user analyses for the development of new industrial products. *Management Science*, 34(5), 569-582.
- Van der Meer, H. (2007). Open innovation—the Dutch treat: challenges in thinking in business models. *Creativity and Innovation Management*, 16(2), 192-202.
- Voelpel, S. C., Leibold, M., & Tekie, E. B. (2004). The wheel of business model reinvention: how to reshape your business model to leapfrog competitors. *Journal of Change Management*, 4(3), 259-276.
- Wagner, T., Tilly, R., Bodenbenner, P., Seltitz, A., & Schoder, D. (2015). Geschäftsmodellinnovation in der Praxis: Ergebnisse einer Expertenbefragung zu Business Model Canvas und Co (Business Model Innovation in Practice: Expert Interviews about the Business Model Canvas etc.).
- Wallnöfer, M., & Hacklin, F. (2013). The business model in entrepreneurial marketing: A communication perspective on business angels' opportunity interpretation. *Industrial Marketing Management*, 42(5), 755-764.
- Watson, G. H. (2002). Peter F. Drucker: Delivering value to customers. *Quality Progress*, 35(5), 55.
- Week, B. (2000). Knowledge management and new organization forms: a framework for business model innovation. *Knowledge management and virtual organizations*, 2-19.

- Weill, P., & Vitale, M. (2002). What IT infrastructure capabilities are needed to implement e-business models. *MIS quarterly Executive*, 1(1), 17-34.
- Weinhardt, C., Anandasivam, A., Blau, B., & Stößer, J. (2009). Business models in the service world. *IT professional*(2), 28-33.
- Welsh, D. H., & Dragusin, M. (2013). The new generation of massive open online course (MOOCS) and entrepreneurship education. *Small Business Institute Journal*, 9(1), 51.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: a configurational approach. *Journal of business venturing*, 20(1), 71-91.
- Wirtz, B. W. (2010). Business model management. *Gabler, Wiesbaden*.
- Wirtz, B. W., Schilke, O., & Ullrich, S. (2010). Strategic development of business models: implications of the Web 2.0 for creating value on the internet. *Long Range Planning*, 43(2), 272-290.
- Wirtz, J., & Ehret, M. (2012). Service-based business models: transforming businesses, industries and economies. *Serving customers: Global services marketing perspectives*.
- Wolcott, R. C., & Lippitz, M. J. (2007). The four models of corporate entrepreneurship. *MIT Sloan Management Review*, 49(1), 75.
- Yin, R. K. (2014). *Case study research: Design and methods*: Sage publications.
- Yip, G. S. (2004). Using strategy to change your business model. *Business Strategy Review*, 15(2), 17-24.
- Yunus, M., Moingeon, B., & Lehmann-Ortega, L. (2010). Building social business models: lessons from the Grameen experience. *Long Range Planning*, 43(2), 308-325.
- Zahra, S., & Dess, G. G. (2001). Entrepreneurship as a field of research: Encouraging dialogue and debate. *Academy of management review*, 26(1), 8-10.
- Zott, C., & Amit, R. (2007). Business model design and the performance of entrepreneurial firms. *organization Science*, 18(2), 181-199.
- Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1), 1-26.
- Zott, C., & Amit, R. (2010). Business model design: an activity system perspective. *Long Range Planning*, 43(2), 216-226.
- Zott, C., & Amit, R. (2013). The business model: A theoretically anchored robust construct for strategic analysis. *Strategic Organization*, 11(4), 403-411.
- Zott, C., Amit, R., & Massa, L. (2010). *The Business Model: Theoretical Roots, Recent Developments, and Future Research*. (WP-862).
- Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research. *Journal of management*, 37(4), 1019-1042.

Appendix

An exploration of the business model concept's meaning and usage in Switzerland: towards an application framework

PhD-Thesis

Oliver Stalder

December 2018

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1. Interview guides

1.1 Guide for interviewing the academics (sample 1)

Opening / contextual questions:

- 1) What are your research domain and your main/special area of interest?
- 2) What is your professional background?
- 3) What is your educational background (PhD, MBA, etc.)?
- 4) When and in which contexts (professional, educational) have you first learned about the term 'business model'?
- 5) What relationship do you have to technology-based small businesses in Switzerland (or possibly even to the building technology sector)?

Main questions:

- 6) What do you understand by the term 'business model'?
- 7) Do you associate specific concepts/frameworks with your understanding of the term?
- 8) Which different business model concepts/frameworks do you know (beside your own, if appropriate) and what are their strengths and weaknesses?
- 9) Have you ever applied the business model concept in practice:
 - a) If yes, which concepts and frameworks have you used and why (strengths/weaknesses/...)?
 - b) If yes, do you think there is something missing in the concepts/frameworks you have been applying so far?
 - c) If no, why not?
- 10) How do you think do support professionals understand the term 'business model'?
- 11) How do you think do small business owner-managers understand the term 'business model'?
- 12) How do you think do small business owner-managers apply the business model concept in practice?
- 13) Do you think the business model concept is a useful managerial concept?
 - a) If yes, why do you think so?

b) If no, why not?

Closing question:

14) Is there something else you associate with the term 'business model'?

1.2 Guide for interviewing the business support professionals (sample 2)

Opening / contextual questions:

- 1) What is your area of specialisation (in which you deliver support)?
- 2) What is your professional background?
- 3) What is your educational background (engineering training, MBA, PhD, etc.)?
- 4) When and in which contexts (professional, educational) have you first learned about the term 'business model'?
- 5) What relationship do you have to technology-based small businesses in Switzerland (or possibly even to the building technology sector)?

Main questions:

- 6) What do you understand by the term 'business model'?
- 7) Do you associate specific concepts/frameworks with your understanding of the term?
- 8) What do you think are the strengths and weaknesses of the various concepts you know?
- 9) Do you think the concept is particularly interesting for specific sectors or types of organisations?
- 10) Have you ever applied the business model concept in your support activities:
 - a) If yes, which concepts and frameworks have you used and why (strengths/weaknesses/...)?
 - b) If yes, do you think there is something missing in the concepts/frameworks you have been applying so far?
 - c) If no, why not?
- 11) How do you think do academics understand the term 'business model'?
- 12) How do you think do small business owner-managers understand the term 'business model'?

13) How do you think do small business owner-managers apply the business model concept in practice?

14) Do you think the business model concept is a useful managerial concept?

a) If yes, why do you think so?

b) If no, why not?

Closing question:

15) Is there something else you associate with the term 'business model'?

1.3 Guide for interviewing the small business owner-managers (sample 3)

Opening / contextual questions:

1) Can you shortly describe your firm?

2) How long have you been working for the firm and in what positions, functions, and roles?

3) What is your professional background?

4) What is your educational background (engineering training, MBA, etc.)?

5) When and in which contexts (professional, educational) have you first learned about the term 'business model'?

Main questions part 1 (theoretical/conceptual):

6) What do you understand by the term 'business model'?

7) Do you associate specific concepts/frameworks with your understanding of the term?

(If not applicable → jump to question 10)

8) Have you ever applied the business model concept in practice:

a) If yes, which concepts and frameworks have you used and why (strengths/weaknesses/...)?

b) If yes, do you think there is something missing in the concepts/frameworks you have been applying so far?

c) If no, why not?

9) Do you think the business model concept is a useful managerial concept?

a) If yes, why do you think so?

b) If no, why not?

10)(If applicable) How do you think do academics and business support professionals understand and use the business model concept in practice?

Main questions part 2 (practical – as supplement or complement to questions 5-9):

11)Can you describe the logic of your business?

12)Can you describe the logic of your competitors' businesses (strong and weak competitors)?

Closing question:

13)Is there something else you associate with the term 'business model'?

2. Example of an interview transcript

2.1 S11 – Philosophical ‘Impulsator’

(I: Wie lautet ihr Spezialisierungsgebiet, was machen Sie?) 3:40

Ich habe zwei Schwerpunkte, einerseits eher einen Fach-Philosophischen. Beim Fach-Philosophischen möchte ich aber versuchen, nicht ein Fachidiot zu werden, sondern ganz viele Disziplinen und Fragestellungen miteinander zu verbinden. Aus meiner Sicht ist die Philosophie ein „Nicht-Fach“. Sie ist einfach für das zuständig, wofür sich sonst niemand zuständig fühlt. Das ist eben auch die Kunst vom Philosophen, dass er Fragen stellt, zu deren Beantwortung er nicht auf existierendes Wissen zurückgreifen kann. Auch nicht, um eine definitive Antwort zu geben, sondern der Seitenblick, auch auf andere Bereiche. Sich in diesem Zusammenhang den existenziellen Fragen zuwendet. Für mich persönlich ist das existenzielle auch immer die Offenheit für spirituelle Fragen. Fragen, für die ich jetzt nicht wie im Beruf eine gewisse Grundfertigkeit haben muss, sondern eher eine Grundausrichtung im Leben darstellen. Das ist der eine Schwerpunkt. Der andere ist, dass ich finde, die Philosophen müssen nicht nur in den Worten, oder in der diskursiven Kompetenz, brillant sein, sondern auch im Leben. Sie müssen auch im Leben Dinge anstossen. Man könnte fast sagen, Philosophen müssen auch ein wenig unternehmerisch werden. Das ist ein anderer Punkt. Und aus dem ist das Philosophicum entstanden. Also das Philosophicum ist nicht aus Aktien, die ich bekommen habe, sondern ist eine Eigeninitiative. Und Philosophen sind ohne unternehmerische Kompetenzen aus meiner Sicht nicht zukunftsfähig. Das ist der zweite Punkt. Da bin ich auch unterwegs und immer interessiert, wo man wieder neue Sachen anstossen kann. Wo redet man nicht darüber, sondern macht es auch. Daraus schöpfe ich je länger je mehr auch für die philosophische Frage im engeren Sinne. Lebenspraxis und die Erkenntnisfrage erfordern sich gegenseitig.

(I: Dann bieten Sie das auch als eine Art Dienstleistung für Unternehmen an, wenn ich das richtig verstehe?) 6:20

Genau. Ich habe gerade im April, war ich die meiste Zeit nicht hier im Philosophicum, sondern habe 5 bis 6 Unternehmensseminare im Ausland durchgeführt. Also, nicht dass ich nur Unternehmen philosophisch berate, sondern das Selbstverständnis hat etwas Unternehmerisches. Wie ein Arzt, der nie den Kontakt mit seinen Patienten sucht oder wie ein Philosoph, der sich nie mit den existenziellen Fragen, nur über das Wort, sondern auch über Taten definiert, ist nicht so eine glaubwürdige Figur.

(I: Mein philosophischer Background ist eher bescheiden. Am meisten habe ich mich wohl mit wissenschafts-philosophischen Themen wie Konstruktivismus oder Positivismus auseinandergesetzt.) 7:20

Ich finde auch, eine fachphilosophische Ausbildung ist sehr wertvoll, aber sie genügt einfach nicht. Sie ist quasi wie der technische Aspekt der Philosophie. Ist nicht genügend. Es ist ja auch, wenn Sie unternehmerisch unterwegs sind, ist der fachtechnische Anteil um ein Unternehmen zu führen nicht ausreichend. Es muss noch etwas anderes dazukommen. Das kann man nicht so lernen, wie man eine gewisse Terminologie lernen kann. Für mich ist es eine riesige Frage, wie die Philosophie, die ja Vermenschlichung des Menschen anstrebt, wie eine solche Philosophie heute eine ausser-universitäre Existenz noch hätte. Auf das kommt es an. Es geht ja nicht darum, dass Philosophie an der Uni gelehrt wird, sondern dass die Philosophie als Denkangebot an die Menschen gerichtet werden kann.

(I: Finde ich sehr interessant. Habe mir auch schon überlegt, mich nach dieser Ausbildung evtl. dem Thema Philosophie noch etwas mehr anzunähern, weil es bietet Stoff zum Nachdenken, wo man sonst nicht einfach zu dazukommt.) 8:40

So habe ich es auch mit dem Hochschulkurs in Luzern. Da habe ich auch versucht, eine Perspektive einzubringen, die etwas über den Tellerrand hinausblickt. Die Fähigkeit zu geben, den Horizont zu erweitern und nicht nur Anwendungswissen zu

geben, sondern situative Intelligenz zu entwickeln, also auch, und das ist jetzt wieder etwas für Unternehmer, Fragen zu wittern, die im Raum sind. Also Fragen auf die Spur zu kommen, die im Raum sind aber noch nicht eine feste Form bekommen haben. Das ist der ganze Bereich der Kreativität.

(I: Ich glaube, die Innovations-Leute haben ja auch so ein Modell von gasförmig, flüssig fest,) 9:35

.....ja, vielleicht kommen wir noch darauf zurück, zur Innovation.

(I: Auf jeden Fall Patrick war sehr begeistert von ihrer Vorlesung! Thema Geschäftsmodell: ist Ihnen Geschäftsmodell ein Begriff, wissen Sie noch, wann und in welchem Kontext sie diesen Begriff das erste Mal gehört haben?) 9:50

Diesen Ausdruck kenne ich so beiläufig. Habe mir gerade heute überlegt, was heisst das eigentlich, Geschäftsmodell? Ich habe es immer so verstanden, das Geschäftsmodell ist so eine Art visualisierbarer Strategieplan für die Wertschöpfung, in einem konkreten Anwendungsgebiet. Aber ich brauche diesen Ausdruck nicht. Es ist für mich kein Basisausdruck. Ich brauche ihn wie nicht. Rein aus den Wirtschaftswissenschaften. Ich brauche ihn nicht im Alltag. Ich frage nicht nach dem Geschäftsmodell. Was steckt dahinter und für wen. Ich brauche ihn nicht, habe andere Ausdrücke.

(I: Aber das ist demnach auch Ihr Verständnis, wenn Sie das so hören, dass es ein Strategieplan ist, den man versucht zu visualisieren.) 11:20

Ja. Und ein bestimmtes Modell, eine bestimmte Vorstellung, wie man ein Unternehmen grundstrukturiert.

(I: Z.B. in Form von Archetypen?) 11:50

Oder in Form von Abläufen, oder Besitz, von zentral aus oder der Peripherie. In Deutschland ist ja immer die Frage, da gibt es grosse Unternehmen, die eher denken, man müsse vom Zentrum aus gehen bis in die letzte Ader einer Filiale, oder andere, die sagen, das sei die programmierte Stupidität, weil man müsse von den Filialen aus die Impulse ins Unternehmen holen. Weil dort der Kundenkontakt ist. Ein ganz wichtiger Punkt. Das verbinde ich im weitesten Sinne auch mit unterschiedlichen Geschäftsmodellen.

*(I: Sie sehen also nicht nur das Geschäft, sondern auch den Kontext rund herum?)
12:40*

Ja, weil das ist jetzt eine philosophische Frage. Was ist überhaupt der Sinn vom Wirtschaften? Was ist der Sinn von einem Unternehmen? Und ein Unternehmen ist nicht Selbstzweck. Es ist nicht, dass man sich selber gut findet, es ist, jetzt ein wenig hoch formuliert, eine Liebeserklärung an die Welt und an die Menschen. Und man will das nicht nur als Behauptung in die Welt stellen, sondern man möchte auch etwas machen. Wenn man das ein wenig so sieht, gegenüber dem verwahrlosten Begriff vom Unternehmertum. Weil wir heute mit dem Unternehmerischen und dem Wirtschaftlichen den Egoismus vollkommen verbinden. An und für sich finde ich das auch nicht unternehmerisch gedacht, auch nicht wirtschaftlich, langfristig gesehen. Dann ist es nicht einmal ökonomisch gedacht.

(I: Dass man also möglichst nur das Geld in den Vordergrund setzt?) 13:40

Ja, das finde ich völlig verkehrt. Weil das Geld ist ja nur deshalb so nötig, weil es nicht das Wichtigste ist. Das Geld ist ja nie das Ziel des unternehmerischen Handelns, sondern es braucht Geld, damit unternehmerisches Handeln möglich ist. Es ist ja eine völlige Zielverfehlung, eine Mittel-Zweck-Perversion, was heute läuft.

Wenn man das sogar auf Hochschul-Ebene so lehrt. Das ist eine Begriffs-Verwirrung. Es gibt noch viele solcher Mittel-Zweck-Verkehrungen. Wenn man beim medizinischen Handeln, wenn man merkt, dass der Arzt etwas verschreibt, das nicht im Sinne des Patienten ist, sondern ganz andere Bedürfnisse befriedigt, dann ist das etwas hoch Problematisches. Wenn man es aber im Unternehmerischen so macht, heisst es häufig, du bist erfolgreich. Eigentlich müsste man sagen, du hast ein Problem. Nicht, dass du ein wirtschaftliches Problem hast, aber der Sinn, ein philosophisches Problem, du hast nicht den Sinn erfasst, von dem, was er macht. Um das noch zu sagen. Es gibt ja so eine hyperkritische Haltung, die sagt, ja die Wirtschaft, die denkt ohnehin nur ans Geld. Machen wir doch lieber etwas anderes, das nichts mit Wirtschaft zu tun hat. Aber das ist für mich eigentlich eine Kapitulation. Da räumt man eigentlich das Feld. Das ist an und für sich wie der Missbrauch zur Diskreditierung des Gebrauchs. Wenn ich sehe, dass jemand etwas falsch versteht, muss ich nicht diesen Missbrauch dazu missbrauchen, das falsch Verstandene preis zu geben. Damit lasse ich alles fahren. Deshalb ist es mir schon wichtig, dass man aus einer philosophisch existenziellen Perspektive versucht, das Wirtschaften neu zu denken und nicht einfach als den Hort der Egoisten abzuschreiben.

(I: Ich denke auch bei uns ist das Geld verdienen nicht im Vordergrund. Im Gegenteil. Hätte ich meine vorherige Stelle behalten, so wäre ich finanziell besser gestellt. Geld ist gleichwohl immer eine knappe Ressource und man muss überlegen, wie setzt man sie ein.) 16:00

Ja, genau.

(I: Und wenn man die gesamte Bilanz auf 10 Jahre hinaus anschaut, wäre man in einem Angestellten-Verhältnis finanziell wohl weiter.) 16:25

Und darum müsste man doch die jungen Menschen zum Unternehmerischen ermutigen und nicht sagen, geht doch einfach immer auf die sichere Seite.

(I: Fängt ja auch schon dort an, dass schon 20-jährige über ihre Vorsorge nachdenken. Ich meine, das zwingt einem ja dazu, den sicheren Weg zu wählen.)

16:50

Klammer auf. Was denken Sie zum bedingungslosen Grundeinkommen?

(I: Ich bin irgendwie gespalten zu diesem Thema.....) 16:55

.... okay, ich auch. Ich habe genau so gut Argumente dafür, wie auch sehr Gute dagegen. Aber es ist mir jetzt gerade in den Sinn gekommen, weil Sie gesagt haben, wegen der Altersvorsorge. Es wäre eine politische Idee, dass man den Menschen sagen würde, vergesst die Altersvorsorge, ihr müsst nicht daran denken. Vergesst das wirklich. Ihr könnt draussen übernachten, ist egal, macht einfach euer Ding. Wir zahlen aber jährlich etwas für eure Altersvorsorge ein. Ich bin überzeugt, wenn die Leute nicht diese Angst hätten, sie würden mit 65 an der Aare oder am Rhein zelteln müssen, dann hätte dies unglaubliche Impulse für die Wirtschaft. Weil viele machen etwas nicht, aus Angst, sie würden die Pensionskasse verlieren.

(I: Es ist ja verrückt, wie viele 20 bis 30-Jährige sich heute schon um die dritte Säule usw. kümmern.....) 18:20

Ja, genau.

(I: Sie haben gesagt, sie würden das Wort Geschäftsmodell in ihrem Alltag nicht gebrauchen. Stört sie vielleicht etwas am Begriff selbst?) 18:05

Ich finde, es gäbe bessere Ausdrücke. Geht es nur um das Geschäft, das ist das

erste bei dem, was man mit dem Geschäftsmodell ansprechen müsste. Ist es nicht schon eine gewisse Vereinseitigung? Und wenn, beim Modell hat für mich häufig den Charakter, entweder vom Grossen im Klein-Massstab. Also wenn man es im kleinen hat, muss man es nur noch grösser machen. Das ist im Technischen ja absolut nachvollziehbar, aber im Geschäftsmodell geht es ja auch um interaktive und sozial relevante Strukturierungen. Dann hat man das Feeling, jetzt hat man ja ein Modell, jetzt muss man es ja nur noch machen und sehen nicht, die wesentlichen Sachen wissen wir nicht, bevor wir sie nicht machen. Das heisst, dass wir gerade bei den entscheidenden Sachen nicht die Sicherheit eines Modells haben können, um produktiv unterwegs zu sein, also wenn das Modell ein kleines Vorbild wird von der Realität, besteht die Gefahr, dass man die Realität verfehlt. Das ist wie die Modellrechnung. Es gibt wahnsinnig viele Modelle. Aber die Welt hat die Eigenschaft, dass sie sich relativ wenig darum kümmert. Das ist interessant. Auch Lebensmodelle, Vorstellungen wie es sein sollte, das Leben funktioniert anders. Dass man den Modellbegriff selbst kritisch angehen muss. Es ist ein guter Diener aber schlechter Herr, sozusagen. Es ist ein gutes Hilfsmittel, aber kann nicht leitend sein.

(I: Dass man durch die Reduktion der Komplexität wesentliche Aspekte verliert?)

20:15

Ja, und die Fähigkeit, auf die Komplexität zu antworten. Dass man sich quasi wie an etwas klammert. Und in der Alltagspraxis eher so eine Vorstellung hat, wie es sein sollte, aber diese Vorstellung ist jetzt nicht unbedingt befruchtend für das, was man macht, sondern lenkt davon ab zu sehen, was jetzt gerade passiert. Dann gibt es das Titanic-Syndrom, völlig klar, er hat alles korrekt gemacht, korrekt, man kann nicht sagen, er hätte sich nicht an das Modell gehalten, er hat sich vielleicht zu sehr an das Modell gehalten. Auch bei politischen Systemen sieht man das häufig, dass man das Modell lieber hat als die Realität. Das darf grundsätzlich nicht passieren. Das unterscheidet einen Idealist von einem Fanatiker, oder von einem Modell-Fanatiker. Ein echter Idealist entscheidet sich für etwas, weil er für das Leben etwas machen möchte. Er hat immer nicht nur den Blick für das, woran er sich orientiert, sondern auch den Blick, wofür er sich orientiert, und das ist das Leben. Und wenn das Leben

eine andere Aufgabenstellung hat, sagt er nicht, „das geht dich nichts an, Leben“ und macht dem Leben einen Vorwurf und klammert sich an das, woran er sich orientiert, sondern versucht entsprechend, auf das zu antworten. Das ist für mich, ich komme dann noch darauf, der dialogische Charakter vom Unternehmer. Und Modelle haben dort ein Problem, wo sie uns diese Fähigkeit wie paralisieren, weil wir die Modell-Sicherheit haben, wir klammern uns an das Modell, und verlieren die Bereitschaft auf das Nicht-Antizipierbare, auf das aktuell sich zeigende sich einzulassen.

(I: Das Ganze kommt halt auch aus einem naturwissenschaftlich-technischen Kontext, wo man durch Reduzieren der Realität auf ein Modell gewisse Erfolge hatte.....) 22:20

Deshalb habe ich das Interaktive betont. Ich kann mir gut vorstellen, dass bei der Betonung nicht allzu menschlicher Faktoren das auch sinnvoll ist. Aber das Geschäftsmodell ist ja eine durch Menschen hervorgebrachte Wertschöpfung. Das sind Menschen, die ihre Aufgabe darin haben.

(I: Es ist durchaus so, dass ich für das Thema Geschäftsmodell, das Modellhafte generell, durch meinen technisch geprägten Background eine besondere Begeisterung hatte....) 22:55

Ich kann das schon nachvollziehen. Das wäre auch spannend für eine Diskussion oder einen Beitrag, indem man sagt, welche Welterklärungs-Modelle haben wir. Welche Lebens-Sinn-Modelle haben wir. Es gibt bspw. 7 Lebens-Sinn-Modelle. Die einen sehen so und so aus, die ändern so. Es kann etwas Attraktives haben, indem man sagt, welches sind die Grundmodelle, oder die Grundformen, vom Philosophieren. Es gibt 9 oder 12 oder 17, oder was sind die Grundformen der Intelligenz, gibt es 9, oder 10 vielleicht? Gibt es 12? Es gibt ja ganz Unterschiedliche. Auch die Fähigkeit, ein Bild für etwas zu finden, kann ich gut verstehen, und es ist ja ein guter Diener, wenn ich mir jetzt überlege, was sind die Grundmodelle religiöser

Systeme? Welches sind die Grund-Vorstellungen? Dann ist es vielleicht sinnvoll, auch heuristisch, dass man in kurzer Zeit gewisse Grundstrukturen erkennt, vielleicht auch in kurzer Zeit gewisse wiederkehrende Problempunkte erkennt. Aber das Problem taucht dann auf, wenn man meint, man habe damit die religiöse Praxis, oder die existenzielle Praxis, oder die unternehmerische Praxis in irgendeiner Form schon antizipiert. Weil die muss immer noch gemacht werden und sich am Leben bewähren. Auch hier wieder der Ausdruck „Gute Diener aber schlechte Herren“. Das ist doch so ein Volkssprichwort, ein guter Diener aber ein schlechter Herr. Es dient uns, aber wenn es Herrschaft über uns bekommt, dann schadet es. Also es gibt viele Sachen, die gute Diener sind, aber schlechte Herren. Das Geld zum Beispiel. Es ist auch ein guter Diener, aber ein schlechter Herr.

(I: Verstehe ich, wenn man nur in der Gelddimension denkt, ist man vermutlich auch nicht sehr glücklich. Es hat ja auch didaktische Zwecke, damit die Leute verstehen, woraus besteht ein Unternehmen überhaupt.) 25:20

Ja, und es würde mich Wunder nehmen, einmal zu hören, von Ihnen zum Beispiel, oder dass sie es kommentieren, was gibt es eigentlich für Grundmodelle, was sind so die vasaalen Geschäftsmodelle?

(I: Ihrer Frage vorerst etwas ausweichend, was sich in den letzten Jahren durchgesetzt hat, ist der Canvas von Osterwalder. Ich kann das kurz aufskizzieren (—> wird aufskizzieret und erläutert).) 25:25

Und gibt es Modelle, die man eindeutig als veraltet oder inadäquat bezeichnet?

(I: Es gibt alternative Frameworks, z.B. von St. Gallen gibt es eines, vom Prof. Gassmann, ein Dreiecksmodell mit den 4 wesentlichen Fragen zum Geschäft (wird erläutert). In der Literatur gibt es zahlreiche weitere Konzepte und Modelle, die meisten beziehen sich über die Dreiecksbeziehung Value Proposition, Customers,

Value Architecture. Das ist im wesentlichen der Kern.) 27:45

Deshalb ist das mit der Orientierung, dass es eine Orientierung gibt, auch zur Problembeschreibung, damit man besser sieht wo, vielleicht? Wenn ein Bedarf da ist, den Blick darauf zu lenken, ist eben das Modell hilfreich, ist wie ein Kompass. Ein Kompass kann helfen, aber man geht ja nicht wandern wegen dem Kompass. Dass man es nicht überschätzt. Das, was ich im Kurs an der HSLU dargestellt habe, auch ein Geschäftsmodell. Also, ich kann das ganz kurz zeigen. Und zwar auf sehr viele Bereiche, ich muss eine Frage hören, ich muss überhaupt eine Frage haben. Es muss ein Wesen sein, das Fragen hat, das Fragen hört, die in der Luft liegen. Das sind so Fähigkeiten, wo man noch fast keine Worte dafür hat, aber das ist auch bei jeder wissenschaftlichen Innovation, dass jemand eine Frage stellt, die andere noch nicht haben. Dass jemand auch nachvollziehen kann, dass andere Fragen haben, wo die anderen noch gar nicht gemerkt haben, dass die Frage bei ihnen besteht. Und schon anfängt, eine Antwort zu bilden. Also, kann man sagen, Weltfrage (macht Skizze). Und dann, suche ich, sagen wir eine Ich-Antwort. Dann mache ich aus dieser Ich-Antwort, das ist eigentlich die Invention, dann kommt die Innovation, das heisst, aus der Ich-Antwort bilde ich eine Ich-Frage, in der ich die Welt-Antwort suche. Das heisst, auf eine real konkrete Frage versuche ich, eine Idee zu entwickeln, aus der ich ein Produkt, oder was auch immer, weiterentwickle und, indem ich es auf den Markt bringe, merke, wie die Welt darauf reagiert. Das ist quasi ein grunddialogischer Bezug. Jetzt ist es auch noch dreigeteilt. Da unten ist der Bereich, wofür man tätig ist, da der Bereich - es gibt doch das Bild mit Kopf, Herz, Hand und Fuss - hier den Kopfbereich, Herzbereich, dann Hand und Fuss (zeichnet es auf Skizze ein). In der Philosophie die Freiheit des Denkens, Freiheit des Willens, und über diesen Bereich sage ich dann gleich etwas, und Freiheit des Handelns. Und das heisst nicht zufällig Handeln. Handeln und Handel sind ganz eng zusammen.

(I: Also das wirtschaftliche Handeln und das Handeln als solches (Verb)?) 31:50

Ja. Das ist nicht zufällig. Wie auch beim Begriff der Ökonomie. Und der mittlere

Bereich ist wie ein Herzbereich, das heisst wie kann ich eine Weltfrage in eine Ich-Antwort und eine Ich-Frage in eine Weltantwort verwandeln. Das ist dieser Bereich, der häufig im Unternehmerischen nicht diskutiert wird, aber sehr relevant ist. Die Leute haben nicht die Geduld, sich mit einer Weltfrage auseinander zu setzen, oder haben keine Zeit, um eine Antwort zu finden. Oder umgekehrt, sie haben eine Antwort in eine Ich-Frage, also in eine eigene Frage an die Welt entwickelt, aber resignieren hier, oder hier, oder hier (zeigt auf Skizze). Das ist wie das dialogische Bild der drei Bereiche Handlungsfreiheit, Handelsexzellenz, Willensexzellenz, Herzbereich und Erkenntnis. Exzellenz Kopfbereich, in einer Inventionsbewegung, in eine Innovation (Verlauf auf Skizze). Innovation als Verwirklichung.

(I: Also auch zwischen Invention und Innovation. Nach meinem bisherigen Verständnis ist die Invention die Erfindung, während die Innovation die erfolgreiche Vermarktung beinhaltet?) 33:20

Ja, und genau das ist der Punkt, wenn man als Unternehmer eine Frage hat, oder merkt, dass andere eine Frage haben, ein Bedürfnis haben nach etwas, dann sagt, hmm, interessant. Macht dann gedanklich, merkt, die brauchen vielleicht Mineralwasser, oder Flaschen, dann bilde ich eben eine Antwort, will aber nicht mich geniessen und sagen, ich bin ein Supergenie, weil auf alle die Fragen habe ich schon die Antwort, ist doch gut. Ich bin der Beste..... Nein! Er macht den Sprung und will aus dieser Antwort wiederum eine Frage machen, an die Welt, so dass die Welt darauf antworten kann, ja oder nein sagen kann. Oder was soll das!

