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Learning from Business Failure – Does Restarting Affect the Business Model Design?

Alice Katharina Bauer[1]

Otto-von-Guericke University Magdeburg

Abstract

Business failure is an existent and severe threat for entrepreneurs, but also offers an opportunity for learning. According to literature, failed entrepreneurs are facing a tremendous learning experience. However, only very few studies focus on the long-term entrepreneur-related consequences of failure and even less work is available on entrepreneurs who decide to restart (Ucbasaran et al. (2013)). The goal of the thesis is to enhance business failure literature by focusing on behavioral outcomes of failure-based learning in the context of entrepreneurs who decide to restart after experiencing business failure. Hence, it will be possible to analyze whether cognitive learning processes result in changes of the entrepreneur's behaviors and actions with respect to the subsequent business. Thus, the aim is to answer the following research questions: *(1) How do business models of an entrepreneur's failed business and the subsequent business differ? (2) What explains possible business model differences?*

The business model concept is employed as a unit of analysis to identify learning outcomes of entrepreneurs by comparing the business models of the initial, failed business and the subsequent business by conducting an in-depth multiple-case study. Particularly, five semi-structured interviews with entrepreneurs who failed and restarted were conducted to allow for the theory building approach according to Eisenhardt (1989). In addition, to triangulate data and enrich the findigns objectively two interviews were held with bankruptcy trustees, experts in the field of business failure. Especially the information provided by the experts enhanced the cross-case analysis.

By employing the business model concept as a unit of analysis in the context of restart entrepreneurship, I am able to provide in-depth, empirically-based insights into behavioral outcomes of failure-based entrepreneurial learning. The multiple-case study provides evidence that an entrepreneur rather improves the business model of the failed business than creating a completely novel business model design for a subsequent, new business. Findings also show that learning from failure is affected by situation-specific, entrepreneur-related conditions, which becomes obvious in the business model design of the subsequent businesses. Particularly, the time span between failure and restart, external support and outside options have an impact. Thus, learning from business failure does not automatically take place but is affected by the entrepreneur's willingness and ability to reflect on past experiences and further conditions that are beyond the entrepreneur's scope of influence. Therefore, the thesis enhances existing literature on failure-based learning as it highlights that failure-based learning does not happen automatically, but requires certain cognitive capabilities that depict a precondition for successful transfer of learning outcomes to an operational level. Overall, the thesis emphasizes a difference between business closure and serial entrepreneurship on the one hand and business failure and restart entrepreneurship on the other hand. This distinction is of particular importance for entrepreneurship research, as the behavior of serial entrepreneurs seems to follow a different logic compared to restart entrepreneurs. This important finding calls for future research that may rely on the thesis as groundwork and contributes to a deeper understanding of restart entrepreneurship.

Managers or entrepreneur on the other hand shall use the findings as a guide. The thesis highlights the importance of the business model and its benefits for the real-world as a tool to objectively consider value creation and capture. In particular, the entrepreneur or manager shall check and critically analyze his or her business in terms of the internal and external fit the business model design. Furthermore, in the case of an approaching or already existent business failure, entrepreneurs should take time for reflection and learning; consider external advice and accept responsibilities and deal with costs of failure openly.

Keywords: Business Failure, Learning, Restart Entrepreneurship, Business Model

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1. Introduction

> "Failure is simply the opportunity to begin again, this time more intelligently." Henry Ford (Mueller and Shepherd (2012): 1)

Setting up a successful business is not easy. Even if a business runs smoothly, entrepreneurs are continuously threatened by negative developments and ultimately business failure. However, business failure does not necessarily mean the end for any entrepreneurial dreams. But entrepreneurs can take a second chance and restart with a new business, with varying success (Cope (2011); McGrath (1999); Shepherd (2003)). To understand antecedents and consequences of restarting, it is necessary to have a deeper look on the basic nature of entrepreneurship and the important role of the entrepreneur in creating and running a business. Entrepreneurship encompasses a broad variety of activities, which aim for creating and to a certain extent also running a business (Gartner (1990)). During the life cycle of a business, the entrepreneur takes an important and directive role in determining the strategy and in operationalizing strategic elements of the business (Douglas and Shepherd (2000); Mullins (1996)).

Being self-employed leads to a variety of opportunities, e.g. realizing own ideas and making nearly unlimited own decisions (Bonnett and Furnham (1991); Douglas and Shepherd (2002)). Therefore, many individuals strive for entrepreneurial opportunities. However, as basic evolutionary logic already introduces, there is variation, selection and retention (Aldrich and Martinez (2001)). Eventually, not many newly founded businesses make an entrepreneur's dream come true. There is only a 40% survival rate of new businesses after six years (Headd (2003)). And only 10% of the initially founded businesses remain in the market after ten years (Mahmood (2000); Timmons and Spinelli (2004)). In 2014, the New York Times welcomed new entrepreneurs with the words "Welcome to the Failure Age!" (Davidson (2014)).

Against this background, it is not surprising that business failure is extensively discussed in recent studies (e.g. Cardon et al. (2011); Jenkins et al. (2014); Mantere et al. (2013); Mueller and Shepherd (2012)). However, only very few studies focus on the long-term entrepreneur-related consequences of failure and even less work is available on entrepreneurs who decide to restart (Ucbasaran et al. (2013)). Literature provides evidence that a failed entrepreneur experiences a time of grief and undergoes a learning process. But what does the entrepreneur learn? Most studies (e.g. Cope (2011); Douglas and Shepherd (2002); Politis (2005); Shepherd (2003); Ucbasaran et al. (2013)) assume that learning especially affects cognitive processes. But what does this learning mean for business activities? After experiencing failure, (former) entrepreneurs are at least theoretically confronted with two options for their further career (Cope (2011); Mueller and Shepherd (2012); Ucbasaran et al. (2013)): (a) becoming an employee and resign from being an entrepreneur or (b) looking for a new opportunity to found a business and to restart as an entrepreneur.

Cope (2011) as well as Politis (2008), Stokes and Blackburn (2002) and Ucbasaran et al. (2013), emphasize that entrepreneurs who failed once and are engaged in an intensive process of reflection and learning are most likely to be involved in the creation of a new business. These entrepreneurs can be classified as restart entrepreneurs. Their entrepreneurial experience is expected to foster a positive development of the newly created business (Cope (2011); Politis (2008); Stokes and Blackburn (2002); Ucbasaran et al. (2013)). Restart entrepreneurs tend to be considered as a sub-group of habitual or serial entrepreneurs (e.g. Politis (2008); Ucbasaran et al. (2003); Wright et al. (1997)). Habitual or serial entrepreneurs are individuals who are eager to and interested in always being engaged in entrepreneurial activity and to found one business after the other which is not restricted to a preceding failure (Politis (2008); Rerup (2005); Westhead et al. (2005)).

In contrast to prior literature, which emphasizes the learning experience of restart entrepreneurs by rather focusing on a cognitive perspective, the aim of this thesis is to analyze whether learning also leads to changes in the (strategic) behavior of entrepreneurs. In this context, I follow Ucbasaran et al. (2013) who suggest analyzing similarities or changes between the failed business and subsequent business of an entrepreneur in terms of the business model. The business model concept is a suitable unit of analysis to examine behavioral outcomes of failure-based entrepreneurial learning as it allows for understanding how a specific business works in general (Magretta (2002); Osterwalder et al. (2005)) and to analyze the activities that are necessary to run the business in particular (Zott and Amit (2010); Zott and Amit (2013)). Hence, it will be possible to analyze whether cognitive learning processes result in changes of the entrepreneur's behaviors and actions with respect to the subsequent business. Thus, the aim is to answer the following research questions: *(1) How do business models of an entrepreneur's failed business and the subsequent business differ? (2) What explains possible business model differences?*

Before finding answers to the research questions, business failure needs to be defined and the business model as a unit of analysis needs to be introduced. Chapter 2 particularly considers the theoretical background to the thesis. To answer the research questions, a qualitative research design was chosen. Data was collected from five restart entrepreneurs and additionally from two experts to triangulate date. The data collection and data analysis process are considered in Chapter 3. Results of the multiple-case study are presented in Chapter 4, where on the one hand a within-case analysis aims for answering the first research question and on the other hand a cross-case analysis aims for finding answers to the second research question by developing propositions in line with a theory building approach. To support propositions, Chapter 5 discusses each proposition individually reflecting on existing literature. Lastly, a conclusion will summarize the thesis, state limitations and emphasize implications for managers and researchers developed from the thesis.

The thesis generally contributes to research analyzing behavioral outcomes of business failure. Scientific discourse and the literature stream are enhanced by transferring insights from business model literature into the field of entrepreneurship research. The multiple-case study provides a new perspective on restart entrepreneurs and their experience with business failure.

2. Theoretical Background

In the following, first a line of reasoning will be presented which aims for the clear distinction and definition of business failure. Afterwards, the overall process of business failure relying on Cope (2011) and Ucbasaran et al. (2013) will be described. The second part of the theoretical background then focuses on the business model as a unit of analysis as suggested by Osterwalder et al. (2005) as well as Zott et al. (2011). After a general introduction to business model literature, focus lies on the business model design concept by Amit and Zott (2001).

2.1. Business Failure and Entrepreneurial Learning

A clear definition of business failure is essential to ensure comparability among different research findings. Differences in defining business failure may lead to diverse observations. Nevertheless, there are numerous definitions of business failure across studies, which can be distinguished in very broad, less broad-minded and narrow (Ucbasaran et al. (2013)). In general, it is agreed that business failure corresponds to a negative development of revenues, which may entail an increase in costs (Shepherd (2003); Shepherd et al. (2000)). The negative development of revenues may result in a less beneficial or not beneficial business (Deakin (1972)). Consequently, the entrepreneur faces difficulties, which most certainly lead to a crisis situation, which may or may not be defeated by implementing managerial actions. In this situation, the entrepreneur is no longer able to meet set personal and corporate goals, which then is understood as business failure by numerous authors (Cope (2011); Lewis and Churchill (1983); McGrath (1999); Politis and Gabrielsson (2009)).

As the terms business failure and business closure often overlap, first the difference between the two terms needs to be explained before going into a detailed definition of business failure (Stokes and Blackburn (2002); Headd (2003)). Terminating business activities is a consequence of different realistic and understandable reasons but has negative emotions attached (Everett and Watson (1998); Stokes and Blackburn (2002)). However, personal reasons such as retirement and the choice to work for another employer or take new business opportunities may cause the decision to close down a business (e.g. Headd (2003); Everett and Watson (1998); Everett and Watson (1998)). Thus, business closure may also correspond to a voluntary termination of business activities whereas business failure relates to a non-voluntary termination of the business (Cope (2011); Headd (2003); Shepherd (2003)).

Usually the broad definition of business failure corresponds to discontinuity of ownership, which means the entrepreneur exits or sells the business (Everett and Watson (1998); Ucbasaran et al. (2013)). But, similar to business closure, discontinuity of ownership does not exclude voluntary decisions to leave the business e.g. for retirement, a profitable sale of the business or a new business opportunity (Everett and Watson (1998)). Thus, it is not an appropriate definition of business failure in the context of this thesis.

In contrast, bankruptcy or liquidation is the narrowest definition (e.g. Haswell and Holmes (1989); Moulton and Thomas (1993); Stokes and Blackburn (2002); Thornhill and Amit (2003); Watson and Everett (1993); Wennberg et al. (2010); Zacharakis et al. (1999)) of business failure as it is a distinctive, noticeable and observable event (Ucbasaran et al. (2013); Cope (2011)). Additionally, bankruptcy follows a clear process of events controlled by public authorities, from which it is basically impossible to rehabilitate and thus marks the final end of a business (Moulton and Thomas (1993)). But bankruptcy, which is a judicial step, is too narrow as it excludes the possibility of final avoidance through external help (Cope (2011); Watson and Everett (1996); Ucbasaran et al. (2013)). Considering the example of the United States and the European Union, there are installed mechanisms, which prevent businesses from bankruptcy. In the US, Chapter 11 of the Federal Bankruptcy Code promotes the reorganization of businesses to prevent them from going bankrupt (United States Courts (2015)). A comparable mechanism also exists within the European Union, in particular in European law. In the case of the impending bankruptcy, the European Commission facilitates a second chance for entrepreneurs (European Commission (2011)). Thus, bankruptcy is also not the appropriate definition of business failure within this thesis.

Following the presented line of reasoning I align myself with a less-broad definition of business failure in accordance with Cope (2011) and Ucbasaran et al. (2013). In this thesis, *I define business failure as an event where a business experiences tremendous negative developments in revenues and costs and is threatened by bankruptcy.* In the following paragraphs, the business failure process from the actual event to the outcomes will be described. A Summary of the process is provided in Figure 1.

