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DOCTORAL DISSERTATION

Essays on organizational innovation in family firms

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Karolien Hendrikx

Promoter: Prof. Dr Wim Voordeckers | UHasselt
Co-promoter: Prof. Dr Frank Lambrechts | UHasselt

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Samenvatting

De huidige economie is voortdurend in verandering en wordt alsmaar complexer. Hierdoor staan bedrijven voor de uitdaging om manieren te vinden om met deze toenemende complexiteit en onzekerheid om te gaan. De vaardigheid om gepast op deze veranderingen te reageren blijkt cruciaal te zijn om competitief te blijven en te overleven binnen de markt. Innovatie wordt daarom steeds belangrijker voor de bedrijven van vandaag. Niettemin blijkt dat innovatie een heel moeilijke oefening is voor veel bedrijven. Eerder onderzoek heeft aangetoond dat slechts ongeveer één op drie innovatie-initiatieven de verwachtingen waarmaakt. Het creëren van een beter begrip van het innovatief gedrag van bedrijven is dan ook een belangrijke uitdaging voor onderzoekers. Ondanks de uitgebreide literatuur die al bestaat rond innovatie, zijn er ook nog altijd veel tegenstrijdigheden. Veel academici roepen dan ook op om meer onderzoek te doen dat dieper graaft en zo inzicht probeert te verwerven in het proces van innovatie.

Dit doctoraatsonderzoek focust daarom precies op deze innovatie processen, met een bijzondere focus op de specifieke context van familiebedrijven. Familiebedrijven zijn alomtegenwoordig in het economische landschap en hebben enkele specifieke eigenschappen die het innovatieproces kunnen beïnvloeden. De aanwezigheid van familie in het bedrijf maakt dat er twee systemen, namelijk het bedrijfssysteem en het familiesysteem, met elkaar in contact komen die dikwijls niet dezelfde doelen en dynamieken hebben. De literatuur beschrijft zowel verschillende voordelen als nadelen die familiebedrijven zouden hebben met betrekking tot innovatie. Zo is er enerzijds de traditionele visie dat familiebedrijven eerder conservatief zijn en weinig

geneigd tot verandering. Anderzijds zouden de hechte en duurzame familierelaties ervoor zorgen dat er beter wordt samengewerkt, waardoor innovatie juist gemakkelijker wordt. Tot dusver is er nog maar weinig consensus over innovatie in familiebedrijven en is er dus nood aan onderzoek dat deze tegenstrijdigheden probeert uit te klaren. Dit doctoraatsonderzoek heeft dan ook als doel om te onderzoeken hoe het innovatieproces in familiebedrijven vorm krijgt door de samenwerking van verschillende stakeholders. De algemene onderzoeksvraag van dit doctoraat kan dan ook als volgt worden geformuleerd: Hoe creëren de leden van het familiebedrijf samen hun innovatieproces? In het bijzonder wordt er gefocust op hoe verschillende actoren binnen het familiebedrijf, zoals de CEO, de raad van bestuur en de medewerkers, elk bijdragen aan het innovatieproces.

In hoofdstuk 2 wordt op basis van de literatuur een conceptueel model ontwikkeld waarin een antwoord wordt gegeven op de vraag hoe familiebedrijven stabiliteit en verandering kunnen combineren tijdens organisatie-innovatie. Innovatie vereist immers dat het familiebedrijf in de eerste plaats in staat is om nieuwe richtingen te zien en in te slaan, maar tegelijkertijd ook in staat is om de nodige stabiliteit te bewaren. Een cyclisch procesmodel wordt hiervoor voorgesteld waarin sociaal kapitaal functioneert als de belangrijke procesmotor, ondersteund door twee meer formele mechanismen, namelijk familie instituties (zoals een familieraad of een familiecharter) en de raad van bestuur. De sleutel tot het combineren van stabiliteit en verandering ligt dus in de kwaliteitsvolle relaties die dikwijls bestaan in het familiebedrijf.

Hoofdstuk 3 zoomt dieper in op een deel van het conceptueel model dat in het vorige hoofdstuk werd geïntroduceerd. In het bijzonder wordt de rol van de raad van bestuur onderzocht in het stimuleren van innovatie in KMO’s. De hypothese is dat de raad van bestuur bijdraagt aan innovatie omdat het zorgt voor de nodige stabiliteit tijdens een vaak moeilijk innovatieproces. De analyses op kwantitatieve data van 150 CEO’s van KMO’s tonen aan dat actieve participatie van de raad van bestuur leidt tot meer procesinnovatie, maar niet tot meer productinnovatie. Ook wordt er aangetoond dat de klassieke agency theorie dit onvoldoende kan verklaren en dat onze nieuwe theoretische invalshoek die gepresenteerd werd in hoofdstuk 2 dus een zinvolle aanvulling kan vormen.

Hoofdstuk 4 hanteert een verschillend theoretisch perspectief en legt de focus op de rol van “embeddedness” voor organisatie-innovatie in familiebedrijven. Het vertrekpunt hiervoor is de idee dat wanneer het bedrijf sterk is ingebed in de familie, of met andere woorden wanneer de familie dus een belangrijke invloed heeft op de bedrijfsprocessen, dit het innovatieproces zal beïnvloeden. Een kwalitatieve studie, gebaseerd op interviewdata van 12 CEO’s van familiebedrijven, wordt opgezet om een antwoord te formuleren op de vraag hoe en wanneer “embeddedness” bijdraagt aan innovatie in familiebedrijven. Zo wordt er aangetoond dat “embeddedness” positief kan bijdragen aan innovatie, zolang het bedrijf erin slaagt om dit te combineren met de nodige openheid voor nieuwe ideeën, met de nodige openheid naar de buitenwereld toe. In het bijzonder draagt “embeddedness” zo bij aan innovatie omdat het bepaalde belangrijke micro-processen mogelijk maakt, namelijk trial-en-error leren, het kaderen van de verandering, het opzetten van de nodige structuren, en snel beslissingen nemen.

In hoofdstuk 5 komt er weer een andere invalshoek aan bod wanneer we kijken naar het perspectief van de werknemers. De onderzoeksvraag hier betreft hoe het al dan niet werken voor een familiebedrijf de innovatieve werkbetrokkenheid van werknemers beïnvloedt. Werknemers die creatief zijn en actief met nieuwe voorstellen komen zijn een belangrijke troef voor bedrijven in deze snel veranderende economie. Aan de hand van een kwantitatieve studie bij 503 werknemers van zowel familiebedrijven als niet-familiebedrijven wordt aangetoond dat werknemers die voor een familiebedrijf werken meer innovatief gedrag vertonen dan andere werknemers. Als verklaring hiervoor wordt aangetoond dat de werkomgeving van familiebedrijven de nodige voedingsstoffen bevat die de bevrediging van drie basisbehoeften mogelijk maken, namelijk autonomie, competentie en relationele verbondenheid. Werknemers die deze behoeften bevredigd weten op het werk, zullen eerder positief gedrag vertonen, zoals dus innovatieve werkbetrokkenheid.