(I: Die Frage an die Welt ist also zum Schauen, kommt das, was man anbietet an. Es kommt ein Feedback zurück und man macht entsprechend eine Anpassung.) 34:25

Ja, und häufig ist es so, und das würde ich als eine unternehmerische Grundfähigkeit bezeichnen, dass man ein unendliches Menschen-Interesse hat, dass man gut Menschen beobachten kann, was sie eigentlich....., das ist dieser Bereich da

(Skizze). Also, eine Sensibilität haben, was in der Luft liegt. Was könnte jetzt..... Ich sage den Studenten auch immer, sie sollen Ideen-Bücher...., sollen Fragen aufschreiben. Was ist jetzt in der Luft? Was müsste man jetzt? Das trifft für unternehmerische, geistige, politische Prozesse zu. Dass man ein Interesse hat, Bedürfnisse von Menschen, Nöte, zu erfassen. Dann kann man vielleicht auf das etwas entwickeln. Aber das ist noch immer die stille Seite, die finanziell auch nicht so riskante. In dem Moment, wo ich aber aus meiner Ich-Antwort eine Ich-Frage....., wenn ich z.B. in der Bildungs-Landschaft gewisse Fragen sehe, wo das Philosophicum eine mögliche Antwort wäre, das habe ich vor 30 Jahren schon gewusst. Der Schritt da hinunter (Skizze) ist aber sofort ein Schritt Richtung Realität, das heisst mit ganz neuen Risiken verbunden, das ist nicht einfach die Verlängerung von dem (Skizze). Wie ein Wechsel, es kostet plötzlich etwas. Also der Weg von der Welt-Frage in meine Denk-Stube ist nicht so riskant wie umgekehrt, also von meiner Denk-Stube, oder von der Forschungsabteilung, in die Realisierung.

(I: Es sind ja vielleicht auch nicht immer die gleichen Leute, die auf dieser oder jenen Seite stärker sind (Skizze), wenn ich es einmal ‚stärker‘ nennen darf?) 36:45

Ja, also was eindeutig der Fall ist, ist, dass diese Seite wird unter sogenannten Phil. 1-er etwas belächelt. Wir sind ja zuständig, für die Fragen die richtige Antwort zu finden. Das ist ja unser Job. Wir haben ja die Antwort für fast alles, wenn die Deppen nicht da wären, die.....(lächelt). Gut. Es ist ein grosser Fehler, eine grosse Überheblichkeit. Weil, aus meiner Sicht, glaube ich, dass für Welt-Fragen die Antworten schon längstens da sind. Nur, wir den haben nicht den Mut, aus den Antworten eine persönliche Frage an die Welt zu machen, und zu sagen, ich setze mich ein. Ich sollte die Antwort haben, aber es ist keine Frage mehr an die Welt. Wäre es eine Frage an die Welt, käme ich sofort auf diese Seite. Dann würde es mich nämlich überhaupt nicht interessieren, dass ich jetzt eine Antwort habe auf eine Weltfrage, sondern es würde mich interessieren, ob diese Antwort zu einer persönlichen Ich-Frage, oder zu einem persönlichen Anliegen zu machen, damit ich der Welt etwas geben kann. Der Schritt von der linken zur rechten Seite, das ist ein Grundintervall, ein existenzieller Sprung quasi, in eine manifestierte Welt, da muss

ich Welt-Interesse haben. Ich bilde aus Welt-Interesse meine Antworten. Ich muss Weltinteresse haben. Der Kopf muss das Herz erreichen. Ich muss mich erwärmen können, für das, was mir einleuchtet. Erst dann komme ich in die Handlung.....

(I: Wenn ich es nicht umsetze sondern nur weiss, komme ich plötzlich in die Situation zu sagen oder festzustellen, das ist ja ein gutes Geschäft, diese Idee hatte ich auch schon mal gehabt.....und vielleicht hatte ich sie wirklich schon einmal, aber keine Frage daraus gestellt!) 38:50

Genau. Das ist noch lustig. Der Kopf ist vielleicht befriedigt. Für alle Fragen habe ich gute Antworten. Das ist ein Selbst-Genuss, den ich durchaus nachvollziehen kann und allen gönnen kann. Aber als ganze Person, als ganze Existenz, auf die Dauer ist man dann einfach auf gut Deutsch ein Klugscheisser, wo eigentlich eine Antwort hat, aber ein Weichei und ein Feigling, weil er die Antworten nicht zu einer persönlichen Verbindlichkeit erklärt, die ihn befähigt, für die Welt etwas zu tun. Weil da macht er nur für sich etwas, indem er sagt, ich bin super, ich habe die Antwort. Die Welt hat noch nichts davon, überhaupt nichts. Das ist wie ein Kreuz, man kann von der Linken zur Rechten, aber man kann auch von oben nach unten (Skizze). Also wie der Weg vom Kopf in die Welt, oder von der Welt in den Kopf, oder da kann man auch sagen, das ist quasi wie eine Konzentration, man kann es auch als Pyramide darstellen (skizziert), da ist das Weltinteresse, ich mache es zu einer Antwort, und da muss ich wieder die Bereitschaft haben, quasi aus alle dem, was mich interessiert, eine konkrete Handlung machen. Mir gefällt das Bild nicht so....., das gefällt mir besser....., es geht eigentlich darum, wie etwas zu verdichten, und da geht es darum, wie etwas zu schenken.

(I: Wie in der Kreativität die Öffnungs- und Schliessungsprozesse?) 40:35

Ja, genau.

(I: Interessant. Irgendwie passt es ja auch hier hinein.....) 40:50

...ja, es ist....., es muss auch. Die unterschiedlichen Modelle, das wäre vielleicht noch interessant, was diese gemeinsam haben. Das sind wie Grund....., wie Grund....., da kann ich ihnen gelegentlich auch etwas schicken darüber. Es ist eben wie eine existenzielle Urszene, ein menschliches Ur-Phänomen, dem habe ich einfach nicht Geschäftsmodell gesagt.

(I: Und die Leute, die das Canvas entwickelt haben, haben ja auch ein Plugin gebaut. Dieses befasst sich mit der Value Proposition und den Customer Segments (als zwei Kern-Bereiche im Canvas). Dabei wird auf die drei Aspekte Pains, Gains und Jobs to be done eingegangen (Idee am Canvas erläutert). Also könnte das Ganze auch in dieses Konzept hinein interpretiert werden?) 41:25

Ja.

(I: Auch, wie nimmt man überhaupt etwas wahr, wozu man eine Frage stellen könnte?) 42:10

Es gibt zwei Vereinseitigungen.....Jetzt gibt es die, die sagen, jetzt will ich etwas unternehmen, ganz schnell, ich will Geschäft machen. Die gehen direkt in die rechte Seite hinein, ohne die Linke. Das ist genauso verkehrt, wie das, was ich vorhin geschildert habe, dass es Leute gibt, die nur auf der Linken sein wollen aber nicht auf der Rechten, wie ich vorhin geschildert habe. Es gibt auch den falschen Aktivismus. Es geht ja nicht darum, dass du um jeden Preis ein Geschäft machst, sondern ob das eine sinnvolle Perspektive ist, „hast du eine Frage?“. Du musst zuerst auch eine Frage hören, bevor du die Antwort geben kannst. Das gibt es natürlich auch, dass sie bereits eine Antwort haben, aber sie haben sie noch nicht als eine Antwort auf eine Frage identifiziert, die ich kenne. Das gibt es ja auch. Es gibt ja Ideen, die jemand hat, man aber noch gar nicht weiss, dass diese schon die Lösung

auf ein Problem ist. Die Idee ist da, aber man hat das Problem noch nicht. Das ist der Sinn von Ideen-Büchern, dass man Dinge aufschreibt, und plötzlich ist man im Leben mit etwas konfrontiert und merkt, das ist ja genau die Frage, auf die ich die Antwort habe.

(I: Das stimmt, das sieht man immer etwa wieder. Das sind so eine Art vier Quadranten und in jedem kann der Starpunkt sein.) 43:30

Ja. Es kann auch sein, dass man durch den Erfolg, den etwas hat, unerwartet, dass man etwas anbietet und die Leute beginnen zu strahlen, dass man auch von da aus zu neuen Ideen kommen kann. Das ist mir ja vielleicht gar nicht aufgefallen, aber die fahren ja völlig auf das ab.....

(I: Das ist dann oftmals auch, wennj es einen Hype ist um etwas.....) 44:00

.....ja, und wenn man in einem Kundengespräch plötzlich merkt, hmm, die haben ja völlig Freude an dem.....und man plötzlich merkt, dass das Kerngeschäft, das wir anbieten, die gar nicht so interessant finden, sondern etwas anderes. Also es könnte auch sein, dass der Zuspruch durch die Welt, also durch die positive Welt-Antwort wieder neues Innovations-Potential entstehen kann.

(I: Dass man da zurück und da zurück geht, aber dass man von da nach da geht, das passiert wahrscheinlich weniger (auf Skizze)?) 44:35

Ja, wobei, es kann sein, dass durch Negativ-Erlebnisse viele aufhören, Interesse an der Welt zu entwickeln. Da müsste man bei einem Gespräch mit einer solchen Person fragen, ob sie schon einmal gescheitert sei. Wenn sie es sind und immer noch mögen, haben sie wahnsinnige Qualifikationen. Scheitern und neu anfangen beweist höchste Exzellenz. In der Regel bekommt man nicht die Antwort, mit der

man gerechnet hat. Man versucht ein Konzert zu machen und kein Schwein interessiert sich dafür und geht dann nach Hause, um die Gitarre zu versagen. Oder sagt, nein, die Musik interessiert mich nicht mehr. Im Negativen gibt es den Wechsel, dass die Bereitschaft, Weltfragen zu hören, unterbrochen wird. Dass man sich gar nicht mehr mit etwas befassen will, weil man Misserfolge erlebt hat. Oder eben immer wieder neu versucht, weil die Liebe zur Welt grösser ist, als die eigene Enttäuschung, das ist ein grundunternehmerisches Plädoyer.

(I: Es ist ja in der Schweiz auch so, dass Startup-Gründer, die gescheitert sind, kaum noch eine zweite Chance erhalten. In den USA nimmt man dagegen lieber jemanden, der schon einmal gescheitert ist, weil der hat genau diese Qualitäten und man weiss, er will.) 46:10

Ja genau.

(I: Nebst den Erfahrungen, die er beim Scheitern gesammelt hat.) 46:30

Also damit kann man noch viel verbinden. Aber auch, die Verbindung von Kopf, Herz, Hand und Fuss. Wie komme ich von da wo ich stehe, in der Wahrnehmung von dem was passiert, zu Ideen. Und wie komme ich von neuen Ideen zu dem, was in die Handlung fliesst. Das ist die mittlere Region, die häufig übersehen wird. Darum, es wirkt wie ein Vier-Modell, aber es ist weitaus mehr als ein Vier-Modell, weil die Mitte ist weitaus wichtiger. Von da nach oben. Ich muss auch gewisse Fähigkeiten entwickeln, die nicht nur technisch sind, sondern auch seelische Fähigkeiten. Also ich muss Geduld haben....., es ist eine riesige Palette, von menschlichen, von allzu menschlichen Faktoren, die ich berücksichtigen muss.

(I: Ist dann das Herz eine Art wie eine Barriere?) 47:25

Das Herz ist für viele die grösste Prüfung, weil es vermittelt, aber wenn es nicht vermittelt, wirkt es immer negativ. Also es kann eine Weltfrage mit der Suche zu einer Ich-Antwort vermitteln. Aber ja, genau, wenn da etwas nicht stimmt, ist der Kreislauf unterbrochen. Dann bin ich nur noch ein „Kopf-Füssler“. Dann, ah Strategie, ist gut, liebe deinen nächsten wie dich selbst, gut, dann noch so ein schöner Satz, Leitbild, hingehängt, ganz hoch, und unten nur noch operativ tätig. Aber wenn man mich fragt, hör mal, bist du eigentlich dabei, schlägt dein Herz noch dafür, was du da machst, muss ich sagen nein, das brauche ich doch gar nicht. Es kommt doch nicht mehr darauf an, was ich mache, und ich habe es ja bereits unterschrieben, dass das Leitbild gut ist.

(I: Da kommt ja auch voll der Begriff ‚Herzblut‘ ins Spiel, dass man für etwas Herzblut hat?) 48:35

Es tönt zwar manchmal etwas sentimental, wenn man mit Unternehmern über ihr Herzblut spricht, aber ich meine es wirklich nicht sentimental, ich meine es ganz konkret. Wenn ich das Herz nicht bei der Sache habe, wenn ich es nicht mit dem Herzen verbinden kann, bin ich auch nicht mehr ein verantwortungsvolles Wesen. Ich kann mich gerade so gut aus dem Unternehmen wegstehlen. Ich bin dann gar nicht mehr präsent. Ich bin dann wirklich nur noch ein Kopf-Füssler, wo sich als Person verabschiedet hat, sich selber akzeptiert hat, aus dem Staub gemacht hat, als reale Person.

(I: Da ist auch die Passion drin, die man für etwas hat.) 49:30

Ja, genau. Darum, für die Fähigkeit, Weltfragen zu hören, muss ich auch die Fähigkeit haben, das zu nähren und Geduld haben, bis ich eine Antwort auffinde. Darum kann ich wie von innen diese Prozesse torpedieren oder sabotieren. Ich kann mich quasi intern wie extern demotivieren. „Vergällen“. Man kann sich selber madig machen. Ich weiss nicht, wie man das auf Englisch sagt. Man kann wie die Freude

an etwas sich selber verderben. Es kann also sein, dass es von aussen verdorben wird. Man hätte also hier die Möglichkeit, sichtbar zu machen, wenn das jetzt der innere Kreis ist, und das von aussen, gibt von aussen Demotivatoren, aber auch von innen (skizziert auf). Es gibt nicht nur den Aussendruck, es gibt auch den Selbstdruck. Oder es gibt nicht nur den äusseren...., den Faktor von aussen, Paralytoren von meinem unternehmerischen Handeln, sondern ich kann das selber sabotieren, oder paralisieren, oder lähmen. Also da ist auch das drin, Verstand.

(I: Also wenn man jetzt im Canvas die Beziehung Value Proposition und Customer Segments, z.B. als Plugin, nimmt, so muss man sagen, es ist eine Art technische Abstraktion, weil das Zwischending hier (Skizze, das Herz) vollkommen fehlt?) 50:55

Ja.

(I: Es ist nur technisch gesehen, und das andere ist wie nicht vorhanden?) 51:05

Das ist das Interessante, dass man im Grunde genommen wie einen grossen Bogen um diese Frage macht, förmlich einen grossen Bogen, und nicht sieht dass diese Frage....., es ist wie bei der Analyse vom menschlichen Organismus einen Bogen um das Herz macht und nicht sieht, das Herz ist quasi der Nährboden von dieser Verbindung. Kurzfristig kann ich, dass muss man auch sagen, kurzfristig kann man durch einen massiven Aussendruck, kann ich das und das wie not-verbinden. Ohne, dass es das Herz braucht, wie einen Kurzschluss. Ich weiss nicht, wie das technisch gesehen..... ohne Herz, peng. Menschen kann man in einem gewissen Handeln, in einem gewissen Energie-Level, auch veranlassen, wenn man Druck macht. Lebensbedrohlich. Stelle verlieren. Zack. Plötzlich ist die Angst der Motivator. Die man als letzte Ressource noch anzapft, um die Leute zum Laufen zu bringen. Aber das ist pervers, wenn man sie nur noch so energetisieren kann. Man rechnet gar nicht mehr mit dieser inneren Wärme, etwas zu machen. Oder mit dieser Begeisterung. Das ist ja die Quelle der Freude. Und Freude ist ja auch nicht

Spasskultur. Muss ich auch sagen. Freude heisst auch Leidenschaft. Jemand, der etwas mit Freude macht, ist auch in der Lage, etwas in Kauf zu nehmen, was ein anderer schon lange aufgegeben hätte. Jemand, der Freude am Wandern hat, schreit nicht nach jedem Stein im Fuss und sagt, ich breche das jetzt ab. Der sagt, komm, ich habe mehr Freude jetzt hier weiterzugehen, als an diesem Schmerz, der kann mich jetzt hier nicht irritieren. Es ist eben auch keine Spasskultur.

(I: Mir kommt jetzt gerade etwas in den Sinn. Es könnte auch eine mögliche Erklärung sein, okay, ist jetzt vielleicht etwas weit hergeholt, aber es könnte eine Erklärung sein, weshalb viele, die ein Unternehmen starten, aus dem Druck, aus dem, was sie können, etwas machen müssen. Sich aber später in etwas hinein entwickeln, das ihnen Spass macht, also genau das zu Vorschein kommt.....dass dies also eine Art Treiber ist, dass das Unternehmen plötzlich etwas ganz anderes macht, als das, womit es gestartet hat.) 53:05

Ja, sehr spannend.

(I: Könnte eine mögliche Erklärung sein.....könnte auch zu weit hergeholt sein.....) 53:35

.... nein, man kennt sich ja selber. Man muss sich selber ja auch kennen lernen. Nicht nur andere kennen lernen, sondern sich selber auch. Aber man kennt sich selber auch noch nicht, man kennt sich nie ganz. Man wird auch immer wieder von sich selber überrascht. So kann es sein, das sagt, ich will das, dann aber merkt, die Durststrecke, das dann wie aufgibt, aber wo anders dran bleibt.

(I: Also eine Art Passion entwickelt? Sobald das Unternehmen sich finanziell gesetzt hat, man wieder in die Richtung der Passion geht, was anders sein kann, also wo man startete, da man halt aus finanziellen Gründen dort starten musste und nicht unbedingt wollte.....) 54:05

Genau. Ja, genau.

(I: Könnte auch noch ein Erklärungsmodell sein für so etwas.) 54:20

Und vor allem eine berechtigte Perspektive, die man ins Spiel bringen kann, auch von einer ethischen Perspektive, indem man sagt, Menschen haben ein Recht, oder den Menschen nicht verunmöglichen, Herzblut vergiessen zu dürfen. Also quasi, jetzt sehr vorsichtig formuliert, ich kann nicht, dass es keine Missverständnisse gibt, ich kann nicht Menschen motivieren, nur sie können sich motivieren. Ich kann aber sehr wohl etwas dazu tun, dass ich sie nicht demotiviere. Ich glaube, ich muss mich gar nicht motivieren, ich muss einfach meine Demotivatoren durchschauen. Ich muss das Herz nicht motivieren, das schlägt genug. Ich muss schauen, es nicht zu klerotisieren. Ich muss nicht mit Stromstößen, das ist dann schon eine Notfall-Intervention.

(I: Und häufig reicht schon sehr wenig von dem, damit man zufrieden ist. Wenn man sich bspw. ein Tag pro Woche an etwas widmen kann, in dem Herzblut steckt, ist man häufig schon glücklich.) 55:40

Ja, genau.

(I: Es müssen nicht einmal 5 Tage sein.) 55:50

Ja, genau. Aber es ist ein Nahrungsmittel, auch von der Zufriedenheit. Nicht im Sinne einer Zufriedenheit einer Selbst-Zufriedenheit im Sinne einer Saturiertheit, einer Spiesser-Zufriedenheit, sondern von einem wertschöpferischen Zufriedensein.

(I: Und vielleicht muss es ja sogar knapp sein, damit es überhaupt noch interessant bleibt. Andernfalls kommt es, wie Sie gesagt haben, in die Sättigung.) 56:15

Nicht dass man plötzlich etwas macht, und das ist auch eine Gefahr, dass man etwas macht, weil man Freude haben will. Das geht auch nicht. Ich habe Freude, wenn ich etwas mache, das sinnvoll ist. Aber wenn ich etwas mache, nur um Freude zu haben, das langt auch nicht. Ich muss eine Aufgabe haben. Wenn jemand sagt, mache zu Deiner Freude jetzt etwas, das ist eigentlich schon ein Ablöcher. Mach etwas, das dir wichtig ist, und dann entsteht Freude. Mache etwas Sinnvolles, dann entsteht Freude. Aber ich kann nicht sagen, jetzt muss ich etwas machen, damit ich Freude habe. Ein Herz, das nur für sich selber schlägt, ist kein Herz mehr. Im Bild gesprochen. Es schlägt für etwas, es braucht eine Aufgabe. Darum ist es schon wichtig, diese beiden Elemente. Deshalb ist es auch falsch die Utopien der Glückseligkeit, alle nur noch in Herzlichkeit, glücklich sein, funktioniert nicht. Ist eine Behauptung, die nicht funktioniert. Man darf das auch nicht zum Selbstzweck haben. Man muss vielleicht auch in einem gewissen Anspruchsdruck stehen.

(I: Sehr interessant, wir haben jetzt gerade ein Element in diesem Modell identifiziert, das sozusagen nicht existent ist.) 57:55

Ja.

(I: Aber es ist auch erklärbar warum. Nämlich weil es eine technische Reduktion auf das Quantifizierbare ist, und das dann halt dazwischen hinausfällt.....) 58:05

Es ist interessant. Wenn man es jetzt volkswirtschaftlich anschaut, ich meine, die Gesundheitskosten von Leuten, das ganze Burnout-Thema, von Depressionen bis hin zu Suizid, bei Bildungsvorgängen, wo nur noch Input und Output, Prüfungs-Syndrom, hinein bekommen, da hinaus. Im Schulalltag, ohne ein Herz, das macht die Menschen kaputt. Das ist eine Entmenschlichung des Menschen. Eine Ökonomie,

die den Menschen entmenschlicht, ist auch für die Ökonomie langfristig nicht sehr sinnvoll. Auch wenn man jetzt rein von den Zahlen her kommt. Können sie sich das leisten, das nicht zu berücksichtigen, nur weil es nicht ökonomisch ist? Paradox formuliert, kann eine Ökonomie sich leisten, diese Frage zu ignorieren, mit der Begründung, es ist ja keine ökonomische Frage. Ohne, dass sie die Wirtschaftlichkeit vom eigenen Unternehmen bedroht? Es ist zwar nicht unmittelbar ökonomisch relevant, aber auf den zweiten Blick gesehen, auch ein wirtschaftlich relevanter Faktor.

(I: Das Problem ist einfach, man kann es nicht messen, man kann es nicht quantifizieren. In unserer Welt hat halt alles, das nicht mess- und quantifizierbar ist, einen schweren Stand.) 59:45

Das ist natürlich ein völliger Trugschluss. Quantifizierbarkeit ist ein Diener zum falschen Herr. Aus einer genialen Erfindung der menschlichen Intelligenz, indem ich gewisse Dinge beherrschen kann, indem ich genau quantifiziere, spielt sich zu einem Halbgott auf, der uns völlig mit Blindheit führt.

(I: Und dann auch blinde Flecken entstehen daraus. Finde ich sehr spannend. Häufig, um es dann damit abzustimmen, geht man dann über die Iterationsstufen. Man schaut was funktioniert, was nicht. Das ist aber nicht unbedingt eine Iterationsstufe. Das Gegenteil eigentlich.....) 1:00:20

Genau. Wie würden Sie das, wie könnte man dem sagen?

(I: Iteration ist ja möglichst hoch getaktet, möglichst schnell, möglichst viel zu lernen. Und das hier ist ja eher das Gegenteil, nämlich dass man sich die Zeit nimmt, für etwas eine Leidenschaft zu entwickeln.) 1:00:45

Genau. Also es ist an und für sich Wachstumsermöglichung. Oder, Entwicklungsermöglichung, oder Wurzelbildungsermöglichung, so etwas, Wurzel- oder Verankerungsermöglichung. Es tönt vielleicht kitschig, aber wie man sich verankert. Begeisterung ist es auch. Das finde ich so etwas von schön. Es ist die Verbindung vom Kopf durchs Herz.

(I: Stimmt. Ich denke auch, wenn man iteriert, was macht man? Man wechselt oft sehr schnell, ohne etwas überhaupt eine Chance zu geben. Weil die Komplexität von jedem einzelnen ist derart gross, dass man gar nicht weiss, woran es jetzt gescheitert ist. Man sieht einfach, dass es nicht geht und geht zum nächsten. Ohne sich zu überlegen, warum ist es jetzt nicht gegangen. Damit kann einem eine Chance nach der anderen entgehen, indem man einfach diese Iterations-Zyklen fährt. Anstatt dass man mal länger bei etwas bleiben würde, weil manchmal ist es nur ein Minidetail, dass es nicht geht.) 1:01:35

Darum müsste man auch lernen, in verschiedenen Geschwindigkeiten unterwegs zu sein. Dass man also sagen würde, man schickt jetzt das Baby auf einen Entwicklungsweg und verlangt nicht stündlich einen Rechenschaftsbericht. Ist er ein Langstreckenläufer und sagt, wir sehen uns dann wieder in einem Jahr. Dass man auch lernt, dass es gewisse Dinge gibt, die ihre Zeit brauchen. Einen Reifungsprozess, auch. Da sind wir auch wieder beim Innovations- oder beim Kreativität-Zyklus. Dort unterscheidet man Inkubation, die Zeit also, auf die man keinen Zugriff haben kann um zu wissen, wie sich etwas entwickelt. Das ist so, als wenn man die Wurzeln ausreisst und sagt, hmm, heute etwas wenig gewachsen. Damit hat man es zerstört, indem man es bilanziert. Das hat ja den schöpferischen Zyklus. Von der Auseinandersetzung mit dem Problem, man muss die Frage haben. Das Problem definieren, was ist es eigentlich? Dann von der Inkubation. Das so aneignen, dass ich es nicht vergessen kann. Aus dem gibt es dann eine Inspiration, eine Antwort, die man dann in der kritischen Würdigung schaut, ob es eine Ich-Frage an die Welt sein kann, oder eine Schnapsidee ist. Das ist dann die Verifikation, um sie dann in die Realisation zu bringen. Das ist auch da drin. Es ist auch in diesem Sinne, was im Modell drin ist. Das wäre vielleicht ein Begriff des Modells, mit dem ich

mich anfreunden könnte. Eine Verdichtung, eine Verwesentlichung, reduce to the max, doch, eine Verdichtung, Komprimierung, von der Komplexität, die nicht eine Banalisierung ist.

(I: Mir hat kürzlich auch ein Innovationsberater gesagt, der ein wenig unkonventionell unterwegs ist, er sage seinen Kunden immer, man müsse auch mal etwas liegen lassen können. Dass man mal etwas 3-4 Wochen beiseite legen muss, gar nichts daran machen, und dass dann plötzlich von selbst Dinge entstehen. Die Leute verstehen das dann nicht. Aber gewisse Dinge brauchen einfach einen unbewussten Reifeprozess.) 1:04:35

Das ist einer der grössten Demotivatoren oder Vergällern zu Weltfragen, zu Ich-Antworten zu wandeln, dass man unterschätzt, wie subtil so ein Wandlungsvorgang ist. Aber gerade der Blick in die Wissenschaftsgeschichte zeigt es ja. Es zeigt mehreres. Es zeigt, dass jemand sich lange beschäftigt. Es geht nicht, funktioniert nicht, es gibt keine Lösung. Er resigniert fast innerlich, aber resigniert eben nicht. Er schickt sich ins Unbewusste, in den Ruhezustand des Liegen lassen, an und für sich wie eine Zwangs-Anästhesie, liegen lassen, man stört es nicht immer, nicht immer aus dem Schlafzustand heraus wecken. Aus dem heraus kann plötzlich etwas entstehen.

(I: Das ist dann plötzlich der Kuss der Muse, der Eureka-Moment.) 1:06:00

Ja, genau. Eureka ist genau das. Aber Kuss der Muse kann einem nur erreichen, wenn man innerlich nicht schon etwas abgeschrieben hat, im Sinne von: ich habe heute keine Lösung erhalten, es interessiert mich nicht. Dass man quasi wie diese Fragen in den Schlaf schicken kann, man schickt die Fragen, die man hat, in den Schlaf, und wacht dann vielleicht mit einer Antwort auf.

(I: Die Frage ist nur, ob man das kann, denn der Arbeitgeber will es ja nicht morgen,

sondern heute.) 1:06:35

Genau. Deshalb müsste man bei gewissen Prozessen weniger schauen, ob jemand schon heute eine Antwort hat, sondern ob er in der Lage ist, die Anstrengung aufzubringen, die Frage innerlich weiter zu verfolgen, obwohl er innerlich keine Antwort hat. Ah ja, das ist ja, habe ich die Frage auch morgen noch, obwohl ich jetzt gerne eine Antwort hätte. Weiss nicht, wie man die Fähigkeit gerade nennt, vielleicht Treue zu einer Frage, zu haben, die man hat. Darauf eine Antwort zu bilden.

(I: So eine Art Motivation dran zu bleiben, nicht aufzugeben.) 1:07:35

Aber das fände ich auch spannend beim Geschäftsmodell, zu schauen, welches sind die inneren und äusseren Zermürbungskräfte. Die auch ganz stark mit diesem mittleren Faktor zu tun haben (Herz). Wird es von inneren oder äusseren Demotivatoren bedroht? Das ist eine riesige Frage. Man könnte hier überall ansetzen. Haben sie Unterlagen zu diesem Geschäftsmodell? Können sie mir diese schicken?

(I: Ja, mache ich sehr gerne.) 1:08:25

Auch im Hinblick auf die Verbindung. Wenn Sie da etwas machen, wäre ich auch sehr interessiert. Es ist lustig, ich mache ja die Sache, ich komme ja nicht von der Wirtschaft her und das finde ich das Faszinierende. Bei den Unternehmensseminaren, bei denen ich bin, sage ich immer, nicht ein überreicher Unternehmensberater zu sein. Ich bin ein philosophischer Impulsator, und ich merke, dass ich gerade dann, wenn ich nicht will in der Wirtschaftssprache zu reden, für die Leute interessanter bin, als wenn ich versuchen würde, ihre Sprache zu sprechen.

(I: Richtig. Ich finde, so könnten wir stundenlang sprechen. Es geht auch darum,

weiter zu kommen und mehr zu sehen. Ich denke, das ist auch das Spannende bei meiner Arbeit. Ich habe ja keine statistische Umfrage, sondern spreche eher mit Wenigen, dafür bringe ich unterschiedliche Meinungen und Perspektiven in Erfahrung. Das finde ich für mich sehr spannend.) 1:09:10

Wann haben Sie die Dissertation fertig?

(I: Ich hoffe, bis in einem Jahr, aber mal schauen, wenn man dann 30 Interviews hat und die alle auswerten muss, das braucht dann schon Zeit.....wenn man es dann berufsbegleitend noch macht.) 1:09:45

Ja, das ist sportlich.

(I: Auch hier wieder, es braucht seine Zeit, es ist nichts, das man in ein paar Wochen machen kann. Man muss es setzen lassen.) 1:10:30

Genau. Ja. Erwarten Sie von Ihrer Dissertation auch neue Impulse für Ihre Zukunft? Ihr weiteres Wirken?

(I: Ich denke schon. Ich möchte das Thema Geschäftsmodell auch besser verstehen und darauf weitere Kompetenzen aufbauen. Auch für unsere Branche möchte ich ein adaptiertes Modell entwickeln, also schauen, wie kann man das Konzept für unsere Branche besser nutzbar machen, als das generische Modell. Mit den Spezifitäten der Branche.) 1:10:50

Dort könnten Sie aber auch, ich weiss nicht, ist da auch Bedarf in Ihrer Branche, Unternehmens-Beratungs-Tätigkeit aufzubauen? Sie könnten dann quasi Unternehmens-Berater werden.

(I: Das könnte auch eine Richtung sein, in die es sich entwickelt. Mein Bruder und ich haben zusammen die Firma und sind auch an ähnlichen Themen interessiert, und man kann nie wissen, wohin es uns noch verschlägt. Wir sind auch schon zu befreundeten Firmen gegangen und haben geholfen über ihr Geschäftsmodell nachzudenken. Aber wir sind immer zu einem Punkt gekommen, wo wir merkten, irgend etwas genügt nicht, wir kommen nicht weiter. Es sind zwar immer lustige Nachmittage, aber es reicht nicht, ein Canvas mit Post-It zu bekleben, es ist mehr vorhanden..... es sind eben die Dinge, wie wir sie heute besprochen haben, die noch irgendwie fehlen.) 1:11:30

Eben, genau, man wird noch nicht warm damit. Es ist zwar ein gutes Grundrezept, aber es sind die Grundkomponenten, aber damit hat man noch nicht gekocht. Und auch nicht gegessen.