After the business failure event, the entrepreneur faces difficulties or issues referred to as costs of failure (Ang (1991); Cope (2011); Shepherd et al. (2009); Ucbasaran et al. (2013)). Cope (2011) refers to the "aftermath" phase. As depicted in Figure 1, the entrepreneur's life is affected in six different spheres, namely on a financial, emotional, physiological, social, professional and entrepreneurial level (Cope (2011)).

After the business failed, financial costs of failure occur as the entrepreneur lacks a regular income and may face considerable debts, leading to financial distress (e.g. Ang (1991); Cope (2011); Shepherd et al. (2009)). Coping with business failure and experiencing financial is-

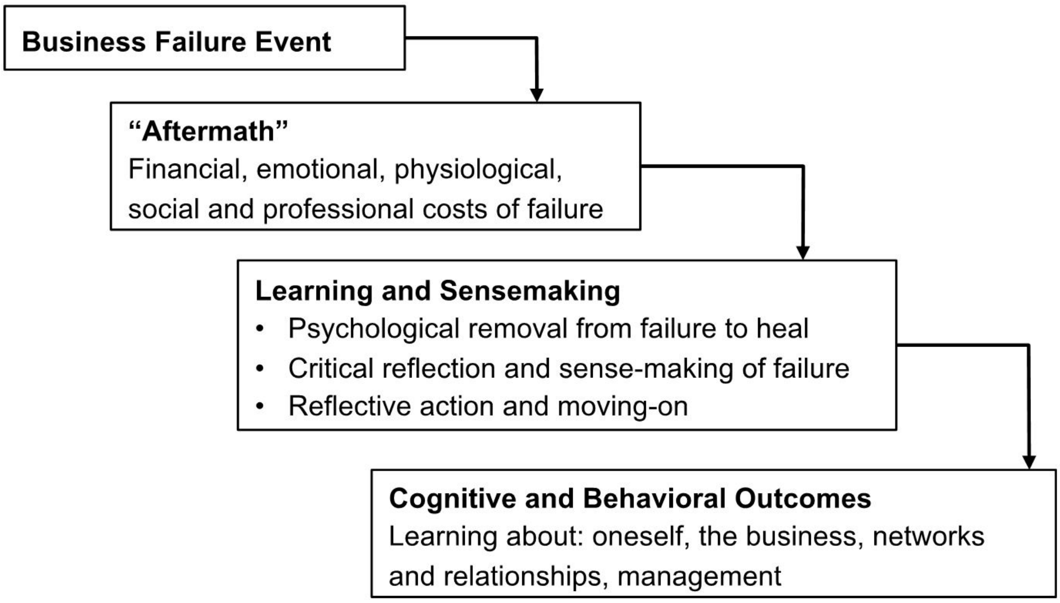

Figure 1: The Business Failure Process (Source: Own illustration based on Cope (2011) and Ucbasaran et al. (2013))

sues affects the entrepreneur's emotional state and results in emotional costs of failure (e.g. Cope (2011); Shepherd et al. (2009); Ucbasaran et al. (2013)). The emotional state of the entrepreneur is described by anxiety and fears due to uncertainty and unemployment. Consequently, the failed entrepreneur suffers from follow-up physiological distress e.g. high blood pressure or anxiety attacks (e.g. Cope (2011); Shepherd and Cardon (2009); Ucbasaran et al. (2013)). The emotional and thus also the physiological costs of failure are enhanced by the entrepreneur's social responsibility. Business failure may also lead to unemployment of employees or even bankruptcy of employees and network partners (e.g. Carroll and Shabana (2010); Cochran and Wood (1984); Cope (2011); Ucbasaran et al. (2013)). Through the environment's changed perception of the entrepreneur, social costs of failure occur (Cope (2011)). The perception of the entrepreneur by the professional environment also shifts and several authors (e.g. Cope (2011); Ucbasaran et al. (2009); Ucbasaran et al. (2010)) propose that the entrepreneur has difficulties in finding any professional follow-up opportunity and therefore is affected by professional costs of failure. Lastly, business failure influences an individual's perception of entrepreneurship and makes him or her usually less confident. The interest in starting a new business diminishes and thus the entrepreneur pays entrepreneurial costs of failure (e.g. Cope (2011); Deakin (1972); Kernis et al. (1989)).

At the same time or slightly after the occurrence of costs of failure, it is commonly agreed that the entrepreneur makes sense and learns something out of business failure (e.g. Cope (2003); Cope (2011); Corbett (2005); Deakins and Freel (1998); Politis (2005); Shepherd (2003); Shepherd et al. (2009); Ucbasaran et al. (2013)). After stepping back from the business failure event, the entrepreneur has the possibility to objectively reflect on it (Cope (2011)). The reflection or sensemaking process is described according to three phases. First the events are scanned, then interpreted and finally learning occurs (Gioia and Chittipeddi (1991); Thomas et al. (1993); Ucbasaran et al. (2013)). Particularly, entrepreneurial learning takes place (e.g. Box et al. (1993); Lamont (1972); Politis (2005); Ronstadt (1989); Sapienza and Grimm (1997)). Entrepreneurial learning can be described as a continuous process over the lifetime of an entrepreneur throughout which start-up, management and critical or drawback experiences broaden and positively influence the entrepreneur's knowledge and strategic decision-making (Politis (2005)). Especially, coping with and learning from problems is the key for improvement (Deakins (1996)). Numerous authors (e.g. Cope (2003, 2005); Cope and Watts (2000); Costello (1996); Deakins and Freel (1998); Deakins et al. (2000); Deakins et al. (2002); Nicolini and Mesnar (1995); Rae and Carswell (2000); Sullivan (2000)) emphasize the power of critical events such as a breakdown of the organization, discontinuation of entrepreneurial activities and non-linear events for entrepreneurial learning. Therefore, it is assumed that business failure is a clear signal for the entrepreneur that something went wrong (Ucbasaran et al. (2013)) and motivates him or her to find, indicate and learn from made mistakes (Politis and Gabrielsson (2009); Shepherd (2003); Stokes and Blackburn (2002)), which constitutes entrepreneurial learning (Sitkin (1992)). Critically reflecting and evolving from business failure may result in a positive development of the entrepreneur and a more successful subsequent business (Cope (2011); Politis (2005); Rerup (2005); Ucbasaran et al. (2009); Ucbasaran et al. (2013); Westhead et al. (2005);). Thus, the entrepreneur is able to recover from business failure (Cope (2011); Shepherd et al. (2009); Ucbasaran et al. (2013)).

After sensemaking, learning and recovery, the entrepreneur is said to show cognitive and behavioral outcomes. Despite the expectation that business failure causes the entrepreneur to resign from entrepreneurial activity, entrepreneurs are described as optimistic and generally interested in being self-employed (Singh et al. (2014); Ucbasaran et al. (2010)). Therefore, an entrepreneur may have the aspiration to engage in entrepreneurial activities again, restart and found a new, subsequent business (Hessels et al. (2011); Madsen and Desai (2010); Singh et al. (2014); Stokes and Blackburn (2002); Ucbasaran et al. (2013)). Optimism is encompassed by cognitive outcomes of business failure, which are not tangible. Thus, being optimistic about a follow-up entrepreneurial activity corresponds to a cognitive outcome (Cope (2011); Ucbasaran et al. (2010); Ucbasaran et al. (2013)). The actions taken to restart and establish a subsequent business however are a behavioral outcome out of business failure. Entrepreneurs are assumed to learn from the business failure event and change their strategic behavior. Consequently, it is also assumed that due to behavioral outcomes a subsequent business shows changes and improvements (e.g. Politis (2005); Rerup (2005); Shepherd et al. (2009); Westhead et al. (2005); Ucbasaran et al. (2013)).

2.2. Business Model Design Concept

In 1957, the term *business model* first appeared in an academic article, as some real world influence factors, which need to be taken into account when developing a business game for training purposes (Bellman et al. (1957); DaSilva and Trkman (2014)). But only since the mid/end 1990s, the relevance and high attraction of the topic business models developed with the emergence of the Internet and consequently the development of electronic businesses (e.g. Demil and Lecocq (2010); Ghaziani and Ventresca (2005); Morris et al. (2005); Shafer et al. (2005); Zott et al. (2011)). Dot-com firms began to use the term business model in their annual reports, business plans or websites to attract funding. Over the years, the term also spread in other business sectors (Shafer et al. (2005)). In addition, research on business models was conducted in research fields grouped around e-business and information technology; strategy, in particular value creation, competitive advantage and firm performance; and innovation and technology management (Zott et al. (2011)). Thus, the topic business models emerged in academic research, practically oriented studies and real-life businesses (Zott et al. (2011); Shafer et al. (2005); DaSilva & Trkman, 2010).

Even though, the topic of business models developed as one of the most well-known, popular and fashionable research fields, the actual meaning and understanding of a business model is unclear and diverse (DaSilva & Trkman, 2010; George and Bock (2011); Linder and Cantrell (2000); Schneider and Spieth (2013); Zott et al. (2011)). Thus, numerous definitions and different approaches emerged (e.g. Amit and Zott (2001); Casadesus-Masanell and Ricart (2010); Chesbrough and Rosenbloom (2002); Johnson et al. (2008); Magretta (2002); Morris et al. (2005); Osterwalder and Pigneur (2004); Teece (2010)).

Nevertheless, the question arises what is a business model? As depicted by several authors (e.g. Teece (2010); Zott et al. (2011); Casadesus-Masanell and Ricart (2010); Demil and Lecocq (2010)) a business model generally shows how a firm creates, distributes and captures value. A business model is a "hypothesis about what customers want, and how an enterprise can best meet those needs, and get paid for doing so" (Teece (2007): 1329). Thus, some authors refer to the business model concept as a "blueprint of how a company does business" (Osterwalder et al. (2005): 4) or a "recipe - that fulfills important functions such as enabling description and classification" (Demil and Lecocq (2010): 228). It is a concept that differs from strategy and tactic concepts (Casadesus-Masanell and Ricart (2010); DaSilva & Trkman, 2013) but the business model reflects a firm's realized strategy, thus represents executive's strategic choices and their consequences (Shafer et al. (2005); Casadesus-Masanell and Ricart (2010)). However, the business model goes beyond the actual firm and also considers the linkage between the focal firm and its activities with suppliers, network partners and customers (Daft and Lewin (1993); Dunbar and Starbuck (2006); Magretta (2002); McGrath (2010); Morris et al. (2005); Osterwalder et al. (2005); Teece (2010); Zott and Amit (2010)). Zott et al. (2011) summarize similarities among business model literature according to four core items of the business model concept: the business model is a universally applicable new unit of analysis; it "emphasize[s] a system-level, holistic approach to explaining how firms do business"; the business model focuses on activities between a focal firm and its partners and thus also encompasses "boundary-spanning activities"; and it "seeks to explain both value creation and value capture" (Zott et al. (2011): 1019; 1038).

There are numerous so-called business model meta-models, which show different elements and relationships that build a business (e.g. Demil and Lecocq (2010); Osterwalder and Pigneur (2004); Osterwalder et al. (2005)). In the field of entrepreneurship, the updated meta-model namely the business model canvas by Osterwalder and Pigneur (2010) received great attention due to its practical use, as entrepreneurs can easily use the business model canvas as a base to visualize possible realized business strategies (e.g. Blank and Dorf (2012)). However, the strong managerial focus and management tool character (Zott et al. (2011)) do not necessarily oblige academic research.

Within this thesis, the business model concept by Amit and Zott (2001), who *"[...] conceptualize a firm's business model as a system of interdependent activities that transcends the focal firm and spans its boundaries"* (Amit and Zott (2001): 216), will be used as a unit of analysis. There are two reasons for this choice. First, in contrast to most business models, which emerged from a managerial background (George and Bock (2011); Spieth et al. (2014)), the business model concept shows a high embeddedness in well-established theories (Amit and Zott (2001); Morris et al. (2005)). Due to the dependency on theoretical approaches, adjustments to the initial model from 2001 focusing on e-

Businesses were possible and allowed for the emergence of a universally applicable business model concept (Amit and Zott (2012); Zott and Amit (2010)). Second, Zott and Amit (2010) and Zott and Amit (2013) established their business model concept from an activity system perspective. The "business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" (Amit and Zott (2001): 511). The clear structure according to three elements and the inclusion of activities spanning also industry's boundaries allow for an analysis of an entrepreneur's behavior from an objective point of view.

In particular, Amit and Zott (2001) consider four well-known and well-established theories, which focus on how to gain and capture value. These four theories are: the theory of creative destruction by Schumpeter (Schumpeter (1942)), the resource-based view (e.g. Barney (1991)), strategic network theory (e.g. Dyer and Singh (1998)), and transaction costs economics (Williamson (1975)). In 1934, Schumpeter introduced Schumpeterian innovation, which states that a firm can gain value out of always being innovative and introduce new products, processes, organization, etc. In this context, the novel combination of resources or processes is the key towards innovation and thus value creation. Hence, novelty is one of the four sources of value creation in the business model.