Door verschillende actoren in het familiebedrijf aan het woord te laten focust dit doctoraatsonderzoek op hoe de leden van het familiebedrijf samen hun innovatieproces vormgeven. Op die manier wordt een heel gevarieerd licht geworpen op het unieke innovatiepotentieel van familiebedrijven.

1. Introduction

1.1 Objective of the Dissertation

The current economy is characterized by increasing complexity and volatility. The external environment is becoming more and more fast-moving and competitive, while the internal organizational processes are becoming more and more complex (Smith and Lewis, 2011). This places all firms to the challenge to find ways to effectively deal with this growing uncertainty. As such, a firm's capability to respond to these changes in the environment appears to be essential for staying competitive and surviving in the marketplace (Leana and Barry, 2000; Tushman, 1997). Therefore, being able to innovate is becoming increasingly important for firms today. Organizational innovation is a very broad concept that involves different forms of innovation taking place within an organizational context (Damanpour, 1991). This dissertation relies mainly on the definition of Van de Ven (1986, p. 591), who defines innovation as "the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order." This definition involves different types of innovation, namely product, process and organizational or administrative innovation. Note that organizational innovation can be viewed on two different levels. Various scholars (e.g. Damanpour, 1991) view organizational innovation as encompassing all types of innovation taking place within an organization. Another view of organizational innovation concerns that it is a type of innovation, next to product and process innovation (Zahra, et al., 2000). This view of organizational innovation is similar to Damanpour's (1991) concept of administrative innovation and basically concerns changing the way work is organized. In the different chapters of this dissertation, the focus will lie on different types of innovation.

The study of innovation has become an important, but to date still very complicated undertaking for researchers. Scholars as well as practitioners agree that the process of innovation is complex and challenging for all organizations (Beer and Nohria, 2000; Whelan-Berry and Somerville, 2010). As such, many innovation efforts do not live up to their expectations. Research has shown that merely about one-third of all initiated innovation processes deliver the results expected by the firm's executives (Shin et al., 2012). Creating a better understanding of a firm's innovative behaviour is therefore an important challenge for researchers today. Most research on innovation focuses on various firm-level innovation inputs (e.g. R&D expenditures) or outputs (e.g. patents), investigating the influence of certain firm characteristics on these inputs or outputs. Many scholars however, call for research that further investigates how processes of innovation take form (e.g. Andriopoulos and Lewis, 2009; Chirico and Salvato, 2008; Classen et al., 2013; Craig and Moores, 2006; DeMassis et al., 2013). Innovation processes specifically concern patterns of interaction and activities in group behaviour through which the innovation takes place (Teece et al., 1997). As such, more research is needed that investigates through what kind of innovative behaviour or innovation activities innovation effectively takes form? This dissertation will take a closer look into this black box, focusing precisely on these innovation processes.

The dissertation will address this within the specific context of family firms. Family firms are an omnipresent and complex form of organizations. As such, they not only have to successfully manage the business system, but also the family system which often has different goals and dynamics (Sharma et al., 2012). Because this dissertation focuses on investigating innovation processes, we also take on a behavioural process definition of family firms. Hence, a family firm is defined as "a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families" (Chua et al., 1999, p. 25). This definition thus distinguishes family firms based on their behaviour instead of the degree of family involvement in ownership or management.

The study of innovation in family firms has long received limited attention, but recently there is a growing research interest in the topic (De Massis, et al., 2013). Family firms are particularly interesting for innovation research, as they have several unique characteristics that may facilitate or hinder the innovation process. As such, the literature describes several advantages as well as disadvantages with regards to their innovativeness. The traditional viewpoint regarding innovation in family firms is that they are rather conservative. Members of the family firm are often deeply emotionally involved in the business and have a strong desire to protect their socio-emotional wealth (Gomez-Mejia, et al., 2007). Therefore, family firms are in the literature often characterized as being traditional and resistant to change. On the other hand, the family firm literature describes several cases of firms that actually succeeded in implementing important innovations, arguing that family firms have specific characteristics that facilitate the innovation process (e.g. Litz and Kleysen, 2001; Ng and Roberts, 2007; Salvato and Melin, 2008; Salvato et al., 2010). For example, family firms may be particularly good in developing social capital (Arregle et al., 2007). Close and lasting relationships within family firms may result in trusting and collaborative interactions that support innovation (Litz and Kleysen, 2001). Given these conflicting viewpoints in the literature, the relationship between family involvement in the business and innovation appears to be quite complex. So far, there is little consensus on the topic and there is need for more research to clear things out. This dissertation takes a small step along the path to fill this research gap, focusing on how exactly the innovation process in family firms takes form through the collaboration of the different stakeholders.

1.2 Research Questions and Outline of the Dissertation

Family involvement may influence diverse aspects of innovation in a different way, which could be an explanation for the inconsistencies found in the literature (Lichtenthaler and Muethel, 2012). As mentioned above, most research on innovation focuses on the influence of certain firm characteristics on various firm-level innovation inputs or outputs. Many scholars inside as well as outside the family firm domain however, call for research that further investigates how the process of innovation takes form (e.g. Andriopoulos and Lewis, 2009; Chirico and Salvato, 2008; Classen et al., 2013; Craig and Moores, 2006; DeMassis et al., 2013). After all, innovation is a challenging responsibility for firms as innovation typically does not happen overnight, but rather is a complex undertaking which requires the collaboration of different stakeholders with different concerns and motivations. In this regard, stakeholders like the firm owners, the managers, the board of directors and the employees all have to work together to innovate. To gain insight into the phenomenon, it is therefore important to study how firms deal with these often conflicting tendencies. As an answer to this call, the overall research question of this dissertation can be formulated as follows: ***How do members of the family firm co-create their innovation process?*** In other words, this dissertation focuses on how the different members of the family firms, from the CEO over the board of directors to the employees, all contribute to the often difficult innovation process.

This general research question will be addressed by focusing on more specific research questions, which will be answered relying on a variety of theoretical and methodological approaches. First of all, a variety of theoretical viewpoints will be used, bringing several new behavioural theories to the family firm innovation discourse. Secondly, this dissertation will use a variety of research methods, quantitative as well as qualitative. Lastly, there also will be a variety in levels of analyses, as a firm-level as well as employee-level of analysis will be taken.