(I: Und das besser zu verstehen, ist für mich ein Antreiber für meine Arbeit. Ein Erkenntnisgewinn, aber auch für unser eigenes Wirken.) 1:12:25

Eben auch die Frage berücksichtigen, oder ansprechen, was ist überhaupt der Sinn von unternehmerischem Handeln? Es ist eine grenzenlos philosophische Frage. Man sagt, es ist doch gar keine Frage, es ist eine Kinderfrage. Was ist der Sinn vom Leben? Was ist der Sinn der Wirtschaft? Man könnte sich ja auch den Zustand von Regenwürmern wieder wünschen, die keine Sorgen haben. Was ist es eigentlich? Auch hier kommt man wieder zum Schluss, dass der Mensch nicht nur von der Welt lernen will, sondern auch etwas geben will. Es ist der Grund-Rhythmus, fast ein wenig wie die Weltformel, wie das Intervall zwischen Aneignung und Mitteilung. So wie Partizipation und Manifestation. Es ist wie ein Ur-Rhythmus. Wie eine Ur-Bewegung, vielleicht ist das in der ganzen Evolution wie vorgedeutet, vielleicht ist überhaupt die Entwicklung so. Vielleicht gibt es etwas, das lernt, von dem, was schon da ist. Was aufnimmt, was da ist. Verwandelt in etwas, das man als neuen Impuls zurück geben kann. Das finde ich etwas Dialogisches. Es ist für mich ein Austausch.

(I: Die ganze Natur funktioniert doch eigentlich so, oder?) 1:14:10

Könnte mir gut vorstellen, dass das wie eine Ur-Gewalt ist der Evolution, also wie ein Ur-Prinzip.

(I: Pflanzen sind ja z.B. auch so, sie nehmen etwas auf, wandeln etwas um, und geben wieder etwas ab, oder?) 1:14:20

Ja. Und wenn das Menschen machen, was über Pflanzen und Tiere hinausgeht, nennen wir das Kultur. Deshalb ist für mich Wirtschaft etwas spezifisch Menschliches, Kulturelles. Man kann nicht sagen, wir sind wie Pflanzen. Viel so wie normale Tiere, nur haben wir hier etwas Kultur und Konzerte und so, nein, auch die Wirtschaft als Unternehmung ist eine kulturelle Initiative. Gehört zu etwas Menschlichem. Jetzt können Sie noch die letzten Fragen stellen.....habe sie noch welche?

(I: Nein, was ich fragen wollte konnte ich alles fragen. Herzlichen Dank für das Interview!) 1:15:15

Und wenn Sie noch weitere Fragen haben, melden Sie sich einfach wieder.

3. Condensed interview summaries

3.1 A1 - Professor for Strategic Foresight, Innovation and Entrepreneurship

He has a focus on strategic foresight at the interface of innovation, business model innovation and entrepreneurship. In short: entrepreneurial innovation combined with business model innovation. He works in the three main areas energy, mobility and media (digital and classic). His background is in the domain of strategic foresight using scenario techniques and embedding business models in ecosystems.

His first contact with the BM concept was in the scenario context and also in the emerging Internet environment. He has two main understandings of the business model concept:

- (1) A narrow definition using a colloquial approach focusing on the question “how to make money”.
- (2) In a broader sense: a business model is considered a system, an ecosystem.

There is a limited number of frameworks he applies: The Canvas, the Navigator and the Business Value Framework (an adapted framework). Additionally, there are also basic models such the one from Christensen (HBR article), which are considered useful thinking models. The Canvas is used but due to its limitations an adapted framework has been developed. This framework is primarily used in the Start-up context, consisting of a 3 x 3 matrix containing resources, values, the potential of value, and the realization of value. Compared to the Canvas the framework is much more focusing on the value architecture and the planning and realization of a new businesses. The Canvas is considered descriptive but ignores the implementation of such a ‘mechanism’ (company/star-up). The problem with the Canvas is the illusion that people think they understand what is going on – relatively quickly. However, this is considered a big problem. They do not understand it. This is the essence of working with 40-50 start-ups a year. Furthermore, people do not manage to deal with the complexity inherent in a business model. People do not know how the 9 building blocks act together. The second most important flaw is that people do not manage to focus.

Developing a new business is a development process, is a trial and error process, which needs time and money. It is a maturation process. The business plan contains a business model but is a much more comprehensive document also including the whole realization part.

Three basic types of business models (clustering strategies) are distinguished in his institution: product based strategies, finance based and market based. It can be observed that there is an increasing interest of established firms in the specific start-up knowledge (business model thinking).

The Canvas should not be presented to a potential investor (9 building blocks → too complex). By contrast, investors are more interested in team constellations, an aspect ignored by the Canvas.

In the scenario technique exogenous and endogenous systems are distinguished. The idea of incorporating the whole system is an important aspect in this context.

There are some basic research projects running at his university focusing on the scalability of business models and on readiness of business models (in the energy context).

The ecosystem idea becomes more and more important. In the Canvas you have building blocks such as partners and customers. This idea is by far outdated. Today the various players are considered to sit “somewhere in a cloud” without clear borders making them indistinguishable according to a traditional view. Everything is very fluid today. Hence, the question not only is whether someone is a partner or a customer (or both) but whether he is also a key resource simultaneously. In this context we have to clearly differentiate between cooperation and co-creation. With co-creation we do not have to share values but to collectively create something new.

3.2 A2 – Professor for Global Marketing and Strategy

The business model concept first appeared in first Internet bubble in the US. It was used to answer the question „how do you make money?“

Although the book from Osterwalder is considered brilliant it does not help answering the question what a business model really is. The term business model was originally attached to how do you track your money. The first article the interviewee remembers is from Jane Linder in 2001. It is a conceptual article putting things together.

As a professor of strategy he was often confronted with the question whether business models are different from strategy. By consequence, the faces of strategy were put together as follows:

1. Directive strategy
2. Allocational strategy
3. Integrative strategy
4. Configurational strategy → How do I configure the business model (the configurational strategy is the business model, or the revenue streams)

Companies such as Uber or Google have different configurational strategies, so „I think, the real creativity is to think very hard about the revenue streams“. Think very hard about the different types of strategy but then think hard about configurational strategy, which is your revenue flow.

The Manchester football club is used to demonstrate the diversification of the revenue streams. By contrast to Osterwalder, the business model is closely related to the choice of revenue streams. The Canvas etc. is great, everybody wants it. But it is not the real stuff. It is about having a nice day with sticky notes but by the end of the day you still have no strategy. Based on the work of Osterwalder, there are many people who know the term business model today. However, there are still just very few who really manage to take advantage of the essential things of the concept. The Canvas can be compared to the Swiss Army: I have a big „Auslegeordnung“

(overview of the recruit's personal equipment as part of an inspection). However, we should always start thinking with the revenue flow at the beginning and then go out.

The St. Gallen framework is very theoretical and not very useful. It is a framework for the sake of a framework.

Many people replaced strategy with business model: „Because we collapse the two terms unfortunately we do not spend enough time on the revenue model”.

Furthermore, “The unfortunate thing is that we do not think hard enough today about the revenue compositions, that this is a choice and not inherited from our grandparents”.

He has never worked with a business model framework as he stated “I have never used the business model concept in practice. Instead, at the beginning the business system is analysed. This is more flexible and confronts with the realities of each sector”.

You can often observe that new business models make things more transparent.

Today we just use the term business model instead of strategy. Often, when a segment has changed, we talk about a new business model but this is strategy. This is not new. But unbundling the revenue streams and making new compositions, this is new! So the term business model is used “loosely” these days.

Most companies have their dominant business model which they feel comfortable with. But adding a new, forget it.

With the question “how can I change my value proposition” you will not be able to find the solution. The solution originates somewhere else. The value proposition is an excellent means to communicate with your customers, but this is not new, we already had this in marketing 20 years ago.

3.3 A3 – Professor for Empirical and Social research

His main research direction is in innovation focusing on the aspects of regional influences on innovation. Furthermore, his research is about 'scientific productivity', hence about the productivity of researchers but also on business models as a special form of innovation. Currently, his main area of interest is about business models in the Swiss energy sector. He graduated in economic geography. After a place in a German research institute he changed his position and became professor at university.

He first learned about the business model concept in the context of a European research project in 2013.

He had almost no contacts with SMEs so far (neither in general, nor technical orientated SMEs). Most corporations in the university context are with big companies, not SMEs.

The business model is considered an abstract representation of an organization (not only of companies but also of non-profit organisations). It represents the structures of these organizations and their key activities. It is about generating value for its customers. On the one hand, business models are about creating value. On the other hand, this value must not exclusively be monetary in nature since an organisation's reputation can also be some kind of value.

The Canvas, the Navigator but also the Lean Canvas are considered popular and well-known concepts. However, he has not yet worked with any of these framework in practice thus far so he has no concrete ideas about the concepts' strengths and weaknesses. However, what can be learned (above all from literature) is that the business model concept was originally influenced, conceptualised and defined by business consultants.

The business model concept is an excellent means to analysing a business. But it can also be useful to help generating new ideas. By contrast, the business model concept is considered absolutely inadequate for transforming an existing business from model A to model B! Instead, transforming an existing business model must be

seen as an individual and unique endeavour, where such a framework may not be useful at all since most entrepreneurs deal with their business model intuitively correct, without the need of a formalised concept. As an analogy, you can also be a good technician or engineer without knowing each and every (natural) scientific detail behind. Nevertheless, it can be helpful because it is a good means to structure the analysis.

Start-ups have many advantages: they can look for an adequate business model right from the beginning while established firms must get rid of their existing model first, something which is much more demanding. Hence, for a start-up the development of a new business model is considered part of the journey. For established companies it is risky and can rarely be seen because most initiatives fail. But business models are also needed in the non-profit sector since they also require a right to exist (“raison d’être”).

3.4 A4 – Professor of Finance

He first learned about the business model concept with a diagram published in an HBR article (in 1999) showing the implications of the information age on business models, which was his initial and main source of inspiration. He started his career in the banking business and learned that the business model concept quickly comes to its limits so he changed his approach towards systemic thinking. His research is primarily focusing on the banking sector but he also acts as transformation consultant in sectors different from banking (such as the automotive sector). Business models must change from inside, which, however, is only possible with inputs from the outside.

Banks usually innovate 'reactively'. They already have tried out many things, also including the ideas from Christensen (disruptive innovations), but nothing has worked thus far. However, they actively cooperate with Fintech companies. But what does 'disruptive' really mean in the finance industry? Generally spoken, what we can see these days is that the banking sector is facing an industrialisation process with shrinking margins rather than innovation. The banking industry has a lot of customer data but does not use these data adequately, compared to other industries such as the automotive industry. They invest a lot of money in Fintechs but the time has not yet come for them. Transforming such an institution inside-out takes a lot of time.

He first worked with the business model concept in the context of comparing internal and external strategies combined with SWOT analyses, based on which the business model can be developed. The business model is about analysing the core value chain. Just saying "let's put the customer at the centre" is not enough. Instead, steering the whole process including financial and process-based considerations would be necessary. Furthermore, agile forms of collaboration are needed in order to establish entrepreneurial 'cells' within an organisation, as basis for an inside-out process.

Start-ups in the banking sector are confronted with legal and regulation barriers.

Successful business models hit the nerve of their customers. Simple plug and play solutions such as Zalando do not yet exist in the finance sector.

The most important element is considered a culture of self-responsibility within a company. The three dimensions strategy, structure and culture are to be put together. We always see the three dimensions strategy, structure and culture. You cannot change one of them without influencing the others too. Most managers in their 40-ties and 50-ties in the finance sector learned completely different things 30 years ago. The requirements on strategic thinking change steadily. The paradigm of making decisions at the top only is about changing fundamentally; however, the consequences of this new paradigm do still not hurt enough these days. We need dialogues in our networks that allow the integration of all stakeholders, this is important. Establishing trust in the process is important. Just giving orders from the top does not work anymore. The people involved in a change or transformation process should be allowed to make a choice which model they want to work with. They must feel comfortable with it.

The main weakness of the Canvas may be the fact that 'traditional managers' are not able to cope with it. It is too radical. They feel more comfortable with the more traditional St. Gallen model. If managers can choose they almost always decide for alternatives allowing them to expand their hierarchy. But new business models are to be found in processes. This causes disorientation.

Today strategy must be seen as something that emerges from inside out. Hence, agile models are needed such as those implemented by Japanese firms producing industry robots. Companies there have realized that they must be agile these days. However, this cannot be achieved through executives sitting in their offices on the 5th floor. Thinking from the customers, from the base, is required. The interviewee once joined a course teaching the participants in collaborating in groups with no hierarchy. This is how future business models will emerge. On the one hand, he once visited a course at IDEO showing principles how new ideas can be developed. On the other hand, too many of these people within an organisation may demoralise those working in the daily business.

IBM has motivated his researchers to write papers that are understandable for the sales people allowing them to talk about trends. However, to be successful we need people with different skills to be brought together. Today it is important to recognise

the network character of our world. Therefore it is important to work on a shared culture. Team cultures are still highly underestimated. Being dialogue-oriented and giving feedbacks will be a key element in the future.

3.5 A5 – Professor for Sustainability

The main focus of his work is on leadership development and learning design in fluid organizations. Innovation and business models are a driver in this area. In fluid organizations there are no traditional hierarchies. A model describing this way of thinking is called Holocracy. Holocracy is considered an organizational model for service-oriented organizations. After his studies in economy he launched his own business for more than 12 years (e-learning sector) than returned at university. He is mostly interested in learning design.

Reflection is fundamentally important in order to activate an organization's transformative capacity. Complexity can only be managed by complexity. In innovative contexts you must learn to accept complexity and uncertainty. You have to accept several dimensions, which can be equally correct, there is no right or wrong anymore (as often assumed earlier). And reflection is therefore a means to deal with complexity. An excellent means to deal with complexity is a group reflection methodology derived from systems thinking. This prevents you from simplifying at an early stage showing you alternative perspective. This increases the needed complexity in the problem finding process.

He first learned about the business model concept when he wrote the business plan for his start-up about 15 years ago. But he thinks that he has been dealing with the concept for about 25 years. The business model concept is understood as a set of hypotheses to be verified. His understanding of the business model concepts is based on a resource-based view, the answer of the right-to-exist-question (*raison d'être*), and effect models, theory of impact. The impact represents our contribution to the purpose, and the resources we need to make it viable.

The Canvas from Osterwalder has changed the way the business model concept is seen; from a purely revenue stream based perspective to a holistic picture. In total, there are 3 or 4 very similar models (including the Canvas and the Navigator). The Canvas is considered the most appropriate since many people know it. However, projecting reality into a terminology is only possible with compromises, no matter

which model we use therefore. He has mapped the theory of impact into the Canvas, hence created an “impact business model”.

In his context sustainability means viability of a business, in particular ensuring that it always has the resources it needs. Theory of impact is about thinking through the whole value chain, about causes and effects within this chain.

The Canvas is considered a perfect means to deal with complexity because you always have to deal with the model as a whole not just with elements of it (as often seen with business plans). The Canvas has become part of the basic repertoire in the Start-up community: „The business model is some kind of check list that allows to compensate for missing experience.“ In huge companies, on executive levels, the term may still be seen as the revenue mechanics.

By the way, “This last question is my favourite one!” (Is there something else you may think of in the context of business models?)

Business model can be compared with strategy. It is an emergent phenomenon. A good strategy can only be constructed in retrospective. You cannot plan this. It is the same with the business model. It is more an “error” and a „trial and error“ process because you will learn things which you did not have any hypotheses for.

3.6 A6 – Professor for Business Development and Project Management

Based on an innovation context where he conducted research in he started with design thinking in 2001 and transferred the concept from the Silicon Valley to Switzerland. Starting from the value proposition he designed a 4-quadrant learning cycle/model (Q1: empathy, Q2: creativity, Q3: realisation, Q4: check). Within a typical session a cycle of the model can be worked through – this is considered important. His career started with systems thinking. Compared to systems thinking, design thinking is about penetrating the system from a stakeholder perspective.

The 9 fields of the Canvas are always difficult to be understood by the students so he has developed a simplified 4-quadrant model, at the centre of which stands always the question who can we create value for?

Even through the work of Osterwalder the business model concept has become something tangible and communicable; before it was rather abstract a concept. The business model is about how an organisation creates value for its stakeholders. This value does not necessarily be monetary in nature. Combining systems thinking and business modelling may be an interesting idea for further research. The models he has worked with are the Canvas from Osterwalder and the Lean Canvas from Maurya. However, through the symmetry of value and value architecture the Canvas is finally more convincing.

At an early stage we normally know little about our customers so we need quick learning cycles and MVPs (minimal viable products). Usually there are various stakeholders with different perspectives. It is not always easy to position them in the Canvas. Is a stakeholder really a customer or maybe a partner? Or both? There is an interesting video on YouTube, from David Kelley, founding member of IDEO, where a trolley was re-invented numerous times using different perspectives.

A strength of the Canvas is that you always have a holistic or systemic picture serving as a brilliant starting point for interesting discussions.

In his projects he tries to focus on the problem right at the beginning. What exactly is the problem? Very often the problem must be (re-) framed. Therefore he often uses

the “Double Diamond Model”. Although his clients expect him (and his team) to develop new innovative solutions (in the student projects) they often end up with “just” better understanding the problem, which most customers finally find more interesting than the solution. Therefore they build on diverse backgrounds of the students (master).

Recently they had a marketing project: a bank engaged them to find a solution aiming at making seniors fitter for e-banking. The solution finally was much simpler because the problem could be solved just changing the numeric code on the pay-in slip. Accordingly, the seniors didn't have to learn digital media and the bank could process the data electronically.

We should not try to find solutions too quickly; instead we must try to better understand the problem. Afterwards, it is a ping pong between problem and solution. The business model can be seen as a tool for re-framing a problem. Since the interviewee sees himself a constructivist we have to ‘construct’ other peoples perceptions in a way that they end up saying ‘this is good solution’.

The challenge generally (when developing a tool) is to create an instrument that allows to quickly asking the ‘right’ questions in practice. Therefore he has developed his reduced 4-quadrant model based on the Canvas (but even simpler than the Canvas). We need instruments, which are simple enough so that we can easily use them but they mustn't be too simple so they still hold enough complexity. This is the great challenge. Or as Einstein once said: “Make it as simple as possible, but not simpler.”

3.7 A7 – Professor for Capital Goods Marketing / Think Tank Member

His research field is capital goods marketing and industrial goods marketing and also sustainable business models in this context. Sustainability is a concept that has gained importance in the past few years and the scientific community should care about themes that emerge in practice.

Business model thinking may be particularly interesting in highly dynamic sectors where you have to reinvent your company and your services at a high pace.

Business model discussions are a hot topic in industries with high innovation rates.

The business model concept is deeply anchored in business theory. To stay successful, a company must make money above the average of the sector, hence must follow a “rent seeking strategy”. In average, after 8 years, you have to re-invent your business model since the rent seeking is not optimal anymore after this period.

A business model of a company is considered that particular model, which stands for the highest possible rent. Rent is not just the profit but also an additional “rent”, for instance in form of extra loyal customers (who potentially also could move away). Hence, the rent is this extra “thing” what a company can exploit, what its competitors cannot. The main aspect of a business model should be how to generate revenues in the market. Other alternative (but less relevant) perspectives focus on processes or customer value. At the very beginning a company should focus where are the potential revenues and then should start thinking about their exploitation. Books such as Osterwalder or St. Gallen deal with the tactical aspects of business modelling but before that, companies should focus on the strategic aspects. The „resource based advantage theory“ is a good starting point for a company by reflecting which resources do we have and what can we do with it. There are two perspectives: outside-in and inside-out. However, the high art of business modelling is to generate advanced value chains using a resource based approach. Companies such as General Electric or IBM strictly follow this rent seeking strategy making them highly successful over decades, although people do not always understand their strategies.

However, for a company it is sometimes also important to ignore what the market is currently “saying” in order to develop more visionary products (not always be market

driven). As an example automotive firms have very narrowly applied the resource based approach by using their engineering capacities to develop completely new car types, such as the Van (Chrysler), which were not demanded by the market at the time. The most interesting business models try to adapt the market to a company and not vice versa.

There is an increasing number of private equity firms investing money in lifestyle companies (start-up) delivering products such as pre-equipped menus for stressed but wealthy urban people – with the idea that these people still have the cooking experience.

The interviewee is also member of a think tank where he is often confronted with a phenomenon called the “status quo bias”. Managers tend to see what they could lose instead of what they could win by changing their existing business model.

He knows models different to the Canvas but the Canvas is considered useful because it helps doing the first step in a complex process. The most fundamental weakness of the Canvas is: it is always “scheme F”. The Blue Ocean Framework starts thinking where the Canvas ends. One has always to look for the impossible and then counting back. An excellent tool therefore is Triz Ariz from Altshuller. Creatively solving problems. It is the exact opposite of the Canvas by creating phantasy worlds and then counting back until it becomes doable. Altshuller investigated thousands of patents and identified 35 basic engineering principles. This is an approach, which could also be translated into the business world.

Another issue is that decisions are always made on an incomplete information basis. Business models need correct information to be evaluated but managers are incapable of getting this information. Even worse, we have big data these days, which is considered the solution for this problem – a complete misconception! Let us take the Canvas. Based on what do you put information in the 9 building blocks? This is the birth of the resource-based view. This prevents you from being paralysed through analysis. Instead, you try to make the maximum of what you really know.

3.8 A8 – Lecturer in Online Marketing / Open Innovation Researcher

Her main interest is in innovation, from a product management perspective with business models as an important driver. Her research is about inputs from outside enabling companies to produce innovations. She is a trained economist.

Digitalisation is considered a means to add value to products, not just an additional channel. A product is not just understood as the “physical” product but incorporates adjacent areas such as services. She has an extended understanding of the term ‘product’. Through the variation of certain aspects of a product you can create a new product. This is the only way to create the so-called “long tail”. Accordingly, you can create different business models for different varieties of the same product. I.e. you can sell it via pay per use, freemium etc.

She first learned about the business model concept through the work of her husband, who deals with investments in bio pharmacy ventures. This was around the year 2000/2002. The business model concept is considered the link between the product and the value the product creates for a company. These days the traditional concept of the company ‘that creates value’ must be questioned because it is hard to distinguish between what comes really from inside and what from outside. Through blurring borders business models tend to change towards ecosystems. In ecosystems you have overlapping ‘clouds’ of business models. You may have 5 or 6 business models running simultaneously, which is in contrast to the traditional business model literature stating that a company can run only one dominant business model. However, the different business models are close to each other, but they are different.

Digitalisation is a driver for business models. Most companies do not yet take advantage of the full spectrum of possibilities it offers. Online marketplaces are a good example for illustration. Through new online platforms/ecosystems even small companies will have the chance to participate, to take advantage of various channels. Today, only big companies have the resources to do that.

Various business models concepts are known, including the Canvas, the Navigator from St. Gallen but also the model from Patrick Stähler. The Canvas is considered

“the thing” today. It is a perfect communication tool. However, the Navigator has a set of advantages regarding analysis, implementation and testing of business models, it also supports the work with scenarios. Hence, the Navigator is much more a process than the Canvas. Furthermore, the Navigator is much better suited when we start with existing models. It allows for developing alternatives and variants. With the Canvas you start from scratch.

The team and its validation are still missing in the Canvas. She practically applied the Canvas in a research project. What could be learned is that reality is much more complicated/complex than expected at first glance. Scenarios are a good means to validate and check early stage ideas developed using the Canvas. People applying the Canvas often have problems with the concepts ‘Pain, Gain, Job to be done’.

She has learned that the Canvas has become a standard tool in the new venture / start-up scene.

Above all, the business model concept is considered an excellent communication tool.

Existing tools have not yet managed to integrate the ecosystem. In ecosystems customers can be partners and vice versa. We have various sectors consisting of strong ecosystems such as the healthcare system. Most existing business model concepts use an ‘old language’ that is not adequate anymore for dealing with the emergent ecosystem perspective.

3.9 A9 – Professor for Entrepreneurship

His main field of interest is entrepreneurship, developing new business models but also evaluating existing business models. He has recently published research on success factors. He does not conduct research on the business model as a model. His research is about entrepreneurship where the business model is part of. However, he has founded 6 firms on 4 continents so he has a lot of practical experience on how to deal with business models. He does not consider himself an entrepreneur because, as a professor, he has not founded these companies for a living.

The business model is considered the smallest unit to be defined so that a business works. There are many models, the most popular is from Osterwalder (Canvas), but he has developed his own too. His model consists of 7 “keys” to be defined, namely customers, product, market development, money, competition, resources, and the team. However, the various models are similar. Nevertheless, the competition is missing in the model from Osterwalder, for instance.

They have implemented an online platform automatically generating a business plan out of the business model. The business model is more important than the business plan because it is conceptual. It defines the business. The business plan is more formal containing some additional aspects. The business model concept is important because it allows you to really consider everything that is important. The business plan, on the other hand, forces you to rigorously think through your idea. The business plan is a document to be communicated to the outside. By contrast, the business model is an internal document serving as basis for a pitch. Strategy is also tightly linked to business modelling. However, strategy must show the way how to get there.

Their online tool allows for defining all the parameters finally determining the revenue stream, including cash flow, liquidity plans and the balanced sheet. Before dealing with the revenue streams there are many important decisions to be made beforehand. In this online tool there are 40 tools included ranging from a SWOT up to a value chain analysis. It finally generates the business plan, also using artificial

intelligence algorithms searching the Web for relevant information of the respective sector. It is considered a unique tool thus far. It is much more advanced than the Strategizer from Osterwalder. It also incorporates all of the 140 Swiss business plan contests and you are going to be registered automatically there (if desired). The 7 key model represents the basis, the core of the tool. It has been implemented by a student and a business book was published around its core ideas. Today he thinks that we have a technological gap. Many models are designed using sticky notes. Once having a model with sticky notes, what comes next? We need this in digital. This is the gap. There are many so-called business model 'Navigators', all of which not cutting edge, from a technological perspective. All this has also become part of the studies they offer, ranging from certificate courses up to MBA programs.

He has already worked on the business model concept before Osterwalder became famous. By contrast to Osterwalder he has never intended to make a business out of it but used the ideas as teaching instrument. However, the current platform is considered a promising project.

The business model concept is considered the nucleus. It is the product of many iteration cycles. It has been learned that the person, the team, is an important aspect of a business model. In his model the value proposition is not an element of its own (such as in the Canvas), is integrated in three other building blocks (see model).

In a project with design and arts students it has been learned that people's individual motivation is a central element. The model they created is also a by-product of research conducted with very small businesses so they learned that the 7 key model works well in practice.

An additional element of a business model should be 'chance'. However, he has not added this element because we cannot do anything with it. Furthermore you always need a bit of luck. It could well be that you do something a giant such as Google is interested in. In the very best case they just buy your company then.

A further important question is: how innovative must business models be? We have always high-tech, highly scalable business models in mind. But reality is different. Most companies are not of that kind. Most innovations are rather small. However,

high tech start-ups are important for our economy, no doubt. But we need 'steerable' business models for the rest as well. Many governmental support institutions tend to ignore this. In Switzerland we have deficiencies in this area. What is more, we are not able to push promising business models with a lot of money such as the Americans do (example: Aribnb. This idea was originally developed and implemented in Lausanne, Switzerland). We spend a lot of money in research and development but do not push the market. It is not a business model problem we have but an execution problem, hence pushing and scaling the model, investing money. This is where we still have to learn.

3.10 A10 – Design Researcher (Design and Entrepreneurship)

He is the director of studies in a degree programme design and entrepreneurship (master). He is a trained historian focusing on graphics design. Part of his research focus is on aspects of entrepreneurship in the history of design. Entrepreneurship is considered a discipline historically ignored at the school of arts and design. What we see now is a change of paradigm. However, they try to develop their own definition of what entrepreneurship is. Consequently, the lecturers are no economists but designers who started their own business, now sharing their experiences with the next generation. Most of the design students interested in entrepreneurship start a very traditional business in the area of graphics design. However, in the master's programme 'graphics design' the university tries to make the next step focusing on more start-up oriented businesses. It has been learned that there is an increasing discrepancy between good ideas and what is finally realised.

Models in general always have the implication that there are several of them, so that we have model-like structures in order to develop a business. Models imply structure of orientation. In the design institute these 'structures' are influenced by arts, they are used less strictly. At the art academy things are always questioned. Accordingly, models are of only limited relevance. Models are developed individually. Models, but also hierarchies and project plans are questioned. Agility and participative structures are hot topics instead. At the art academy there are often model phobias. People do not start thinking with the model but with an idea. Design Thinking is a concept in the domain. Starting from the nucleus of an idea. However, there are also students starting with the Canvas (particularly in the entrepreneurship domain), then develop their own model out of it. It depends a bit. But there are also students who ignore models consequently. What can be seen is that there is a rejection against all kind of generalisation (not just models). Even the processes established at IDEO (which was visited last year) are considered too much standardised by some students. Nevertheless, those moving towards start-up use the Canvas from Osterwalder even more frequently. However, on the other side of the spectrum, those focusing on social projects refuse it categorically.

Since there is no entrepreneurial tradition in design it is always interesting to see how the students react on new tools. What can be said is that design students are not motivated by revenues at all. Accordingly, concepts such as exit strategies are not part of their vocabulary. Instead, these students want to do something for themselves, self-realisation.

The students mostly use visualisation techniques in order to visualize complicated problems, but they do it individually, each time from scratch. This is influenced by an artists' tradition, in which an artist distinguishes himself through his work.

This new study concept will be investigated scientifically, but at the moment there are no results available. Currently there is no model available, it is a trial and error process.

Individuality is considered the basis for innovation. There was a speech from Freitag (two highly successful entrepreneurs / producers of recycling bags, a design driven company) stating that they developed their first business plan 10 years after the company was founded.

In design there is a category of problems, which have to be solved each time from scratch, so-called "wicked problems". This is what designers are interested in. Wicked problems cannot be solved using algorithms. There are no models to solve these problems. They have to be solved from inside out. Most complex problems we have these days are considered wicked problems. Let's assume that we want to change the discourse of our culture of death (a running student project). You have to establish a completely new way of communication. It is like in science, we first have to formulate the 'right' (research) questions.

Different models are offered to the students but they are free to decide whether to use them or not. For example the Double Diamond model is currently a hot topic. Finding an adequate model (if any) is part of the whole learning process; in strong contrast to more traditional business programs/schools. Design science also has its own methodologies and methods such as cultural probes, a technique where people document their lives using cameras.

Most of the master students in the design programme essentially need to whole training time to 'just' frame the problem to be solved. Then, changing their attention to the business world is something different. In the world of design driven innovations, the paradigm is that business plans destroy each kind of creativity and innovation.

However, it may be a problem in the design context that students treat each problem as it was a wicked problem. It obviously is not. It is important to distinguish between problems that can be solved generically, using models, and real wicked problems. Treating everything as a wicked problem prevents resources from creating real innovations. A high level of agility and the ability to react on failures are core competencies. Strictly following models is considered the opposite. A trial and error culture and working with drafts is part of the programme right at the beginning. This is considered a basic skill.