The resource-based view assumes that resources are heterogeneous, immobile, scarce, long lasting and difficult to be traded or to imitate. Consequently, when a firm combines resources and capabilities in a unique way, a competitive advantage can be achieved and value creation takes place (e.g. Amit and Schoemaker (1993); Barney (1991); Penrose (1959); Peteraf (1993); Wernerfelt (1984)). Barney (1991) explains the resource-based view according to his proposed VRIO framework. If a firm's resource or capability is valuable, rare and costly to imitate and if the firm is organized to capture value, then "it is implementing a value creating strategy not simultaneously being implemented by any current potential competitor and when these other firms are unable to duplicate the benefits of this strategy" (Barney (1991): 102). A sustained competitive advantage is achieved. In accordance with the resource-based view, complementarities among resources, capabilities and networks and the importance of the interrelationship are highlighted as they are creating, increasing and capturing value (Amit and Schoemaker (1993); Amit and Zott (2001)). Thus, *complementarities* are a potential source of value creation within a firm's business model (Amit and Zott (2001)).

Furthermore, Amit and Zott (2001) consider transaction cost economics, which was mainly developed by Williamson (Williamson (1975), Williamson (1979); Williamson (1983)). Williamson states, "a transaction occurs when a good or service is transferred across a technologically separable interface. One stage of processing or assembly activity terminates, and another begins" (Williamson (1983): 104). Given the circumstances of complexity and uncertainty of transactions as well as asymmetric information and opportunism, the transactions might be costly and inefficient (Williamson (1975)). Thus, Williamson suggests that choices on transactions shall aim for efficiency and the ultimate goal to decrease transaction costs to a minimum to actually create value (Amit and Zott (2001); Williamson (1975)). Consequently, the third source of value in the business model by Amit and Zott (2001) is *efficiency*.

Lastly, Amit and Zott (2001) consider strategic networks theory. Strategic networks are defined as "stable inter-organizational ties, which are strategically important to participating firms. They may take the form of strategic alliances, joint ventures, long-term buyer–supplier partnerships, and other ties" (Gulati et al. (2000): 203) . Amit and Zott (2001) emphasize the importance of strategic networks as they strengthen the competitive position of a firm, diminish uncertainty, may lead to access to important assets and the firm might be able to learn from their network partners, including suppliers and customers. Thus, a firm is able to gain value from those strategic networks. Amit and Zott (2001) refer to a *lock-in effect*, where loyalty and customer retention play a crucial role.

Zott and Amit (Zott and Amit (2010), see also Amit and Zott (2001); Amit and Zott (2012)) explain that a firm's business model is build by three design elements, namely the content element, structure element and governance element. The content element basically describes a firm's offerings. Exchanged goods, services or information are displayed. In addition, the content element informs about all capabilities, which are needed for an exchange. The structure element focuses on all actors involved in the exchange of goods, services or information. It describes how they are linked to each other and the firm. Information is provided on exchange mechanisms and the importance of activities with involved parties, such as network partners and customers. The governance element provides information on control mechanisms within the firm and other agents or parties and how they are motivated to perform expected activities, such as incentives.

Within the business model elements value can be created and captured through four centric orientations based on the presented theories. Amit and Zott (2001) state that there is a novelty-centered business model design based on Schumpeterian innovation; a complementarities-centered business model design based on the resource-based view; an efficiency-centered business model design based on transaction cost economics and a lock-in-centered business model design based on strategic network theory. The business model by Amit and Zott (2001) is summarized in Figure 2.

3. Methodology

In the following Chapter 3.1, first the overall research design will be presented and a line of reasoning will be drawn to explain why this particular research design was chosen. Afterwards, Chapter 3.2 will describe how data was collected. In particular, the choice of cases will be explained and sources of information will be named. Chapter 3.3 focuses on data analysis. The analysis approach in accordance

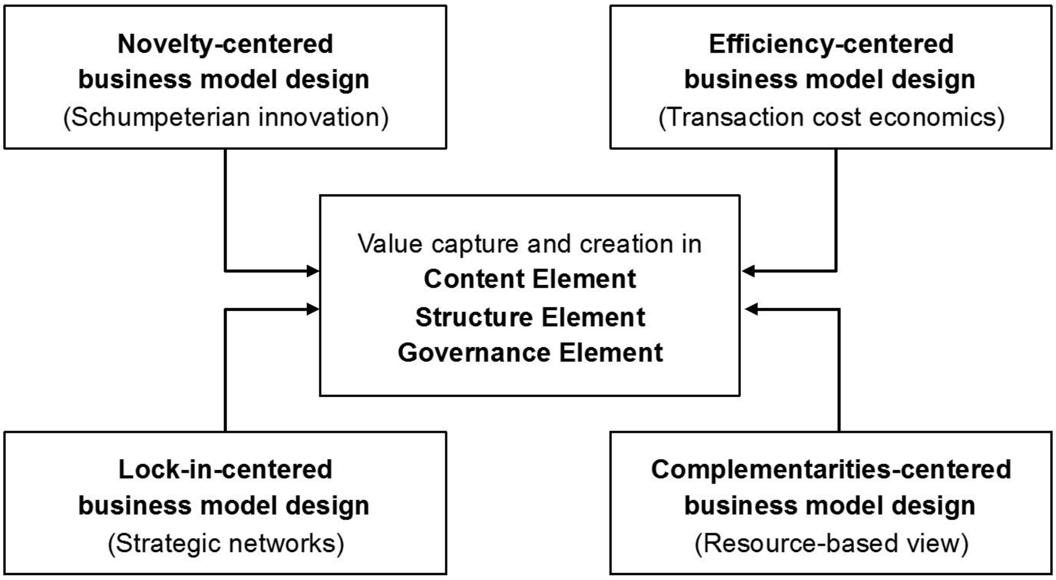

Figure 2: Business Model Concept (Source: Own illustration based on Amit and Zott (2001).)

with profound theory on methodology will be explained and eventually summarized in Figure 3.

3.1. Research Design

To be able to fully understand the learning process after a business failed, Cope (2011) suggests a qualitative research design. Qualitative research supports the search for meanings and helps to better understand processes and experiences rather than measuring effects (Jack and Anderson (2002)). In addition, qualitative research has the strength to uncover and to understand processes that are deeply embedded in individuals and organizations (Bluhm et al. (2011)). As described in Figure 1, the business failure process is indeed deeply embedded and solely connected to one particular organization or even one individual, namely the entrepreneur. To answer the research questions, it is essential to gain in-depth information on the entrepreneur's experiences and investigate the complexity of entrepreneurial processes particularly the business failure process. Thus, a qualitative research design seems to be appropriate.

Studying "real people, real problems, and real organizations" is especially helpful in a rather new research field (Edmondson and McManus (2007)). Phenomena or events that are new to the academic world or where so far only little research exists, can be analyzed particularly well by going in the field (Edmondson and McManus (2007); Eisenhardt (1989); Wright et al. (1988)). To be able to detect certain mechanisms or patterns among real organizations, which experienced failure and the foundation of a subsequent business, a multiple-case approach is deemed appropriate as suggested by Yin (2009).

However, there are numerous approaches how to collect and analyze data from multiple cases. Cope (2011) follows an interpretative phenomenological analysis as a research design, which is very prominent in the realm of entrepreneurship. Phenomenological interpretative analysis focuses on an individual and his or her personal perceptions and the researcher's interpretation and perception of the interview. Therefore, the researcher shall have a conversational talk with the interviewee (Smith et al. (1999)). The grounded theory approach developed by Glaser and Strauss (1967) also refrains from pre-formulated questions and a structured interview to collect data (Glaser (1992); Glaser and Strauss (1967)). Despite their prominence, due to the approaches' loose structure of data collection and data analysis, as well as interpretative and micro-level design, both are not suitable when analyzing processes such as strategic changes that happen for a longer period of time (Cope (2011); Langley (1999)).

In contrast, there is Eisenhardt's (Eisenhardt (1989)) theory building approach. She suggests a more structured data analysis process and promotes defined constructs during data collection and analysis. Thus, the theoretical background can be taken into account when developing interview questions and choosing an appropriate sample. To answer the research questions it is particularly essential to ask concrete questions on the business failure process and on the business model design of the initial, failed business and subsequent business. Furthermore, the theory building approach is especially good for new research fields. Consequently, the theory building approach by Eisenhardt (1989) seems to be the best suitable approach in the context of the thesis.

3.2. Data Collection

As Eisenhardt and Graebner (2007) point out, there are challenges when it comes to the selection of suitable cases to build a theory. In particular it is criticized that the sample selection is not representative and thus no general rule can be drawn from the cases. However, the cases are chosen to develop a theoretical approach and not to test formulated hypotheses. Therefore, theoretical sampling is appropriate when building theory. Theoretical sampling means, that no random choice takes place, but cases are chosen according to their linkage with observable circumstances (Eisenhardt (1989); Eisenhardt and Graebner (2007)). Within this thesis, five cases were selected assimilated with the following four criteria, which develop out of the theoretical background (Chapter 2) and the research questions. The interview partners are:

1. Entrepreneurs who experienced failure, and consequently
2. terminated their initial business (corresponding with the definition of business failure in Chapter 2.1);
3. started a subsequent business; and
4. play(ed) a central role in both the failed business and the subsequent business.

Criterion four was included to ensure comparability among cases and to learn more about the entrepreneurial learning process of entrepreneurs. However, variations in terms of founding teams were allowed. Nevertheless, the central founder of each case needed to be available for an in-depth interview.

To persuade entrepreneurs to participate in an in-depth interview, it is helpful and important to guarantee that they are not embarrassed. Discretion and anonymity are the key to receive honest and open answers as well as proprietary information (Gioia et al. (2013)). It is important to protect the entrepreneur's integrity, as business failure is certainly a sensitive and emotional topic to talk about (Cope (2011); Ucbasaran et al. (2013)). Therefore, any data, which exposes the interviewed individual or the analyzed business, will be excluded. Only information, which is relevant for understanding the case and answering the research questions, will be presented.

The data was sourced from the respective entrepreneur being considered as key informant for each case (Kumar et al. (1993)). To gain in-depth insights from key informants about their experience with business failure and founding a subsequent business, a semi-structured interview design was chosen as suggested by Gioia et al. (2013). The advantage of a semi-structured interview is that it helps "to obtain both retrospective and real-time accounts by those people experiencing the phenomenon of theoretical interest" (Gioia et al. (2013): 19). At the same time, some structure enabled the interviewer to guide the interviewee along the main topics of interest, which aim for answering the research questions (Yin (2009)).

The interview questions of the semi-structured interview followed guidelines suggested by Eisenhardt (1989), **?** and Yin (2009). Eisenhardt (1989) puts special emphasis on personal interaction of the interviewer and the interviewee. Thus, the interview should assemble a personal conversation. The interview guideline shall be flexible accordingly. Thus, needs to be open to adjustments and changes during the interview. The flexibility of the interview questions enables the interviewer to take advantage of opportunities that come up during the interview. Gioia et al. (2013) also emphasize flexibility to ensure that there is enough room for "twists, turns, and roller-coaster rides" during the interview (Gioia et al. (2013): 19). Furthermore, the first draft of the interview guideline shall relate to the research question and theoretical implications, on which research is based (Gioia et al. (2013)). Yin (2009), points out that during the interview the interviewer is entering the "real-world". Therefore, the interviewer faces real behaviors, emotions and might be forced to change questions during the interview or adapt to the environment. Consequently, Yin (2009) also emphasizes the conversational nature of the interview and suggests an open-ended interview design. Thus, I designed a flexible (Gioia et al. (2013)), open-ended and conversational guideline (Yin (2009)) for the respective interviews, which were conducted in personal interactions (Eisenhardt (1989)) and lasted one hour in average.

Additional information on each case was drawn from publicly available sources such as "archives, field observation, media documentation, etc." (Gioia et al. (2013): 19). Multiple data sources help to better understand the real-world organization of interest (Gioia et al. (2013); Yin (2009)). Therefore, the data from interviews was triangulated as far as possible. However, it was especially difficult with respect to the failed business to use websites or archive date since most former websites were shut down. Thus, publicly available information was used such as financial statements or newspaper articles. Data triangulation is especially important as it enhances the reliability and validity of data collected from cases (Gibbert et al. (2008)). To further triangulate data and thus get some general insights to the topic, interviews were conducted with two bankruptcy trustees. Both bankruptcy trustees are experts in the field of business failure and restart entrepreneurs. Furthermore, both experts were previously emphasizing the importance of a "second-chance" for failed entrepreneurs (IHK24). These expert interviews provided valuable information and enabled a more holistic and objective view.

3.3. Data Analysis

Following the suggested methodological approach by Eisenhardt (1989), the analysis of the collected data is stepwise. First, a within-case analysis is conducted for each case respectively, followed by a cross-case analysis. As part of the within-case analysis and as an introduction to each case, a detailed case description will be provided. The descriptive write-up aims for a chronological structure. Hence, a better overview over the cases and their key events can be ensured. Additionally, the respective business models of the initial, failed business and the subsequent business are displayed (Tables 1 to 5). Overall, a description is helpful to start processing the large amount of collected data (Eisenhardt (1989); Gersick (1988); Pettigrew (1990)). The case histories as well as the business model descriptions are based on information gained from the interview and additional sources as specified above.