In ***Chapter 2***, a conceptual model will be developed that addresses the paradox of stability and change in family firms. The aim of this conceptual model is to answer the following research question: *How do family firms combine the search for stability and change during organizational innovation?* Being able to change the way work is organized requires that family firms are able to see and respond to new directions for the firm while at the same time acknowledging what has made the firm successful so far (Poza, 2007). As such, organizational innovation requires combining the search for change and stability. To date, the question how family firms can achieve this, remains largely unanswered (e.g. Hatum and Pettigrew, 2004). Relying on the view of stability and change as a duality (Farjoun, 2010), a cyclical process model will be developed using a "synthesizing" or "bricolage" approach (LePine and Wilcox-King, 2010; Boxenbaum and Rouleau, 2011), meaning that important insights from multiple streams of literature are combined and integrated.

In ***Chapter 3***, the dissertation zooms in on a part of the conceptual model presented in Chapter 2 and investigates the role of the board of directors in stimulating innovation in SMEs. Keeping in mind that the majority of SMEs are in fact family businesses, this chapter examines SMEs in general while specifically focusing on the subsample of family firms in a few analyses. In line with the ideas of Farjoun (2010), the board of directors is expected to support innovation because active involvement in control provides the necessary stability during an often uncertain innovation process. Chapter 3 therefore specifically focuses on the research question *how the board of directors influences (product and process) innovation in SMEs through their involvement in control*. To answer this question, quantitative survey data of CEOs from Belgian SMEs is used.

Chapter 4 takes on a different perspective as the focus lies on the role of embeddedness as an opportunity for organizational innovation in family firms. The starting point here is the idea that when the firm is highly embedded in the family, this will influence the organizational innovation process. Drawing on an inductive theory building approach, the following research question is addressed: *How and when can family firms with high embeddedness effectively change the way work is organized?* Using a case-study approach based on qualitative interview data of 12 CEOs of family firms, this chapter will specifically look for concrete actions that members of the family firm undertake to forward the innovation, which answers the how-question. As an answer to the when-question, the specific condition under which these actions can effectively take place will be investigated.

In Chapter 2, 3 and 4, the dissertation uses a firm level of analysis. ***Chapter 5*** however, moves over to an employee level of analysis. In a time where organizations constantly need to adapt to changing circumstances, employees' initiative and involvement is considered very important in order to constantly keep the finger on the pulse (e.g. Frohman, 1997, Zhou and George, 2001). Yet, little research on innovation in family firms has looked into the perspective of the employees (Bammens et al., 2014). The research question that is addressed in Chapter 5 precisely concerns *how does family business employment influence the innovative work involvement of employees?* To answer this question, Chapter 5 specifically focuses on the underlying motivational processes, relying on the viewpoint of Self-Determination Theory (SDT) (Deci and Ryan, 2000). Quantitative survey data of Belgian employees of family firms as well as non-family firms is used.

Finally, ***Chapter 6*** concludes with a summary of the most important findings of the dissertation. After that, the theoretical and practical implications are discussed, along with suggestions for future research.

Overall, in this dissertation the broad and difficult domain of organizational innovation in family firms will be addressed relying on different methodologies and epistemological assumptions, creating a rather hybrid dissertation. A synthesising approach developing a conceptual process model (Chapter 2) stands alongside two quantitative studies wherein hypotheses based on different theories were tested (Chapters 3 and 5) and an inductive theory building case study approach developing a model for embeddedness as an opportunity for innovation in family firms (Chapter 4). As such, this dissertation makes use of different types of knowledge. This multi-paradigm thinking is challenging yet desirable given the complex and seemingly conflicting family firm innovation context. To make sense of the growing complexity in today's organizational life, it is important to fully make use of the diversity that organization theory offers (Schultz and Hatch, 1996). This dissertation therefore relies on both-and thinking rather than either-or thinking, allowing for cross-fertilization between the different paradigms while maintaining diversity. This means that the similarities as well as the dissimilarities between the paradigms are recognized. As such, it is not the goal of this dissertation to integrate the different viewpoints and methodologies, nor do they stand apart. Instead the argumentation throughout the different chapters of this dissertation flows between the different paradigms, valuing their diversity and allowing for interplay. Through this varied way of addressing the overall research question, this dissertation will provide rich insight into the unique innovation potential of family firms.

2. Family Firms and the Paradox of Stability and Change

2.1. Introduction

"How do organizations survive in the face of change?" This essential question has intrigued scholars from a wide range of disciplines during decades (Beer and Nohria, 2000, O'Reilly and Tushman, 2008). Despite abundant evidence supporting the proposition that firms are inherently characterized by inertia and resistance to change (e.g. Kelly and Amburgey, 1991; Amburgey et al., 1993; Dew et al., 2006), many examples of firms surviving over long periods of time are also well known (O'Reilly and Tushman, 2008). To date, scholars try to understand how these firms survive and prosper over time and why other firms do not succeed in a changing environment.

Fundamental to the academic debate is the view that successful and surviving firms on the one hand need to be receptive to change and innovation, but on the other hand have to be efficient, reliable and stable, which is usually perceived as the reconciliation of incompatible, opposite or mutually exclusive objectives (e.g. Brown and Eisenhardt, 1997; Farjoun, 2010; Leana and Barry, 2000; Pettigrew et al., 2001). For example, in the exploration-exploitation model, a variant of the broader change-stability dichotomy (March, 1991), the mechanisms needed for the exploitation of old certainties and the ones needed for the exploration of new possibilities are fundamentally different (O'Reilly and Tushman, 2008). Key success factors for the former concern formalization and control, success factors for the latter concern autonomy and openness. Recently, Farjoun (2010) challenged this paradox and argued that change and stability have to be viewed as two interdependent, essential elements that are mutually enabling: stability is needed for change as it channels the change process in the right direction and change is needed for long-term stability. However, the question how firms reconcile stability and change in order to survive and prosper is still an open one (Graetz and Smith, 2008). In this chapter, this question is addressed with a specific focus on the organizational innovation process and within the context of family firms.

Family firms are an economic important and omnipresent form of organizations. We define a family firm here as "a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families" (Chua et al., 1999, p. 25). In line with this definition, we will focus here on the way members of the family firm co-create their organizational innovation process. Family firms are often portrayed as strategically inert (Schulze et al., 2002) and conservative (Schulze et al., 2003). The coexistence of the business and the family system with their own goals and relational dynamics is an important characteristic of family firms (Gomez-Mejia et al., 2007; Basco and Perez Rodriguez, 2009). As such, the deeply rooted entrepreneurial tradition and the fear of losing family harmony often lead to resistance to change (Salvato et al., 2010). Despite this dark and stereotypical portrayal, the family firm literature describes many cases of firms that succeeded in coping with constantly changing challenges in the external as well as internal environment while maintaining the necessary stability and family harmony (e.g. Ng and Roberts, 2007; Salvato and Melin, 2008; Salvato et al., 2010). To date, there is only a limited understanding of how these firms succeed in reconciling these seemingly opposite stability and change objectives.