3.11 S1 – Early Evangelist (Consultant, Lecturer, Start-up Founder)

He is specialised in the conception of new companies (at the forefront of new ideas in the business creation context). Beside many years of consulting experience, he also teaches the newest thinking models and principles to university students in an MBA program and has more than 10 years teaching experience in this context. As a trained engineer he first got in contact with innovation-related topics in the product development process and was mainly engaged in technical-oriented projects – just a small number of 2 or 3 projects out of 100 were non-technical oriented. A few years ago, he co-founded his own start-up in the knowledge-management domain.

He started dealing with the business model concept as a co-author of the famous Osterwalder book (Business Model Generation in which the Canvas was first presented). Accordingly, he automatically associates the business model concept with the Canvas. Based on this, the business model is understood as a complex logic visualising a company schematically.

However, reality is always considered more complex than the business model. Nevertheless, it is legitimate to deal with reality on a higher level of abstraction (flight altitude) since even this abstraction allows for coping with such highly complex systems because you always have the 'whole' in mind.

The aim of a company is to create value and to monetize this value (in most cases). Hence, it is about creating value within a business ecosystem. Within an ecosystem, it is very useful and sensible to visualize the flow of resources. Therefore, he uses transaction models.

He knows plenty of models such as the Canvas from Osterwalder, the Navigator from Gassmann, the model from Christensen and Johnson. Then, he also knows Stähler who included the team and the values of a team in his model. Then the model from Wirz is also listed, which is considered ideally suited for analysing an existing company (this model is very complex). Finally, the transaction model from Board of Innovation is part of his repertoire. He showed a graph visualizing the evolution of all the various business models / business model frameworks – there are many of them.

The business plan contains the business logic; the model is an abstracted visualisation.

Combining the Canvas and the transaction model has proved to be highly effective. He currently works on ideas that allow for validating business models. Therefore, the Lean Start-up methodology is applied. In this 'methodology' the Business Model Canvas represents the starting point and is used to formulate the most critical business hypotheses. It is a scientific approach aiming at minimizing risks and seeking the highest possible rents by doing many (cheap) learning cycles. It is about testing and validating new business models in the market. It is always about minimizing risks, a hot topic in the innovation context. By consequence, the business model concept can also be seen as a means to minimizing risks.

Each start-up aims at establishing a new unique business model.

Scenarios are often used to map different alternative contexts. Therefore, scenarios are used to discuss different possible futures in order to develop models of ecosystems based on which the most important hypotheses can be validated.

Companies have started thinking in the business model dimension through the Osterwalder book. They use it as a strategy tool. However, in most established companies there are still no established standard business modelling processes.

Not each and every company has a strategy, hence a plan of its future. But each company has a business model (sometimes unconscious). Accordingly, the business model is a more fundamental unit than strategy. By contrast, in certain situations it can even be wise for a company not to have a strategy (in the start-up context).

Above all, the business model (Canvas) is a collaboration and communication tool. By contrast, the transaction model is a tool for analysing systems. The Canvas cannot be used to map out the ecosystem, a strong weakness of the tool. Furthermore, different levels of complexity cannot be 'zoomed in and out', an additional weakness. On the other hand, there is no model that allows for combining different business models, dealing with the interaction in ecosystems. The transaction model is often used to compensate this weakness, hence for visualising interfaces

and the flow of resources, like a roadmap. We need a new type of model that allows for zooming in and out between different levels, such as in technical 3D-plans.

The 'model concept' is an idea people with a technical or natural scientific background feel comfortable with. However, there are also people from other disciplines such as arts who never use models. They deal differently with these ideas.

3.12 S2 – Strategy and Innovation Consultant (High Military Officer)

There are two sectors in which he provides consulting services: energy and IT. His clients are mostly interested in external perspectives. He is specialised in and also mostly engaged for conceptual studies in technical-oriented domains, including analysing problems and synthesizing solutions. The offered services incorporate areas in which he has extended business experience for at least 20 years. This ranges from project management up to executive positions in the above-mentioned sectors. He passed engineering and several MBA trainings, incorporating electronics, general management, innovation management, and corporate finance.

The first time he has learned about the business model concept was in the year 2000 in a strategy context. Then, the term was considered less structured than it is today; hence people had their own interpretations of what a business model is. At the time, the business model concept could be compared to an electrical four-pole. You have 2 inputs, 2 outputs and a black box in between. People were not interested in what happened in this black box. In the period between 2000 and 2008 everybody was interested in strategy. Then, from 2008, the consultant sector realised they needed something new so they started focusing on business models. At the same time, academics realised that they must expand their understanding of innovation from strictly thinking in the product domain up to integrating services as well. The biggest and most influencing consulting firms have always tightly collaborated with universities transferring the latest knowledge in practice. The business model concept has its 'place' in the market today so consultants expect that companies are familiar with it. Accordingly, they have started focusing on the digital transformation as a new topic for selling consulting services.

A company essentially consists of processes on various levels of abstraction. Therefore, you can adopt a top-down and a bottom-up perspective. Customers can also be scaled and segmented; an idea that has emerged in the marketing domain. However, a problem in practice is that we normally do not have enough information about the segments we develop. Basically, new business ideas can be created from two different places. On the one hand, you may have a problem to be solved, a

'disturbing factor'. On the other hand, you may have resources (capital, production) you want to use for generating profit or rents.

Business models frameworks have existed ever since. Even Henry Ford deployed an assembly line framework for his automotive production; adapted from the Chicago meat production. The currently most popular framework is from Osterwalder. He substantially has not invented something new but combined existing concepts to a new big picture and developed it further focusing on customers and the value proposition. There are also other frameworks such as the Navigator from Gassmann, but most of them are adaptations of Osterwalder. The strength of the Canvas is that it can easily be used as a means to generate new ideas, as some sort of guideline. However, this is also its main weakness. It does not cover 'everything' and each company must be considered different. Nevertheless, someone with management experience is better off using the Canvas than the Navigator because it provides more details.

The business model concept has been developed by academics mainly interested in showing ways to quickly make a lot of money; most of them have no or only limited practical experiences and also no financial background so many financial concepts are mixed up. By the way, it is like strategy, you only see whether it works after many years in business; so viable strategies are often 'constructed' post-event.

Accordingly, most running strategies are just 'rubbish'. What we need is the ability to learn and adapt quickly. Although the best strategies and business models 'emerge between the ears', the business model concept allows for writing ideas down and making them tangible. Really experienced managers and entrepreneurs have a well-developed gut feeling based on which they take viable and working business decisions.

Each and every company has a business model. The question whether it is necessary to actively deal with the concept depends on many variables. Companies should think about their business model readiness in terms of the digital transformation since IT will not stop changing existing well-established models. However, most companies have not yet realised that they should bring their business model on paper. They may have a business plan they revise regularly by (just)

changing the numbers in it. Many CEOs use 'established' structures and tools so they just care about new concepts when their organisation is in crisis; then they delegate the new concepts to their subordinates who have to find quickly solutions ignoring the time this process normally requires. This is why so many sectors are really in crisis!

The interviewee has successfully used the Canvas in practice. However, it was complemented with additional concepts such as empathy maps, PEST analysis, as well as micro- and macro-economic tools. In all, the business model concept is considered useful when applied thoughtfully.

What is ignored these days: we should think more rigorously for which problem we really need the business model concept. In the army you learn: What is the problem? Why should we use this concept? What do we want to achieve and what are possible impacts? Is there a disturbing factor? It is exactly the same with innovation today. We do not always need an innovative solution for each and every problem to be solved.

3.13 S3 – Coach and Sparring Partner (for SMEs)

He is a 'generalist' specialised in marketing (the 7 Ps). Since he was interested in something more creative than what he learned in his formal training (graduated in mechanical engineering), he has always been interested in a wide range of topics and has always stayed curious. After 20 years in business and more than 300 subordinates in an internationally acting Swiss company (he was part of the executive member board) he decided to take the next step with a formal marketing training (this was in the 1990-ies). Today, the sector does not matter; he provides advising services in almost every sector – he acts as coach and sparring partner for about 6 years now, after a career in a big corporation. It is more important that he feels comfortable with the team and passionate with what the company does.

He first learned about the business model concept in 1970-ies. The concept was used to describe different units within a company. The business model concept is tightly associated with marketing. The concept's most basic component is the product that must fit to a customer need. Then, we need to do some maths so that money can be earned. That is all. However, the very same customer may have different needs; on weekdays he eats sausage, on Sunday filet - the same customer! Those various needs may be directly the opposite of each other. It is always important to treat customers as 'humans' to be understood. We often have to cluster different products for the same customer. The argument is that customers do not want filet on weekdays (since it wouldn't be something special on Sundays) so we have to serve alternating needs too.

The associated concept is the 7 P marketing model. It is all about creating enthusiastic recurring customers. However, some aspects such as finance, processes and logistics are missing in these considerations. The model from Osterwalder is considered a good model too since it represents a balance between costs and value to be offered. However, it is a thinking model that helps structuring thoughts. The Canvas can be compared with a kaleidoscope; each time it is slightly moved/turned you can see a new different picture. With the Canvas you get the whole picture quickly. However, depending on whom you work with, the market structure model may be better suited since it allows for more complex considerations.

It always depends. The market structure model offers additional perspectives incorporating competitors, regulations, etc. It shows how a system is actually structured.

The Canvas is ideally suited in education contexts where you want to quickly have complete 'solutions' (in an exercise). But reality is more complex and market structures may change daily because there are never companies doing business with each other. There are always people doing business with each other; something often ignored.

Each company should question its business model from time to time. The core of a business idea must be periodically questioned.

Engineering offices have been in a difficult situation ever since, because they just offer a small part of the 'whole'. This is becoming even harder today since general contractors offer whole packages to customers. Engineering offices must avoid standing still. They must be flexible and integrate new disciplines in order to expand or diversify their offerings. Hence, it is important to be agile, to recognize new market trends on time. Often, you can hear that the price was the problem but they just have ignored trends and did not react on them adequately. Managers of engineering offices must stay curious. They must be sensitive to megatrends in order to position the company in a changing world.

We have to (re-) learn that business models must base on customer needs. In recent years our system was dominated by models banks imposed on companies; backwards oriented models!

A business model may be the implementation of a company's future strategy. However, the business model is the concrete implementation of what the company currently does. When it comes to business model considerations most managers (not entrepreneurs!) heavily rely on consultants because such discussions are often uncomfortable – and consultants can easily be dismissed if necessary. SMEs do not often work with the business model concept because they do not have the required resources to do so. The longer you are in business the more details you understand and the better your business model becomes.

Business models that allow for earning quickly a lot of money are popular and also hyped today; however, it is still comparable to a lottery win. Having your business model in mind means continuously leaving your comfort zone (especially as a start-up). It is part of the game to continuously have a look at the unpleasant side of what you do; having the will for this is essential. Thinking in long term, not just in near-term is required. Loosing the feeling for the market means loosing the market's spirit. Based on many years of experience each CEO/company has a lack in at least one of the 7 Ps. Discovering and complementing this weakness is what consultants (should) do. However, CEOs are often misled; for instance, they may outsource their production to China but do not realise that they lose their long-term competitiveness by doing so.

3.14 S4 – Governmental Innovation Promoting Agent

His institution offers support in the whole innovation process, particularly in the early stages of idea generation. Open innovation is considered a hot topic in this context. His institution also acts as a brokerage platform (providing a network). A considerable part of the service he provides is subsidised by the government. As a governmental organisation they are considered to be more trustworthy than commercial consultants. They offer support to all kind and size of companies. However, most companies that make use of his services are rather small since this category does not have the resources to deal with innovation topics. He graduated in economics and has specialised in marketing. He worked for international companies, also abroad, before acting as innovation coach in Switzerland.

For him, the business model concept is associated with the Canvas from Osterwalder. Beside the Canvas he also knows the Navigator from Gassmann but has never worked with it. For him, it is important to identify a model he feels comfortable with, and this is the Canvas. The Canvas is considered highly market and customer oriented, the strength of the model. However, the 9 building blocks are often just 'too much' and too complex to be easily understood.

For most companies the daily business has priority so they do not deal with concepts such as the business model. Accordingly, he has never got feedback from companies regarding their application of the business model concept thus far. He doubts that companies really go in the details. He has never seen a company actively working with the business model concept. The problem is that you have to work with these 9 building blocks. You have to understand them; this takes time and energy. It is not that easy and companies do normally not invest time for this. However, sensitization is considered important. It is not about working with the concept all the time but the companies must understand something is going on in this area. By contrast, companies work on their business model intuitively. They may ignore one or the other building block; this is why sensitization is important.

He has worked with several hundred companies in the past 10 years and has learned that most of them do not have the resources to deal with such concepts, particularly

companies in the range of 1 to 30 people. Not a single one he knows has ever actively worked with the business model concept! On the other hand, approximately one third of the companies he has worked with in the past few years may know the concept (or the term business model). This is because the business model concept could take advantage from media presence coupled with current issues (banking business model crisis, silicon valley start-ups, etc.). It is hyped. Hence, companies know the concept, but working with it – this is a different thing.

By the way, it is nearly the same with innovation, a new word for something that has always existed. A lot of innovation related ideas have always existed in the marketing domain. Creating a real 'disruptive' innovation is an illusion. How many companies who managed to launch a disruptive innovation do exist, worldwide, described in literature? Not many. It is exactly the same with business models. We first have to think hard when, for what purpose, and in particular for what type of company does it make sense to innovate the business model. The business model concept is not suitable for each and every company. This simply does not work. A small company with production facilities can normally not just get rid of its infrastructure following a new business model. An Internet business is different, of course, also in terms of the scalability. Not every company is scalable.

In early stage start-ups the Canvas has replaced the business plan. At the very beginning companies sketch their ideas using the Canvas. The traditional business plan follows later, a year or so, when you need money. Those spending money want still to see more than just a Canvas. However, only 10 % of a business plan will finally be realised, this is reality.

The consulting sector is structured pyramid-like. At the top there are companies such as McKinsey working with the big players. But there are also many small consulting offices working with SMEs.

The business model concept is considered useful as a means for sensitization, but not more. Instead, the interviewee works with tools such as traditional workshops, lead user approaches and open innovation approaches. These tools are considered better suited in the innovation context.

Such as business models, digitalisation is hyped these days too. Again, it is important to provide companies with impulses; showing them there is something new, maybe containing an interesting aspect for them. This is innovation! Getting impulses from outside. Therefore, you do not have to work each new model through rigorously.

3.15 S5 – Innovation Consultant

He is specialised in providing companies with ideas from outside. He 'jumps' between contexts linking ideas from different sectors. He has realised relatively quickly to be a person always having new (and often challenging) ideas so he decided to start his own consulting business assisting companies with creating ideas (most companies have problems with this). Although he has a background as a trained economist he has always been interested in technical topics so he learned a lot about IT etc. on the job since there are no 'Tech-BAs' available, as an equivalent to an MBA but designed for economists, providing them with additional technical knowledge.

He first learned about business models in his formal training. Then, the concept was used to make market hypotheses 'tangible'. Essentially, a business model describes the organisation of a business. However, most models are too complex rather than being transparent, hence revealing contradictions. On the one hand, they describe how to act in the market but, on the other hand, must also be considered a process, ranging from the simple idea up to its complex implementation in the market. This is a highly dynamic process. Quite often, his customers expect him to calm a messy situation, but in fact he usually causes much more trouble! Not every client can cope with that. Accordingly, a business model is also considered a means to question existing assumptions!

Often there is no direct path to a business model vision. By contrast, you sometimes have to go ways that seems to be contradicting, at first glance. Companies often want to participate from hypes, just with exorbitant profits in mind. However, they may be better off preparing something ignored by the others calmly. Such considerations are also business model thinking.

He knows several frameworks, some of which from the marketing domain. However, he works with the Canvas from Osterwalder. The strength of the Canvas is that you always have a holistic view of the whole. This includes a lot of complexity. Complexity means that we must learn to deal with contradictions. Not having a solution right at the beginning. This is in contrast to a traditional economic view aiming at reducing everything to simple cause and effect relations. This is not adequate anymore in our

complex world today. The younger generation is much better able to cope with such ambiguity. At the same time, most people think that loops are a waste of time. But in fact, they are not! Today there are 'things' we cannot understand intellectually. We must delegate them to our subconscious so we have to put things aside. Solutions often emerge when not actively worked on the problem! This is something we first have to learn and accept. People focused on security have problems with that. They cannot accept that we have to act without knowing what finally comes out; hence a journey into the unknown.

A business model is like a sculpture. For the visitors contemplating it the sculpture is complete, is perfect, but not so for the artist. For him, it is never perfect.

The strength of the Canvas is also considered its weakness: It is enormously flexible. The quality of its application depends on the people using it. The more relevant background they have, the more they know about the complexities in the market, and the more they can take advantage of it. Generic tools such as the Canvas are like a screwdriver. You can do anything with it not just driving screws but also hammering down nails or using it as a fixation for grilling sausages. This is in contrast to highly sophisticated tools such as CNC milling machines. It depends on those using it.

There are no special sectors particularly well suited for using the business model concept. It may depend on the fragmentation of the value chain in the individual sector, of course. But it is more important to realise that we cannot solve each problem using the business model concept.

Story telling is another interesting instrument in order to think about new customers. Although often misused and misunderstood these days it helps or forces you to think your concept through rigorously.

The business model concept is also a hot topic at business schools. A little bit of theory is always useful but it is much more important that students work it through in real cases in order to understand the inherent complexities.

The problem is that the concept is still associated with the world of economics where everything is reduced to cause and effects. It would be an interesting experiment to

discuss the idea with artists and philosophers; hence with people who are more flexible in their thinking than economists are.

3.16 S6 – Innovation Consultant and Private Investment Fund President

He is a consultant in the innovation domain (mostly in the med tech environment) and acts as the president of a private investment fund. He is also a retired university director. He is (co-) author of business books such as in the systemic thinking domain. As a university director he was responsible for the technology transfer where he dealt with innovative projects, this is where he first had touch points with innovations. He started his career as lecturer in management at a school of engineering. Then he was responsible for MBA programs. He first was director of the school of engineering then he was responsible for research and development programs for the whole university (including the schools of economics and arts).

He first learned about the business model concept about 20 years ago in the context of business plans. He has always been looking for THE definition of a business model but could not find it. Probably we still have no general accepted definition. These days, the Canvas from Osterwalder may have become the standard. At least, the students actively use this concept.

The business model can be seen through two different perspectives: new and existing businesses. His view reflects new businesses. Accordingly, the business model incorporates the product (including services), the customer benefit, and the market (including market potential and competitors). The team (management), the costs and revenues, and finally the risks are part of it. The business model concept has traditionally been tightly linked to the business plan, although the latter is more comprehensive a document.

Having a good management team is the absolute prerequisite before money is spent. Accordingly, a good product to be sold in a 'good' market is by far not enough. Before talking about the Canvas (the product, or the services), the customer benefit must be in line with the customer need. This is the most important thing. On the time axis business models follow with second priority. However, according to an absolute perspective it is important too since you have to show how you make money; this also depends on the sector and the market you are in. Hence, the market is important, an aspect ignored by the Canvas. In terms of the margins you have

tremendous differences between the med tech and the catering industry, for instance. But also possible regulations are different.

He also knows the Navigator from Gassmann. From a systemic perspective models with arrows show the flow of resources and are more dynamic, hence the Canvas is considered a rather static model. Probably, a single model cannot afford to be used for everything so combining different models may be more adequate (unifying static and dynamic views).

We always have to remember that economy is not an exact science so models must be seen as thinking models; if they were exact everyone would be a millionaire.

According to his experience the business model concept has never used as a means to sell an idea to an investor. In this context people still use business plans.

It is always important to critically reflect whether a tool is adequate for a problem at hand. In St. Gallen not only they have a business model but also an all-encompassing company model, which is not just complicated but complex, nearly impossible to be applied in practice.

However, the possibly most basic question is: What is a 'Geschäft' (a business)? [in German the word 'Geschäft' is used for a business but also for a single deal. It is not that clear what 'Geschäft' means; and business model is translated as 'Geschäfts-Modell']. Is it the model of a whole company, a project, an endeavour, an innovation, or even something completely new? In a new venture, the project and the company may be identical – what is the business model here? Accordingly, he never uses the term business model. He uses business plan for a project. If the 'Geschäft' is a company, then he uses company model. When he talks about earning mechanisms then he uses the term revenue model. And when he talks about strategy than he uses the term strategy. By the way, another issue is the relationship between strategy and business models.

Another dimension is time. How (if at all) is the time dimension included in business models? The relationship between elements in a model change over time, hence the model is changing. This is a systemic perspective. Time is very important. Brilliant

people have predicted the digital revolution 20 years ago but only 5 % of their predictions have proved to be correct. On the other hand, we have developments and devices today that no one would ever have been able to predict.

We also have to remember that there are highly successful entrepreneurs who have never heard something about business models but have founded 'empires'; they have brilliant visions and strategies; they have a gut feeling for the market.

3.17 S7 – Coach and Start-up Consultant (Business Angel Member)

He offers coaching for start-ups, mostly on the basis of a participation (if long-term coaching). He also acts as management consultant and as lecturer at several universities. He does not advise start-ups in the money acquisition process, this is another business he is not active in. Although he graduated in economics his first company failed so he was frustrated and decided to learn more about the process of successfully founding new companies, this is also how he got in contact with the business angels – those people he expected to know how the process works. Ever since, he has been fascinated about founding new firms and, obviously, there is still much to learn in the domain.

He first got in contact with the business model concept when he founded his first company in 1999. Since then, he has started dealing with the concept. The publications from Osterwalder provided him with exactly the thinking models he was looking for. He works with the Canvas from Osterwalder and also with the Lean Canvas from Maurya.

He understands the business model concept as some kind of ‘operating system’ of a company; it describes the value chain of a company. But it is also about a company’s right to exist (“raison d’être”). Additionally, the concept describes the processes a service is provided to the end customers. The work of Osterwalder is based on the work of Patrick Stähler. By contrast, the lean start-up approach has its roots in information technologies. We currently can see a trend that each university (interested in the domain) develops its own Canvas. Essentially, the Canvas from Osterwalder and the Lean Canvas from Ash Maurya are brilliant tools, also as a means for communication. He takes notice of other (adapted) models but does not integrate them in his work. Most probably, the Canvas is more than just a communication tool. This definition would fall short. It is a means to structuring thoughts. Particularly in the new business context the two elements customer segment and value proposition are really, really important. People attest him (the interviewee) to be able to quickly analyse a business. This is because he mentally ‘places a Canvas over the business’ to be analysed, which allows him to quickly ask the right questions, to see what works and what does not.

He is an early adopter of the concept and uses it ever since. It is considered an excellent tool to deal with complexity through reduction. The weaknesses of the Canvas are a missing market perspective and no competitors taken into account. It is strongly anchored in a resource-based view from the 1980-ies and 90-ies. However, today's markets have become very dynamic, an important additional perspective. Based on its shortcomings, many people try to map all the missing elements in the Canvas. This does not work at all.

The success of a business has finally nothing to do with the Canvas. It is all about execution. It is about the value you offer to your customers and about focus; leaving out irrelevant things is important. Furthermore, we cannot plan everything. There is a factor called 'luck'. You can influence your luck through an excellent execution. You must be active so you will automatically meet people who can help you.

He assumes that about 20 % of all investors are familiar with the business model concept. However, the concept, particularly the Lean Concept, has massively influenced the way money is spent. Investors avoid spending all the money at once, but in small tranches, to finance iteration cycles only.

A considerable part of the (traditional) academic community has not fully accepted these new tools and concepts because they do not easily fit into existing academic frameworks, so they tend to be ignored at some universities. Academics see these tools as practitioner tools, not on the level of 'real' science.

He works with companies from all sectors. He is interested in collaborating with companies who want to change things, things that do not yet work. High-tech companies are not the primary focus since entering a high-tech market usually means that you first have to open this market; this is not easy at all – he has invested in a high-tech company where this opening issue is a real problem.

He never uses any of these tools in his work with customers. He just uses the models as mental models, as thinking models. When you have customers with a working company you must be careful not to say them, hey, your business model is rubbish. You can neither use theoretical models they do not understand. They need revenues, instantly. Inexperienced consultants using such tools often are disillusioned when

their work will be ignored. There is a saying: “A fool with a tool is still a fool”. The customers do not want you to be a fool. Humans should not be reduced to tools; a human vs. tool situation must be avoided.

An important issue for start-ups is ‘focus’. The business model is less important. It is all about focus and a good execution. You can even be highly successful with an unattractive business model when the execution is brilliant (i.e. selling used cars). Nevertheless, a good execution combined with a good business model is the key for a sustainable successful business. Both are important. If you want to really earn a lot of money, then the business model is important as well. Another two important inputs (based on practical experiences):

- First, as a start-up, you should always start with high prices (as high as possible).
- Secondly, what you plan has nothing to do with what you finally end up doing.

3.18 S8 – Consultant, Inventor of the First Business Model Framework

He has no special focus but offers methodological competences regarding the understanding of existing and the development of new business models. He was the first who has ever built a business model framework worldwide! He realised that traditional units of analysis fell short explaining what happened in the digitalisation process. So he has started thinking in business models. The convergence to a new TIME industry (telecommunication, information science, media entertainment) required new skills and new business models. New players were about to emerge. Business models were a hot topic in the period around 1997 in practice and he, as an academic (then), tried to define this new concept (academics always lag behind). A business model is nothing else than an abstraction of a business reduced to its basic strategic decisions.

In this discussion we must start thinking with the most basic question “what is the purpose of a business?” There is only one definition from Peter Drucker: “Create paying customers”. For What the customer is paying money for, this is what matters. Four points are always most crucial: the value proposition, hence the right to exist. The customer benefit, how can I achieve this, the revenues mechanisms as well as the cost structure. In one point Osterwalder is totally wrong: the value proposition has nothing to do with the product! Proposing something to a customer is like a marriage proposal. The value architecture is about fulfilling this proposal. Therefore all the ideas about pains and gains are wrong. It is not about the product, it is about fulfilling the proposition and therefore the whole model is required. The value proposition is an abstract promise and the business model stands for its fulfilling. The VP represents more fundamental values than just the product; the latter may change over time but the fundamental values are constant. Or as Steve Jobs once said: „Everything is changing. Everything. The product. Everything. But what we stand for, what our values are, has not changed for the last 20 years. We inspire people for great work“. Only few people understand this difference. The value proposition is what you stand for in your life. This is a philosophical question and has nothing to do with pains and gains.

Business model thinking is about creating something new and therefore we need soft skills, philosophical approaches. This is what most scientist do not understand since everything must be quantifiable and measurable. But business modelling is about gaining a deep customer understanding and about values within a company. It is rather strange that we separate the value proposition and the customers segments (as in the Osterwalder model). I cannot make a marriage proposal to a woman I do not know! This is really important. "The value proposition is all about giving meaning". The people are ignored in traditional models using building blocks. An aspect Osterwalder has also realised in the meantime. It is about establishing a culture of criticism. However, 20 years ago, the human factor was also ignored in his thinking as a trained computer scientist in business economics. But the team and entrepreneurial spirit are 'new' elements he has added in the past 8 years, his perspective has changed. The team and entrepreneurial spirit are 'new' elements he has added.

Something is really strange. He invented the concept at the HSG in St. Gallen. But today, everyone just talks about Gassmann who entered the university many years later. The thing is that the business model concept will never be commercially interesting. This was misunderstood at the HSG. The rationale is simple: We scare people with business model thinking. Many people would get in some sort of cognitive dissonance by reflecting their job asking the question 'does it make sense what I do?'

The business model is a conscious reduction to one specific question: what job do I solve. Everything else such as the market is left out consciously.

In some businesses there is no learning curve, the same mistakes are made again and again. However, people do ignore such findings categorically.

Creating another adapted model framework is considered 'academic masturbation'. Instead, it would be much more sensible to think from the customer. Hence, all existing business models are optimised for the supplier next to you in the value chain, not for the end customer. This is the same in many sectors such as the health care

system where everyone focuses on his part only. Developing a passion for heating systems (in your case) would be key!

Such as business models there are two additional buzzwords, namely innovation and sustainability, both are used “wishy-washy” loosing their strength. It is the same with the business model. It is applied rather mechanically following the building blocks from Osterwalder without thinking about the philosophical fundamentals behind. Years ago we had advanced systems thinking at the HSG. This has been lost since science is becoming more and more focused loosing a holistic view of the whole.

People in general do not like to question themselves! But they love having 55 business model archetypes; however, in fact there is an endless number of different business models since each company is different, there are not just 55. Dealing with this high level of complexity can also be labelled entrepreneurship! You have to find your place in the world. It is not about values to be written down on a piece of paper, these are the values to be lived within a company. Business modelling is often just a question of values.

In the construction sector there are new emerging ideas such as BIM (building information modelling). Building houses based on industrial principles, something architects do not like at all. He has already proposed to establish a chair for ‘empirical architecture’ at the ETH Zürich, dealing with the question what can be learned for the next building generation based on what already has built. Again, better understanding the customers and their behaviour.

Entrepreneurs have to question the state of the art. A good entrepreneur loves the problems of his customers. It is about taking responsibility for whole systems, not just for parts in it. This is what customers finally value. In many sectors, everyone acts rationally. But no one is motivated to say, hmm, can we do it differently? This way of thinking is required. We finally need a passion for what we do. This is business model thinking.

3.19 S9 – Entrepreneur, Coach, Speaker and Business Book Author

He is a software entrepreneur, coach and speaker. He thinks that the understanding of the business model has changed in the past years. In big companies the concept is used systematically these days, in small companies its application is still unclear. Hence, the business model concept is well known today, particularly in big and middle-sized companies. The diffusion of the concept also depends on the sector; there are differences between different sectors. The concept is relevant because companies have to re-invent themselves. They have to generate growth.

Everything about business models has started in the Internet bubble era in 1999 and 2000, where the term business model was a buzzword. Since then, it has massively developed. The idea originally emerged in a business process context, such as used in IT communities. He first dealt with the business model concept in his dissertation. He was interested in understanding companies through a holistic lens. The development of his framework was restricted to the context of start-ups and big companies. SMEs were ignored. Essentially, even today he has only few contacts with SMEs.

The Canvas has become a standard tool in the start-up community, not only in Switzerland, but worldwide. The Lean Canvas from Ash Maurya is considered a catastrophe since it lacks of conceptual rigour. People use it because they tend to think in product categories rather than in the business model dimension. The Canvas does not focus on products only; it is about the big picture. Therefore, he has invented the Value Proposition Canvas, which can be seen as an answer to the Lean Canvas. Ash Maurya cooperates with Eric Ries (Lean Start-up idea). However, Steve Blank prefers the Canvas because he considers the Lean Canvas mishmash, conceptually not thought through. Many new tools are not well thought through; this is a problem. This is why he exclusively creates visual tools. He builds tools that are easily understandable. These are tools that you can use from day 1 on. There is nothing you must to learn first. He is currently working on a team alignment map, as an additional plug-in for the Canvas. Developing plug-ins for existing tools is considered superior to developing adapted models since each tool has its purpose. Rather than creating new adapted models investigating industry specific patterns

(using existing tools) is considered far more valuable an approach for academics in the domain. Generally, there are many people copying and adapting existing well-established tools these days.

His definition of a business model is “The story of how you create, deliver, and capture value“. He tries to make things as easy as possible. An analogy of the business model is the front-stage (value side) and back-stage (cost side) of a theatre. Accordingly, the Canvas is really well thought through. The Canvas respects some sort of a balance. It originally was derived from the balanced score card idea but ended up to be much more intuitive. Concepts such as the Lean Canvas violate this balance. This also why they do not really work in practice. Most companies he knows, who once started using the Lean Canvas, have finally returned to the Canvas. Conceptually, the Canvas is just more coherent.