After the descriptive part, the within-case analysis itself is divided into four steps. Steps one to three consider the business model elements, content, structure and governance. For each element the strategic orientation of the initial, failed business and subsequent business will be analyzed and compared. The fourth step draws an overall conclusion on how the business model of the initial, failed business and subsequent business differ. Thus, in the within-case analysis it will be possible to detect similarities and differences between the initial, failed business's and the subsequent business's business model design. Consequently, it can be seen if a change in business model design happened which is assumed to correspond to a behavioral outcome and thus implies failure-based entrepreneurial learning.

After the within-case analysis, Eisenhardt (1989) proposes to conduct a cross-case analysis and "search for patterns" (Eisenhardt (1989): 541). The "search for patterns" prevents researchers from looking at data from one angle only and missing or misinterpreting important findings. Thus, the researcher is prevented from relying too much on initial impressions. The cross-case analysis supports the reliability of theory building and aims for novel findings (Eisenhardt (1989)). To find the different patterns, the pattern matching techniques suggested by Trochim (1989) and Yin (2009) will be used. Precisely, an observed pattern is matched with an expected pattern based on theory (Trochim (1989); Yin (2009)).

In her paper, Eisenhardt (1989) suggests three different tactics to search for cross-case patterns. The first tactic follows along different categories. Usually the different categories are based on theoretical approaches that are considered as theoretical background. In alignment with the presented dimensions or categories of the theoretical background, it is possible to look for similarities and differences among the cases for each category or dimension. The second tactic suggested, goes the other way around. First, one looks for different pairs of cases, which are quite alike and then a comparison of the different pairs among each other and the detection of similarities and differences are possible. A third tactic is to divide the data analysis process by data sources. This attempt can be chosen when there are several researchers. Each researcher can have a look at each different data source and interpret each data source separately.

Within this thesis, I followed along two of Eisenhardt's suggested tactics, namely the first and the second tactic. Therefore, I first selected categories based on presented theory and then looked for similarities and differences among the five cases. The selected categories are based on the business failure process developed by Cope (2011) and Ucbasaran et al. (2013) (Figure 1) and the business model concept by Amit and Zott (2001) (Figure 2). The category drawn from the business model concept is the business model conceptualization and in particularly considers the three business model elements, content, structure and governance. To follow the second tactic suggested by Eisenhardt (1989), I compared the 5 cases pairwise to be able to look for and recognize more subtle similarities and differences, which are not detected by a category comparison. In this context, direct quotes from the interviewees provide rich data.

In the cross-case analysis, the expert interviews play a major role. The opinions of experts were used to reflect, enrich and triangulate findings of the cross-case analysis. Consequently, the cross-case analysis resembles an iterative process. Figure 3 illustrates the methodological approach of the analysis. An overview over the multiple-case design is provided and shows the ten businesses as an embedded unit of analysis and the expert interviews as an enhancement in terms of contextualization.

4. Analysis

As described in the previous chapter and in accordance with Eisenhardt (1989), first a within-case analysis will be conducted. The individual comparison of the initial, failed business and the subsequent business aims for answering the first research question. The second research question will then be answered in a cross-case analysis, which aims for the development of propositions. The development of propositions is conducted according to pattern-matching techniques and tactics as suggested by Eisenhardt (1989).

4.1. Within-case Analysis

In the following, the five derived cases will be presented individually. For each case a detailed description of the timeline of events is provided and a summary of events is shown in Figures 4 to 8. Within the timeline, the entrepreneurial history of each entrepreneur is summarized according to the conducted interview, as well as online financial statements, firm and career network websites. The description of the cases begins with the initial business. How it was founded and how it eventually experienced business failure. A first insight to the causes of business failure is provided. Then, the foundation process of the subsequent business presents the last part of the description. Tables 1 to 5 show the business models of the initial, failed business and the subsequent business for each case. Information on the content, structure and governance element is given, which helps to compare the business models of the initial, failed business and subsequent business case by case. Differences in the business models are pointed out and developments and changes are depicted. Thus, for each case the question can be answered, how business models of an entrepreneur's failed business and the subsequent business differ. The aim is to investigate whether there are behavioral outcomes to business failure, which provide insights to entrepreneurial learning.

Case A. As a young adult, entrepreneur A decided to follow a practice-oriented career path and did an apprenticeship. After the apprenticeship, entrepreneur A started to work for an international operating company and was sent abroad several times. However, his dream was to be self-employed. Therefore, he eventually passed his master's examination and thereby accomplished the necessary qualification to be able to set up his own business. Entrepreneur A

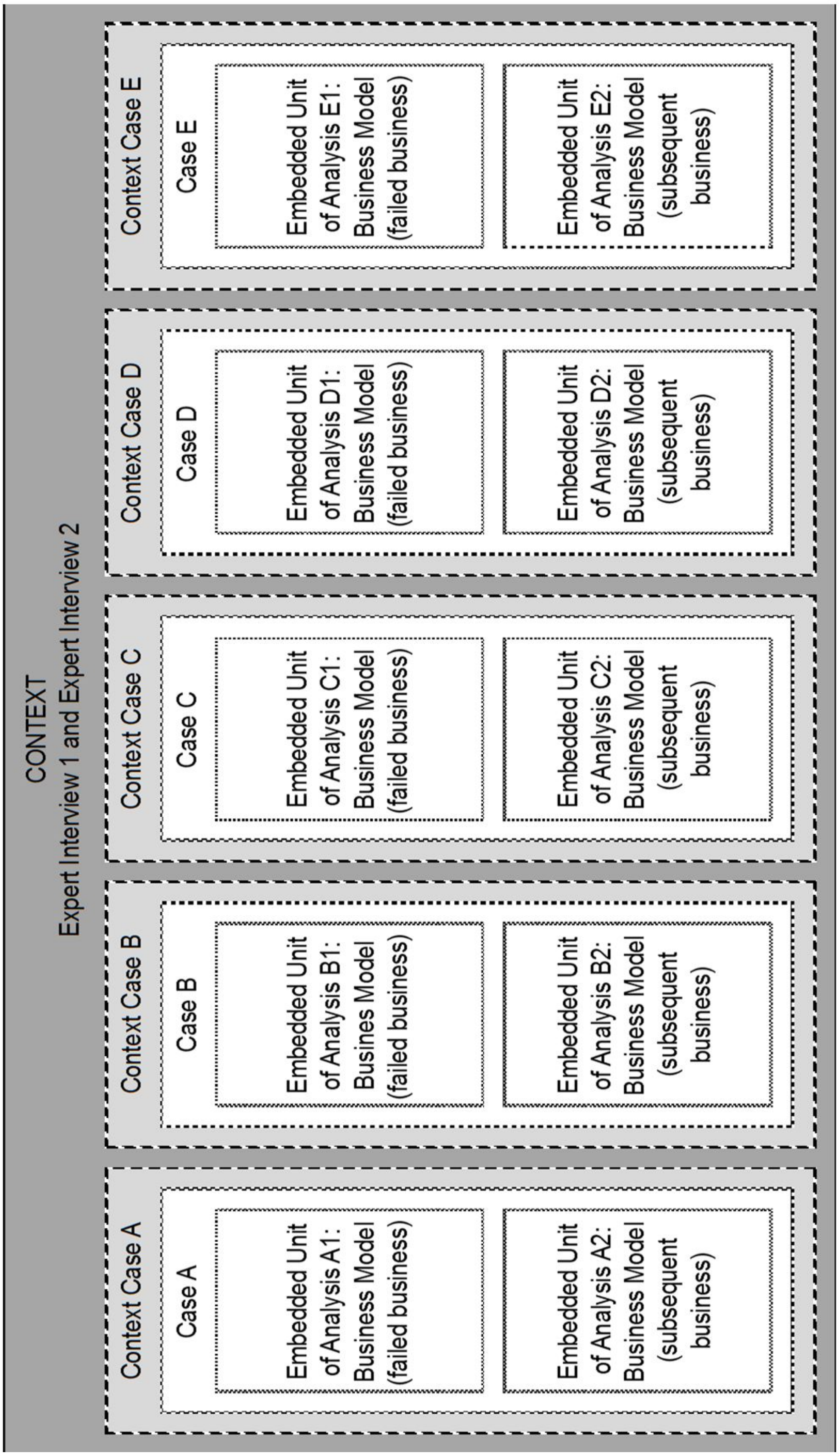

Figure 3: Case Study Research Design (Source: Own Illustration based on Yin (2009) (50))

established business A1 in the skilled craft and trades industry in 1990. During the first couple of month in operation, business A1 changed the focus from solely selling products to offering crafting services, which were highly requested during the time in this specific area. Consequently, business A1 hit it off right away and entrepreneur A described the beginning time as very successful. Business A1 also benefitted from the well-connected employees, who were already interacting and connected with potential customers. After 13 years in business, entrepreneur A decided to transfer business activities to a potential successor. However, the business succession approach was unsuccessful, which lead to a severe crisis of business A1 and the business was in need of restructuring and reorganization to be able to continue operating. But entrepreneur A decided against restructuring his business and closed down business A1. Nevertheless, he was eager to continue his legacy and restarted business activity with the establishment of business A2 immediately in 2005. Business A2 is also established in the skilled craft and trades industry and offers the same products and services as before.

As it can be seen in Figure 4, entrepreneur A did not experience or even allowed for any transition time between the failure of business A1 and the foundation of business A2. There were also no changes in terms of employees, customers, organizational and legal structures or business activities. Nowadays, business A2 already exists for 10 years. In Table 1, the business model elements of the initial, failed business A1 and the subsequent business A2 are depicted.

Comparing the business models of business A1 and business A2 generally, it becomes obvious that they are quite similar. Having a closer look, the content element of business A1 has a lock-in-centered design as the offered customized hybrid solutions aim for long-term customer relationships, characterizing a lock-in effect. As there are no relevant changes from business A1 to business A2 in the content element, also business A2 has a lock-in-centered content element. Entrepreneur A explained that he still benefits from customer relationships, which have been established at the beginning of business A1.

Considering the structure element of business A1, entrepreneur A was eager to build on long-lasting customer relationships. Therefore, he made use out of existing customer relations of his employees and relied on his employee's word-of-mouth customer acquisition strategy. In addition, entrepreneur A was interested in building networks and he also made use out of existing networks of his employees who were well-connected in the region. The importance of networks and long-term customer relationships indicates a lock-in-centered structure element of business A1. In comparison, within business A2 there are no active engagements in customer acquisition or network building. Entrepreneur A explains that the focus lies on maintaining existing customer and network relations. Thus, even though some changes were made in the structure element, value is still created and captured through a lock-in-centered design.

Also the governance element shows a lock-in-centered design. The informality of the working environment was designed to motivate employees and to implicitly create a loyalty mechanism. As described previously, there were no changes in employees from business A1 to business A2 which leads to the assumption that employees are indeed loyal to entrepreneur A. Furthermore, due to the informal character of governance in general, a community concept is promoted which aims for loyalty among network partners and long-lasting employment relationships. In comparison to business A1, the governance element of business A2 shows no relevant changes. Therefore, it can be concluded that business A1 as well as business A2 are designed to create and capture value through a lock-in-centered business model design.

The similarity between the two business models of business A1 and business A2 and the fact that business A2 already operates for 10 years leads to the conclusion that the business model design actually works. Entrepreneur A is successful in creating and capturing value through a lock-in-centered business model design. However, as mentioned above, business A1 failed due to an unsuccessful business succession. Therefore, the success of the business is highly dependent on entrepreneur A and the business model design can only be successful with him being involved in business activities. For example, entrepreneur A mentioned that customers are loyal to him, not to the business itself. Consequently, entrepreneur A himself was and is the value-driver of business A1 and business A2. He further stated that there is still no potential successor. This leads to the assumption that business A2 cannot survive in the long-run as proven by the business failure of business A1. Despite the fact that business A1 did not survive and failed, entrepreneur A does not accept the failure and denies and ignores the fact that he cannot work and keep up the business forever. Thus, he is not able and also not willing to learn something out of the business failure event and change his strategic behavior. Consequently, he shows no cognitive and behavioral learning outcomes. Also organizational learning did not take place as can be proven by the similarity between business models of business A1 and business model of business A2. Concluding, entrepreneurial learning did not take place in case A and even though business A2 is currently running well, eventually it will probably fail without a successful business succession.