To bring more focus to the discussion, we will refer to an undeniably indispensable form of change, i.e. organizational innovation. In order to remain flexible in a highly competitive environment, the capability to successfully change the way work is organized is particularly important. Hence, organizational innovation[1], or introducing new managerial and working practices (Damanpour, 1987), is crucial for the survival and growth of the firm (Tushman, 1997) and thus requires the combined search for stability and change. What is more, during the organizational innovation process, the difficulty of striving for stability and change becomes even more prevalent, as people involved often experience the change effort as a disruption from things as usual and therefore resist the change initiative (Ford et al., 2008).

To address the questions posed above, a conceptual model is proposed in which we broaden and expand the framework of stability and change by integrating the concepts of social capital (Nahapiet and Ghoshal, 1998; Pearson et al., 2008), family institutions and the board of directors (Mustakallio et al., 2002; Uhlaner et al., 2007; Berent-Braun and Uhlaner, 2010). More specifically, we propose a cyclical process model in which social capital functions as the important process motor, and family institutions and the board of directors form two important supporting mechanisms. In developing our arguments, we go beyond the traditional narrow approach of stability and change as mutually exclusive, but rather view stability and change as outcomes as well as underlying mechanisms and processes influencing each other (Farjoun, 2010). In this sense, we answer the call of various researchers to develop

[1] In this chapter, we view organizational innovation as a type of innovation, next to product and process innovation. Various other scholars (e.g. Damanpour, 1991) view organizational innovation more broad as encompassing all types of innovation taking place within an organization. Our view of organizational innovation here is similar to Damanpour's (1991) concept of administrative innovation.

understandings that move beyond either/or thinking towards more paradoxical approaches that are better able to capture the complexity and turbulence of the world today (Sundaramurthy and Lewis, 2003; Smith and Lewis, 2011). We will specifically argue that family firms have the potential for organizational innovation when they simultaneously support the mechanisms for change and the mechanisms for stability through their strong social capital, viewed here as a multidimensional construct indicating high-quality social relationships and interactions. As family firms are often characterized by stability (e.g. Arregle et al., 2007), we will argue that this stability is an important antecedent for the development of high quality relationships characterized by, for example, high trust and strong identification. This strong social capital then facilitates openness, creativity and other mechanisms that stimulate change. However, change and the generational dynamic in family firms can put this social capital under pressure. Therefore, formal structures are needed that support social capital. An important formal structure concerns family institutions, like a family council or a family charter. Family institutions can be seen as a formal forum to discuss, challenge and keep an eye on all family-related issues going on in the business and thus to help maintain social capital sufficiently strong during change episodes. Yet, to protect the long-term stability of the family firm, family institutions and strong social capital alone won't suffice. An empowered board of directors is also needed, in combination with strong social capital, to deal with the specific needs of the business and to promote stability through the monitoring of all important business issues and processes.

This chapter contributes to the literature in two important ways. First, we contribute to the family firm literature as we reconcile the often cited weaknesses (e.g. risk-averse, reluctant to change (Aronoff and Ward, 1997;

Morck and Yeung, 2003)) with the acclaimed strengths of family firms regarding organizational change and innovation (e.g. stronger commitment to the business and more informal structure (e.g. Kellermanns and Eddleston, 2006; Zahra et al., 2004)) and accordingly explain how some family firms succeed in reconciling stability and change whereas others fail. Second, we also contribute to the organizational innovation literature in general as we propose - building on concepts of social capital, family institutions and board of directors - new mechanisms explaining a successful combining of stability and change.

This chapter is structured as follows. In the following theoretical section, organizational innovation is discussed as an important but difficult challenge for firms today. Next, we take a closer look at organizational innovation within the context of family firms and elaborate on their specific strengths and weaknesses regarding organizational innovation. Third, the importance of combining stability and change is stressed. In the subsequent section, we introduce our conceptual model, illustrating how social capital, in combination with certain formal governance structures, forms the heart that links the search for stability and change in family firms. Six propositions will be formulated in support of our model. In the concluding section, the conceptual model is summarized and discussed, and our contributions are highlighted.

2.2. Theoretical Background

2.2.1. Organizational Innovation…

Today's economy is characterized by dynamic markets, continuous technological developments and various other complexities that pose substantial challenges to organizations. These times of heightened uncertainty call for organizations that are able to quickly identify and respond to changes in the environment (Jacobs, 2005). An organization's capability to adapt its internal structure and behaviour to these changes in the environment is therefore essential for its competitiveness and survival in the marketplace (Fay and Lührmann, 2004). Organizations nowadays need to be flexible, they need to be able to change the way work is organized and thus initiate and implement organizational innovations. Hence, organizational innovation plays a crucial role in remaining competitive (Tushman, 1997; Leana and Barry, 2000).

As a result, the study of organizational innovation has become an important topic within the organizational sciences and so there is an enormous variety in definitions of organizational innovation. Van de Ven (1986, p. 591) defines innovation in general as "the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order." According to this definition, managing innovation means managing ideas, people, transactions and context, with the emphasis lying on the interactive process. The definition of Van de Ven (1986) is broad, as it encompasses product, process and organizational innovation. In this view, organizational innovation is thus a particular type of innovation and concerns "new programs in management and administration and in human resource planning and management" (Zahra et al., 2000, p. 958) or in short, "changing the way work is organized". Organizational innovation is particularly important in dynamic environments as it can be a direct source of flexibility (Armbruster et al., 2008). This means that successful organizational innovation may lead to a heightened capacity to innovate in the future (Bouwen and Fry, 1991). Organizational innovation can, for instance, facilitate the efficient use of technological innovations or stimulate employee creativity through more responsive organizational structures or empowerment programs.

Despite their importance, many organizational innovation efforts do not live up to their expectations (Bouwen and Fry, 1988; Schein, 1996a; Kotter, 2007; Lambrechts et al., 2009). The actors involved in an organizational innovation process often perceive the innovation as a disruption. They are used to doing things in a certain way and are suddenly expected to do things differently, which creates a lot of uncertainty. During the change process, actors involved often have the feeling that agreements have been broken or that trust has been violated and consequently resist the change initiative (Ford et al., 2008). Experiencing disruption is thus an important cause of resistance to change (Bouwen and Fry, 1988). As the success of an organizational innovation relies heavily on the support and enthusiasm of the people involved (Piderit, 2000), sustained resistance makes the implementation of the organizational innovation difficult. So in this sense, the key question is how to innovate without disrupting too much, or in other words, how to innovate or change while maintaining the necessary stability. Therefore, for successful organizational innovation, it is crucial to gain a better insight in the processes that help to combine stability and change.