Entrepreneurship means that we must always have all elements in mind, all the time. People tend to focus on products only. This is still a problem. However, it does not matter where to start as long as you end up dealing with all of the 9 building blocks.

What he has learned from engineers is that they always want to start building something. They take the lean start-up mantra “build – measure – learn” literally. However, we should reflect between “Can I do it” and “Should I do it”.

He is not active in basic research anymore but develops tools assisting practitioners. This can be seen as some sort of extremely applied research. In natural sciences we still have the link between basic research and its application in practice. In business and management, there is an increasing gap between the academic and the practical world. He and his team try to reply by creating tools that are really useful for practitioners.

The Canvas is either used to establish a common language or to re-invent the company. This is what he has learned in big companies. In both cases the concept is used differently. There are so many ways to use the concept; it is impossible to make general statements. However, the concept is particularly useful in sectors with fast modifications such as the telecom industry. Note: it is not necessarily a tool for re-inventing a business but also serves as a means to establish a shared language. In

their workshops they have learned that even people using the concept for years still learn new aspects. It has become good practice to show companies what good business models are and how to think in alternatives. It is always about the 'histories' told by people rather than filling out the individual building blocks.

Case studies (from SMEs, for instance) may help making the concept more tangible. If I have companies (big SMEs) actively and successfully using the business model concept he would be interested in these companies. We still face a gap regarding business models and ecosystems, showing how to create value as a network rather than individually. Furthermore, he sees still potential in finding out what people really understand by the term business models and which tools they use in practice when working on their business models. But also, why do they use it, what are the triggers? Many big companies state that their environment has changed. They have to react. It is considered interesting to learn more about why people start thinking in such dimensions. Very often people who were given the concept by their bosses get in contact with him since they have to find out how they could take advantage out of it.

3.20 S10 – Innovation Consultant, Lecturer, Innovation Book Author

He offers consulting services in innovation. His specialization is driven by market needs. A few years ago they offered methodological support. Today it is more content-related. In particular they work at the interface between corporate strategy and innovation, hence working out strategic search fields, focus and growth strategies. Innovation has become much more concrete in the past years. Just establishing an innovation management structure is not enough anymore. Since innovation is always something new companies need methodological security. This is why they need an external consultant. He mostly works with technical oriented companies. In most cases no SMEs (bigger). Normally, bigger companies have a higher affinity to external consulting services. He has learned that technical oriented companies are ahead in terms of innovation, compared to other sectors, such as banks.

He first learned about business models as a research fellow at ETH in Zürich, when he worked on this dissertation in technology management 20 years ago. They then realized that new aspects came across in the context of low cost airlines, which could not be explained using traditional product oriented thinking. Then, it was a gradual process from offering even more additional services up to products only serving as a means to an end, as we can see today (as a trigger). Since most products have become commodities we have to think about alternatives making the price war irrelevant, blurring the product prices.

Originally the business model was defined as the revenue streams, how to make money. Today, it incorporates much more, thanks to the work of Osterwalder. His visualizations are really helpful. However, the business model has been part of the business plan ever since. Although many people think about value propositions, for him, the core still is the revenue mechanism. The business model is derived from the value proposition. Osterwalder has put value proposition thinking at the centre in order to make the concept more attractive. Osterwalder uses existing concepts without naming them such as the Kano model dealing with unarticulated needs. However, the business model finally answers the question how do you make money. This also influences the value proposition, how do you charge something etc. The

revenue model has also been part of a business plan ever since, which you can see in standard indexes in business plans. A business plan is just more comprehensive. However, 99 out of 100 business plans do not work. Nevertheless, it is important to think things through rigorously, particularly regarding your financial situation.

It is not clear whether the model from Gassmann is really a model. It could even be just an index. Furthermore, the Canvas is an inadequate tool to develop new business models. It can be used for visualization purposes once the model has been created or for existing models. Most examples provided by Osterwalder are constructed ex-post. They cannot be derived directly from the Canvas.

Is there a link between innovation and business models? Yes, it is. Everything you do must automatically be seen as a business today. This is where the business model concept comes into play. You have to test quickly an idea; this is the only way that allows you to find out whether something works or not. At the same time, we have to think in alternatives. Additionally, the concept assists you in breaking up existing structures.

The work from Gassmann, including the business model road map and the archetypes are interesting, very interesting, for historians. The interviewee had customers who had to work with these tools – they were considered worthless in practice. He uses a technique called 'structured creativity', hence combining creativity with analytical sessions. They look for the nucleus of a possible innovation, in most cases building on something existing. Starting something from scratch is extremely difficult. The business model concept is also a tool to react on market changes. Companies just calculate the costs of running projects rather than the costs of projects that have never been realized (long term costs for the company).

Many companies are aware of current topics such as the business model concept but they have problems with its implementation. The problems are internal structures preventing firms from doing something new. At this stage external consultants can act as some kind of catalyst. Start-ups have more flexible structures; this is why they are more innovative. He doubts whether innovativeness is a question of culture. It is

more about incentives; hence about particular interests of individuals in organizations.

There is an increasing gap between the academic and the practical world. The rationale is that many scholars have never worked a single day in practice but have become professors based on many of publications. Admittedly, they produce really good journal articles, no doubt, but it has often nothing to do with practice.

It does not matter which concept you finally work with; it is important that you use a framework you feel comfortable with as thinking model. Culture is a difficult thing. What is culture? As it was said by an American: "How we do it here". Hence even the Canvas implies a certain culture. Finally, it is important that we recognize the strengths and weaknesses of each tool and reflect which tool is suitable for what we want to achieve. In the innovation domain, we have plenty of tools.... Osterwalder has managed to consolidate many of them (Kano model, job to be done model, just to name a few) – well done! In SME contexts people look for tools they can use in order to produce completed cycles quickly. Again: methodological security is valued today.

3.21 S11 – Philosophical ‘Impulsator’

He has two main fields of specialization: professional philosophy and management philosophy. Philosophers must also think entrepreneurial these days in order to stay ‘competitive’. However, it is about giving impulses in the life of other people. He sees himself not as a management consultant; instead he is a philosophical ‘Impulsator’. We can compare this with a doctor who never has contact with his patients.

Philosophers must be tightly linked to the real life in order to be credible. Today, professional philosophy does not have a right to exist outside the university, hence philosophers must bring their thinking to the people outside the university. In his courses at university (design and business school) he tries to develop situational intelligence, something for entrepreneurs. It is about “smelling” questions, something gaseous standing in the room, which has not yet condensed into something tangible.

For him, the term business model is something incidental. At first glance, it could be understood as a visualized strategy plan. He normally does not use the term. However, when reflecting its meaning it may contain ‘basic structures’ of a company. Ownership structures. Processes. He understands a company to be embedded in a context since the basic question is: Why do we make business? It is a declaration of love to the world and to the people living in it. In contrast, ‘doing business’ is occupied with bad emotions these days, egoism etc. He thinks that money should never be the motivation for entrepreneurship. On the contrary, we need money to launch a business. It is a ‘means to an end’ perversion. Those just focusing on money in essence have a problem, not an economic, but a philosophical problem. Hence, it is important to give new philosophical impulses rather than surrounding to the egoists. We have to motivate young people to start their own business rather than just showing them the safe side. Young people think about their pension in their early twenties; a worrying fact preventing them from founding their own venture.

The term business model implies the dominance of the business part, making the term unilateral. Furthermore, it has the character of something big reduced to something small. By consequence, having it in small, we can just scale it. This may be a brilliant approach in the technical domain but its application in social systems must be questioned. With a small model of reality there is a danger of missing ‘real

reality'. We also have life models, ideas how a life should be, but life is different. We have models for everything but the real world does not care about them. A model is considered 'a good servant but a bad master'. Models imply the danger of the 'Titanic Syndrome' since "He did everything correct, he followed the model". It is exactly the same with political models. In this context we have to distinguish between idealists and the model-fanatics. Idealists consider what life tells them, are able to react on something emerging. Controversially, models paralyze since we have the 'model-security'. Hence, we are not able to get involved in something that emerges. In contexts with no human-centred interactions the 'model-like' may be much more useful. We can also think about models explaining the world. We have models about the meaning of life. We have religious models. What are the basic models of the religions? What are basic models of a company? Hence, models that possibly allow for revealing recurrent basic structures and problems? Very often we are confronted with the 'good servant but bad master' principle, but also vice versa, as the servant becomes the master, which can often be seen with money. Are there some basic models of a business? Models, for instance, which are obsolete or inadequate? A model can be understood like a compass, but none goes hiking for the sake of the compass.

Essentially, everything starts with a question, an innovation, for instance. Let's say, we have a so-called 'Welt-Frage' (a question to the world) for which I may have an answer, my personal answer, the 'Ich-Antwort'. This 'Ich-Antwort' can be understood as an invention (not innovation!), based on which I pose a 'Ich-Frage' (my question to the world). To answer the 'Ich-Frage' I look for a 'Welt-Antwort' (a response from the world to my question). Depending on the reaction of the world the result could be an innovation. Furthermore, the 'question-system' is divided in three parts: head, heart, hand and foot, by reference to the freedom of thought, freedom of will, and freedom of action. In economy, the heart, the area at the centre, is often ignored. People mostly do not take time to get involved with the world to explore and discover an answer. Real entrepreneurs do exactly this. They have answers, but they formulate a question to the world (based on their answers) and see what happens. No doubt, the step from the 'Ich-Antwort' to the 'Welt-Frage' is risky. By contrast, just having an

answer for something is quite easy. However, entrepreneurs are interested in humans and in observing them, 'smelling' and discovering what is in the 'air'.

Many important questions have already been answered. However, individuals often do not turn their individual answers into a 'Welt-Frage'. Entrepreneurs do exactly this. They are interested in the world. By contrast, those having answers for everything (know-it-all) are considered cowards when they do not formulate questions out of it; hence, it is all about giving something back to the world! This way of thinking is some sort of business model thinking too; he just has not named it like that. In summary, there are two distinctions to be made: 1. Having an answer to an existing idea. 2. The idea itself does not even exist yet. On the other hand, an excited customer can also provide us with some kind of world-answers (according to his reactions to a presentation held, for instance). Accordingly, this can also be potential for innovations.

Often, people lose their interest for the world since they failed once. The highest level of excellency, however, is when you fail and then continue! In all, there are plenty of human factors to be considered. The 'heart' (as central unit) is considered the greatest barrier because it has a broker function. However, when this broker function is distorted it almost always has negative influences on the system. The blood circulation is interrupted in such situations and people degenerate to 'Kopf-Füsslern' (someone/something just having a head and the feet). Lifeblood is important although it may sound strange in an economic context. But without lifeblood you are just a 'Kopf-Füssler'. Without passion for something, you get demotivated. There are factors from inside (called 'vergällen' (denature?)) and from outside, which may paralyze you. Often, people bypass the heart question. Under massive external pressure you can act without having the heart question answered but for a limited time only. But in long-term, you need the heart, the passion for something. Having passion for something also includes suffering, it is not about just having fun. It is different. Passion includes suffering.

It is important to realize that we cannot motivate people. But we can do something not to demotivate them. It is important to note that having fun for the sake of having fun does not work. A heart not just beats for itself, it needs a task, something sensible

to do. It mustn't end in itself. Our economy, can it really afford to ignore the 'heart question'? However, it is not an economic question at first glance. Can it afford to 'dehumanize humans'? Based on medical statistics the argument is that it cannot, but it still does. The quantification, a brilliant invention of the human mind, is considered a servant for the wrong master. In contrast to the paradigm of learning as much as possible in a short period, we may be better off taking time for something. Root development. Enabling anchorage. We have to learn driving with different velocities. In innovation we talk about incubation. If you check the roots of a young plant too soon, you destroy it – it will never have the chance to thrive. We must first allow the problem to develop. Describing such a cycle could be a model he may become familiar with, a model, which 'reduces to the max', a compression of complexity but not a trivialization. We have to send ideas to the subconscious, a forced anaesthesia, not waking it up all the time. Suddenly, something new is about to emerge, as we can see in the history of science. You send your questions to sleep and wake up with an answer in mind! People must develop loyalty to their questions, not giving up too quickly. By the way, it may also be interesting to investigate which internal and external demotivating factors influence business models.

Humans do not just want to learn from the world but they also want to give something back to the world. This is considered some kind of basic rhythm, maybe a world formula. It is an interval between appropriation and communication. Maybe even what drives evolution, possibly an old principle?

3.22 S12 – Swiss Pension Fund Investor

He works as a manager for a governmental organisation investing public pension fund money in Swiss SMEs. Not only his organisation invests money but also develops the selected companies (cooperation for a period of up to 9 years). He is responsible for investments in industrial and IT sectors. He works with companies between 20 and 80 million turn over, most of which technical oriented. These companies are located in all parts of Switzerland (in all language regions). He is a trained engineer and holds an MBA degree.

For him a business model is about the way a company makes and spends money, about the revenue model and about the costs. He is very simplistic with this term and only interested where the revenues come from and whether they are bigger than the costs. Most likely the business model can be considered some kind of mental model assisting in the evaluation process. However, he has never seen a business model framework such as the Canvas from Osterwalder (he may have heard about it in an academic context) nor has he ever used the concept – or seen somebody else using it. Accordingly, the concept is not important to him.

Their main criterion for assessing companies is whether the companies have ever made profit in the past. If not, they go not even further. Then, they consider the market, the products and the team. Is the team committed and do they tell a credible story? Their story must demonstrate a strategic intense and they must be able to see the future in a creditable way. Above all, these points must be convincing and coherent.

3.23 S13 – Consultant for Future Orientation

He is specialised in future management, hence professionally dealing with the future leaders have in mind. He entered this area through the concept of early warning systems.

He thinks that the business model concept is interpreted differently, often according to Osterwalder (Canvas). However, it is considered a modern word for value chain including the revenue streams. The revenue streams including the cost structures, both are important. The concept was popularized by Osterwalder but has existed much longer before.

He has developed his own framework in order to deal with the future, a model consisting of 5 'future glasses' as a means to deal with diverse perspectives. The business model concept is included in this future management framework. Their model is individually adapted from case to case. Basically, the model is always the same but the underlying structures and methods are to be modified company-specifically.

The business model concept is considered important in order to define the logic of revenue generation. However, before the business model comes into play it is important to define a mission, a crystal clear positioning and a vision. Accordingly, the business model concept is subsumed under value chain and revenue model. However, all this is embedded in the question what a company's mission is.

The Canvas from Osterwalder is considered too simplistic. It is popular, easy understandable for everyone, but maybe too simple. He also knows the model from Gassmann in which basic business models have been described (55 archetypes). These archetypes are also often called 'meta chances', hence chances already thought ahead.

The strength of the model from Osterwalder is that everyone is able to understand it easily, such as a SWOT analysis. However, based on his experiences how people apply the SWOT framework in practice the application of the Canvas must be questioned. The strength of Gassmann is a set of models to be thought through

upfront. There are no sector-specific limitations regarding the basic idea the business model concept offers. However, those applying the model finally determine its success in practice.

He thinks that the business model concept is hyped these days and that we use it very universally. We should use these terms in a 'cleaner' way for not confusing them; i.e. how do differentiate between a business model and a business area?

3.24 M1 – IT Infrastructure Engineering Office

4 people, 20 years in business

He is the owner and CEO of an engineering company specialised in IT communication infrastructures (cabling) offering services mainly to big companies but also increasingly to SMEs. As a trained electrical engineer he has started his career in the media, then decided to launch his own business, at the very beginning as a branch office of a German company.

He has first worked with (and first learned about) the business model concept as a former employee introduced it as a means to develop a concept for gaining new customers (this was last year). The business model concept is considered an instrument that allows for communicating to the customers, communicating the available resources and evaluating customer potentials.

Since he had a good order situation most of the time in the past 20 years he never really cared about such concepts. Only recently, in crisis time, he has started dealing with such ideas. Essentially, his business is structured in two phases: Sensitisation of the customers (including providing consulting services) at an early stage and delivering concrete planning services in a second step (execution planning). As a prerequisite for new orders it is fundamentally important to have information about potential construction projects in an early phase. This has become much more difficult since there are generation changes in the companies of his traditional clients. These new people tend to work with framework agreements. The whole environment has become better tailored for big engineering offices rather than small. Accordingly, his business model is about to change radically. Information gathering activities for learning about new potential projects have become much more important, more demanding and time intensive. However, once having an order the planning process is still the same. Traditionally, he automatically had information about potential projects since he stayed close to his customers. Today, he is facing a paradigm change, he has to find this information on the web; this is an additional step in between, generating a lot more acquisition work to do.

He normally sells hours but in more than 50 % he also sells flat rates containing all services. Often, this type of agreement is preferred (cost security).

Partnerships have always been important. However, it has become different a process to establish them. In the past he 'of course' got following orders from different divisions within the same client company (big companies). In SMEs you do not have internal divisions, which would allow for continuing this same acquisition strategy.

His former employee introduced him to the Canvas and the Exploration Arena. He has developed new ideas using these tools. Two of them have finally been implemented in practice, one or which rather successful. The tools were used to develop different ideas. Those that do not work could rapidly be sorted out. The main strength is clearly their inherent falsification principle, hence sorting out ideas that obviously do not work at an early stage; what finally remains then is worth further pursuing.

Most competitors may have a bigger network since they are just bigger offering the whole range of services required in the domain rather than just serving a niche. This is considered an advantage these days (more and more). He learned that working with partners is not a viable approach to deal with this new situation because you cannot establish the needed pricing homogeneity (as the competitors internally have). However, the main challenge will be to work out better strategies that allow for getting the required project information.

Digitalisation and industry 4.0 are important and hot topics in his portfolio. He is about developing and refining services in this area. However, digitalisation has not changed his internal processes thus far (planning services); the latter have not changed in the past 20 years.

Thinking in the business model dimension is considered very useful. After each session he had at least one 'aha-experience'. It has enhanced and expanded his thinking by showing new relationships between various elements (which were maybe hidden before). However, any financial success has not been visible so far.

3.25 M2 – Regional Milk Processing Company

52 people, 75 years in business

Freshness is the mantra of his business. They process regional milk into regional products, which is getting more and more difficult because the customer base is continuously shrinking. Furthermore, it has become harder to protect and hold the own brand since customers (particularly wholesaler) want their own brands so they have to deliver no-name products to be labelled by their customers.

The company was founded 75 years ago. 10 years ago they reorganised their ownership structure since family members dropped out and a new generation came in. Furthermore, the production focus has changed from milk towards yoghurt, so they had to (and still have to) invest in new production facilities. He is a trained dairy producer working for his family company since the age of 20.

By the term business model, he understands the way the company has been reorganised from a stock company into a holding, including tax optimisation aspects so that his brothers and sisters could sell their shares avoiding high tax rates. Furthermore, the business model is also tightly linked to the mission statement, how the company is positioned. They want to be fair partners not just optimising profit, but also ensuring the company's long-term existence.

There is a tendency of even fresher products produced in even smaller charges. Therefore, they must be able to react fast and flexible with minimal production waste. Small batches often are door openers; however, they also have to be able to produce large batches if demanded. This is a challenge.

These days, it is important to focus on 'prescriptions' ('Rezeptleistung') to stay competitive, hence strictly focusing on know-how intensive products for which customers are willing to pay adequate prices. It is always a balancing act between 'exclusive' products to be manufactured in reasonable lucrative quantities. However, they do not make luxury products. Instead, good products for fair prices. Quite often, they are asked to develop specific products for a special community (i.e. a turkey speciality), which can then be sold to other channels too. This is how development

works. They get the receipts from these people (from the outside) and then develop and produce a small quantity. New products have to be accepted by customers right at the beginning, this is a real problem. Accordingly, staying close to the customers is inevitable. They also have an outlet generating about 4 % of the total turnover. It is a 'business card'. It is not about selling off their products. The outlet is a showcase for the products, which could not be presented to the customers in some other way.

They have not yet used a business model or any other management framework or concept. They do not manage to fully exploit their production capabilities. Engaging a salesman is a controversially discussed topic these days concluding that the owner (the boss) must serve the most important customers ('A-customers') and investing a lot of effort for the 'rest', the small customers, is considered a waste of time and money. Instead, they should be much more concentrating on the so-called 'A-customers'.

New products (innovations) are considered important to demonstrate originality. Often, you do not sell a lot of them but new products may serve as door openers for existing products. New things normally are tightly linked to high risk. So they always experiment with new ideas on a small scale. Finally, more new ideas should be successful than vice versa.

Digitalisation can be understood as a means to make internal processes more efficient. This is daily business. However, they also experiment with new offerings promoted on the website. However, it is just about customer pre-orientation. The customers will have to visit the outlet anyway. This cannot be replaced using digital channels.

One of the big challenges ahead is the trend of chain formation. Customers cooperate by concentrating their purchase. So you can participate in a competition process rather than acting as total supplier. This implies a downward pressure on the prices.

Further challenges are also regulations, from Switzerland but also from the European Union. Additionally, ideas such as the revision of the 'Swissness' label are considered a catastrophe. For instance, based on the new restrictions big companies

do it without the label since they can sell their products anyway. By consequence, they no longer consider other Swiss companies and products, i.e. why should they consider sugar from Switzerland any longer? This has not been thought through carefully.

3.26 M3 – Renewable Energy Start-up

6 people, 4 years in business

They develop products for the renewable energy sector, ranging from power production plants up to power stores. The company was founded in 2012. They first focused on installation services, and then re-focused to developing their own technology products. They consider themselves a real start-up. They first started with installation projects then moved towards a technology-based firm developing their own systems. Initially they were financed by their projects and their families; today, they even managed to get money from technology funds as well. They started with a rather broad range of products and services, and then have gradually started focusing. The founders' vision has always been to be ahead of the market with intelligent products. He has a background in the software industry and has the vision that the energy revolution will be digitally, consisting of intelligent power storage and distribution products and services. Therefore, his offerings are modular. Customers can buy power production plants and upgrade later with intelligent controlling units, if necessary.

He was first confronted with the business model concept many years ago but did not have a clear idea what it really was at the time so he decided for an MBA training in innovation; the business model concept (fascinating him somehow) was the main driver for this. Basically, in the start-up context the business model concept has been popular for many years. But even Osterwalder was able to standardise the idea. He considers the concept to be very useful for his business.

Accordingly, he understands the concept following the Canvas from Osterwalder consisting of the 9 building blocks. It is a perfect means for establishing a common language within a company and with investors. In the current process of increasing share capital, the Canvas has been a substantial part of. Furthermore, the business model concept is considered the basis for each business plan. However, the business model concept is very static a tool. Quiet often, we need tools that allow for showing the flow of resources and money. Therefore, he also works with the transaction model. Potential investors are interested in dynamic perspectives as well.

They want to see the flow of money and resources. You also have to visualise partner networks and the flow between the different actors.

In summary, the Canvas has been perfectly conceptualised. You have two halves as thinking models, depending what you are interested in: the value side (right) and the internal perspective (left). The only 'negative' thing is that he needs a complementation for the dynamic perspective. He has never worked with other concepts (and does not know any of them). The Canvas incorporates design-thinking ideas consisting of iteration cycles, a principle which is also part of his daily business. He also learned that people who do not know the concept might have problems understanding it.

Currently his company still runs a typical sector model. But he works on differentiations, which is considered not all too easy a task. For making something different you need a lot of money so you have to go step by step. The main challenge is that we are in an energy revolution. The prices for energy are nearly zero. The Canvas does not deal with this context. Therefore, you need Porter in order to deal with contextual challenges or you describe them in a traditional business plan. By contrast to business modelling, strategy is more about 'where to play' and 'how to win'.

The digitalisation in the power sector is considered a business model task since you have to think hard about various selling strategies such as generating recurring revenues, i.e. realised with subscription models. Although things tend to cost 'nothing' at first glance, there are always people working for it, maybe programmers in the background so they do not cost 'nothing'. Industry 4.0 is just shifting the required qualifications.

Another important aspect is business model innovation. He tries to find combinations that allow for new products combined with new business models. This is what he is really fascinated about and what he motivates him working on. An example for inspiration is Google. They successfully implemented this kind of business model. Customers must be fascinated about your offerings. However, it could well be that you are already 3 steps ahead of the market. However, the implementation, the

execution, is still a challenge. We can often see that successful innovations come from companies outside the sector. This is Christensen pure (The Innovators Dilemma). However, those opening a new market are not necessarily those dominating it later and making the highest profits in it. This can be seen with Tesla these days; traditional automotive firms are ready to enter this market too, once it is opened.

Finally, he has learned that you should no strain your customers with all too many new products, services and ideas. People normally are resistant to new ideas. They just accept small portions, if at all.

3.27 M4 – Sales Company of Energy Products

1 person, 5 years in business

He is the owner of a sales company, which initially started with selling and promoting thermal solar products. Due to a steadily shrinking thermal solar market he has expanded his range, today also selling photovoltaic, cogeneration units or storage systems such as TESLA batteries (to name a few). He is a trained graphic artist. 5 years ago he decided to change something in his life so his father-in-law inspired him to enter the solar market. In retrospective he first had to understand this 'new' market, which finally took him at least 2 years.

Installation firms, his initial customer segment, are considered hard to crack. They are just motivated by earning money. Furthermore, they do not understand the solar business so they are cautious entering this market. Strange enough, he had to learn that the installation companies are totally incapable of transferring their installation knowledge from inside the building to outside, to the solar components.

The products he sells were used in a project that recently won a solar prize for being particularly innovative in terms of its autarkic energy concept.

He first learned about the business model concept at Technology College. He understands the business model as a business idea to be brought to paper. It is a marketing related concept incorporating sales strategies and how to address customers. It is about the question how to implement a business idea. Accordingly, it is about how to enter the market, with the partners to be chosen, with a company's' main activities to be defined. All this is part of a business plan too. Hence, the business plan is an instrument that allows for mapping the business model. He used to work with a framework called the Marketing-Core-Model ('Marketing-Kernmodell'). It shows the elements you may be able to influence, then elements you cannot influence, then the environment, the economic situation etc. Basically, it is how you are embedded in an ecosystem. He used this model as a means to working out his positioning, relative to his competitors. However, he used it at an early stage. Today, he has all these things in mind and knows exactly how the market functions and his competitors act so the model is not necessary and useful for him anymore.

He is still in the search mode. He has not yet discovered what to do in order to establish a sustainable business. The main challenge still consists of how to get attention from potential customers. Therefore, he has included heat pumps in his product range since people often surf the web looking for heat pumps. As a bait product, if you will.

Business model thinking is strongly focused on channels and how to retain customers once having contact with them. Normally, customers contact many firms for quotations. They finally decide for the company, which is able to deliver the 'whole product' not just parts of it. This is why he has expanded his product line. Furthermore, he tries to diversify his revenues by offering services. Since the name of his company includes the term 'solar' it has become difficult that people understand he also deals with heat pumps, for instance. Another challenge ahead.

He initially thought to be different through his background as graphic artist (as a sufficient differentiation factor). However, in the meantime there is not much differentiation between him and his main competitors. By consequence, he has started focusing on niches often neglected by the big players in the sector. The problem is that the market is still shrinking tremendously but he is still convinced of his initial idea/strategy, at the core of which stands the idea of serving people in a competent way, what he thinks most of the big players cannot afford. His vision has always been that we have to break down complex technologies to a level homeowners can understand it. This is considered a real value and also the basis for word-of-mouth recommendation. He initially tried to submit this knowledge to the end customer via installation companies. In the meantime, he has realised that homeowners may represent a much better suited segment. He uses print media and the web for communicating how the technology works, to make it understandable.

He has never worked with external consultants. Since he has college degree he is too 'proud' to work with someone from outside, who anyway would not understand the market logic. In the print media sector where he comes from people still have some kind of professional pride making the best with the resources at hand. This is different to his current sector, where all is about money. He also acts as lecturer in

specific courses aiming at achieving popularity in the segment of the next generation of solar professionals, as some sort of 'Trojan-Strategy'.

3.28 M5 – Floor Heating Start-up

3 people, 3 years in business

He is a co-founder and co-owner of a company that plans floor-heating systems. He is responsible for the 'daily business'. The company is almost 3 years in business and has been founded after a lunch with his brother where they realised that there is a lack of such services in the market. He is a trained heating installer; furthermore, he holds a degree from a Technology College. Before launching a business, he worked as an installer and then also as an engineer in an engineering office.

He already was co-founder of another company (in the solar domain). This is where he first got in contact with the business model concept, which was popular at university where his brother was doing an MBA in innovation management at the time. The logic of his business is rather simple: he gets paid per square meter planned rather than per hours; the latter is considered the standard in the sector. Accordingly, the company has been built very process-oriented. He is able to outsource up to 90 % of the drawing services to sub-contractors. Hence, the core activity of the company is managing external people planning and drawing the systems. His main activities consist of interface management, customer care and acquisition. His company is different since he defines the market where he wants to 'play' rather than working as a traditional engineering office offering the whole range of services as 'normal' offices in the sector do; he has focused on a highly specialized task. In contrast, most engineering offices try to differentiate themselves by offering additional new services instead of specializing on a particular task. However, there was a lot of luck at the very beginning since he had a paying customer from day 1 on.

Although he has already worked with the business model concept he could not define it easily. The concept can be compared to the gear wheels of a watch, hence a mechanism making the whole working. However, it is not considered a mechanistic

concept since it adapts dynamically all the time. It is fluid. It is some sort of energy flow. Once the energy flows, what can we do to maintain this flow? This is the main question when talking about business models. The epicentre is the moment where you have an offer, which fits to a customer need. This is where it usually starts. Above all, he knows the Canvas from Osterwalder, with which he has already worked extensively. Furthermore, he also knows the idea of sketching out the whole market ecosystem, which proved to be particularly useful. He does not know any other business model concepts. The Canvas may be applied in two ways: we can use it as a means to developing 'wild' ideas from scratch (the way it is mostly used) or we can use it for reflecting an idea very much in detail by focusing on selected elements such as the value proposition and the customer. However, the Canvas is often used as a means to developing new ideas out of nothing, from scratch. This application is considered rather useless. Instead, viable business ideas have their origin in the mind of people. What really counts is the resonance of an offer with a customer need, even in the founding process. The rest does not matter at that time. Therefore, the Canvas may become arbitrary because we often think that all fields must be filled in even when there is nothing to be filled in at the time. Accordingly, at the very beginning we do not need information about all of the 9 building blocks, there are elements that follow later.

From design thinking we know that models may limit creativity. When we are forced to reflect 9 building blocks this may limit our creativity. However, since the concept is so widely spread it 'must be' a good framework. It can be observed that people such as academics tend to adapt the Canvas in order to bring in 'missing' perspectives. The core of a business is considered the job to be done. This is the highest level of abstraction for an offering. This job can then be fulfilled in many ways; this allows for diversity. Formulating such a job is considered really difficult a task. Therefore, he distinguishes 3 levels/questions to be answered: The How, the Why and the What. He has not yet managed to formulate 'the job' of his customers properly. This is considered an on-going learning process. It is about better understanding disturbing factors in the daily life of customers. It is about making their life a bit better, day by day, or as Richard Branson once said: "Make a difference in their life". The disturbing

factor is a good metaphor, which originally comes from the innovation company 'Creaholic', located in Biel.

Academics dealing with such concepts may understand the idea behind, the logic embedded in it. But they have not experienced it. This is a main difference. They tend to be concerned about theoretical aspects only. The Canvas is a good example that useful tools are co-created with practitioners. It is also a result of collaboration with consultants. We have to consider that one of the greatest management thinker ever, Peter Drucker, has always stayed in contact with companies, such as with GM. His ideas originated from practice.