Case B. Entrepreneur B describes himself as a serial entrepreneur. He has a well-developed and extensive academic background as well as widespread practical experience. Parallel to his academic education, he was engaged in real-world businesses. One of the businesses he was working for had a customer he cooperated extensively with. This particular customer was interested in entrepreneurial activity and was eager to convince entrepreneur B to found a business together. As entrepreneur B was also interested in entrepreneurial activity, both of them eventually founded business B1 in the chemical and technical industry in 1999. In the beginning, business B1 was highly successful and experienced a positive development. However, there were some discrepancies between the two founders in terms of how to do business in general. In particular, they did not share the same vision and objective on customer relationship management. There was

Figure 4: Case A Timeline of Events

Table 1: Comparison of Business Models between Business A1 and Business A2

Business A1	Business A2
Content	**Content**
• customized hybrid solutions and after sales service in skilled craft and trades industry • handicraft skills needed by employees and entrepreneur to be able to sell, build and install hybrid • no technology or special skill needed to use hybrid solutions	no relevant changes
Structure	**Structure**
• word-of-mouth as basis for acquiring customers; use of employee's network relations and local insider-knowledge to acquire customers; equal treatment of customers; flexibility related to fulfilling customer demands; customer satisfaction is of highest priority • making use of individual, professional networks	• acquisition of new customers less important and only done by chance; main focus on existing • lock-in effect of previous networks
Governance	**Governance**
• no specific security mechanisms to protect firm-specific knowledge • highly informal coordination mechanisms • informal relations with network partners to promote a long-term relationship • high independence and self-directedness of employees; trust in employees; continuous development of employee's skills is promoted	no relevant changes

also only little communication between the two founders as each was responsible for a different section of business activity. After four years of existence, the volume of orders decreased significantly and business B1 experienced a heavy crisis. Business B1 did not survive the crisis and five years after its initial foundation business B1 was not able to carry out any business activities and was threatened by bankruptcy. Both founders then decided to not continue business B1 and go their own ways.

After the business failure event, entrepreneur B was however eager to build on what was left (the business idea and some manufacturing plants) and entered a 2 year period of reflection, transition and renovation, depicted in Figure 5. With the help of a new business partner and a new investor, entrepreneur B established business B2 in the chemical industry. Especially in the beginning, business B2 was not that successful, had financial troubles and was dependent on every single order. The business failure of business B1 still affected entrepreneur B and thus also the subsequent business B2. However, after getting over these initial issues, business B2 developed and became profitable. Today, entrepreneur B is head of three operative businesses and five peripheral businesses which all are established under the roof of business B2. Table 2 shows closer insights on the business models of business B1 and business B2.

Generally, business B1 can be described as a business that aims for value creation through strategic networks and thus shows a lock-in centered business model design. In particular, the content element of business B1 is build around customized chemical and technical products, which indicates a lock-in effect of customers, due to their dependency on the business through customization. Comparing the content element of business B1 and business B2, there are only slight changes, as business activity is now only focusing on customized chemical products. Entrepreneur B explains that the second business activity was not profitable already in business B1. Consequently, entrepreneur decided for only following along customized chemical products. Overall the content element of business B2 constitutes lock-in-centered value creation and capture.

Concerning the structure element, business B1 shows some characteristics of a lock-in-centered design. Business B1 was proactively searching for long-term network partners and was eager to cooperate closely with them and its customers. Trust and cooperation play key roles. Especially the close cooperation with customers during the production process caused innovation and lead to new patents. Thus, value was created and captured through a lock-in effect. However, interferences with a lock-in-centered structure element can be depicted as customers were treated pretentiously during the acquisition process. The initial business partner of entrepreneur B and co-founder was responsible for the acquisition process. The business partner was not interested in long-term customer relationships and did not see their benefit. Entrepreneur B further described his business partner as megalomaniac. Ultimately, the megalomania lead to the happenings that business B1 built additional production plants, whereas the volume of orders declined. These events lead to a crisis, an approaching bankruptcy and eventually to business failure. Therefore, some change needed to happen. The structure element of business B2 shows a consistent lock-in-centered design. Nowadays, entrepreneur B is responsible for the whole interaction with customers and is eager to engage in long-term customer relationships. Business B2 has no active acquisition process of new customers or network partners but relies on long-term customer and network relationships. Having the overall goal to create and capture value through long-term relationships, entrepreneur B was able to avoid interferences with a lock-in-centered structure element when establishing business B2.

The governance element of business B1 also is obviously designed to create value through a lock-in-centered design. Patents protected firm-specific knowledge and manager-level employees were highly involved in the business activity and thus were intrinsically motivated to work for business B1. In consequence, an implicit loyalty program is employed. Furthermore, the community concept, which was implemented to work with customers and network partners, was a base for lock-in value creation. As there were no interferences with a lock-in-centered design and governance mechanisms were working well, entrepreneur B did not change the governance element for business B2.

Concluding, after business B1 failed, entrepreneur B experienced a two-year reflection and renovation phase. After the two years, entrepreneur B founded business B2 with the help of a new investor and a new business partner, who was previously externally engaged in business activities of business B1. Thus, entrepreneur B benefitted from external and internal advice when analyzing the business failure and working on problems. With the support of these two, entrepreneur B was able to change the business model design in the way that he erased factors, which interfered with a lock-in-centered business model design. Consequently, business B2 is clearly designed to derive value from a lock-in-centered business model as can be seen in Table 2. Consequently, it can be concluded that there was indeed a change in the business model design from business B1 to business B2. Recent successes and the nine-year existence of business B2 prove the positive change. Especially the changed behavior towards customers indicates behavioral outcomes and entrepreneur B generally emphasized the learning effect from business failure. He learned a life-lesson. According to entrepreneur B, learning took place on an emotional level and nowadays he handles things differently. Overall entrepreneurial learning through business failure did take place.

Case C. Entrepreneur C has an academic as well as practical-oriented background and comes from an entrepreneurial family, which engages in business activities in the real estate industry. Shaped and inspired by her family, entrepreneur C decided to establish business C1 also in the real estate industry (cooperating with the overall family activities) in 2011. However, the overall financial situation was difficult as there was a lack of investments, low return on investment and financial resources were overestimated. Also the demand for the offered service was rather low. In addition, it was very difficult to recruit well-trained and adequate personnel and thus the expected turnover could not be reached. In consequence, business C1 went bankrupt after 2 years in operation. Due to the legal status of the business, the bankruptcy also affected the personal financial situation. The whole timeline of events can be seen in Figure 6.

Out of the necessity to have an income, entrepreneur C

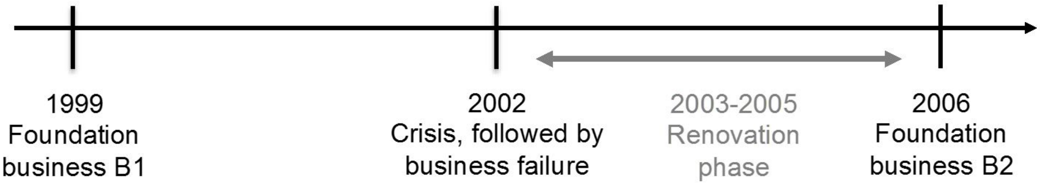

Figure 5: Case B Timeline of Events

Table 2: Comparison of Business Models between Business B1 and Business B2

Business B1	Business B2
Content	**Content**
• customized chemical products and additional technical products; no linkage between product segments • technical and chemical knowledge and skills necessary to offer products; no skills needed to use products	• customized chemical products only • chemical knowledge and skills necessary to offer product; no skills needed to use product
Structure	**Structure**
• proactive acquisition of customers; pretentious behavior towards customers during acquisition process; equal treatment of customers during production process; involvement of customers in innovation processes • proactive search for network partners; network development out of personal networks and long-term relationships through cooperation with previous suppliers and customers; network partners involved in innovation processes	• newly established structures regarding customer relationships; customers are generally treated as partners; no specific customer acquisition; word-of-mouth marketing; involvement of customers in innovation processes • activation of existing networks to form long-term network relations
Governance	**Governance**
• innovation processes protected by patent law • informal long-term relationships with • informal coordination mechanisms; lock-in of white collar workers based on intrinsic incentives • high responsibility for own actions and high decision authority of white collar workers; less involvement of blue collar employees	no relevant changes

founded business C2 with the support of her family immediately after the bankruptcy of business C1. Business C2 is again established in the real estate industry but now has a different legal form, which protects entrepreneur C's personal belongings. Also the scope of offered services extended. Today, business C2 already operates for about one year but is still in the beginning phase. Thus, it cannot be foreseen whether business C2 will sustain. Table 3 displays the business models of business C1 and business C2.

Comparing the business models of business C1 and busi-

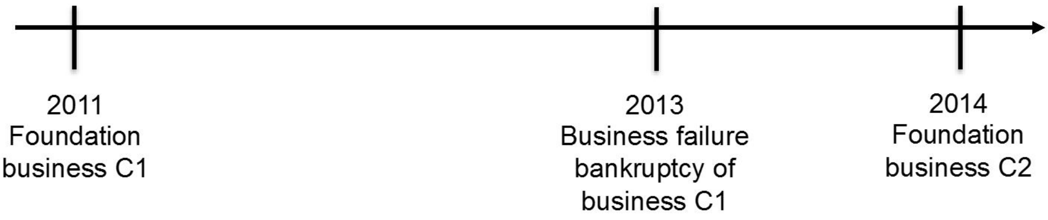

Figure 6: Case C Timeline of Events

Table 3: Comparison of Business Models between Business C1 and Business C2

Business C1	Business C2
Content	**Content**
• real estate services • low information flow towards employees and customers	• real estate services; customized concepts in construction industry • intensified exchange of information with partners
Structure	**Structure**
• proactive acquisition of customers; eye-level treatment of customers; high flexibility for customer demands • few network partners acquired based on personal networks; no perceived relevance of further development of networks	no relevant changes
Governance	**Governance**
• no specific security mechanisms to protect firm specific knowledge • no specific coordinative activities • independent and self-directed employees; high responsibility for own actions; access to little business related information	• no specific security mechanisms to protect firm specific knowledge • technocratic coordination of business activities; additional use of informal coordination mechanisms • independent and self-directed employees; high responsibility for own actions; access to more business related information

ness C2, there are some differences in business model elements. Having a closer look at the content element of business C1, it becomes clear that it is no value-driver. It does not aim for efficiency, a lock-in effect, makes use of complementarities nor does it introduce a novel product. The content element of business C2 on the other hand shows changes in terms of the offered product and transparency. Business C2 offers all kind of services around real estate, from selling the old house to coordinating all involved parties for building a new house, and thus offers customers the possibility to just take their services rather than working with multiple different businesses. The content element, in particular the offered products, thus aims for value creation and capture through complementarities.

The structure element of business C1 appears as the only element that is designed to create and capture value in business C1. It is slightly designed towards a lock-in-centered approach. Entrepreneur C stated that she tried to create long-term relationships with customers and make the business appealing by its flexibility for customer demands. So customers would eventually come back. However, entrepreneur C further explained that in the real estate business usually customers only require a real estate agent once in a life-time. On the other hand, entrepreneur C explained that cooperating with network partners may play a central role, e.g. owners of an apartment complex might be willing to work with a real estate agent on a long-term basis. Nevertheless, entrepreneur C stated that networking was not important for business C1. Despite this explanation, the structure element of business C2 shows no relevant changes and has a lock-in-centered design. Entrepreneur C described the structure of business C2 as still looking for long-term customer relationships whereas the development of a professional network is trivial. Nevertheless, entrepreneur C admitted that especially with the new content focus of business C2, networks might be highly beneficial.

The governance element of business C1 is also not the main source of value creation. As presented in Table 3, there are no specific mechanisms employed in the governance element, which could be identified as value-drivers. However, the governance element of business C2 shows changes. It is designed to create value through efficiency. Regular meetings are taking place in business C2 to coordinate and better cooperate with employees and make the business more efficient. Higher information flow towards employees additionally decreases inefficient decision processes. Also costs for security mechanisms are kept low.

Overall there is only a slight tendency towards a lock-in centered business model design in business C1. However, the lock-in-centered business model design seems to not fit with the real estate branch and there is no consistency among business model elements. Business C2 shows some improvements in terms of the overall value creation and capture, as the content element is designed to create value through complementarities. However, the structure element does not support the complementarities-centered design but strives for a lock-in effect of customers. Furthermore, the governance element shows improvements as it is designed to be efficient. But there is certainly a lack of consistency among the different business model elements of business C2 too. Concluding, it has to be admitted, that changes did happen after the business failure of business C1. However, changes and improvements within the business model elements appear to be random. Entrepreneur C stated that the failure of business C1 was caused by environmental, external developments and the actual business idea and activity was successful. Therefore, it can be assumed that improvements and changes were not intended but happened on a trial and error basis. In consequence, the business failure event did not lead to consecutive, respective behavioral outcomes and failure-based entrepreneurial learning.