2.2.2. … In Family Firms

Organizational innovation in a family firm context has long been neglected as an explicit focus of researchers (e.g. Hatum and Pettigrew, 2004; Craig and Moores, 2006). Nevertheless, family firms are particularly interesting for organizational change and innovation research because they have several unique characteristics that potentially influence the success of a change process.

Family firms are just like all firms susceptible to the major market changes the economy is facing today and therefore need to be able to successfully adapt the organization's way of doing business. What is more, family firms face particular transition periods that are often accompanied by new managerial and working practices. Periods of succession are the most challenging moments in the development of family firms and can be seen as important opportunities for organizational innovation (Gersick et al., 1999; Poza, 2007). For long-term survival it is crucial that the next generations in a family firm help grow the firm through rejuvenating or changing it (Poza, 2007). While the founding generation builds the firm, later generations need to adapt the firm to changes in its competitive environment. As such, when the founding owner transfers the family firm to the next generation, the successor often has his own ideas concerning how to do business that he/she would like to introduce (Seymour, 1993; Litz and Kleysen, 2001). In this sense, focusing on organizational innovation in family firms, entails taking into account this generational dynamic.

Family firms not only have to successfully manage the business system, but also the family system, which has different goals and dynamics (Chrisman et al., 2004). As a consequence, organizational innovation can be even more complicated. Family firms are often regarded as being inflexible, resistant to change and risk-averse (e.g. Hatum and Pettigrew, 2004; Naldi et al., 2007). The predominant explanation for this dark portrayal is usually found in agency theory. Agency theory predicts that high ownership concentration and the coupling of ownership and management (two common characteristics of family firms) can result in risk-averse behaviour and strategic inertia (Chandler, 1990; Denis et al., 1997; Schulze et al., 2002). Family owner-managers tend to have most of their wealth tied to the company and therefore have more to lose. In addition, not only the financial but also the socio-emotional wealth of current and future generations is at stake (Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011). Socio-emotional wealth refers to "non-financial aspects of the firm that meet the family's affective needs" (Gomez-Mejia et al., 2007, p. 106). It specifically consists of emotions that are tied to the business, family values that permeate the firm and altruistic behaviour among the family owners (Gomez-Mejia et al., 2011). Important examples of the affective needs concern the continuation of the family dynasty and the legacy of the founder. These needs may hinder organizational innovation efforts because successful organizational routines from the past are often regarded as untouchable sacred grounds which may harm family harmony when changed (Salvato et al., 2010). As such, change efforts in family firms are not impossible but can only be successful as far as they maintain institutional integrity and identity (Salvato et al., 2010). Hence, family firms have a natural tendency towards stability due to their focus on maintaining socio-emotional wealth and institutional integrity, which thus needs to be taken into account during organizational innovation efforts. Hence, maintaining stability during change is even more important in family firms, which makes family firms a particularly interesting context for studying the paradox of stability and change.

The scant research on change and innovation in family firms highlights that, in spite of their tendency towards maintaining stability, there are many family firms that are able to successfully change the way work is organized and thus that are able to resolve the paradox of stability and change (e.g. Litz and Kleysen, 2001; Craig and Moores, 2006). The key question therefore is how exactly these family firms are able to combine the search for stability and change. In search for an answer to this question, the importance of the relational dimension of the firm appears as a theme that is recurrent in most of the research on change in family firms. The unique nature of the social relations within family firms plays an important role in the degree to which a family firm can proactively respond to a rapid changing environment (Zahra, et al., 2004; Zahra, 2010). Successful change in family firms is considered the result of the ability of constantly renewing social interactions and meanings (Salvato and Melin, 2008) or leveraging past-anchored orientations towards future focused change factors (Salvato et al., 2010). Personal ties and close interactions within the family and an associated strong commitment to the business create an environment in which the firm can respond flexibly and that reduces their conservative tendency (Zahra et al., 2008). In line with this, an important characteristic of flexible family firms concerns their strong organizational identity based on a set of core values that are passed from generation to generation (Hatum and Pettigrew, 2004; Gomez-Mejia et al., 2011). This high commitment and identity will for instance heighten the support for innovation efforts that are in the best interest of the firm. What is more, high-quality interactions between the different generations in the family and between the family and other stakeholders seem to be crucial for successful change in family firms (Litz and Kleysen, 2001). These high-quality interactions entail an open atmosphere where people feel free to express criticisms, and question or state ideas concerning different aspects of the organization and where all members of the family firm are involved in discussing decisions (Hall et al., 2001). Overall, the importance of good personal relationships is highlighted and therefore we will argue that these high-quality personal relationships, conceptualized as social capital, will form the key link for combining stability and change in our model. Before the conceptual model will be introduced, the importance and difficulty of combining stability and change in relation to an organizational innovation process will be discussed.

2.2.3. Combining Stability and Change

Organizational innovation essentially concerns a transition from 'old' (what made the organization successful) to 'new' (the change effort). Most of the research on change and innovation has focused on the 'new' or in other words, on how to surface new ideas. In this regard, many researchers have discussed the importance of so-called organic organizational forms, characterized by, for example, decentralized decision-making, flatter structures and horizontal communication lines (Damanpour, 1991; Hage, 1999). The innovation literature has however paid fewer attention to the 'old', to how maintaining stability during the change (Huy, 2002; Kolb, 2003). What we call the 'old' is what through the lens of institutional theorists can be referred to as institutions: Past practices and understandings that have the status of taken for granted facts and that shape (future) interactions (Dacin et al., 2002; Maguire and Hardy, 2000). They can be seen as socially constructed controls that strongly govern behaviour. These institutions thus produce a tendency towards stability and are often seen as inhibitors of change and innovation (e.g. Amabile, 1998). Introducing and implementing an organizational innovation therefore creates a tension with this tendency for stability and calls for a certain degree of deinstitutionalization, or of letting go the old.

However, there is growing awareness that for successful adaptation in the long run, it is important not to completely set aside the 'old': both stability and change are required (Leana and Barry, 2000; Pettigrew et al., 2001; Graetz and Smith, 2008; Farjoun, 2010). Successful organizations are able to successfully manage the tension between stability and change (Smith and Lewis, 2011). In this sense, although institutions are often seen as constraints for organizational innovation, they can also enable change as they "reduce uncertainty, they facilitate adaptation and regularize innovation" (Farjoun, 2010; p. 211). Control systems, for example, can facilitate design and invention, because they help to focus towards organizational goals and identify problems that can become triggers for change (Simons, 1995). Stable mechanisms also provide a consistent frame wherein the innovation can take place (Ghoshal and Bartlett, 2000).