There is an important dimension missing in the Canvas: people. It is always about people. It is about observing people and learning from them, something we can learn from the design discipline. The value proposition concept may contain 'human factors'. However, everything is all too early about business. We should try to better understand the unaddressed problems behind. A problem is something 'unsolved', not something obvious.

3.29 M6 – Architectural Office

4 people, 2 years in business

The interviewee owns a traditional architectural office providing services for the whole construction process. He employs architects, structural draughtsman and foremen. He plans single-family houses but also industrial constructions. The company of his father, a former construction company, is now operating as architectural firm (his office). He is a trained architect and worked for several architectural offices before launching his own business.

He has colleagues dealing with business models in a start-up context so he has a rough idea of what a business model is. However, before he learned about the concept from his colleagues the term business model was nothing else than an empty phrase for him. He has an architectural office; he offers planning services. This is his business model. Since he was co-founder of a start-up (in another context than architecture), he learned about the Canvas from Osterwalder. However, the essence of the Canvas could also be mapped using a business plan. As a trained architect, he is not familiar with such concepts at all.

In his own business he has never applied the business model concept thus far. He simply has never had time for this and there are no obvious added values for him to do so. He runs a business as an architect. This essentially is his business model. However, the concept is tightly linked to the business plan, a document describing the way of how to make money, and also showing where you want to be in 10 years. He has been in the situation in his life where he had to answer business model questions. Even not in the founding process of his office since at the beginning there was no plan, there was plenty of work to do. He has been working hard all the time, day and night, but for the 'real work' rather than the organization of his office.

The logic of his business is considered rather simple. He has a client who wants to build something. His revenues are determined using a 'table' form the Swiss Architectural Association (SIA). Hence his revenues are calculated on the basis of the total construction costs. Another model is getting paid per hour. However, clients often want security so they define a limit of expenses, a flat rate if you will. This is

how it works. The best model is getting paid per hour. Fees based on the total construction costs are more common but also more difficult because he has to adapt and control his expenses more carefully. Typically, the model based on the total construction costs is preferred. There are formulas that allow for calculating the fees, based on the complexity of the project/object. The easiest projects are single-family houses, the most complex hospitals incorporating complicated technologies; this is where you get the highest fees. Based on the model he has to work with his internal costs have to be calculated differently.

Quite often, in early project phases (pre-project) clients are not willing to pay per hour. This would be too expensive so you have to offer them a flat rate. Some of your work must then be registered as acquisition. Nevertheless, in each model you have to control your internal costs.

There are alternative models to the SIA norm (defining very much in detail what you can calculate). Other models are those of general or total contractors selling the whole object at a fixed price. Then, the general or total contractors are free to decide how much money they invest in the planning process. Models with total contractors are much more opaque; this is accepted when clients are mainly interested in costs, hence having a fixed price. However, the internal costs of a general or total contractor are still the same. He just has options how to spend the money.

The whole sector runs more or less the same model. However, you will also find offices working differently such as those following a model of repetition, hence building the same object again and again, only slightly adapted. Due to a lack of individuality such objects are sold cheaper so you have to do the math anyway.

Referring back to the Canvas, it could be interesting for him to map his company in the Canvas in order to identify still unanswered questions. Above all, the tool could be useful to learn more about his costs and revenues since the value proposition is considered to be clear for an architectural office. It could be an interesting task to find 'blind spots', hence areas overlooked thus far because many questions one could ask using the business model concept are simply ignored since he has only few economic expertise. This could also explain the fact that he does not really care

about such concepts. If he had to go deeper in this area he would prefer writing a business plan comparing costs and revenues, based on which he could see how profitable his business really is.

3.30 M7 – Cutting Tool Manufacturer

500 people, 80 years in business

He is co-owner of the holding and is responsible for marketing and sales.

Furthermore, he is CEO of a subsidiary company (with 100 employees) in another country. He is also board member in other companies and acts as president in expert groups worldwide. He has been working for the company/holding for more than 35 years and had the opportunity to acquire shares in a management buyout. The company is exclusively owner managed, which is in line with the long-term strategy of the holding. There are several people holding shares. The core products are cutting tools, produced for more than 70 years now. However, in the meantime additional products complementing the range have been developed as well. Of very high importance are services such as tool management systems; they recently managed to change their business model from a free to a paid model (for the tool management system, the tools are still sold traditionally).

The tools have to be revised from time to time (re-sharpening and re-coating). This is economically interesting since reworked tools are cheaper. In this process (up to the recycling of the tools) there is a high economic potential, which they want to further exploit. The management tool software is a perfect starting point for this. The characteristic of a good business model is that it cannot be copied easily so they continuously develop added values for their customers. Copying products is simpler than copying whole sophisticated service models with a lot of know-how in it. They are more and more focusing on models using data from anywhere in the process (data mining) that allow for better controlling the tool management process, i.e. automatically determining when customers need to revise their tools. There is still a lot of potential for optimisation allowing customers to save money.

A business model is not something static, rather it is always changing; this is what finally determines a successful company. It is about how to move in the market, fulfilling customer needs, and how to implement and optimize the internal processes in order to be efficient. Finally, the question is what strategy a company follows. The business model is directly derived from this. They rework their strategy on a yearly

basis including strength-weakness and environment analyses. In short, business modelling is about understanding the point of sales, which is considered a company's most worthwhile element. This is also where competitive advantages originate. Mostly they develop their business model based on existing capabilities. However, they also deal with new technologies that may become a threat for the existing model in the future. They experiment with new technologies such as laser systems, it is all about learning, so new possibilities and opportunities emerge from inside out. Experimenting with new technologies, with no clear idea where it leads to, also means taking chances. They employ 9 engineers in their development department.

He first learned about business models with the rise of the Internet. Before, the term was not actively used. These days they are faced with similar challenges in the big data domain. Data have to be analysed and understood so that may serve as a basis for new business opportunities. Models such as the Canvas are just thinking models. They have structured their company using a system directly derived from the Balanced Score Card; hence a system that allows for monitoring the core processes. These data form the basis for the strategy meetings and serve as a basis for new ideas. Nevertheless, it is considered important to work in associations and to collaborate with universities as source of inspirations and new ideas.

Once having identified a new business model, a real challenge is then the implementation of it. Selling physical products is different to selling services where customers do not own the tool anymore but pay for using it. You need a completely different selling crew, new values and up-front investments. Even the contact persons within the customer company may change from the mechanics using it (today) to managing people (strategic purchasing). Furthermore, there will be alternatives of how to use a tool. You will have alternatives between new, used, reworked and reworked used tools. Managing this diversity in order to produce maximum value for the customer is getting complex. Establishing such a system means getting closer to the customer so you are not easily comparable anymore with your competitors. On the other hand, you will even more become co-responsible for the customer's success.

When talking about business models we should also consider the way a company is structured in terms of its ownership structure and also regarding long-term strategies; is it about quickly making profit and selling the company or about long-term strategies. All this essentially influences the business model. Also questions whether the company shall be managed by the next generation influences the way the business is structured. By contrast, American business model strategies are all about realizing growth quickly then going public since they need money in order to stem this growth. In Switzerland we do it differently, step by step and independently. In this context it is also important to consider the fact that 'cash is king'. Beside good ideas you need an excellent controlling preventing you from losing financial control.

3.31 M8 – Furniture Manufacturer

30 people, 90 years in business

He owns a company that produces ergonomic workspaces for the education and the industry sector. Their offering stretches from first on-site analyses up to the production and installation of individually designed furniture. For the education sector they produce standard furniture. However, each module has initially been developed in a customer project but is then used in a modular way for other customers too. They also have customized products for 'disabled' people allowing them to return into the working process but also many projects in the watch industry with special armrests etc. He bought the company in 2009. Initially, he is a trained truck mechanic and decided to start with something new, with his own business. Accordingly, before the year 2009, he had no idea about furniture at all.

The business model is considered part of the corporate strategy. Based on SWOT analyses they work out USPs, based on which they define strategic success factors. Their strategy is a working paper usually revised on a yearly basis. When confronted with particular problems, they also involve external experts for a very specific topic. They have implemented a system directly derived from the Balanced Score Card concept, also called 'Cockpit'. He in fact does not know any (business model) frameworks such as the Canvas. He assumes that SMEs are confronted with different issues than start-ups. He has put all eggs into one basket when he bought this company so he has not time to think about theoretical concepts, he must be concerned about liquidity and profitability. There are 30 people and a payroll of 150'000 Swiss francs a month.

He is located in a high-price segment and can maintain success only due to flexibility, reactivity and quality. They have to convince their customers that their furniture pays off quickly (fewer absences). However, they make no 'political' deals. They are also no 'hard core sellers' but their mantra is that their customers recommend them to their friends. They try to convince through reliability. Simplicity is one of their main USPs. For instance, they have one single phone number for their customers, no matter for what reason they are calling.

In their business architects are difficult to handle because they tend to have specific requirements making their furniture impracticable, something often hard to be unified with their brand philosophy.

For him the Euro lower limit has become a serious problem. When the national bank annulated the lower limit there was an overreaction of the market in the sector so that the prices dropped down up to minus 30 per cent. The consequence is that they must go into niche markets and to invest in new technologies, also by participating in governmental support programs. Industry 4.0, however, is hotly debated these days but in fact is nothing new. In his business this concept is only of limited significance since you will never build SIM card-like chips in furniture. Nevertheless, digitalization is a hot topic regarding the fabrication; hence developments that allow for automatically producing batch size 1. Innovations are normally managed internally. However, they consult external designers, engineers or universities if needed – when highly specialized know-how is required. But also plenty of inputs from their customers serve as basis for innovations. They often develop new products jointly with their customers so they can get worthwhile external knowledge.

3.32 M9 – High Voltage Installation and Supply Company

1'000 people, about 120 years in business

His company is divided in 3 main divisions: energy production, energy trade, and energy services. He is responsible for the sub division electrical installation outside the building consisting of 1'000 people and a turnover of 150 Mio Swiss Francs. Their main field of activity consists of installing energy supply systems for trams and trains.

He is a trained electrical engineer and has also graduated in economics (doctoral degree) so he first learned about the business model concept at university; this was around the year 1996, at the time of the first Internet boom. He defines the business model concept as the logic of a business on the one hand. On the other hand, it is about breaking down the proportions of the various partners within a value chain. How can I create added value, which customer is willing to pay money for it? A business model can be understood as some kind of machine. As long as it works in a balanced way the company makes money. An unbalanced mechanic would prevent the company from selling the product for a good price or the offer cannot even be fulfilled. The business model is the main logic of how to make money. As long as I sell something with added value I get extra paid for it. A good business model allows for creating additional value with limited effort (and limited internal costs). This could be seen in the software industry where suppliers used to sell the same software many times to different customers each time claiming it would have been developed individually. They made a lot of money. The customers were willing to pay because they had an added value. However, such business models usually do not last forever. In summary, the less I have to invest for this added value, the better the business model is. He does not know any business model framework (neither the Canvas from Osterwalder nor the Navigator from Gassmann).

In his business new channels such as the Internet are of limited significance only. The business is still the same as it was 100 years ago. For him, business modelling is about changing the business fundamentally. An example is that a few years ago their customers wanted them to install railway segments (to be reworked) step by step in night shifts; by day they wanted the section running without interruption.

Today this paradigm has shifted fundamentally. They stop the respective segment for 2 or 3 weeks offering busses for replacement to their customers. This has fundamentally changed the logistics of his business. His customers continuously look for opportunities to save money. The longer you work on a site the more expensive it is. Once established, he also tries to apply the same (new) logic with other customers too. However, such initiatives usually originate from the customers.

Years ago it was much more important to have a good understanding with the customers. Reliability was important. There was enough money so their priority was quality. This has changed fundamentally. Today it is much more about costs. Of course they try to make things opaque but not as an institutionalized business modelling process. This depends on the experience of the collaborators who know how to play the game, how to deal with engineering offices (surveying the tendering process). However, the tendering is becoming more and more sophisticated so claiming strategies have become much harder – most engineering offices see through the most common ‘tricks’. By consequence, they try to offer new services in order to generate additional revenues. Once having an order, the customer cannot easily change anymore since combining different technologies from different suppliers would be too complex for the clients.

Most new ideas (as basis for potential innovations) are discussed in management board meetings. He has learned that people full-time working on innovations most probably tend to produce academic ideas difficult to be implemented in practice. They normally do not work with external consultants since these people usually do not have the required sector-specific knowledge. It may also be that they buy a start-up. However, this strategy has not proved to be very successful, although the acquired start-ups are run independently.

Digitalization is of limited significance these days. However, they have a running project aiming at improving the field reporting system using tablets and smartphones in order to make internal processes more effective. Digitalisation is a hot topic for the future since they will be facing increasing cost pressures induced by foreign competitors. Further potential for digitalization can be seen in business processes.

However, there are also more traditional areas for improvement different from digitalization on which to work with high priority.

A major challenge is to stay attentive – not to ignore something new suddenly outdating them. Therefore, they try to establish additional norms serving as entry barriers difficult to overcome for new competitors interested in entering the market. However, fundamental changes in the existing business model are not expected within the next years in his rather conservative sector. Hence, what they try to do is keeping away disruptive challengers through these measures. Broken down, business model considerations have never been the main focus of any discussions. They may be a result at best.

3.33 M10 – Serial Founder and Professional High Tech Investor

He works as business angel, investor and president of several start-up promoting agencies. He has shares in 10 companies, in some of which he acts as chair. He founded an IT start-up 30 years ago, which he then sold in the Internet boom era. He is a trained electrical engineer who started his own business in the 1980-ies, at the time just with the vision of working independently. He has always been interested in working with people, in strategy and in organizational theory. He is also a good communicator. He holds shares in IT high-tech start-ups, all of which located in Switzerland. In most of 'his' companies he is responsible for the strategy process.

He first learned about the business model concept when he launched his own business and started thinking about the position of his firm in the value chain and how to expand within it. The business model in fact is how to bring the products and services to the customers. Broken down, it may be a process model containing core and support processes. However, the concept contains many more facets, such as the question how to create a business, and how to reach the customers. It is considered a comprehensive idea, mainly focusing on how a company actually works and about creating revenues. He knows the Canvas from Osterwalder, a currently well-established framework often used in the start-up scene. However, the application of the Canvas depends on the task at hand. When developing a new business, the Canvas may be useful. It is important that you post and remove sticky notes, walking around the Canvas. Using a virtual model on a PC is useless. It is all about human interactions in the process of filling it in.

However, he prefers working with an A4-sheet containing 3 main themes: A strategic impact direction with the 3 most important aims; a SWOT analysis; a Balanced Score Card. This is simple but has proved to be highly effective. The Canvas, on the other hand, can be useful for developing something new, new ideas from scratch. Once having a running business, the Balanced Score Card is considered more viable a concept. In a Balanced Score Card, you have properly defined dimensions. For each dimension you then define a target value to be periodically reviewed; you have to work very disciplined! Accordingly, the Balanced Score Card is really useful when applied consequently. It is useful since it forces you to think through all relevant

dimensions. It is not a detailed planning tool but it provides you with a holistic view of your company.

The business model concept, on the other hand, is applied when facing changes ahead. It is about thinking of new recurring revenues and about creating additional values for customers, for which they are also willing to pay. Most importantly, the customer must feel comfortable with you; he has to be “addicted” to you, in a positive sense. Therefore, he follows the so-called 4a-formula: ‘anders als alle anderen’ (different to all the others). He is aware of other business model concepts than the Canvas but he cannot name them. If at all, he just works with the Canvas. The main weakness of the Canvas is an underdeveloped finance part. You have no indications for cost drivers and for revenue drivers. For the rest it is well designed (when properly applied). There are also models from Porter or process models. However, the people he teaches in start-up courses are not interested in theoretical stuff; they want to talk about practice. In his domain, the high-tech IT sector, the Canvas is widely used. In a start-up, the business model is simply the ‘thing’. It is all about business modelling. Hence, the business model concept is considered a useful tool, as long as properly and carefully applied (using sticky notes!).

The main concern with business modelling is scaling up the business. You do not want to sale ‘hours’. You want something making the price opaque. As soon as you know your business you start offering flat rates so you can earn much more money and the customer is even more satisfied since he has cost security with fixed prices. Accordingly, it is very important that you know your business inside out, how much time you need for each activity. This is the basis for creating flat rates. In such situations you can even give 20 % discount (if needed) by still having a good profit.

His main credo is “making things as simple as possible, but not simpler” as Einstein once said. However, this is considered difficult. A crystal clear focus and the luck of finding a niche somewhere is what you need. You have to avoid dissipation and you must be courageous enough to say ‘no’. However, in his company, 30 years ago, he did not was he is preaching now. It was a learning process. He and his companion started focusing on what was profitable and on what was fun. So they began to understand the value of staying focused although most colleagues advised them to

accept any possible order as long as money was to be earned. Only with a clear focus you can gradually develop an identity so that people understand what you do. For this you must be courageous. Saying 'no' is always harder than saying 'yes'. And finally, you need a lot of luck. In his company they concentrated on the 'right' products (as it turned out later). They were among the first who had a web shop in the early 1990-ies in their domain so he has witnessed the rise of the business model idea very closely. However, our time now is also considered very interesting!

3.34 M11 – Traditional Electrical Engineering Office

200 people, 65 years in business

His company offers planning services in the electrical engineering domain, mostly in building construction. His planning services encompass all kind of electrical installations ranging from cables, data up to building automation systems, mostly for buildings and infrastructure projects (roads, tunnels). 30 years ago he started in this company as a project engineer. A few years later he founded a new sector (in a new canton), and in the year 2009 he acquired the majority of shares of the holding (management buyout). Since then, he acts as the group CEO. Accordingly, he started as project leader, from purely technical tasks, up to leadership responsibility, finally ending up with management and strategic tasks.

He associates the term business model with strategy. The term is used when they say “.... this is not our business model”. For instance, when his collaborators suggest importing his staff from Kiev into Switzerland, then he says: “No, this is not our business model”. The model is that they work in Kiev because his model is not personnel placement. He could associates many of possible concepts with business models, such as processes, management by objectives, organizational structures, Holocracy, finance, BSC, SWOT, and business plans. They use business plans, but only when launching a new business or a new field of competence. A business plan is considered much more comprehensive than a business model. Later, the business plan will be transferred into the standard processes of the company. Essentially, the term ‘business model’ or the business model as a concept does simply not exist in his vocabulary; the only exception is as already mentioned. Rather than the term business model they use the value chain as thinking model.

The logic of his business is that they articulate the needs of their clients regarding electrical installations. His company can be understood as some kind of ‘translator’, identifying customer needs and, based on this, building what they want, in collaboration with other disciplines. Therefore, each and every planning service starts with questions, with a questionnaire if you like. However, there are also things you just have to know. As an engineer, not only you ask questions but you also make

suggestions. There are always hundreds of alternatives to be considered so the engineers have to find out what their clients really want. Metaphorically, they have a whole range of possibilities, like a bouquet, and they help their clients picking out what they want.

They have various revenue models. Getting paid per hour, according to the total construction costs, or using a flat rate model.

He sees the company facing several future challenges such as the end of a continuous economic boom in the construction sector lasting for more than 10 years now, then political and demographic problems steadily emerging. Then new concepts how to construct buildings (construction 4.0) are considered a challenge, as a consequence of the digitalization in the sector. New players will come into play as the existing markets shift. The interfaces between the disciplines start blurring and will have to be managed differently compared to what we know today so established engineering offices may only be able to fulfil a small part of the whole – not the full range anymore. In this new way of constructing buildings, we will build in highly modular ways, comparable to the automotive industry (more on this later). New players will most probably dominate the market. For some people this is still a dream of the future but these new ideas about building in modular ways do already exist, 'lighthouse projects' have already been realized. The mantra will be "from the ego to the Lego-principle". Not only the modularity will change but also the logistic, another hot topic in the construction industry – as a consequence of even higher residential densities.

He wonders (and is annoyed) why the interviewer is harping on about that business model concept; he has never earned money with it! However, he assumes that his company runs the same business model for 65 years. Assumedly, he may work on his business model too when thinking about new ways of constructing buildings using modular approaches. Today, his collaborators need competences in all fields ranging from strategy, to leading people on the site up to financial and controlling skills. This may change in the future so that you will have people managing the concepts, and people only responsible for the details, hence a new level of specialisation. The construction sector will be similar to software development with clearly defined

interfaces rather than the automotive industry, as often referred to. Of course, all this will have implications on the business model of his company. There are architects who already have implemented these ideas and a new dimension of logistics that is tightly linked with it. There are many activities in this area and this will become even more relevant in the future, no doubt. An organisation must be prepared to deal with innovation and change management. These will be important skills in order to transform an organisation.

3.35 M12 – Vegetable Farmer (Greenhouse Plantation)

80-160 people (varying), 30 years in business

His company deals with the production and the processing vegetables selling the products to wholesalers. His parents had a farm in the village he grew up and he is a trained farmer as well. When he returned on the farm of his parents (after a few years abroad) he has started expanding the existing business. He has to compete with free market prices – the vegetables he produces are not subsidised. Accordingly, he has to be concerned about costs; his main cost factors are the employees and energy. Furthermore, he has to focus on well-selected products which are requested by customers and for which he has the respective resources at hand (i.e. ground). Furthermore, he has to vary the products according to the season and the weather; some of the products can be produced inside, others outside the greenhouse. Building up such a company is also a question of luck and chance. However, they have always developed it step by step. Occasionally, huge investments were required that always incorporated risks and uncertainty. Compared to other sectors in the agriculture domain such as the traditional milk production sector his business has been a success thus far. He has between 80 and 160 employees, depending on the season.

They also operate a farm shop, which is considered important for the image of the company and for customer interactions – in terms of the total turnover it is negligible. At the beginning they just had a single 'main customer' so they realised that establishing additional channels is important. On the other hand, it would not be easy for their main customer to look for alternatives since regional fresh vegetables (in high quantities) cannot be transported over long distances from anywhere. On the other hand, most farmers he knows have optimised their organisation of getting as much governmental subsidies as possible; a business he is not in.

The term business model is used to explain how the business is organised. The core consists of serving customer needs, 7 days a week, for a good price and with excellent quality. The main producing factors are ground, capital and people. Since they work in greenhouses and with plants they still need a lot of harvesters

(manpower); however, there is also a high degree of mechanisation – as far as possible. Technology has become an integral part of the business.

We can observe a clear structural change. The very same farmland is cultivated by less and less farmers. Although we (in Switzerland) would have excellent ground for cultivating all sort of corn, the agricultural politic of the government prevents viable business models in this area so everything must be imported from outside today. The on-going rationalisation in agriculture will lead to a famine sooner or later. Urban farming, another advertised trend, is considered a niche phenomenon never considerably contributing to our basic food supply.

Another idea associated with the business model concept deals with succession plans. There are currently 3 generations working in the same company (his father and his son included). Do you change your strategy without a successor? In such a situation following a growth strategy may be the wrong thing, you should be concerned how to sell the company and realizing money out of it. However, selling such a company is not that easy, particularly not in the agricultural sector since you would have to pay your taxes twice. This is considered business model thinking too.

They face challenges, which he considers unique because they have to handle unpredictable weather phenomena making any planning process impossible. Hence, flexibility is required. Last year was the hottest ever, this year, by contrast, most probably the wettest ever. Furthermore, they have to pre-finance 50 % up to 70 % of their production costs so they need reserves. Although he does not know how the year will be the machinery must be up to date and he has to do investments. He has to plan his staff resources on a daily basis depending on the current weather. In the greenhouse this planning process is a bit easier.

The customer behaviour has changed in the past few years too. People go shopping on the weekends so Mondays and Tuesdays are usually weak. Additionally, their customers (wholesalers) need fresh products on Monday morning as well so his company has to prepare the respective products on Saturday evening. Then, most customers (wholesalers) have tight time slots when he can deliver. All this must be synchronized.

When he has delays in the production due to a bad weather period it may well be that two crops overlap; one of them must be destroyed since he cannot sell both. Usually between 25 % and 40 % of his products cannot be sold. This has to be considered when calculating the margins.

The challenges ahead are the Swiss agricultural politic including importation and custom taxes but also the costs of the harvesters, which are much higher than in the rest of Europe. The salaries in Switzerland are about 80 % higher than those in Spain. But also recruiting qualified staff has become more difficult (Swiss mass immigration initiative).

His company follows the strategy of having different product lines. Consequently, he will never have a total failure. On the other hand, his degree of specialization is limited. Another challenge are public initiatives such as a current one aiming at protecting the ground water so agriculture should be prohibited in some areas. Such initiatives may threaten the business.

4. Example Nvivo export (linking data to main themes)

<Internals\\Support Professionals\\S10_Beat Birkenmeier> - § 1 reference coded [4.08% Coverage]

Reference 1 - 4.08% Coverage

Das hängt jetzt weniger mit den Akademikern als solche zusammen, als vielmehr mit der Tendenz, wie sich Hochschulen, die sich ja um das Thema kümmern, incentiviert bzw. gerated werden. Also, was man ganz klar feststellen kann ist, dass sich die akademische Welt von den Bedürfnissen der Praxis entfernt. Es forschen Leute auf dem Gebiet, die nicht einen Tag in der Praxis verbracht haben, die in ihre Position durch eine akademische Laufbahn und durch Publikationen gekommen sind, die zitiert wurden, Referee-Journals und so fort. Und das ist heute, was zählt, wenn Professuren besetzt werden. Das sehe ich ziemlich direkt bei der ETH, wo ich jetzt den nächsten Bezug habe. Die Professoren, die auf diesem Gebiet forschen machen gute Forschung, die man in einschlägigen wissenschaftlichen Publikationen veröffentlichen kann, aber es ist völlig irrelevant für die Praxis. Da sehe ich eine gefährlich Schere auseinander driften. Wenn es wirklich um die akademische Forschung auf universitärem Niveau geht, das öffnet natürlich wieder Chancen für solche, die das wieder auf praktikablerem Niveau tun. Ich sehe das bei uns: wir entwickeln auch neue Ansätze, man sieht es ja auch bei Osterwalder, okay, er hat es auch im Rahmen einer Dissertation gemacht, aber ein ‚richtiger Akademiker‘, der schlägt die Hände über dem Kopf zusammen und sagt, das ist ja keine Forschung was du da machst. Aber, das ist es, was in der Praxis ankommt. Und Forschung über irgendwelche Hirnströme und was irgend jemand auch noch denkt, wenn er am Arbeiten ist, das ist nicht brauchbar. Schön zum Publizieren, aber nicht brauchbar im Sinne von nicht relevant für die Praxis. Also das ist jetzt etwas überspitzt formuliert, mein Eindruck dazu.

<Internals\\Support Professionals\\S2_Christoph Dummermuth> - § 1 reference coded [1.94% Coverage]

Reference 1 - 1.94% Coverage

Ich weiss einfach, dass die Hochschulen wie ETH, EPFL und HSG, die sind am Puls, weil die arbeiten mit international grossen Beratungshäusern zusammen, aus den verschiedensten Branchen. Dann kommt immer auch der Input von Studenten für Arbeiten. Professoren auch, die dort gefunden werden. Es ist natürlich auch beflissen von diesen Beratungshäusern, dass sie wieder sehr schnell etwas haben um eine Hype zu entwickeln, dass sie damit Beratungskapazitäten entwickeln können. Man stellt fest, dass grosse Beratungshäuser wie PWC, BCG, KPMG usw. - da gibt es noch viele andere mehr wie JP Morgen im Finanzbereich - die springen jetzt auf das ganze digitale Thema auf. Gleichzeitig wird an den Universitäten als Forschungsthema aufgenommen. Ich glaube, das ganze Geschäftsmodell-Thema ist jetzt schon, ich will nicht sagen durch, es ist jetzt am Markt positioniert, der Fokus ist aber gar nicht mehr so gross darauf. Man geht jetzt aus von den Beratern her davon aus, dass die Leute das können und tun, aber in den Firmen ist es noch nicht angekommen.

<Internals\\Support Professionals\\S7_Jan Fülcher> - § 5 references coded [7.33% Coverage]

Reference 1 - 2.68% Coverage

Ja, es gibt weitere. Im Moment ist so ein Trend, dass jede Hochschule versucht, ihr eigenes Canvas zu entwickeln. Im Kulturbereich gibt es welche, die dann noch versuchen, irgendwelche Kontextinformation aufzunehmen, dann solche, die viel Gewicht auf Personal haben, usw. Es gibt derzeit eine Schwemme. Finde ich aber weitestgehend irrelevant, weil, meiner Meinung nach, jedes hat seine Stärken und Schwächen. Ich finde, der Canvas ist ein Kommunikationswerkzeug. Er dient dazu, Komplexität zu reduzieren mit einer Anzahl überschaubarer Faktoren. Damit man überhaupt über die Komplexität, oder das Unternehmen diskutieren kann. Und darum finde ich, sollte man versuchen sind auf ein oder zwei solcher Modelle zu einigen und nicht noch versuchen, möglichst viele weitere zu erfinden und sich zu verewigen.

Reference 2 - 2.68% Coverage

Also, weil meine Schlussfolgerung ist, ich versuche mich in der Entrepreneurship-Forschung immer auf dem Laufenden zu halten und zu verstehen, was den Erfolgsfaktoren von Unternehmen sind, und mein Wissensstand ist, dass wir es nicht wirklich wissen. Es gibt gewisse Einzelfaktoren, aber wir wissen nicht, warum Unternehmen erfolgreich sind. Ein anderer Begriff dafür: es hat mit Glück zu tun. Was ich nun tun kann als Unternehmer, ist dem Glück etwas auf die Sprünge zu helfen. Und auf die Sprünge helfen heisst nach draussen zu gehen, mit allen möglichen Leuten zu sprechen, und eben auch ein originelles Logo zu designen, um dann mit jemandem ins Gespräch zu kommen. In der Execution gibt es diese Effekte sehr wohl, dem Glück auf die Sprünge helfen. Aber ich denke nicht, dass man das planen kann.

Reference 3 - 1.39% Coverage

Das sehe ich so. Ja. Nicht nur die akademische, sondern Ebene Universitäten und Ebene Fachhochschulen. Und das hängt auch damit zusammen, dass es halt nicht einen sehr fundierten akademischen Hintergrund hat diese Tools. Es sind praktische Tools. Und sie sind schwierig in einen theoretischen Rahmen zu „biegen“. Und durch das werden Sie in der Theorie gerne etwas vernachlässigt. Aber das wissen Sie besser als ich....

Reference 4 - 0.15% Coverage

Es ist ein Praktiker Tool. Was soll er damit?

Reference 5 - 0.43% Coverage

an der Uni Bern habe ich so ein wenig den Eindruck, dass „Ja ja, ist cool, ist lässig, macht ihr mal“. Es hilft natürlich nicht.

<Internals\\Support Professionals\\S8_Patrick Stähler> - § 2 references coded
[4.30% Coverage]

Reference 1 - 2.09% Coverage

Wo ich Sinn sehe, ist zum Beispiel aus Kundensicht zu beschreiben, wie kommt der jetzt zur perfekten Heizung die dann auch der perfekte Ergebnis liefert. Eigentlich die Wertschöpfungskette nicht aus Sicht des Unternehmens sich anschaut, sondern die Kundenkette. Wie entscheidet er, welchen Heizungstyp er hat. Wie entsteht die Planung bis zu optimal genutzte Energieoptimierung usw. Und dann sich überlegen, wie könnten bestehende Geschäftsmodelle, die heute existieren, da drauf gelegt werden und welches wären Optimierungsmassnahmen. Also vom Kunden her schaue, wie etwas sein könnte. Also der Kunde möchte zum Beispiel nicht, Lieferung haben, sondern er möchte ein Produkt in der Hand halten und das nennt dann eine Firma Lieferung. Er möchte es in der Hand halten. Jetzt könnte man schauen, schafft es der heutige Lieferprozess, dass der Kunde es zum richtigen Zeitpunkt und am richtigen Ort in der Hand hält.