Case D. Entrepreneur D has an academic background with special focus on the IT sector, in which he started his career. However, his dream was to have more influence on business activities and thus he was interested in being self-employed. Business D1 was established in the IT sector by a founding team with the support of an investor in 2007. Business D1 had five key customers, which were the main sources of revenue. Thus, business D1 was highly dependent on these customers. In addition, the cost structure of business D1 was not beneficial and usually costs exceeded revenues. Consequently, it was obvious that something had to change. Therefore, the founding team aimed for developing a new product. However, the development process was rather slow and at the same time one of the key customers quit the long-term working relationship. The missing revenues lead to a major decrease of personnel and a major financial crisis. Therefore, the investor offered business D1 more money but asked for 85% of the company's shares. The founding team did not accept the offer and decided to not actively continue business activities. Figure 7 summarizes the concrete timeline of events.

As soon as the decision was made to decline the offer and rather give up business D1, entrepreneur D started to cooperate with two other members of the founding team and they started to engage in developing a new business idea. Business D1 continued to exist as "living dead" for several months before eventually going bankrupt. After the official claim for bankruptcy, entrepreneur D founded business D2, which was also established in the IT sector but with a new customer focus and different cost structure. More information on the respective business models of business D1 and business D2 can be seen in Table 4.

Having a look at the business model designs, it becomes obvious that changes from business D1 to business D2 were made. The content element of business D1 shows movements towards complementarities as well as lock-in-centered value creation and capture. Business D1 offered standardized IT products for customer relation management and in addition offered their customers a consulting service on IT related topics. The product and the consulting service were designed to create and capture value through their complementary relationship. As can be seen in the content element of business D2, it does not make use of complementarities anymore. Business D2 no longer offers any IT consulting service but focuses on a standardized IT customer relationship management tool as a service. Due to the possibility to offer the same product to multiple customers without making any adaptions, the content element of business D2 has an efficiency-centered design. Thus, the strategic focus shifted.

The structure element of business D1 follows a clear vision for a lock-in-centered design. Entrepreneur D explained that business D1 was relying on five key customers and aimed for keeping up these relations. Furthermore, the key customers were involved in innovation processes. The active search for and interest in long-term network partners, who are involved in the business, supports the argument that the structure element is lock-in-centered. However, entrepreneur D stated that there was no real incentive for customers to stay with the firm. Consequently, as described above one customer eventually quit the cooperation. Thus, it can be assumed that the lock-in-centered design was not

Figure 7: Case D Timeline of Events

Table 4: Comparison of Business Models between Business D1 and Business D2

Business D1	Business D2
Content	**Content**
• IT consulting; standardized customer relationship management as a service • IT resources and skills needed • no skills and knowledge needed to use offerings; customer friendly use • restricted information flow towards customers	determination of IT consulting; except for this no relevant changes
Structure	**Structure**
• full occupation of capacity by five key customers; eye-level treatment of key customers; flexibility related to key customer demands; key customers involved in innovation processes • proactive acquisition of network partners based on personal networks; cooperation with external network partners	• acquisition of new customers less important and only done by chance; main focus on long-term customer relationships; no changes in customer treatment and flexibility of fulfilling customer demands • lock-in effect of previous networks
Governance	**Governance**
• no specific security mechanisms to protect firm specific knowledge • formal coordination mechanisms • independent and self-directed employees; high responsibility for own actions; access to business related information	• no specific security mechanisms to protect firm specific knowledge towards network partners; protection of firm specific knowledge towards customers • informal coordination mechanisms established in internal relations and relations with network partners; formal coordination mechanisms in customer relations • formal coordination mechanisms related to employees

fully implemented. In comparison, the structure element of business D2 is designed to be efficient. Entrepreneur D explained that within business D2 it is more important to take care of a small number of customers than to spend too much money on expensive marketing campaigns. In addition, business D2 makes use of existing networks and builds on an efficient exchange of information for example with a sister company, which also developed out of business D1.

Overall, entrepreneur D stated that it is of utmost importance to business D2 to keep costs low and aim for a better cost structure to offer customers a product at a reasonable price. So it can be seen that the structure element of business D2 is designed with an efficiency-centered focus, in line with its content element.

Considering the governance element of business D1, it shows lacks in terms of a clearly defined value-driver. The basic idea is to create and capture value through a lock-in effect, but loyalty programs or incentives to keep up customer, network and employee relations are missing. In contrast, within business D2 the governance element follows an efficiency-centered design. Only low-cost governance mechanisms are installed and as patents are rather expensive, entrepreneur refrains from applying. Moreover, employees are not as integrated and there are formal coordination mechanisms. Thus, business D2 is able to release employees efficiently, quickly and easy, without losing firm-specific knowledge, in the case of negative developments.

All in all and as stated by entrepreneur D, the business model design of business D1, was rather created to be lock-in-centered but shows inconsistency in terms of the strategic focus. Among business model elements of business D1 the strategic focus changes from a complementarities-centered design to a lock-in-centered design. Furthermore, a lock-in-centered business model design seems to not fit with ecosystem specificities as the product is a standardized one and customers are not necessarily bound to business D1. Thus, ultimately business D1 went bankrupt. After business D1 went bankrupt, entrepreneur D had the opportunity to deeply reflect on previous business activities, as can be seen in Figure 7. Entrepreneur D explained that a clear restart from scratch was necessary. He further explained that as competences stayed the same, it soon became clear that the offered service would be similar. Nevertheless, he was able to erase problematic implications and inconsistencies. The success of the reflection time can be seen in the business model design of business D2. Entrepreneur D was able to detect strengths and weaknesses and worked on them. Thereby, the business model of business D1 shows a clear efficiency-centered design and so far seems to match ecosystem specificities. Consequently, entrepreneur D changed his strategic behavior and shows behavioral outcomes. Concluding, it can be seen that change and entrepreneurial learning in terms of the business model design took place and appear to make business D2 profitable and successful in the long-run.

Case E. Entrepreneur E has an academic background in the machinery and technology field. The foundation of business E1 was based on the regional specificity of the case. The region experienced a structural transformation, which lead to the decrease of business activities. However, the founding team was eager to work against the continuous decrease of business activities through promoting innovation. Thus, business E1 was founded as a start-up center for entrepreneurs who were interested in setting up their own business preferably with a technological focus. The business idea encompassed a designated start-up center, where potential entrepreneurs can rent commercial space and receive support and consulting service at the same time in the same place. As revenues were generated through leasing commercial space, business E1 was dependent on rents paid by the frequently changing residing newly established firms. In the beginning, marketing campaigns were highly successful and many entrepreneurs established their base at business E1, even though it was located offside. In 2006 however, the amount of spaces rented decreased tremendously, which ultimately lead to the failure of business E1. Figure 8 provides a detailed timeline of events.

During the next three years, Entrepreneur E was engaged in restructuring, reorganization and renovation of the initial business idea and founded business E2 in 2009. Business E2 offers similar services as the previous business but the focus shifted from renting commercial spaces on to consulting services. Nowadays, 80% of revenues are generated through consulting services and only 20% through the renting business. In addition, before the failure consulting services and start-up support were usually only provided for entrepreneurs who decided to establish their business in the start-up center. After the failure, the start-up support and consulting service can be used by anyone interested and is promoted throughout the whole region. Table 5 shows the business models of business E1 and business E2.

In comparison, there are changes in the business model designs between business E1 and business E2. Considering the content element of business E1, it shows characteristics of a complementarities-centered design, as the offered commercial space and consulting service show a complementary relationship. Within the content element of business E2 however the main focus of business shifted to generating profit through the consulting service rather than from renting commercial space complementing the consulting service. Renting commercial space is an add-on source of revenues to business E2. Thus, entrepreneur E makes use out of existing assets efficiently. In addition, value creation in the content element is supported by transparency and information sharing as well as making use of existent entrepreneurial knowledge Thus, the content element of business E2 shows an efficiency-centered design.

Considering the structure element, the structure element of business E1 also is designed to gain value out of complementarities. Proactive acquisition of network partners to be able to cross-sell services from network partners to customers is a characteristic of a complementarities-centered design. Also in business E2, the structure element shows the same design as the content element as it has characteristics of an efficiency-centered business model design. Costs for marketing are kept low, as business E2 benefits from word-of-mouth marketing and there are no specific marketing campaigns to advertise the consulting service. Entrepreneur E explains that the start-up center is well known in the region and marketing and sales programs are not necessary. Furthermore, the long-term relationships with network-partners help business E2 to offer the consulting service at highest efficiency level. No new network partners need to be acquired, but business

Figure 8: Case E Timeline of Events

Table 5: Comparison of Business Models between Business E1 and Business E2

Business E1	Business E2
Content	**Content**
• leasing of commercial spaces in a designated start-up center following entrepreneurial consulting during business foundation process • prior entrepreneurial experience and knowledge needed to offer service • no skills and knowledge needed to use service • intense information flow towards employees and customers	• consulting of entrepreneurs during business foundation process; support of start-up projects; business consulting; leasing of commercial space no further relevant changes
Structure	**Structure**
• proactive acquisition of customers; eye-level treatment of customers; flexible in fulfilling customer demands and needs • proactive acquisition of network partners based on personal and professional networks; cooperation with external network partners; network partners involved in innovation processes	• word-of-mouth marketing; no changes in customer treatment; more flexibility in fulfilling customer demands and needs • activation of existing networks to form long-term network relations; no change in network partners' involvement in innovation processes
Governance	**Governance**
• no specific security mechanisms to protect firm specific knowledge • formal long-term relationships with network partners • informal coordination mechanisms among employees • independent and self-directed employees; high responsibility for own actions; access to business related information	no relevant changes

E2 makes use out of existing networks and their knowledge and skills. And thus aims for efficiency.

The governance element shows no relevant change from business E1 to business E2. The governance element is designed to generate value at lowest costs as possible. Therefore, there are no installed security mechanisms or any other mechanisms to protect firm-specific knowledge. Entrepreneur E explains that actually anyone is able to consult with entrepreneurs and help them setting up their business as soon as the consultant has some personal experience with entrepreneurship. Thus, the job or the general consulting activity cannot be protected. The informal coordination mechanisms among employees, network partners and customers aim for uncomplicated and efficient data and information processing. Overall, the governance element has an efficiency-centered design in business E1 and business E2.

Concluding, the overall business model design changed from a complementarities-centered design in business E1 to an efficiency-centered design in business E2. Even though business E1 had a clear strategy how to create and capture value, changes in customer behavior diminished the only source of income, renting commercial space. Entrepreneur E explains that the offside-location might be one of the causes for the decrease of rent-ins, but generally there are more and more entrepreneurs who are interested in starting a business from home to not generate any costs for commercial space. As the demand for the commercial space declined and thus also revenues declined, business E1 was threatened by bankruptcy. In consequence, the business model design no longer fitted with ecosystem specificities. In addition, business E1 was not build to be flexible and adapt to any changes and thus failed. Entrepreneur E reflected and stated that it took some time to reflect on business failure, talk to advisors, network partners and investors to take the next step. The result of the reflection time can be seen in the business model of business E2, which is much more flexible and tries to be as efficient as possible. Also all three business model elements of business E2 have an efficiency-centered design, whereas the governance element of business E1 was not supporting a complementarities-centered business model design. Overall, business E2 is designed to continuously adapt to ecosystem changes in an efficient way. So far, the survival of business E2 shows that changes improved the situation. Concluding, entrepreneur E shows changes in strategic behavior indicating behavioral outcomes and failure-based entrepreneurial learning took place.

After analyzing each case, it can be seen that out of five entrepreneurs only three seem to have gone through the whole business failure process and have learned something out the failure experience. In particular, within cases B, D and E the respective entrepreneur reflected on business failure and tried to incorporate behavioral outcomes in a subsequent business. Entrepreneurs A and C seem to have not learned that much and did not thoroughly reflect on why their initial business failed. In consequence, changes in the business model design appear to be random and only happen by chance but do not directly work on any interference.

Concerning the first research question, how do business models of an entrepreneur's failed business and the subsequent business differ, it can be seen that there are changes. However, slightly in contrast to previous literature and expectations, each entrepreneur only revised the business model design rather than developed a complete new business idea and business model. Within no case did all three business model elements change, but at least one showed no relevant changes. In consequence, the first research question can be answered. The business models of an entrepreneur's failed business and the subsequent business do differ, but the entrepreneur rather tends to revise it than to introduce something totally new. Thus, entrepreneurs who restart seem to be different from serial entrepreneurs, who enjoy continuously developing novel business ideas.

4.2. Cross-case Analysis

In the following, the presented cases A to E are considered as groundwork to develop propositions, which shall help to better understand behavioral outcomes of business failure. Behavioral outcomes are the last step of the failure process presented in Figure 1. It will be investigated whether there are patterns among the different cases. The derived propositions aim for answering the second research question: What explains possible business model differences?