All this is also what Lewin (1951) discusses in his famous classic three stages of change, unfreeze – transition – refreeze. The *'unfreezing' phase* essentially means deinstitutionalizing the 'old' (Schein, 1996b). An important aspect of unfreezing is the provision of psychological safety which can be achieved by creating a certain sense of continuity so that the members of the organization feel safe enough to risk changes. The concept of psychological safety specifically refers to a shared belief that one can take risks that will not be punished (Edmondson, 1999; Edmondson et al., 2001). Research has in fact indicated that psychological safety is an important antecedent for learning behaviour in organizations (Carmeli, 2007) and thus, as we will also argue later on, plays a crucial role in dealing with the tension between stability and change. Unfreezing thus does not imply that the 'old' needs to be set aside. The 'old' as well as the 'new' can continue to develop, and the new ideas need to be integrated into the existing organizational operations (Steyaert et al., 1996). This essentially means allowing for discussion that at the same time safeguards the 'old' and develops the 'new'. In other words, the *transition* takes place through an ongoing interaction process, leading to re-institutionalizing, or in

Lewin's terms *'refreezing'* the innovations so that they are linked with the ongoing organizational practices. It is thus crucial for being able to implement organizational innovations to successfully manage the tension between stability and change and to find a way to combine these two.

Overall, we can conclude that implementing organizational innovation depends on whether a firm succeeds in this difficult combination of stability and change. Successful organizations are able to adapt to changing competitive circumstances and at the same time are able to acknowledge what has made the organization successful so far (Poza, 2007). No matter what the intended change is, thinking about what constitutes a firm's core competencies, what provides the firm with a sense of identity and thus what it is that must be kept are important competencies for firms pursuing change (Bouwen and Fry, 1988). In other words, deinstitutionalizing as well as re-institutionalizing are important processes for successful organizational innovation. The key is thus to design a work environment that helps to preserve the firm's core goals and competencies while at the same time keeping enough openness for adaptation. Although several scholars stress the importance of pursuing stability and change at the same time (Graetz and Smith, 2008; Farjoun, 2010), the crucial question of how a firm can do this remains largely unanswered. As the focus in the innovation literature has been on the determinants and processes that foster change, there is a need for a new view that integrates these with ways to safeguard the institutionalized organizational processes.

Traditionally, the mechanisms that support change are considered to be fundamentally different from the mechanisms that support stability and in this sense pursuing stability and change at the same time is largely a matter of choosing the one at the expense of the other. For example, supporting stability is usually seen as a key function of management control systems (Chenhall, 2003), but management control has not often been positively related to change. The literature that discusses innovation and management control rather highlights a negative relation between the two (e.g. Amabile, 1998; Damanpour, 1991; Tushman and O'Reilly, 2002). However, we argue, in line with the view of stability and change as a duality (Graetz and Smith, 2008; Farjoun, 2010), that organizational forms and practices that support change and the ones that support stability are not necessarily incompatible. Pursuing stability and pursuing change are not a matter of "or/or" but rather a matter of "both/and". Researchers are increasingly moving beyond this either/or thinking, as the current turbulent and complex environment calls for more paradoxical approaches (Sundaramurthy and Lewis, 2003) In this sense, we view stability and change as mutually enabling, as they can reinforce each other. In the following sections, we elaborate on this view of the need to combine stability and change as a duality, by providing an answer to the important but in the literature still unanswered question of how exactly this can be achieved (Graetz and Smith, 2008) within the context of family firms.

2.3. Toward a Model of Stability and Change in Family Firms

Combining the search for stability and change requires an "ongoing dialectic process of renewal and dynamic interplay" (Farjoun 2010, p. 214). Based on this idea, a cyclical process model is proposed that points out how family firms can achieve this (see Figure 1). Starting from an elaborate and broad literature basis of relevant topics, we use a "synthesizing" or "bricolage" approach to develop the model, as this is discussed as an important approach for developing new knowledge (LePine and Wilcox-King, 2010; Boxenbaum and Rouleau, 2011).

More specifically, “bricolage” means that important insights from multiple streams of literature are combined and integrated. Several building blocks found in the literature are assembled to create a new conceptual model. As such, existing theories are remodelled by combining various theoretical concepts and ideas. The articles are chosen because they deepen our understanding of the combined search for stability and change. We do not wish to be exhaustive in our literature review, as our goal is conceptual development.