Reference 2 - 2.21% Coverage

Es liegt einfach daran, dass heute niemand mehr systemisch denkt. Wir haben heute nun mal Professoren, die dafür bezahlt werden, die optimale Forschung zu machen. Das geht nur noch, indem man in ein Teilsegment extrem tief hineingeht. Für übergreifende Forschung wird man ja nicht bezahlt. Dann ist man ja Laie in jedem Bereich. Eigentlich ist ja ein Geschäftsmodell überhaupt nichts neues. Die Value Proposition müsste stark aus dem Marketing herauskommen. Das ist was Steve Jobs als Marketing definiert. Als wertgetriebene, kundenzentrierte Unternehmensführung. Die ganze Operations ist der blaue Teil der Wertschöpfung. Die Ökonomie, Finanzen sollten eigentlich das Etragsmodell schon abdecken. Und das ganze Führungsthema, Humanressourcen sollte der Unternehmensgeist sein. Es gibt ja Millionen Leute, die mehr wissen über die Einzelteile, was uns fehlt, ist der gesamtheitliche Überblick. Und leider wird es in den Unternehmen sehr mechanisch angewendet.

<Internals\\Support Professionals\\S9_Alex Osterwalder> - § 10 references coded [19.32% Coverage]

Reference 1 - 1.50% Coverage

.....ich kann dir nachher etwas schicken, wir haben ja etwas Forschung gemacht, weshalb der Business Model Canvas erfolgreich wurde. Es kam auch für uns überraschend, dass dies Millionen von Leuten brauchen. Der Grund ist, oder einer der Hauptgründe ist, dass es ein visuelles Tool ist. Es ist ein praktisches Tool und es ist intuitiv. Es ist nichts, das du lernen musst, du kannst es von Day 1 an brauchen. Du kannst es sehr schnell brauchen. Diese Prinzipien wenden wir überall an.

Reference 2 - 1.91% Coverage

(I: Was ja ein wenig auffällt, beim Generieren der Ideen hat man eure visuellen Tools wie der Canvas oder der VP-Designer. Aber beim Umsetzen, scheint es dann kaum noch ähnliche visuelle Tools zu geben. Da ist man sehr schnell wieder bei traditionellen Management-Tools.) 15:00

Ja, aber da arbeiten wir schon auch dran. Mit einem Freund von mir, Stefano Mastrogiacomo (<http://www.stefanomastrogiacomo.info>), haben wir jetzt ein Tool entwickelt, also er hat es

hauptsächlich entwickelt, die Team Alignment Map, um Teams besser auszurichten. Das ist auch wieder das visuelle, das extrem stark im Vordergrund steht.

Reference 3 - 1.97% Coverage

(I: Das ist ein guter Input. Ich würde mich wohl besser auf ein Plugin konzentrieren, für den Canvas, und für diese eine spezifische Gruppe.) 16:45

Genau. Oder, was natürlich auch immer geht, branchenspezifisch, wie nennen das Patterns oder Business Model Mechanics. Du kannst im Business Model Canvas Sachen aufzeigen, die in gewissen Industrien immer wieder auftauchen. Da gibt es Industrien, die ressourcenlastig sind, dann kannst du Beispiele aufzeigen mit dem Canvas. Das ist dann auch hilfreich. Manchmal braucht man kein zusätzliches Tool, sondern du kannst ein vorhandenes Tool gebrauchen, um gewisse Patterns aufzuzeigen.

Reference 4 - 4.27% Coverage

In der Forschung, d.h. in der wissenschaftlichen Forschung, z.B. der Nationalfonds in den USA, der NSF, die machen ein Programm, das heisst Lean Launch Pad. Das hat Steve Blank initiiert. Wissenschaftler, die ihre Wissenschaft kommerzialisieren wollen, gehen durch ein 8-wöchiges Programm, wo das Business Model Canvas gebraucht wird, genauso wie Lean Startup, um die Ideen zu testen. Aber ich selber betriebe keine akademische Business Model Forschung mehr. Zusammen mit Yves Pigneur fragen wir uns aber immer wieder, welches sind die Tools, die noch fehlen, was sehen wir in der Praxis, was noch nicht funktioniert? Das heisst, es ist im Prinzip gleichwohl Forschung, aber extrem angewandt. Der Value Proposition Canvas basiert ja nicht auf akademischer Forschung, sondern das haben wir entwickelt, weil wir gesehen haben, dass es da etwas Produkt-bezogenes braucht. Eigentlich ähnlich wie ich das beim PhD gemacht habe, haben wir verschiedene Konzepte angeschaut, was schon existiert. Es war die gleiche Vorgehensweise, einfach schneller als im PhD. Das machen wir heute noch, die genau gleiche Vorgehensweise wie bei meiner Doktorarbeit. Einfach, dass wir etwas weniger Wert legen auf die akademische Rigorosität, sondern vielmehr schauen, welche Konzepte es braucht und dann auch schauen, dass diese in und für die der Praxis schlüssig sind. Viel mehr praxisorientiert.

Reference 5 - 2.68% Coverage

Da muss man sich fragen. Was ist Forschung und wozu dient Forschung. Das ist dann ein philosophisches Problem von der Forschung generell. Dann ist es akademisch schlüssig, dann lesen es andere Akademiker, aber es hat keinen Impact. In den Naturwissenschaften hat man das immer noch, dass Forschung nicht nur zum Wissensdurchbruch führt, sondern auch zur Anwendung, irgendwo, irgendwie. Das sollte bei der Wirtschaft auch so sein, ist es aber nicht. Die wissenschaftliche Forschung in der Betriebswirtschaft und im Management hat sich mittlerweile extrem von der Praxis entfernt. Das ist eigentlich eine Geldverschwendung. Es sind ja dann unsere Steuergelder, die für anderes aufgewendet werden. Das kann ich sagen als Doktorand. Ich habe andere gesehen, die haben an Dingen gearbeitet, die eigentlich Null Wert generiert haben. Nur dass sie dann Doktor werden.

Reference 6 - 0.70% Coverage

Da versuchen Yves und ich entgegen zu halten. Er jetzt dann halt bald pensioniert, aber ich habe die Forschungswelt verlassen, mache aber zum Teil das Gleiche wie dazumal, einfach weil ich sehe, dass es diese Tools braucht.

Reference 7 - 0.86% Coverage

Genau. Ich denke auch, was fehlt, und das ist schwierig zu vermitteln, es gibt bessere und schlechtere Geschäftsmodelle. Das heisst, und da sehe ich am meisten Nachholbedarf, es geht nicht darum die einzelnen Blöcke auszufüllen, es geht darum, das Ganze ganzheitlich anzusehen.

Reference 8 - 1.29% Coverage

(I: Und Stichwort Ökosystem bzw. Ganzheitlichkeit: häufig ist es ja auch so, dass es in ein Ökosystem hineinpassen muss.) 36:30

Ja, also das ist natürlich so, vernetzte Geschäftsmodelle gibt es sehr viele und das ist ein riesiges Thema vor allem im Bereich Telekom und so. Dort würde ich sagen, gibt es Nachholbedarf. Dass man aufzeigt, wie Geschäftsmodell zusammen Wert kreieren und nicht als Einzelkonstrukt.

Reference 9 - 2.83% Coverage

Wir haben es schon angesprochen. Einfach herauszufinden, was verstehen die Leute unter dem Begriff Geschäftsmodell und dann zu sehen, welche Methoden sie anwenden. Ich habe dir den Research Report soeben noch geschickt. Darin siehst du, welche Fragen wir so stellen. Wir haben angeschaut, spezifisch für den Business Model Canvas, für welche Themen brauchen sie das. Z.B. brauchen sie es mehr, um sich neu zu erfinden? Brauchen sie es mehr, sich neu zu erfinden? Dies und das. Um herauszufinden, weshalb haben sie angefangen, sich für das Geschäftsmodell bzw. den Canvas zu interessieren. Um herauszufinden, es ist ja nicht von nirgends gekommen, warum und wie haben sie angefangen, über Geschäftsmodell nachzudenken? Wie ist das passiert? Es gibt sehr viele Unternehmen, die auf uns zukommen, die tausende von Leuten mit ihren Online-Kursen ausbilden wollen. Dann fragen wir natürlich warum, warum jetzt, heute?

Reference 10 - 1.30% Coverage

Die meisten sagen dann, das sind jetzt Grossunternehmen, das Umfeld hat sich verändert im Sinne davon, dass sie dem Kunden früher nie erklären mussten, wie man Wert kreiert. Man hat es einfach zusammen geschafft. Es ist noch erstaunlich, wenn man sieht, weshalb die Leute angefangen haben, über solche Konzepte nachzudenken. Der Ursprung wäre schon noch spannend zu sehen, dies zeigt dann auch, wie sie Wert kreieren.

6. Data consolidation

6.1 Group: A (academics)

Main theme: according to the interview guide (→ literature)

Sub theme: themes emerging in the data

Details: statements (from the interviewees) supporting the sub themes

Group	Main theme	Sub theme	Details
A	Application	Dealing with complexity	Reflection practice (A5), zoom in and out (A5), information processing capacities (A7), ability to deal with complexity (A5)
		A communication instrument	A means to communicate (A5), a communication instrument (A9)
		Design thinking and ideation	Design thinking (A10), business design (A6), solving stakeholder problems (A6), creativity processes (A10), diversifying products (A8), generating ideas (A3), ideation phase of a business/idea (A8)
		A tool for educational purposes	Education for start-up founders (A1), sensitisation for trial and error processes (A1), a basis for creating a business plan (A9), training for students (A10)
		Structuring a business	Structures of entrepreneurial practice (A10), structured analyses (A3)
		Dealing with ecosystems	Business models are embedded in ecosystems (A1), the role of co-creation (A1), scenarios and foresight (A8)
		Thinking about the mechanics of revenues	Revenue stream diversification (A2), diversification of products → freemium or as a service (A8), big companies tend to focus on revenues thinking (A5), rent seeking strategy (A7)
		As a means to deal with processes	Process definitions within a business model (A4), digitalisation of processes (A8)
		Ideation and problem solving	Idea generation (A3), problem reframing (A6), developing new needs (A7), analysis vs. ideation phase → different mind-sets (A8),

			analysing private equity firms (A8)
		Dealing with changes in the environment	React on changes (A3), dealing with the status-quo-bias (A7), high branch dynamics (A7), adaptation of the market and not vice versa (A7)
		Thinking in eco systems	Ecosystems, open innovation, platforms, health system as a huge ecosystem
		Distinguishing start-ups and established firms	Start-ups are different to established firms (A3), business model thinking is used differently in big companies (A5)
		BM thinking is particularly useful for start-ups	Start-up teams (A9), start-ups (A1), scalability (A9), thinking about BM is easier for start-ups (A3), it is part of the founding process (A3), BM thinking has become standard in innovation driven contexts (A5), BM as a checklist compensating experience (A5), a lack of online tools → applied too traditionally (A9)
A	Understanding	Based on revenue mechanisms (narrower sense)	In a narrower sense (revenues) (A1), how do you make money (A2), earning mechanisms (A1), economic theory of a company (A7), rent seeking strategy (A7), model providing maximal rents (A7)
		Based on value creation (wider sense)	Wider sense (more than revenues) (A1), creating value through products (A8), daily putting customers at the centre (A4), deep understanding of needs (A1), value generating components in an interwoven world (A4), positioning the value proposition in a network (A4), mechanism for generating value (A6), creating new combinations generating value (A4)
		Structuring a company	Structure describing entrepreneurial activities (A10), structure of a business (A3), theory of a company (A7), the smallest unit of a business to be defined (so that a business works) (A9)
		Leaned on strategy	Differentiation between business models and strategy (A2), the term is used loosely (A2), strategy combined with structure and culture (A4)
		Creating value beyond money	Not just focusing on money as the result of business model thinking (A3), creating value in the federal administration, institutions in the public sector (A6)

A	Human factor	Culture and leadership	Culture (A4), leadership (A4), Holocracy (A4, A5), emergent phenomena (A4), meaning (A4), reflection and reflective teams (A5), diversity of interpretations (A5)
		Individuality	Individuality (A10), as basis for innovation (A10), motivation of individuals (A9)
		People in complex environments	Perceiving complexity (A5), people's capacity of information processing (A7), systemic thinking (A6), generating values in complex networks (A6)
		Stakeholder perspective	Customer at the centre (A4), various stakeholders (A6)
A	Model character	Diversity of variables	Always several models possible (A10), collection of hypotheses (A5)
A	Professional background	Entrepreneurship	Entrepreneurship (A1), business models in new ventures (A9)
		Innovation	Innovation (A1), learning design (A5), technology transfer (A3), innovation promotion (A3), regional factors for innovation (A3)
		Sustainability	Sustainability (A5, A7)
		Business model innovation	Business model innovations (A1), start-ups (A1), product management (A8), digitalisation (A8)
		Design Thinking	Design (traditional) (A10), design thinking (A6)
A	Elements	Revenues	Revenue streams (A2), understanding incomes and costs (A9), pricing strategies (A9), generation revenues above the average in the market (A7), monetary but also revenues as reputation (A3), revenue mechanisms (A5)
		Value proposition	Value proposition (A1), solving and understanding problems (A6), creating value (A3, A6), value proposition designer (A8), positioning relative to the competition (A9), unique selling proposition (A9)
		Resources and value chain	Value chain (A1), core value chain (A4), resources (A5), resources as basis for the value chain (A5), resource based advantage theory (A7)

		Partnerships	Partners (A1), co-creation (with partners) (A1), establishing partnerships (A6)
A	First contact	In a new venture context	Business plan contest (A5), founding its own company (A5), new venture context (A8)
		In a research project	Research project (A3), dissertation (A9), publications from Osterwalder (A6), strategic foresight project (A1)
		In the first Internet bubble era	HBR-articles (A4), first internet bubble era in the late 1990-ies (A2)
A	Related concepts	Culture and leadership	Culture (A4), learning capabilities (A5), leadership (A5), Hermann brain dominance model (A6)
		Scenario techniques	Scenario techniques (A1), thinking in different scenarios (A5), considering alternatives (A8)
		Complexity theory	Dealing with complexity (A1, A5), chance (A9), theory of impact (A5), systemic coaching (A4)
		Innovation management	Innovation (A10), Triz and Ariz (A7), innovation management (A7)
		Design thinking	Design thinking (A10), identification of customer problems (A6), creativity (A5, A10), Double Diamonds method (A10), wicked problems (A10), story telling (A4), business narratives (A5), business thinking (A6)
		Business plans	Business plans (A1, A9), action plans (A9), risk analysis (A9)
		Ecosystems	Ecosystems (A1, A8), co-creation (A1)
		Strategy	Strategy (A4), business models considered as derived from strategy (A9), leaned on strategy (A2)
A	Research	Innovation and current topics	Sustainable business models (A7), energy topics (A1), strategic foresight (A1), mobility (A1), innovation (A3), open innovation (A8), performance of scientific teams (A3), application of Triz and Ariz in economics (A7)
		"Readiness" of business models	Scalability of business models (A1), readiness of business models (A1), revealing new business models (exploration) (A1), developing

			and evaluating alternatives (A8)
		“Young” topic controversially discussed in academia	Popular scientific publications (A3), consulting driven approach (A3), young disciplines in the area of economics (A5), distinguishing academic and practice (A2)
		Regional factors	Regional factors (A3), implication for a region or a country (A9)
A	Strengths	Analysing businesses	Business analysis (A3), thinking businesses through in a structured way (A3), checklist (A5), sketching up “old school” business models (A1), thinking about alternatives (A8)
		Easily understandable	Easy and quickly to be understood (A1), a means for communication (A8), simplicity (A6), simplicity takes away fear for something new (A7)
		Providing an overview	Limiting a mechanism to a few building blocks (A1), quickly understanding problems and solutions (A6), huge “Auslegeordnung” (A2)
		Creatively generating ideas from the past and future	Generating new ideas (A3), thinking from the future (A4), comparing ideas with solutions from the past (A10)
A	Weaknesses	Inability for dealing with complexity	Managing complexity considered an illusion (A1), people are overstrained with the 9 components (Canvas) (A6), on which information basis people develop models? (A7)
		Easily understandable as an illusion	Too easily understandable (A1), no real understanding of the coherence between the building blocks (A1), people do not understand the difference of concepts such as pains and gains (A8)
		Reality cannot be mapped in a model	Reality cannot be mapped in an abstract model (A10), always according to the book (“nach Schema F”) (A7), reality “pushed” in terminologies (A5), changes (new components) ignored (A5)
		A lack of ecosystem thinking	Ignoring the emergence of ecosystems (A1), business models in a cloud rather than standing alone (A8)
		Ignoring aspect of realisation	The ‘how’ is ignored (A1), a rather descriptive approach (A1), a lack of scenarios assisting in

			the realisation process (A8)
A	Conceptualisation	Value Proposition Designer	A8
		Canvas from Osterwalder	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10
		55 Archetypes from Gassmann	A7, A8
		Navigator from Gassmann	A1, A2, A7, A8
		Christensen 4-field-framework	A1
		Lean Canvas Maurya	A6

6.2 Group: S (support professionals)

Main theme: according to the interview guide (→ literature)

Sub theme: themes emerging in the data

Details: statements (from the interviewees) supporting the sub themes

Group	Main theme	Sub theme	Details
S	Application	A means to structure markets	A flexible market structure model (S3), observing trends (S3, S10), closeness to the market (S3, S8)
		Serves as a mental model for having the big picture	Having everything in mind (S9), getting quickly an overview (S3), understanding quickly what happens (S7), getting quickly the whole picture of a business (S1, S7, S9)
		Thinking about revenues	Dealing with price wars (S10), achieving highest possible rents (S13), financial concepts (S2, S7)
		A means to manage complexity	Dealing with different flight altitudes (S1), the reduction of complexity (S1, S7), systemic thinking and accepting contradictions (S1, S5, S7, S8)
		A means to support incubation	Accepting ripening processes (S5, S11), dealing with different velocities (S11), accepting 'fermentation processes (S5, S11), unrest as starting point for new initiatives (S5, S11), delegate ideas to the subconscious (S5, S11), having lifeblood for something (S11)
		Reflecting firm culture and philosophy	Culture (S8), culture of criticism (S8), getting an answer from 'the world' (S11), philosophical questions (S11)
		Dealing with external impulses	Starting points for new business models (S2), sensitisation of companies (S4), external impulses as innovation sources (S4), crisis as external impulse (S2)
		A means to communicate and collaborate	Dialogical communication (S11), dialogical process (S11), mission and positioning (S13), storytelling (S12)
		Application limits	Too complicated (S4), missing time and resources (S4), not understandable/unclear term → what does business model really

			mean? (S6), [not applicable in consulting practice (S7), not sophisticated enough (S5)]
		Working with frameworks	Canvas used to sketch out something quickly and as a thinking model (S2, S7), Lean Canvas (S7, S9), a process of analysis (S7, S10), using the frameworks as communication instruments (S1, S7)
		Start-up context	Out of a vision (S13), low and high tech start-ups (opening a new market) (S7), leaving comfort zones (S3), market experiments and validation (S1, S7), execution matters (S7), getting venture capital (S4, S6, S7)
		Values and customer needs	Out of a need (S1), thinking from customer perspectives (S1), out of existing resources (S2), identifying needs (S3), customer loyalty (S3), creating and exploiting values (S2)
		[Consultant driven]	Creating new hypes (S4), driver and source of new ideas (S4), hyped in media and Silicon Valley (S4), idea emerged from the consulting industry in academia and practice (S2)
		Market entry point	entry points may be (i) existing resources, (ii) products, (iii) market needs (S2), digital transformation (S2), understanding what happens (S5, S3)
		Types of companies	In start-ups → weekend courses (S9), in big companies → to reinvent themselves (S9), to establish a common language (S9), to deal with new technologies in SMEs ??? (S4, S9)
		Not applied or applied with limits	People get scared about business models since they question their values (S8), no resources (S4), priority of daily business (S4), more familiar with business plans (S6, S12), disruptive models are hardly possible (S4), companies never use business model thinking in practice (S4), the term 'business model' is used loosely possibly meaning everything (S6)
S	Understanding	Typically "Osterwalder" (Canvas)	Understood following the ideas of Osterwalder (S4), frontstage-backstage analogy (revenues-costs) (S9), derived from balanced score card (S9)

		Strategy and strategy plan	Strategy maps, part of a strategy (S6), visualisation of a strategy plan for the value chain (S11)
		Model character	What is a business? (S6), basic structures of companies (S11), complex building → making the logic 'tangible' (S1), from big to small logic (S11)
		The value proposition at the centre	Creating values (S1, S13), at the centre of the value chain, value proposition has nothing to do with the product! (S8, S9), To propose: it is what you are standing for (S8), meeting the promise = value architecture (S8), "the story of how you create, deliver and capture value" (Osterwalder) (S9)
		Earning / revenue model	Earning money (S10), revenues higher than the costs (S9), spending money, revenue model (S10), cost structure (S2), make or buy decisions (S13)
		Basic philosophical considerations	A question of values (S8), the products are not the motivations why people do work for a company (S8), philosophical questions broken down to the customer level (S8), basic dialogue: what is in the air (S11)
		A process based perspective	Company divisions (S9), 'operating system' of a company (S7), set of rules defining how to behave in the market (S3), derived from IT-processes (S2, S9), in and outputs such as a transmitter/receiver (S2)
S	Human factor	A need to understand everything	Having everything in mind (S9), like works of art that are never finished (S5), not possible to resolve everything intellectually (S5), feedback mechanisms in a complex world (S5), looking for success factors for companies (S7), a need for security (S1)
		"Philosophical deconstruction"	Value proposition = question of values (S8), having a vision (S8), no products but values (S8), giving meaning (S8), having passion for something (S8, S11), avoiding 'tools vs. people' (S7), people fear business models since they question values (S8), changing values = changing culture (S8), looking at the unpleasant side of a business (S3)
		Passion and lifeblood	The heart stands at the centre of everything (S11), having joy (S11), passion (S8, S11), motivation (S11), but also patience and

			suffering for something (S11)
		Team alignment	Team spirit (S6, S12), team alignment (S9), management team important with start-ups (S6, S12)
		Entrepreneurial spirit / gut feeling	A feeling for the market (S3), understanding customers and their needs (S3), customer motivations (S3), a feeling for 'what is in the air' (S11), failing equals excellency (S11), interested in people (S3, S11), anticipation (S11), having the gut feeling for something (S6, S12)
S	Model character	It is not reality	Security of a model → paralysis (S11), missing reality (S11), a means to an end (S11), Titanic syndrome (he did nothing wrong since he followed the model) (S11), the real world does not care about it (S11), idealist vs. model fanatics (S11), basic dialogue (S11)
		Simplification	From big to small → does it work in social systems? (S11), simulation of practice: like a compass (it just helps) (S11), people need sensible tasks (S8), one-sided perspectives (S11)
		Tries to reduce complexity	Different flight altitudes (S1), complexity=not predictable (S5), reducing complexity (S7), professors often add extra complexity (S8)
		A means to structure a business	Basic structure of a company (S11), model of a business but not of the market (S8), inside view (conscious ignoring competitors) (S8), allows for recognising basic structures (S11), business logic, equation (S9)
S	Professional backgrounds	ICT Domain	Business informatics (S7, S8, S9), Internet bubble era (S8, S9), web era (S8, S9)
		Venture investments	Financial intermediation (S6, S12), business angels (S6, S7), investment fund (S6)
		New ventures / start-ups	Founding new companies (S1, S7, S9), start-up context (S1, S7, S9)
		Innovation management	Investment fund (S6), methodological competencies (S8), innovation check-up (S4), search field definition (S10), interested in understanding how it works in detail (S10), early warning systems (S10, S13), future management (S13), market needs (S3)

		University	University (S8, S10, S11, S13), University of Applied Sciences (S6, S10), technology transfer projects (S6)
		Marketing	Marketing (S3), sales (S3), holistic perspective on the market (S5, S8)
S	Elements	Aspects of the market	Environmental influences (S6), influence of the branch (S6), micro-economy (S6), market potential (S6), macro-economy (S6), regulations (S6), Porter's 5 forces (S2, S13)
		Value Proposition	Customers and needs (S1), customer problems (S1), to propose (S8), Kano model of unarticulated needs (S10), staying focused (S7), Pains/Gains/Jobs to be done (S1)
		Earning model	Revenue streams (S1), profit maximisation (S1), cost structure (S2), liquidity (S2), money as a means to an end (S11), finance plan (S2), net present value (S2), earning and spending money (S13), pricing models (S3), dynamic pricing (S8)
		Resources	Financial resources (S2), activities, partners (S2), time (as a resource!)
		Team and management	Luck (S7), firm/team culture (S8), team alignment (S9), risk (S1)
		"A question to the world"	Lifblood (S11), raison d'être (S8), spirit of enterprise (S11), basic values defining the value proposition (S8)
S	First contact		
S	Related concepts	Business plan	Realising almost 10 % (S4), earning model (pricing, liquidity plans) (S2, S4), raising money → not possible with the Canvas alone (S4), inhibits creativity (S4), relationship between business plan and business model (S10)
		Canvas	Using 'meta opportunities' (S13), balances score card (S9), includes concepts such as the Kano model of unarticulated needs (S10), execution is key (S7), communication tool (S1, S7), balance: can I do it and should I do it?

			(S9)
		Ecosystems	Value chain (S1, S3), Porter's 5 forces (S2), ecosystem thinking (S1, S3)
		Risk management	Alternatives (S1, S4), value in use analysis, scenarios (S1), design thinking (S1)
		Innovation	Buzzwords: business models and innovation (S4, S8), lead user approaches (S4), design thinking (S1), disruptive innovations (S4), scrum (IT) (S7), open innovation (S4)
		Strategy	Future (S13), visions (S6), seeing models of tomorrow (S6), scalability (S4)
		People	Values and philosophy (S8), culture (S8), mindset (S8), having passion and commitment for something (S8, S11), storytelling (S5, S12), culture of tolerance (S8), empathy (S3), feeling comfortable with something (S3), creativity cycles, inspirations (S4), impulses (S4), driving at different velocities (S11), sensitisation (S11), basic dialogue with the world (S11)
		Complexity	Basic rhythm of nature (S11), reduction (S1, S7), systemic thinking (S6, S8), whole systems (S6, S8), bearing contradictions (S5), time factor (S6)
		Market	Marketing (S3), customer segments (S3), 7P (S3), competition (S1), PEST analysis (S2), market segments (S6), micro- und macro-economy (S6), market structure model (S3), branch aspects (S6)
S	Research	Application of the concept	Big companies and start-ups (S9), why companies are interested in business models? (S9), why do they think about business models? (S9)
		Gap between research and practice	Tax money is spent for questionable research such as success factor research (S9), academics just care about getting deeper and none cares about systemic thinking (S8), research is getting increasingly detached from practice (S9)
		Tools for practitioners	Business models are not considered 'real' science (S7), only few background in academia (S7), neglected in theory (S7), applied research: tools that are needed in practice (S9)

		Business model frameworks	Developing plugins for existing frameworks (S9), it does not make sense to develop another framework (S8, S9), each university has its own framework (S7), identifying patterns: linked business models and good/bad business models (S8, S9)
S	Strengths	Dealing with complexity	Canvas is well suited for reducing complexity (S1, S7), it serves as some kind of check list, getting an overview quickly (S2, S7), it helps dealing with complexity and it hold complexity (S7)
		A communication and collaboration instrument	Easy to understand (S9), having the big picture in mind (S2, S9), serves as collaboration tool (S1), communication within a group (S1, S7), telling a story (S5), "the story of how you create, deliver and capture value" (S9)
		[Models different to the Canvas]	Johnson: team and values with start-ups Gassmann: pre-thought solutions VP-Designer: shows a process
		Structuring a business	Thinking in alternatives (S1), structuring companies (S9, S10), understanding a business quickly (S2, S7), thinking everything as a business (S10), making implicit things explicit (S10), breaking up existing structures (S10)
		"Philosophical deconstruction" of a business	Missing market: okay since it is no market model (S8), philosophical deconstruction of a business (its values) (S8), a means to think faster and more effectively (S7, S8), inside view (S8)
S	Weaknesses	Canvas	No model can be used for 'everything' (S7, S10), just reverse engineering → not suitable for developing new businesses (S10), ex post explanation (S2, S10), difficult to understand (S4), what is really the problem to be solved? → not an adequate tool for everything (S2)
		Ecosystem and market structure	Missing market perspective (S1, S3, S7), no interaction with environment (S6), no networks of values (S6), missing transaction perspective (S1), no feeling for the market and customer needs (S3), values need to be understood (S8), the way markets work is not included (S3), missing market dynamics (S8), no positioning against competition, each company is different

			(S2, S6, S8)
		Too complicated a concept	Buzzword (S4), useful just for sensitisation purposes (S4), not easily understandable (S4), 9 individual stories (S8), no resources available to get familiar with the concept (S4), having everything in mind=inhibiting creativity (S4), not just thinking about products (S9)
		Too complex a concept	An infinite number of concepts (not just 55!) (S8), against the trend that everything must be quantifiable (S8), no systemic thinking anymore these days (S6, S8), no impact analysis (S6), inadmissible reduction of reality (S11)
S	Conceptualisation	Canvas (Osterwalder)	Value Proposition Designer (S9), big picture (S2, S7, S9), typical "Osterwalder" (S4), not just thinking in the product dimension (S9), balancing offering and costs (S9), based on the ideas of Patrick Stähler (S7)
		Navigator (Gassmann)	Complexity (S6), St. Gall company model (S6), 3 'bubbles' (S10), a copy of Osterwalder (S2), 55 archetypes (S1, S13)
		"Patrick Stähler"	The purpose of a business (S8), model from Timothy (values, how, revenues) (S8), firm culture (S8)
		Revenue model	Revenues for services (S12), earning money (S13), cost structures (S2)
		Lean Start-up	Ash Maurya (S7, S9), Lean Canvas, "mish mash" (S9), IT methodologies (S7)

6.3 Group: M (owner managers)

Main theme: according to the interview guide (→ literature)

Sub theme: themes emerging in the data

Details: statements (from the interviewees) supporting the sub themes

Group	Main theme	Sub theme	Details
M	Application	Idea generation	Ideas for new business models are developed in the management board (M9), a deep understanding of the business is needed (M9), new connections are important to be made (M3), connections to the outside of the company are important (M7), the value of ideas 'in isolation' are questioned (M5), to reflect existing business ideas (M5)
		The concept is not applied	Almost no application in practice (A1), the model of the branch has not changed for many decades (M11), having no time to think about business models (M6)
		Market validation	Validating business models in the market (M10), observing the market (M3), performing little iteration steps (M3), start-ups (to be bought and integrated in big companies) (M9)
		Used as a thinking model	The business model concept as thinking model (M7), structuring companies (M7), discussed in board meetings (M3), business model considerations as a by product (M9)
		Clarifying ownership structures and long term strategy	Showing ownership structures (M2, M7), distinguishing between profit maximisation and long term stability (particularly in family businesses) (M7), medium- and long-term objectives (M7)
		Better understanding one's own business	To be aware of the specifics of one's own business (M10), to say "No, this is not our business model!" (M11), using transaction models in order to visualize the flow of resources (M3)
		Thinking about revenues	Diversification → exploiting new revenues sources (M10), generating new revenues from scratch (M10), enhancing the transparency of the money flow (M6), thinking about margins