The findings presented in Chapter 4.1 show that it is important for entrepreneurs to have a business with a coherent business model concept and a clear value-driver within the different business model elements. In addition, it is essential for businesses to fit eco-system specific characteristics. Inconsistency within the business model elements and/or no fit to the eco-system lead to business failure. These patterns can be seen in the failed businesses C1, B1, D1 and E1. Business C1 in general is not coherent in the business model elements, as there is no clear value driver. In addition, business C1 shows no match with eco-system specificities. As described above, entrepreneur C explained potential value drivers, networks, but did not aim for long-term network relationships. Business E1 showed inconsistency in terms of the governance element, as it did not support value creation and capture. Furthermore, the content element of business E1 at some point did not match ecosystem demands anymore. Thus, business E1 experienced inconsistency within the business model elements and no fit to the eco-system. Considering businesses B1 and D1, both failed businesses lack conclusiveness in their business model elements. Particularly for both cases, the structure element in itself shows inconsistencies and does not meet external demands. Hence, it is assumed that a lack of a well developed and a well-thought business model design influences business failure. In contrast, the business model design of business A1 seemed to match ecosystem conditions and to be consistent among business model elements. But business A1 was negatively affected by a strong dependency on entrepreneur A. The dependency then interfered with the success of the business model design. So findings in case A are also in accordance with the line of reasoning, as business A1 and expectedly also business A2 were and are not able to adapt to the ecosystem influence that at some point entrepreneur A has to leave the business. Expert 2 supports this particular finding by highlighting that *"entrepreneurs in general usually focus on the daily business and experience a lack of time to objectively analyze their business activities"*. Expert 1 adds that many entrepreneurs do not understand or do not look at the complexity of their business in terms of an ecosystem fit or internal coherency. She said *"in case of experienced difficulties entrepreneurs often just work on symptoms but do not consider the source of the problem"*. Therefore, it is derived:

> **Proposition 1:** A lack of internal and/or external business model fit is likely to enhance the probability of business failure.

In general, the cases are characterized by a rather short time span between the business failure of the initial business and the foundation of a subsequent business. Having a closer look on Figures 4 to 8 and the respective business model concepts for the initial, failed business and subsequent business (as displayed in Tables 1 to 5), it can be seen that there are different patterns among the cases concerning time. Cases A and C show little to a non-existent time span between business failure of the respective initial business and a subsequent business. Entrepreneur A specifically stated: *"I founded my second business immediately after the end of my first business"*. Entrepreneur C also founded her subsequent business immediately after the initial business C1 failed. In contrast are cases B, D and E. Within all three cases there was at least one year in between the business failure of the initial business and the foundation of a subsequent business. Having a closer look on the business model changes in the three cases B, D and E, considerable changes did happen in terms of content, structure and governance. On the other hand, within case C only random changes to the business model took place and only slight changes to the business model were employed in case A. Especially, in case A the business model concept of the subsequent business seems to be a copy of the initial business's business model. Entrepreneur A also stated *"nothing has changed"*. Entrepreneur C made a similar statement, saying: *"I did not have to change anything as the business idea and how we did business was great and had nothing to do with the bankruptcy"*. Following these statements, it can be assumed, that neither entrepreneur A nor C did reflect on the failure of their initial business and there was probably no time for reflection either. In contrast, Entrepreneurs B, D and E had and took the time to reflect on the business failure experience and to rethink business activities. Entrepreneur B described his situation in the interview: *"I knew something was wrong but it took some time to finally change something in the business to be successful again"*. Entrepreneur E goes even further and states that: *"Structural, deep and well-planned reflection on past events and future entrepreneurial activities is most important when it comes to business failure"* and he added *"something has to change, otherwise no business can survive"*. Entrepreneur D experienced similar reflection and realization attempts in-between his two businesses D1 and D2, as described in the within-case analysis. Accordingly, entrepreneurs B, D and E changed their business model on purpose and with the ultimate goal to found a reformed and more successful business compared to the initial, failed businesses. Having a look at business models of businesses B2, D2 and E2, they in consequence seem to better fit internal and external demands, whereas businesses A2 and C2 will probably eventually experience similar problems as the respective initial, failed businesses. In this context, expert 2 points out, *"many entrepreneurs do not reflect on their failure. Therefore, restarted businesses are excessively affected by the threat of failure"*. However, expert 2 also admits, that *"if the entrepreneur has time to reflect and to work on issues, then change can happen"*. Consequently, a second finding is:

> **Proposition 2:** The longer the time span between business failure and the foundation of a subsequent business, the less alike are the business model designs of the failed business and the subsequent business.

Similar groups as for Proposition 2 form when looking at the pattern among cases concerning external advice. As entrepreneurs A and C reported, they did not take any advice between the failure of their initial business and the foundation of their subsequent business. Consequently, both entrepreneurs, A and C did not actually develop new concepts or thoughts on a subsequent business and how it might be improved in comparison to the failed businesses A1 and C1. During the interviews and the within-case analysis, it became clear, that no behavioral change did happen. Therefore, no strategically intended changes can be noticed when comparing the business models of failed businesses A1 and C1 with their respective subsequent businesses A2 and C2. In contrast, entrepreneurs B, D and E reported that they had and used external advice in the time span between business failure and restarting with the foundation of a subsequent business. For example, entrepreneur D pointed out *"we intensively cooperate with our personal network partners to develop and improve our business"* and entrepreneur E told that he *"benefitted from the business's public associates, who were interested in renovating the business to be successful again. They helped and supported the in-between phase with words and deeds"*. Also entrepreneur B explicitly highlighted the importance of external advice, and named his new business partner and the new investor as driving forces for development and change. Thus, it can be observed that the subsequent businesses, B2, D2 and E2 show considerable improvements within their business model concepts in terms of consistency, coherency and ecosystem fit. Expert 1 emphasized the importance of external advice by telling that *"an opinion from someone who is not involved in the business, such as a friend, a consultant or even the entrepreneur's wife is needed to really see why the business failed"*. Expert 2 strongly believes in the necessity of *"introducing a new brain"*. She explained that changes only happen if there is someone new who initiates these changes and stated that *"without an initiator of new ideas the newly restart business is likely to fail again"*. Based on her job experience she highlighted that *"people tend to make the same mistakes over and over again when no critical incidents force them to change their behavior"*. Thus, it can be concluded:

> **Proposition 3:** The more an integration of external advice takes place, the less alike are the business model designs of the failed business and the subsequent business.

Considering costs of failure, all entrepreneurs experienced costs of failure in some way, but not every entrepreneur did directly admit them, which leads to the assumption that denial takes place. Accordingly, the perception of costs of failure differs among entrepreneurs. As within the two previous propositions, two specifications regarding the handling of costs of failure can be identified. During the interview, it was directly asked if costs of failure occurred after the business failure event. Entrepreneurs A and C stated that costs of failure did not occur. However, entrepreneur A mentioned further, that *"customers were not that confident in the new business. They were afraid that something had changed. But I was able to convince them that we would still offer the same hybrid solutions and that I am still responsible for every single step"*. This statement confirms that costs of failure, in particular social costs of failure, did actually occur. Accordingly, entrepreneur C explained her situation as follows: *"the whole family was involved in the first business and we all are financially dependent on the subsequent business"*. Entrepreneur C further stated that she had no outside options, as did entrepreneur A. Thus, both entrepreneurs were financially dependent on the business and with the failure of the initial business, A1 and C1, faced to some extent financial costs of failure. Beside the obviously experienced costs of failure, entrepreneur A and C deny their existence and refrain from speaking openly about their experiences with business failure and also deny their own responsibility regarding the failure event. In contrast, entrepreneurs B, D and E do speak openly about their failure, their problems and issues. Entrepreneur B explained that after his first business failed, *"it was important to talk openly to employees and network partners about what had happened"*. Entrepreneur E stated, *"we have to be open to customers and network partners that the financial situation is difficult and that we had to change our main source of income and therefore are less financially independent."* During the interview, all three entrepreneurs B, D and E, pointed out that they actually had outside options and were not dependent on a subsequent business but had the opportunity to work for another employer and secure a regular income. Entrepreneur B particularly explained: *"Of course I had the option to become the manager of another firm but I wanted to keep up my entrepreneurial activity."* In addition, he stated *"I expected my environment to react badly to my failure, but in contrast to my expectations my network partners never lost their trust in me and my former employees who were living in my village and whom I had to release also kept the social contact with me"*. Expert 2 explains the behavior of entrepreneurs as follows: *"Many entrepreneurs are not seeing their mistakes and do not want to lose their status. Here we talk about a loss of face. Usually, denial takes place and entrepreneurs only ask for help when they see no other possibility. However, many businesses could be saved if entrepreneurs would ask for help earlier and we could restructure and redevelop the business"*. Therefore, it can be derived:

> **Proposition 4:** The more the entrepreneur is willing to deal openly with costs of failure, the less alike are the business model designs of the failed business and the subsequent business.

Overall there are three detected influence factors, which explain possible business model differences and thus provide an answer to the second research question. In accordance with Propositions 2, 3 and 4, time, external advice and the handling with costs of failure affect how alike the business model designs of the failed and the subsequent business are. Patterns among the cases showed that the more time between the business failure and the foundation of a subsequent business, the more external advice is integrated and the more openly entrepreneurs deal with costs of failure, the less alike are the business model designs of the failed business and the subsequent business. The derived propositions are summarized in Figure 9. Consequently, restarting has an effect on the business model design given that learning from business failure took place. In general, it can also be concluded that the less coherent business model elements are and the lower the fit with ecosystem a business model design has, the more likely it is that a business will fail.

5. Discussion

In alignment with Eisenhardt (1989), to build theory it is important to reflect on existing theories and literature and compare it with derived concepts, in this case derived propositions. To do so, it is advisable to analyze propositions against a broad range of literature. Thereby, similarities and contradictions to existent literature can be found and the aim is to provide reasons for discrepancies and resemblances. In consequence, in the following paragraphs each proposition will be considered individually and reflected to matching literature.

Proposition 1 states that a lack of internal and/or external business model fit is likely to enhance the probability of business failure. To create a successful, sustainable and realizable business, it is not only important to ensure a viable business model design but to always adapt the business model to evolving ecosystem changes (Teece (2010)). Furthermore, internal fit, coherency and linkages among the different business model elements, content, structure and governance is essential for sustainability of a business (Zott and Amit (2010)). To be able to arrange the business model elements, the entrepreneur is required to have specific cognitive capabilities (Helfat and Peteraf (2014)). However, the presented cases show that at least for the initial businesses entrepreneurs do have difficulties to develop the right business model concept for their respective business. The question is, why are there difficulties?

Generally, the business model concept is assumed to be a great opportunity for entrepreneurs to objectively derive

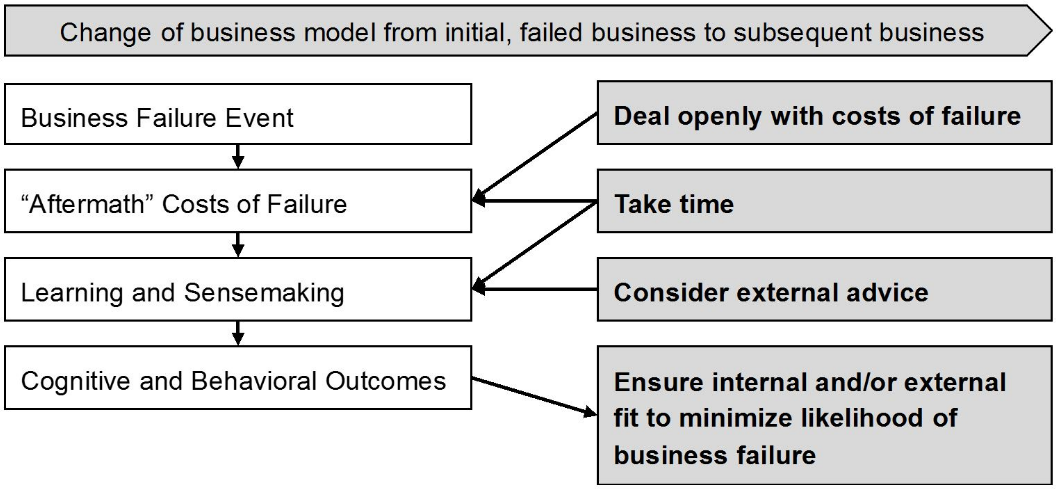

Figure 9: Summary of Propositions

how to create and capture value (George and Bock (2011)). It represents a mechanism from which entrepreneurs can easily start to build a business (Amit and Zott (2001)). Thus, the concept has gained importance over the years (Morris et al. (2005)). Consequently, it is essential for entrepreneurs to be aware of the business model concept and also to consider it during the start-up phase. Even though building a business on the grounds of business model concept is rather easy and quick, it is however difficult to keep the business model viable. Particularly being in the position where resources might be limited, the entrepreneur has to deal with a lot of different responsibilities as the leader of the business. Consequently, the entrepreneur might be overwhelmed by the work-load and uncertainty. Entrepreneurs who face such an overload tend to use cognitive shortcuts and are also biased in their cognitive behavior (Forbes (2005)). Considering Proposition 1, these cognitive constraints need to be taken into account. In particular, the entrepreneur might be limited to see the business as a whole due to cognitive constraints. Consequently, he or she might not be able to adapt the business model to a changing internal and/or external environment as the entrepreneur tends to rather focus on the day-to-day business than aligning all business elements and tackle issues created by the ecosystem.