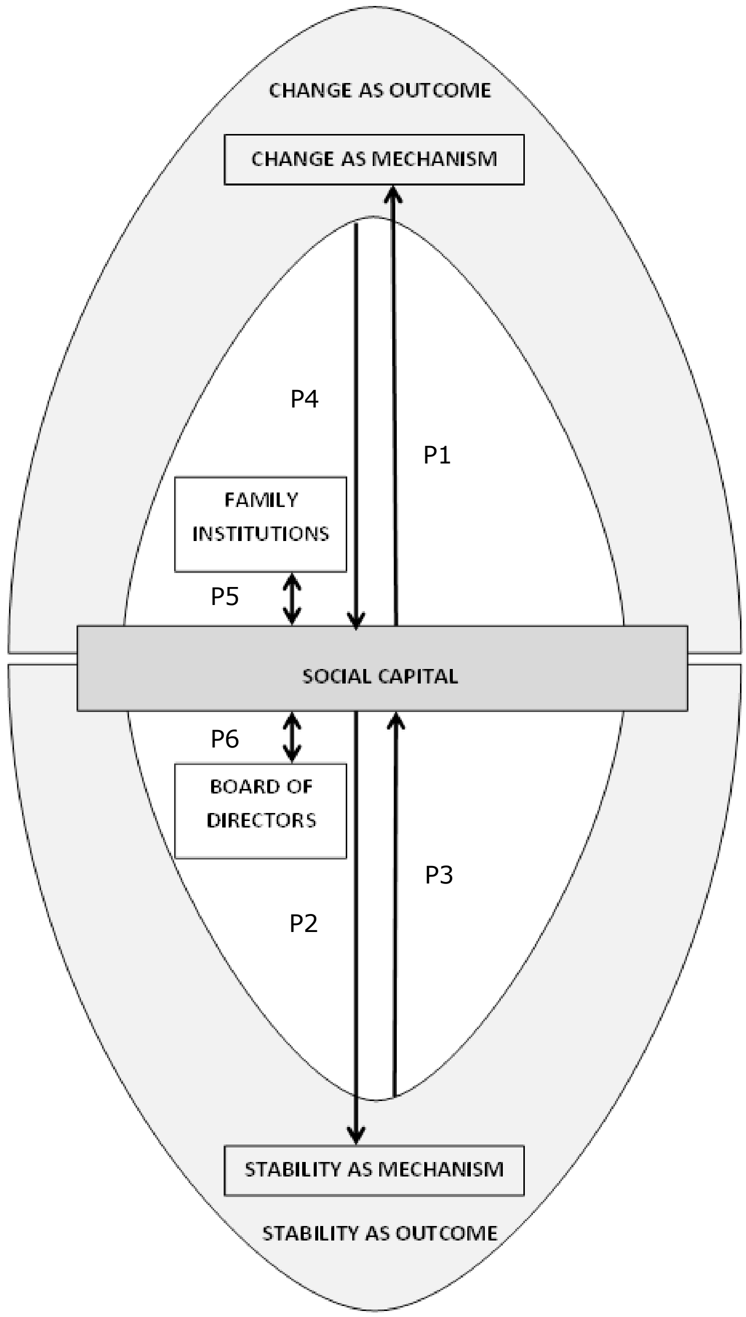

Figure 1. Conceptual model of the combined search for stability and change during organizational innovation in family firms.

The starting point of the conceptual model is thus the stability and change duality (Farjoun, 2010), represented by the two half circles. Viewed as a duality, stability and change concern two opposites that exist within a unified whole (Smith and Lewis, 2011). Both stability and change can be viewed on two different levels, namely as mechanism and as outcome. Stability as mechanism concerns processes, practices and mind-sets that are traditionally considered to promote stability, like habits, routines, limits and control. They thus enable stability as outcome as they facilitate continuity, regularity and reliability. Similarly, mechanisms for change enable change as outcome. In this sense, processes, practices and mind-sets like search, openness and imagination enable outcomes like flexibility and adaptability. This is in line with the traditional and well-established view in the literature, for example as can be seen in the exploration–exploitation framework (March, 1991, 1996). Change as mechanism is thus very tightly linked to change as outcome, whereas stability as mechanism is tightly linked to stability as outcome.

Our model now explains how stability and change can be combined and makes the stability half circle and the change half circle round by showing how stability enables change and how change enables stability in family firms. In this sense, we argue that stable mechanisms, like control, indeed enable stability as outcome, but indirectly also enable change and innovation, and vice versa. The model is a cyclical process model in which social capital forms the key process motor around which the paradox of stability and change is resolved.

2.3.1. Social Capital

As indicated above, the scant literature on change and innovation in family firms points to the importance of social relationships as a crucial success factor. Also in the general organizational change and innovation literature, the quality of relations and interaction processes within the organization is repeatedly mentioned as the key towards successful innovation (Bouwen and Fry, 1991; Tushman, 1979). In relational constructionism (Hosking, 2011) the focus precisely lies on how relations form the key in the development of organizations. All organizations develop continually through relationships and interactions (Weick, 1979; Hosking, 2011). In other words, through interaction among the actors involved, a continuing social construction process is taking place. This way, the social-historical context of the organization is built, which is constantly actualized through these relationships and interactions: Interactions between people are always influenced by what was constructed earlier and have implications for how the process will go on. The degree in which people trust each other for instance, is influenced by the shared experiences in the past and also influences how one will interact in the future. In this sense, interactions make history and history is as such continually in the making (Hosking, 2011). These social relationships are thus important to be studied for understanding organizational innovation.

Relationships and interactions are always characterized by a certain quality (Bouwen and Fry, 1991; Schein, 1993, Lambrechts et al., 2009). We argue that when these relationships are characterized by high quality, social capital is built. The concept of social capital in general refers to the significance of relationships for social action. Social capital is broadly defined as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, p. 243). Social capital concerns a combination of firm *resources*, meaning that social capital includes organizational processes controlled by a firm that are valuable, rare, imperfectly imitable and with no strategically equivalent substitutes, and that enable the firm to implement strategies that improve its effectiveness and thus create sustained competitive advantage (Barney, 1991). The family firm's social capital is generally considered to consist of three dimensions (Nahapiet and Ghoshal, 1998; Sirmon and Hitt, 2003; Pearson et al., 2008): The structural dimension concerns the pattern and strength of the network ties between members of the family firm; The cognitive dimension concerns the shared language, culture and purpose within the firm; And the relational dimension concerns the nature and quality of the connections, including trust, norms and identity. The three dimensions are highly related in the sense that the one influences the other. Since our focus lies on the quality of relationships, we will concentrate mainly on relational social capital in this chapter[2]. Social capital can be viewed on many different levels of analyses (Leana and Van Buren, 1999). Within the context of a family firm, the level of analyses can be either the family or the firm. As our focus lies on organization-wide innovation processes and as we are interested in how all actors involved (and thus not merely the family members) deal with the associated tension between stability and change, we view social capital here as a firm-level concept that encompasses both family and firm relationships. In line with the ideas of Arregle and colleagues (2007), we do view organizational social capital and family social capital as closely linked in the sense that social capital within the family strongly influences firm-level social capital.

[2] Another distinction that is often made in the literature concerns the difference between bridging social capital and bonding social capital (Adler and Kwon, 2002). Bridging social capital refers to external relations; bonding social capital refers to the internal ties within a social collective. The concept of bonding social capital lies closest to our conception.

High-quality social relationships and interactions form the foundation for social capital. When relationships are of a low quality, social capital can't be built. For example, one-sided dominant communication rather creates resistance; Distant, uninvolved interaction leaves people unmoved and uninterested (e.g. Bouwen, 2001, Schein, 1993). In this sense, low quality relationships cannot facilitate long-term value creation for the firm and thus cannot be considered a firm resource. High quality relationships on the other hand, are characterized by high trust, collective norms and obligations and a strong group identity (Pearson, et al., 2008). The associated high-quality interactions specifically are characterized by two-sided conversations, being involved with each other, open and concrete communication and mutual questioning (Argyris and Schön, 1978; Lambrechts et al., 2009). These kinds of interactions are in line with what Argyris (1977) has called Model II Communication, characterized by highly learning oriented two-sided and open communication. In line with previous research (Adler and Kwon, 2002), the framework presented in this chapter thus makes the assumption that social capital is a resource with beneficial consequences for the firm. However, various scholars (e.g. Adler and Kwon, 2002; Arregle et al., 2007) also take note of several possible negative consequences of social capital. For example, excessive social capital would lead to group closure, which will make people more close minded. Our model however, precludes this negative view of social capital, as we purposely emphasize high-quality relations and accompanying high-quality interactions as the foundation for social capital. In this sense, open communication and mutual questioning prevents people from becoming close minded.