			(M3), ensuring liquidity (M7, M8)
		As a standard tool in the start-up context	Applied in start-up weekends (M10), the Canvas from Osterwalder has become the standard tool (M10), developing something new (M10), SME is not comparable to a start-up → people have no time for theoretical concepts (M8)
		Better understanding the ecosystem and changes in it	Visualising ecosystems (M5), uncover blind spots (M6), dealing with upcoming changes (M10), visualising competition and differentiation (M4)
M	Understanding	Explaining the way a business works	How does a company work (M12), defining a company's success (M7), mechanisms explaining the functioning of a business (M5), "running an architectural office" (M6), to say "this is not our business model!" (M11), like the mechanics within a watch (M9)
		How to stay close to your customers	Bringing the offering to the customers (M10), creating added value (M9), a dynamic perspective – not static, understanding the point of sales (M7), satisfying your customers day by day (M12)
		The way a company is organised/ structured	Ownership structures of a company (M2), internal structures of a firm, process model – how to deal with core processes (M7)
		Based on strategic considerations	This is a question of strategy (M7), questioning a company's strategy (M8), the strategy how to bring the services to the market (M11)
		A means to communicate with the outside	Communication to the outside (M1), realisation to the outside (M7), perception of a company in the market (M8)
		What spends a customer money for	How does a customer buy and what service does he pay money for (M10), what is a customer willing to pay money for? (M9)
M	Human factor	People standing at the centre of a business	Offering and customers represent the epicentre (M5), simplicity (M8), managing the point of sales (M7), addressing real problems people actually have (M5)
		Relying on one's own competences	To be too proud to make use of external support (M4), professional pride (M4), having a deep understanding of the business (M9), understanding the market (M4)

		Using external sources	Internalising external competences (M8), outside information as innovation driver (M8), setting up partnerships (M12)
		Succession plan (family business)	Planning for the next generation (M12), discrepancy between earning money quickly and long-term existence (M7)
M	Professional background	Traditional start-up founder	Start-up founder (M3), has started from scratch (M3), supported by technology funds (M3), supported by family members (M3), idea emerged in lunch time (M5), ITC-firms (M10), high-tech companies (M10)
		Family business founded by parents/ancestors	Company founded by ancestors, company in the construction sector (M6), agriculture company (M12), dairy processing company (M2), payments to the brothers and sisters (M2)
		Management buy out (in former family business)	Management buy out (M7), acquiring shares of the company (M8), acquiring shares (M7), in established markets (M11), first traditional career then acquiring shares (M11)
		New venture but no start-up	A new venture founded by an individual or a group of individuals (M1, M4, M6), to be on fire for something new (M4), trading firm for solar products (M3)
		Listed company	Company dealing with currency installations in the public sector (M9)
M	Elements	Customer value / added value	Value/value proposition (M10), creating added value (M9)
		Resources	Resources (M12), production factors/resources (M12), financial reserves as resources (M12)
		Costs and revenues	Revenues (M10), incomes and costs (M3), drivers for costs and incomes (M10), effects of scale (M10)
		Processes	Processes (M10, M12)
		Customers	Customers (M3), lead users (M5), business to business (M4), business to customers (M4)
		Environment	Environment (M4), sustainability (M4), requirements (M4), economy (M4)

M	First contact	Education	Studies (M3), school of engineering (M4), MBA training (M7), study of economics (M7, M9)
		Internet boom	Internet technologies, Internet boom (M7, M9)
		Company foundation	In the context of founding one's own company (M5, M10)
		Discussions	Discussions with friends (M1, M6)
M	Related concepts	Risk management	Risk management (M12), Dealing with complexity (M7), taking risks consciously (M7), traditional sectors are less risky (M9)
		Design thinking	Design thinking process (M3), dealing with 'the new' (M3), solving problems for customers (M5), golden circle (M5)
		Marketing	Marketing (M4), managing the point of sales (M7), market/context analyses (M7), segment analyses (M4)
		Strategy	Focusing on how to make business (M8), concentrating on finance management (M12), staying focused (M10), SWOT analyses (M11)
		Finance and controlling	Balanced score card (M10, M11), managing key figures (M10), FIS (firm information system) (M7), cockpits, controlling (M8)
		Innovation	Innovation (M2), disturbing factors as basis for a business (M5), Job to be done (M5), the 'new' (M3), disruption theory (Christensen) (M3)
M	Conceptualisation	Canvas from Osterwalder	M3, M4, M5, M6, M10
		Management model from HSG	M10
		Marketing model	M4
M	Understanding business logic	Stay close to your customers	Managing the point of sales (M7), customers problems as starting point (M5), availability (M8), simplicity (M8), running a shop (M2, M12), closeness to the customers (M10), sales activities (M12), translating customer needs

			(M1, M11)
		Managing costs and revenues	Total price war (M4), costs and fees (M6), charging hours or flat rates or linear to the construction costs (M11), costs of production means (M12), personnel costs (M12), high cost segment (M8), charging square meters rather than hours (M5)
		Optimizing processes	Tool management system (M7), recycling production means (M7), sharing economy (M7), business processes (M5), producing small exclusive charges (M2), modularity (M8), high level of flexibility (M8), process oriented (M9)
M	Understanding challenges ahead	Ability to launch 'innovations'	Ability to launch 'innovations' (M3), establishing partnerships (M8), creating new niches (M8), danger of oversleeping disruptive innovations/new trends (M9), clever combinations of products and business models (M3), being concerned about close customer/market contact (M2)
		Dealing with digitalisation	Digitalisation (M11), new advanced skills for sales people (M7), scalable models (M3), energy revolution will be digital in nature (M3), rationalisation (M2), digital construction (M11), digital work reports (M9), acceptable margins in spite of mass production (M2), information gathering (M1), internet of things (M7)
		Economic pressure	Economic environment (M11), shirking markets (M4), chain formation (purchase) (M2), economic pressure (M12), high cost structures in Switzerland (M12), cost pressure (M2), tight budgets (M9)
		Political contexts are getting worse	Euro crisis (M8), governmental regulations (M2), Swiss labels (M2), structural change in agriculture (M12), setting up entry barriers (M9)

6.4 Comparison of the themes (using MS Excel)

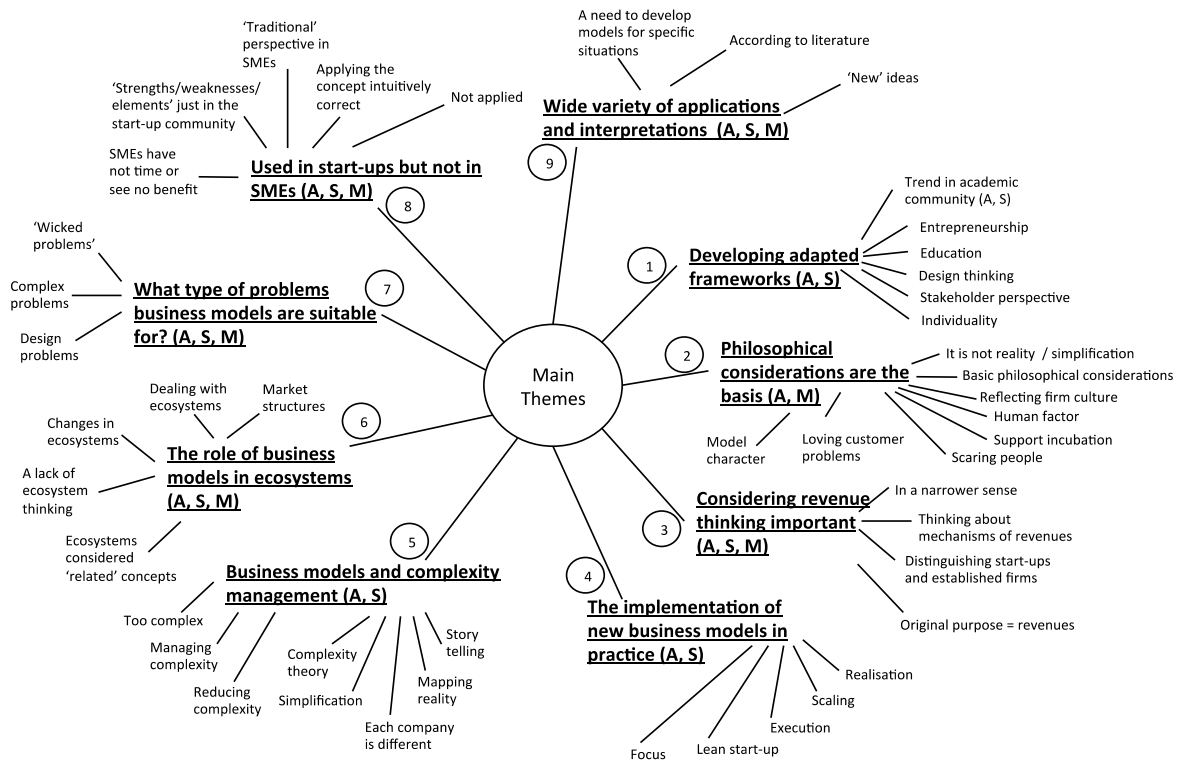
Comparing communities / sub groups

Category	Academics (A) 1	Support professionals (S) 1	Owner managers (M) 1
Application	Dealing with complexity A communication instrument Design thinking and ideation Dealing with ecosystems / Dealing with changes in the environment Thinking about the mechanics of revenues Distinguishing start-ups and established firms A tool for educational purposes Ideation and problem solving As a means to deal with processes Structuring a business	A means to manage complexity A means to communicate and collaborate Serves as a mental model for having the big picture Market entry point Not applied or applied with limits Start-up context Thinking about revenues A means to support incubation Reflecting firm culture and philosophy Working with frameworks Values and customer needs Distinguishing different types of companies A means to structure markets Dealing with external impulses	Idea generation Better understanding the ecosystem and changes in it Used as a thinking model Market validation The concept is not applied Thinking about revenues As a standard tool in the start-up context Clarifying ownership structures and long term strategy Better understanding one's own business
Understanding	Structuring a company Based on revenue mechanisms (narrower sense) Based on value creation (wider sense) Leaned on strategy Creating value beyond money	Earning / revenue model The value proposition at the centre Strategy and strategy plan Typically "Osterwalder" (Canvas) Model character Basic philosophical considerations A process based perspective	The way a company is organised/ structured What spends a customer money for How to stay close to your customers Based on strategic considerations Explaining the way a business works A means to communicate with the outside
Human factor	People in complex environments Culture and leadership Stakeholder perspective Individuality	A need to understand everything "Philosophical deconstruction" Team alignment Entrepreneurial spirit / gut feeling Passion and lifeblood	Relying on one's own competences Using external sources Succession plan (family business) People standing at the centre of a business
Model Character	Diversity of variables	It is not reality Simplification Tries to reduce complexity A means to structure a business	
Professional Background	Innovation / BM Innovation Entrepreneurship Sustainability Design/Design Thinking	Innovation management Venture investments New ventures / start-ups ICT Domain University Marketing / sales	New venture but no start-up Traditional start-up founder Family business founded by parents/ancestors Management buy out (in former family business) Listed company
Elements	Revenues Value proposition Resources and value chain Partnerships	Aspects of the market Earning model Value Proposition Resources Team and management "A question to the world"	Environment Costs and revenues Customer value / added value Resources Processes Customers
First contact	In a new venture context In a research project In the first Internet bubble era	Missing!	Education Internet boom Company foundation Discussions
Related concepts	Complexity theory Business plans Ecosystems Design thinking Innovation management Strategy Culture and leadership Scenario techniques	Complexity Business plan Ecosystems Risk management Innovation Strategy People Market	Design thinking Risk management Innovation Strategy Marketing Finance and controlling
Research	Business model frameworks "Young" topic controversially discussed in academia Innovation and current topics "Readiness" of business models Regional factors	Business model frameworks Gap between research and practice Application of the concept Tools for practitioners	
Strengths	Analysing businesses Easily understandable Providing an overview Creatively generating ideas from the past and future	Dealing with complexity Collaboration and communication tool Structuring a business Philosophical deconstruction	Various inputs (no themes)
Weaknesses	Easily understandable as an illusion Reality cannot be mapped in a model A lack of ecosystem thinking Inability for dealing with complexity Ignoring aspect of realisation	Too complicated a concept Too complex a concept Ecosystem and market structure Canvas	Various inputs (no themes)
Conceptualisation	Lean Canvas Maurya Navigator from Gassmann Canvas from Osterwalder Value Proposition Designer 55 Archetypes from Gassmann Christensen 4-field-framework	Lean Start-up Navigator (Gassmann) Canvas (Osterwalder) "Patrick Stähler" Revenue model	Canvas from Osterwalder Management model from HSG Marketing model
Business logic			Stay close to your customers Managing costs and revenues Optimizing processes
Challenges ahead			Ability to launch "innovations" Dealing with digitalisation Economic pressure Political contexts are getting worse

6.5 Subgroups and themes within the subgroups (example academics)

Academics	Subgroups:								SGA1		SGA2		Sum horizontal	Sum vertical
	Have developed their own framework								Total	SGA1	SGA2	Total		
	Working with existing models/frameworks													
	Meiler	Koye	Nirck	Meyer	Lzfar	Jeanet	Barjak	Stegenhaller	Gurtler	Meier-Biedermann				
	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Application														
Dealing with complexity										x	x	0	2	2
A communication instrument				x						x		1	1	2
Design thinking and ideation			x		x					x		2	2	4
Dealing with ecosystems / Dealing with changes in the environment	x							x		x	x	1	3	4
Thinking about the mechanics of revenues								x			x	0	3	3
Distinguishing start-ups and established firms				x				x	x		x	1	3	4
A tool for educational purposes	x				x	x						3	0	3
Ideation and problem solving				x				x		x	x	1	3	4
As a means to deal with processes		x									x	1	1	2
Structuring a business					x			x				1	1	2
														1.0
														1.7
Understanding	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Structuring a company			x		x			x		x	2	2	4	
Based on revenue mechanisms (narrower sense)							x			x	0	2	2	
Based on value creation (wider sense)	x	x						x		x	2	2	4	
Learned on strategy		x					x				1	1	2	
Creating value beyond money			x					x			1	1	2	
													1.0	
													1.3	
Human factor	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
People in complex environments			x					x	x		1	2	3	
Culture and leadership		x						x			1	1	2	
Stakeholder perspective		x	x								2	0	2	
Individuality				x	x						2	0	2	
													2.0	
													1.0	
Model character	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Diversity of variables					x				x		1	1	2	
													1.0	
													1.0	
Background	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Innovation / BM Innovation	x							x	x	x	1	3	4	
Entrepreneurship	x			x							2	0	2	
Sustainability								x	x		0	2	2	
Design/Design Thinking			x		x						2	0	2	
													1.0	
													1.0	
Elements	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Revenues				x		x		x	x	x	1	3	4	
Value proposition	x	x	x	x				x	x	x	4	2	6	
Resources and value chain	x	x							x	x	2	2	4	
Partnerships	x	x	x								2	0	2	
													1.3	
													1.0	
First contact	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
In a new venture context								x		x	0	2	2	
In a research project	x	x	x					x			3	1	4	
In the first Internet bubble era		x					x				1	1	2	
													1.0	
													1.0	
Related concepts	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Complexity theory	x	x		x					x		3	1	4	
Business plans	x			x							2	0	2	
Ecosystems	x									x	1	1	2	
Design thinking		x	x		x			x			3	1	4	
Innovation management					x				x		1	1	2	
Strategy		x		x							2	0	2	
Culture and leadership			x					x			1	1	2	
Scenario techniques	x							x	x		1	2	3	
													2.0	
													1.0	
Research	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Business model frameworks	x	x	x	x	x						5	0	5	
"Young" topic controversially discussed in academia							x	x	x		0	3	3	
Innovation and current topics	x	x					x	x	x	x	2	3	5	
"Readiness" of business models	x			x						x	2	1	3	
Regional factors				x				x			1	1	2	
													1.3	
													1.0	
Strengths	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Analysing businesses	x							x	x	x	1	3	4	
Easily understandable	x	x							x	x	2	2	4	
Providing an overview	x						x			x	1	2	3	
Creatively generating ideas from the past and future		x			x			x			2	1	3	
													1.0	
													1.3	
Weaknesses	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Easily understandable as an illusion	x									x	1	1	2	
Reality cannot be mapped in a model					x				x		1	1	2	
A lack of ecosystem thinking	x									x	1	1	2	
Inability for dealing with complexity	x	x								x	2	1	3	
Ignoring aspect of realisation	x									x	1	1	2	
													1.2	
													1.0	
Conceptualisation	A1	A4	A6	A9	A10	A2	A3	A5	A7	A8				
Lean Canvas Maurya			x								1	0	1	
Navigator from Gassmann	x						x		x	x	1	3	4	
Canvas from Osterwalder	x	x	x	x	x		x	x	x	x	5	5	10	
Value Proposition Designer										x	0	1	1	
S5 Archetypes from Gassmann										x	0	2	2	
Christensen 4-field-framework	x										1	0	1	
													1.0	
													1.4	
													Sum	
													86	
													86	
													172	
													absolute	

6.6 Meta analysis



7. Example for linking text passages

		Used in start-ups but not in SMEs (S)										
		1	2	3	4	5	6	7	8	9	10	
A1	A1S1 A1S2											2
A2	A2S1 A2S2 A2S3											3
A3	A3S1 A3S2 A3S3											3
A4	A4S1 A4S2											2
A5	A5S1											1
A6	A6S1											1
A7	A7S1 A7S2											2
A8	A8S1											1
A9												0
A10												0
M												
M1	M1S1 M1S2 M1S3											15 1.0
M2	M2S1 M2S2											3
M3	M3S1 M3S2 M3S3											2
M4	M4S1 M4S2											3
M5	M5S1 M5S2 M5S3											5
M6	M6S1 M6S2 M6S3 M6S4 M6S5											6
M7	M7S1 M7S2 M7S3 M7S4 M7S5 M7S6											1
M8	M8S1											2
M9	M9S1 M9S2											6
M10	M10S1 M10S2 M10S3 M10S4 M10S5 M10S6											3
M11	M11S1 M11S2 M11S3											3
M12	M12S1 M12S2 M12S3											39 2.6
S												
S1	S1S1 S1S2 S1S3											3
S2	S2S1 S2S2											2
S3	S3S1 S3S2											2
S4	S4S1 S4S2 S4S3 S4S4 S4S5 S4S6 S4S7											7
S5												0
S6	S6S1											1
S7	S7S1 S7S2											2
S8	S8S1											1
S9	S9S1 S9S2 S9S3											3
S10	S10S1 S10S2 S10S3											3
S11	S11S1											1
S12	S12S1											1
S13	S13S1											1
27 1.8												

Academics (A)

	Have developed their own framework
	Working with existing models/frameworks

Owner Managers (M)

	"Classic" innovative start-up
	New venture but no start-up
	Traditional family business or mgnt buy out
	Listed company

Support Professionals

	Using BM as thinking models
	Seeing people and their values at the centre
	No use of the business model concept

A1S1 The problem with the Canvas is the illusion that people think they understand what is going on – relatively quickly. However, this is considered a big problem. They do not understand it. This is the essence of working with 40-50 start-ups a year.

A1S2 It can be observed that there is an increasing interest of established firms in the specific start-up knowledge (business model thinking).

A2S1 Based on the work of Osterwalder, there are many people who know the term business model today. However, there are still just very few who really manage to take advantage of the essential things of the concept.

A2S2 He has never worked with a business model framework as he stated “I have never used the business model concept in practice. Instead, at the beginning the business system is analysed. This is more flexible and confronts with the realities of each sector”.

A2S3 Most companies have their dominant business model which they feel comfortable with. But adding a new, forget it.

A3S1 He had almost no contacts with SMEs so far (neither in general, nor technical orientated SMEs). Most corporations in the university context are with big companies, not SMEs.

A3S2 the business model concept is considered absolutely inadequate for transforming an existing business from model A to model B! Instead, transforming an existing business model must be seen as an individual and unique endeavour, where such a framework may not be useful at all since most entrepreneurs deal with their business model intuitively correct, without the need of a formalised concept.

A3S3 Start-ups have many advantages: they can look for an adequate business model right from the beginning while established firms must get rid of their existing model first, something which is much more demanding. Hence, for a start-up the development of a new business model is considered part of the journey. For established companies it is risky and can rarely be seen because most initiatives fail.

A4S1 Most managers in their 40-ties and 50-ties in the finance sector learned completely different things 30 years ago. The requirements on strategic thinking change steadily.

A4S2 The main weakness of the Canvas may be the fact that ‘traditional managers’ are not able to cope with it. It is too radical. They feel more comfortable with the more traditional St. Gallen model. If managers can choose they almost always decide for alternatives allowing them to expand their hierarchy. But new business models are to be found in processes. This causes disorientation.

A5S1 The Canvas has become part of the basic repertoire in the Start-up community: „The business model is some kind of check list that allows to compensate for missing experience.“ In huge companies, on executive levels, the term may still be seen as the revenue mechanics.

A6S1 The 9 fields of the Canvas are always difficult to be understood by the students so he has developed a simplified 4-quadrant model

A7S1 Business model thinking may be particularly interesting in highly dynamic sectors where you have to reinvent your company and your services at a high pace.

A7S2 the “status quo bias”. Managers tend to see what they could lose instead of what they could win by changing their existing business model.

A8S1 She has learned that the Canvas has become a standard tool in the new venture / start-up scene.

S1S1 Each start-up aims at establishing a new unique business model.

S1S2 in most established companies there are still no established standard business modelling processes.

S1S3 The ‘model concept’ is an idea people with a technical or natural scientific background feel comfortable with.

S2S1 Really experienced managers and entrepreneurs have a well-developed gut feeling based on which they take viable and working business decisions.

S2S2 most companies have not yet realised that they should bring their business model on paper. They may have a business plan they revise regularly by (just) changing the numbers in it. Many CEOs use ‘established’ structures and tools so they just care about new concepts when their organisation is in crisis;

S3S1 The Canvas is ideally suited in education contexts where you want to quickly have complete ‘solutions’ (in an exercise). But reality is more complex and market structures may change daily because there are never companies doing business with each other. There are always people doing business with each other; something often ignored.

S3S2 When it comes to business model considerations most managers (not entrepreneurs!) heavily rely on consultants because such discussions are often uncomfortable – and consultants can easily be dismissed if necessary. SMEs do not often work with the business model concept because they do not have the required resources to do so.

S4S1 the 9 building blocks are often just ‘too much’ and too complex to be easily understood.

S4S2 For most companies the daily business has priority so they do not deal with concepts such as the business model. Accordingly, he has never got feedback from companies regarding their application of the business model concept thus far. He doubts that companies really go in the details. He has never seen a company actively working with the business model concept. The problem is that you have to work with

these 9 building blocks. You have to understand them; this takes time and energy. It is not that easy and companies do normally not invest time for this.

S4S3 By contrast, companies work on their business model intuitively. They may ignore one or the other building block; this is why sensitization is important.

S4S4 He has worked with several hundred companies in the past 10 years and has learned that most of them do not have the resources to deal with such concepts, particularly companies in the range of 1 to 30 people. Not a single one he knows has ever actively worked with the business model concept!

S4S5 companies know the concept, but working with it – this is a different thing.

S4S6 The business model concept is not suitable for each and every company. This simply does not work. A small company with production facilities can normally not just get rid of its infrastructure following a new business model. An Internet business is different, of course, also in terms of the scalability. Not every company is scalable.

S4S7 In early stage start-ups the Canvas has replaced the business plan. At the very beginning companies sketch their ideas using the Canvas.

S6S1 We also have to remember that there are highly successful entrepreneurs who have never heard something about business models but have founded 'empires'; they have brilliant visions and strategies; they have a gut feeling for the market.

S7S1 The success of a business has finally nothing to do with the Canvas. It is all about execution. It is about the value you offer to your customers and about focus;

S7S2 He never uses any of these tools in his work with customers. He just uses the models as mental models, as thinking models. When you have customers with a working company you must be careful not to say them, hey, your business model is rubbish. You can neither use theoretical models they do not understand. They need revenues, instantly.

S8S1 The thing is that the business model concept will never be commercially interesting. This was misunderstood at the HSG. The rationale is simple: We scare people with business model thinking. Many people would get in some sort of cognitive dissonance by reflecting their job asking the question 'does it make sense what I do?'

S9S1 The development of his framework was restricted to the context of start-ups and big companies. SMEs were ignored. Essentially, even today he has only few contacts with SMEs.

S9S2 The Canvas has become a standard tool in the start-up community, not only in Switzerland, but worldwide.

S9S3 However, the concept is particularly useful in sectors with fast modifications such as the telecom industry

S10S1 He mostly works with technical oriented companies. In most cases no SMEs (bigger). Normally, bigger companies have a higher affinity to external consulting services. He has learned that technical oriented companies are ahead in terms of innovation, compared to other sectors, such as banks.

S10S2 Many companies are aware of current topics such as the business model concept but they have problems with its implementation. The problems are internal structures preventing firms from doing something new. At this stage external consultants can act as some kind of catalyst. Start-ups have more flexible structures; this is why they are more innovative.

S10S3 In SME contexts people look for tools they can use in order to produce completed cycles quickly.

S11S1 He normally does not use the term.

S12S1 However, he has never seen a business model framework such as the Canvas from Osterwalder (he may have heard about it in an academic context) nor has he ever used the concept – or seen somebody else using it.

S13S1 However, based on his experiences how people apply the SWOT framework in practice the application of the Canvas must be questioned.

M1S1 Since he had a good order situation most of the time in the past 20 years he never really cared about such concepts. Only recently, in crisis time, he has started dealing with such ideas.

M1S2 His former employee introduced him to the Canvas and the Exploration Arena. He has developed new ideas using these tools.

M1S3 Thinking in the business model dimension is considered very useful. After each session he had at least one 'aha-experience'. It has enhanced and expanded his thinking by showing new relationships between various elements (which were maybe hidden before). However, any financial success has not been visible so far.

M2S1 By the term business model, he understands the way the company has been reorganised from a stock company into a holding, including tax optimisation aspects so that his brothers and sisters could sell their shares avoiding high tax rates. Furthermore, the business model is also tightly linked to the mission statement, how the company is positioned.

M2S2 They have not yet used a business model or any other management framework or concept.

M3S1 Basically, in the start-up context the business model concept has been popular for many years. But even Osterwalder was able to standardise the idea. He considers the concept to be very useful for his business.

M3S2 The digitalisation in the power sector is considered a business model task since you have to think hard about various selling strategies such as generating recurring revenues, i.e. realised with subscription models.

M3S3 Another important aspect is business model innovation. He tries to find combinations that allow for new products combined with new business models. This is what he is really fascinated about and what he motivates him working on.

M4S1 He first learned about the business model concept at Technology College. He understands the business model as a business idea to be brought to paper.

M4S2 Today, he has all these things in mind and knows exactly how the market functions and his competitors act so the model is not necessary and useful for him anymore.

M5S1 He already was co-founder of another company (in the solar domain). This is where he first got in contact with the business model concept, which was popular at university where his brother was doing an MBA in innovation management at the time.

M5S2 Above all, he knows the Canvas from Osterwalder, with which he has already worked extensively.

M5S3 The Canvas may be applied in two ways: we can use it as a means to developing 'wild' ideas from scratch (the way it is mostly used) or we can use it for reflecting an idea very much in detail by focusing on selected elements such as the value proposition and the customer.

M6S1 He has colleagues dealing with business models in a start-up context so he has a rough idea of what a business model is. However, before he learned about the concept from his colleagues the term business model was nothing else than an empty phrase for him.

M6S2 However, the essence of the Canvas could also be mapped using a business plan. As a trained architect, he is not familiar with such concepts at all.

M6S3 In his own business he has never applied the business model concept thus far. He simply has never had time for this and there are no obvious added values for him to do so. He runs a business as an architect. This essentially is his business model.

M6S4 Even not in the founding process of his office since at the beginning there was no plan, there was plenty of work to do. He has been working hard all the time, day and night, but for the 'real work' rather than the organization of his office.

M6S5 This could also explain the fact that he does not really care about such concepts. If he had to go deeper in this area he would prefer writing a business plan comparing costs and revenues, based on which he could see how profitable his business really is.

M7S1 The characteristic of a good business model is that it cannot be copied easily so they continuously develop added values for their customers. Copying products is simpler than copying whole sophisticated service models with a lot of know-how in it.

M7S2 business modelling is about understanding the point of sales, which is considered a company's most worthwhile element. This is also where competitive advantages originate. Mostly they develop their business model based on existing capabilities. However, they also deal with new technologies that may become a threat for the existing model in the future.

M7S3 He first learned about business models with the rise of the Internet. Before, the term was not actively used. These days they are faced with similar challenges in the big data domain.

M7S4 Models such as the Canvas are just thinking models. They have structured their company using a system directly derived from the Balanced Score Card

M7S5 Establishing such a system means getting closer to the customer so you are not easily comparable anymore with your competitors.

M7S6 When talking about business models we should also consider the way a company is structured in terms of its ownership structure and also regarding long-term strategies; is it about quickly making profit and selling the company or about long-term strategies. All this essentially influences the business model.

M8S1 He in fact does not know any (business model) frameworks such as the Canvas. He assumes that SMEs are confronted with different issues than start-ups.

M9S1 He defines the business model concept as the logic of a business on the one hand. On the other hand, it is about breaking down the proportions of the various partners within a value chain. How can I create added value, which customer is willing to pay money for it?

M9S2 The customers were willing to pay because they had an added value. However, such business models usually do not last forever. In summary, the less I have to invest for this added value, the better the business model is. He does not know any business model framework (neither the Canvas from Osterwalder nor the Navigator from Gassmann).

M10S1 He knows the Canvas from Osterwalder, a currently well-established framework often used in the start-up scene. However, the application of the Canvas depends on the task at hand. When developing a new business, the Canvas may be useful.

M10S2 However, he prefers working with an A4-sheet containing 3 main themes: A strategic impact direction with the 3 most important aims; a SWOT analysis; a Balanced Score Card.

M10S3 The Canvas, on the other hand, can be useful for developing something new, new ideas from scratch. Once having a running business, the Balanced Score Card is considered more viable a concept.

M10S4 The business model concept, on the other hand, is applied when facing changes ahead. It is about thinking of new recurring revenues and about creating additional values for customers, for which they are also willing to pay.

M10S5 he just works with the Canvas.

M10S6 However, the people he teaches in start-up courses are not interested in theoretical stuff; they want to talk about practice. In his domain, the high-tech IT sector, the Canvas is widely used. In a start-up, the business model is simply the 'thing'. It is all about business modelling. Hence, the business model concept is considered a useful tool, as long as properly and carefully applied (using sticky notes!).

M11S1 He associates the term business model with strategy. The term is used when they say "... this is not our business model".

M11S2 Essentially, the term 'business model' or the business model as a concept does simply not exist in his vocabulary; the only exception is as already mentioned (to say "...this is not our business model").

M11S3 He wonders (and is annoyed) why the interviewer is harping on about that business model concept; he has never earned money with it! However, he assumes that his company runs the same business model for 65 years. Assumedly, he may work on his business model too when thinking about new ways of constructing buildings using modular approaches.

M12S1 The term business model is used to explain how the business is organised. The core consists of serving customer needs, 7 days a week, for a good price and with excellent quality. The main producing factors are ground, capital and people.

M12S2 Although we (in Switzerland) would have excellent ground for cultivating all sort of corn, the agricultural politic of the government prevents viable business models in this area so everything must be imported from outside today.

M12S3 Another idea associated with the business model concept deals with succession plans. There are currently 3 generations working in the same company (his father and his son included). Do you change your strategy without a successor?