Cognitive biases in general are another interesting aspect when it comes to find an explanation for Proposition 1. Kickul et al. (2009) found that an individual's cognitive analysis or intuition has an influence on an entrepreneur's self-efficacy when creating a new business. The authors depicted two cognitive styles. Entrepreneurs, who show an intuitive cognitive style, are confident in finding new business opportunities, but are less confident in terms of taking care of every-day business such as "assessment, evaluation, planning, and marshaling of resources" (Kickul et al. (2009): 439). On the other hand, there are entrepreneurs, who show an analytic cognitive style and are confident in dealing with every-day business but are less confident in being able to recognize or develop new business opportunities. The respective cognitive style is assumed to have an impact on business model innovation, thus on the development of a viable business model. Nevertheless, it still needs to be verified in which way the impact or influence works (Spieth et al. (2014)). However, the argument of different cognitive styles explains why some entrepreneurs do not consider the internal or external environment and rather focus on the day-to-day business.

Proposition 2 reads, the longer the time span between business failure and foundation of the subsequent business, the less alike are the business model designs of the failed business and the subsequent business. Proposing that a longer time span increases the learning effect from business failure is rather natural. Reflecting on existent literature on business models (McGrath (2010); Sosna et al. (2010)), it is pointed out that to develop and transform a business model it takes a long time due to the time-intensive learning process involved. Thus, it becomes obvious that for entrepreneurs who did not take much time between the failure of the initial business and the foundation of a subsequent business, no extensive learning process could take place. And therefore only little, random or non-relevant changes within the business model of a subsequent business are depicted. However, as Ucbasaran et al. (2013) point out, even though it is expected that business failure presents a key moment which starts a learning process, so far no concrete learning outcomes were investigated. In line with the main research gap, the cases aimed for delivering a detailed view on concrete behavioral outcomes from business failure. But the behavioral change is not as obvious as it is suggested by literature (Cope (2011); Ucbasaran et al. (2013)) as not all cases show a relevant strategic change in terms of the business model from an initial, failed business to a subsequent business.

In comparison to existent literature (e.g. Cope (2011)), the time-span between the failure of the initial business and the foundation of a subsequent business in the cases is indeed rather short. As depicted for example by Cope (2011), he found that entrepreneurs take much time to overcome their grief about the business failure and need the time to deal with costs of failure. However, this was not the case within the findings. Nevertheless, that does not mean that the interviewed entrepreneurs did recovery very fast. Particularly, those cases in which there was nearly no time in between the initial and subsequent business, they did not experience the phases "Aftermath", Learning and Sensemaking and Cognitive and Behavioral Outcomes as shown in Figure 1. But, these phases are essential for recovery from the business failure event and presumably for entrepreneurial learning. Within the cases, some entrepreneurs seem to skip the "Aftermath" and Sensemaking and Learning phase and immediately jump to the outcome, which is the creation of a new business. The jump to a new business opportunity might be caused by the lack of outside options. As described above, some entrepreneurs, in particular entrepreneurs A and C, stated that they had no other choice than starting a new business. Even though the entrepreneurs started as opportunity entrepreneurs, their situation changed over time leading to the consequence where they become necessity entrepreneurs (e.g. Block and Koellinger (2009)). Thus, in addition to Ucbasaran et al. (2013) who state that external attribution and negative emotions negatively influence sensemaking and learning, the presented cases show that a lack of time and resources also hinder entrepreneurs to enter a time of critical reflection (Cope (2011)).

In accordance with business model literature, having the opportunity to transform or even innovate the implemented business model presents a way in which entrepreneurs may create new markets and discover new opportunities (e.g. Amit and Zott (2012); Spieth et al. (2014)). However, the cases show that learning, transformation and innovation did not take place. But entrepreneurs rather revised their failed business's business model. This particular behavior can be explained by literature on inertia such as by Tushman and O'Reilly (1996). Tushman and O'Reilly (1996) found that managers, within this thesis entrepreneurs, tend to stick to their former successful norms and routines. At some point each failed business presented in Chapter 4 was indeed successful. Traditional learning literature (e.g. Argyris and Schön (1978)) underlines and supports the finding. It is said that it is necessary to unlearn and start from scratch in order to be able to learn something new. Also Zott and Amit (2010) emphasize that it is more difficult for entrepreneurs to rethink an existent business model than to build a new one. Thus, as entrepreneurs do not have the time or do not take the time to go through the whole learning process and decide to restart soon, they only deal with direct and obvious symptoms of failure and do not reflect on the whole business model focusing on long-term success.

Proposition 3 considered the role of external advice, suggesting that the more an integration of external advice takes place, the less alike are the business model designs of the failed business and the subsequent business. As investigated in existent literature (e.g. Cope (2003); Cope (2011)), discontinuous events stimulate learning. Thus, entrepreneurs are expected to learn something from business failure (Cope (2003); Cope (2011); Ucbasaran et al. (2013)). However, Cope (2003) states that the influence of an entrepreneur's ecosystem also needs to be taken into account when talking about learning from discontinuous events such as business failure. The presented cases show that the embeddedness of an entrepreneur in the ecosystem influences the similarity between the initial, failed business and subsequent business, which is in line with Cope (2003). Embeddedness in the ecosystem refers to the overall cooperation and consulting with network partners, customers, consultants, important persons, etc. and is not limited to professional networks but also includes personal ties (Taylor and Thorpe (2004)). Considering Taylor and Thorpe (2004), the authors suggest that personal as well as professional networks influence the decision-making process of entrepreneurs, which holds true in their conducted study. Consequently, Taylor and Thorpe (2004) argue that in the case of a discontinuous event network interactions can stimulate a reflection and learning process. Within the presented cases it becomes obvious that those entrepreneurs who considered advice, namely entrepreneurs B, D and E, seem to have learned more out of the business failure event than entrepreneurs A and C who did not consult. In addition, Sullivan (2000) states that mentors enhance learning and reflection when an entrepreneur faces problems and disturbing events, which also explains Proposition 3 and is in line with the argumentation by Taylor and Thorpe (2004).

A second explanation for Proposition 3 is based on the arguments presented by Prahalad (2004) and Prahalad and Ramaswamy (2004). Over time, a firm and thus the entrepreneur relies on previously successful processes for value creation and thus focuses on the existing business model. Therefore, successful strategies become embedded in the organization and are commonly known as dominant logic. Dominant logic states that the value of a business is solely embedded in products and services the business produces itself. In consequence, entrepreneurs are hindered to see new opportunities and threats and be innovative. However, it is rather easy for competitors to adapt the value creating strategy and to threaten the business. In turn, as dominant logic works as a blinder, the entrepreneur does not see the threat and is most likely to experience problems and also business failure. To be able to survive, change must happen. However, it is difficult to change something without taking other opinions and views into account. Thus, it is important for entrepreneurs to think out of the box, consider dialogue with a source of competence and take the environment into account (Prahalad (2004)). Considering the concrete relationship between a business and its customers, it shows that value can be created by the joint cooperation between the two parties and is "key to unlocking new sources of competitive advantage" (Prahalad and Ramaswamy (2004): 7).

Proposition 4 states the more the entrepreneur is willing to deal openly with costs of failure, the less alike are the business model designs of the failed business and the subsequent business. Focusing on financial, social and psychological costs of failure (Ucbasaran et al. (2013)), all entrepreneurs from the cases experienced costs of failure. However, each entrepreneur deals differently with them. As described in Chapter 4.2 there are two groups. One is dealing openly with costs of failure and the other denies their existence. As previously mentioned, external attribution bias is a barrier to learning and sensemaking after business failure (Ucbasaran et al. (2013)). This barrier might also play a role when denying costs of failure. Within the cases some entrepreneurs, in particular entrepreneur A and C, continued doing business as usual after business failure. This is not only due to a lack of learning but can also be seen in the context of concealing and masking business failure. Thereby, the entrepreneur tries to prevent social devaluation, which corresponds to social costs of failure (Ucbasaran et al. (2013)). In particular, the stigma, which is attached to failure, may lead to the entrepreneur's self-exclusion from social activities (Cope (2011)) and ultimately to a breakdown of social ties within the personal and professional network. But, especially for businesses which have a lock-in-centered business model design, social ties are of utmost importance, as it is constituted by long-term relationships, which build on trust and are a source for value creation and capture (Amit and Zott (2001)).

As depicted in Chapter 2.1, social costs of failure may also increase financial costs of failure (Cope (2011)). Therefore, entrepreneurs who do not have any outside options but must rely on existing network partners and customers to ensure an income have to keep up their appearance. But, if entrepreneurs actually recognize the approaching and threatening failure of the business, he or she has the time to adjust to this particular situation. Consequently, these entrepreneurs can prepare and look for outside options, which then limit costs of failure. Additionally, entrepreneurs can also diminish social costs of failure by preparing themselves. As sooner an entrepreneur accepts the approaching failure event, the more time they have to cope with the changing situation and their experiences. In line with Shepherd and Haynie (2011), if environmental conditions allow it, it is sometimes favorable to accept the responsibility for failure and thus employ an accepting-responsibility strategy of impression management. This strategy in turn forces the entrepreneur to rethink his past decisions and in the following facilitates deliberate changes with respect to the business model of subsequent businesses.

6. Conclusion and Outlook

In accordance with Henry Ford, business failure presents the opportunity to begin again, but incorporating what has been learned. This master thesis aimed for investigating behavioural outcomes of business failure particularly analysing whether learning from business failure also leads to changes in the (strategic) behavior of entrepreneurs.

By employing the business model concept as a unit of analysis in the context of restart entrepreneurship, I am able to provide in-depth, empirically-based insights into behavioral outcomes of failure-based entrepreneurial learning. Related to the first research question, which considered differences between the business models of an entrepreneur's failed business and the subsequent business, it shows that entrepreneurs who start a new business employ a business model design that is very much alike to the one utilized in a failed business. The multiple-case study provides evidence that an entrepreneur rather improves the business model of the failed business than creating a completely novel business model design for a subsequent, new business.

With regard to the explanation of differences in the business model design of the failed business and the subsequent business, which was addressed by the second research question, the cross-case analysis points to the relevance of cognitive aspects as well as situation-specific conditions. The role of cognitive aspects in the context of failure-based learning is already highlighted in literature (e.g. Ucbasaran et al. (2013)). The findings enhance existing literature as this thesis highlights that failure-based learning does not happen automatically, but requires certain cognitive capabilities that depict a precondition for successful transfer of learning outcomes to an operational level. Moreover, case findings provide new insights by clearly indicating that failure-based learning in general is affected by situation-specific conditions such as outside options, network support, or the time span between failure and restart.

Nevertheless, the thesis and its results are limited in some terms. Data was only collected in one country, namely Germany. Thus, a country-specific bias may influence the findings in Chapter 4. In addition, there was no restriction on industry. All cases are established in varying industries and industry-specific characteristics are not taken into account. Comparability might be influenced by data from different industries. Additionally, each industry has its own characteristics and for some industries business failure is more common compared to others. Thus, also restarting may be easier and usual for some industries. Lastly, there were no time limits for the different cases. Thus, the cases show many differences in terms of their timeline of events and survival time of the initial, failed business and the subsequent business. For example, business A1 survived for a long time-span as did its successor business A2. However, business C2 only exists for one year.

Overall, future research based on this thesis may focus on three items. First of all, to get a more general view, the same study should be conducted in more than one country. As larger the sample gets, also a quantitative approach might be appropriate for future research. In addition, a different unit of analysis may be used as also suggested by Ucbasaran et al. (2013). Also a different business model approach might lead to different findings. For example, the business model metamodel by Osterwalder and Pigneur (2010) is a good start to investigate whether the entrepreneur worked on weaknesses in the business model comparing the initial, failed business and subsequent business. Managers or entrepreneur on the other hand shall use the findings as a guide. The thesis highlights the importance of the business model and its benefits for the real-world as a tool to objectively consider value creation and capture. In particular, the entrepreneur or manager shall check and critically analyze his or her business in terms of the internal and external fit the business model design. Furthermore, in the case of an approaching or already existent business failure, entrepreneurs should take time for reflection and learning; consider external advice and accept responsibilities and deal with costs of failure openly.

To sum up, the thesis highlights a difference between business closure and serial entrepreneurship on the one hand and business failure and restart entrepreneurship on the other hand. This distinction is of particular importance for entrepreneurship research, as the behavior of serial entrepreneurs seems to follow a different logic compared to restart entrepreneurs. This important finding calls for future research that may rely on the thesis as groundwork and contributes to a deeper understanding of restart entrepreneurship.

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