We will now argue that high-quality social relations, and thus social capital, form the key for organizational innovation. Various scholars discuss how for an organizational innovation process to be successful in the long run, it is important that all members of the firm are committed to and actively involved in the process and that there is sufficient openness to discuss issues (e.g. Bouwen and Fry, 1991; Schein, 1993, 1996). We go a step further in our understanding of successful organizational innovation and argue that strong social capital is the key process motor for the needed combined search for stability and change. In other words, social capital is the key motor behind stability as well as change, which are both needed for implementing an organizational innovation. The reasoning behind this premise starts from the previously discussed relational constructionism (Hosking, 2011), where the basic idea is that it is through social interactions that an organization is actively created. An organization is thus maintained stable through social interactions, and is also changed through social interactions. When a certain pattern of interactions stabilises, routines are formed. Routines strongly support stability in the firm. Yet, routines are often considered as a source of resistance to change (e.g. Edmondson, et al., 2001), as they make it difficult to see and enact new possibilities (Weick, 1979). However, change is then not at all impossible. When relations are of high quality, and thus when strong social capital is built, this then becomes stabilized. It becomes 'routine' to do things this way. For instance, it becomes routine to openly discuss issues. These 'routine' relationships then increase the possibility for change, as they are characterized by mutual questioning, possibility to contradict, two-sidedness and openness, which are characteristics that facilitate creativity and commitment to the larger organizational purpose (Amabile, 1998; Lambrechts et al., 2009). Change however, can put these relationships under pressure, and thus, in order to keep social capital sufficiently strong, installing certain formal governance mechanisms, like family institutions and a board of directors, will support this social capital. In the following sections, six propositions will be formulated, further explaining the different parts of this reasoning step by step.

2.3.2. Social Capital and Change

Social capital makes members of the family firm more inclined to act in the best interest of the firm and to promote activities that facilitate flexibility (Zahra et al., 2008). For example, when members of the family firm feel that they are part of the collective, they are more likely to support and act in line with organizational goals (Leana and Van Buren, 1999). In this sense, these family firm members are more inclined to actively support needed innovation efforts. High-quality relations and interactions not only lead to more willingness to support collective goals and actions, but also to exchange information. Social capital facilitates open exchange of information concerning threats and opportunities that can then become catalysts for change. High social capital entails high trusting relationships which makes organizational actors able to communicate more openly (Tagiuri and Davis, 1996; Sorensen et al., 2009). What is more, high trust makes the actors involved more willing to take risks when they exchange information. In line with this reasoning, research shows that, for change efforts, family firms rely more than other firms on personal approaches focused on relationships, rather than more formalized approaches focused on tasks (Fiegener et al., 1994).

These change promoting actions are closely related to organizational learning behaviours that precisely concern "seeking feedback, sharing information, asking for help, talking about errors, and experimenting" (Edmondson, 1999, p. 351). Research has shown that social capital and high quality relationships enable these learning behaviours (Carmeli, 2007; Carmeli and Gittell, 2009). An important factor in explaining why social capital and thus high-quality relationships lead to more open information exchange, search and support for ways to improve the organization, concerns psychological safety. As discussed above, psychological safety is an important antecedent for learning behaviour in organizations and concerns the belief that it is safe to take risks (Edmondson, 1999). Psychological safety is specifically enabled through social capital (Carmeli, 2007). For instance, when trust is high, people will feel safe enough to present new ideas without having to be afraid that these ideas will be shot down, or to openly discuss ideas from others without being afraid of retribution.

So therefore, given that family firms have the potential for developing strong social capital (Arregle et al., 2007), members of the family firm are generally able to openly discuss threats and opportunities for the firm. As such, this social capital facilitates the search for new ideas, openness and creativity on all levels of the firm. These are considered key mechanisms for change and thus social capital facilitates learning, flexibility and innovation (Nahapiet and Ghoshal, 1998; Molina-Morales and Martinez-Fernandez, 2010). Therefore, we argue that:

Proposition 1: Social capital fosters the mechanisms for change in family firms.

2.3.3. Social Capital and Stability

Social capital not only fosters change, but also leads to enduring habits, routines, commitments, which are traditionally considered important mechanisms for stability (Farjoun, 2010). In the previously discussed relational constructionism, Hosking (2011) argues how through relational processes, i.c. through social capital, stability is constructed and maintained. Relational processes are always embedded in a specific historical-relational context, but at the same time, this historical-relational context is continually reproduced through these relational processes, which thus creates stability (Gherardi, 2000; Lambrechts et al., 2009). For example, an important result of social capital is solidarity (Adler and Kwon, 2002), meaning that people take care of their shared values. This way, social capital thus encourages compliance to customs and rules, which also implies that there is less need for formal controls. These customs, habits and controls are important mechanisms for maintaining stability in the firm (Burns and Stalker, 1961; March, 1991). Specifically during an organizational innovation process, social capital forms an important nutriment for maintaining needed stability. For instance, trusting relationships can be a source of grip during the uncertain period. Commitment to the firm's core values helps to keep in mind what made the firm successful and thus what must be kept during the change process.

What is more, the above discussed organizational learning theory (Edmondson, 1999) argues how through learning behaviours like information sharing and asking for help, the organization learns to function better as a system, as underlying issues and problems are better addressed (Argyris and Schön, 2009). In the long run, this creates stability.

Overall, we argue that social capital facilitates stability in family firms.

Proposition 2: Social capital fosters the mechanisms for stability in family firms.

We have discussed how social capital is important for fostering change as well as stability in family firms. This social capital is in turn also influenced by the stability and change dynamic. We will discuss this in the following two sections.

2.3.4. Stability and Social Capital

The processes that follow out of the social capital resources and the ones that create social capital are often described as complex and dialectical (Nahapiet and Ghoshal, 1998), which is represented by the cyclical nature of our conceptual model. As such, social capital fosters stability, but the stability and continuity of the social structure is also considered to be an important factor in the development of social capital (Nahapiet and Ghoshal, 1998). As such, social capital is not created overnight; it takes time and stable interactions. For example, it takes time and accumulated experience to build trust. People need to get to know each other; they need to have shared some experiences, before they profoundly learn to trust, before they know they can count on each other in all circumstances. For the same reasons, longstanding, stable social relations are also needed to create mutual obligations and to make people identify themselves with others, two other important aspects of social capital.

Specifically in family firms, this stability is often seen as a key feature and thus forms an important foundation for the development of social capital (Arregle et al., 2007; Salvato et al., 2010). As such, family members are highly socialized within the firm and generally have a shared history within the business. Families generally place high emphasis on maintaining family cohesion, which creates stability. What is more, intergenerational reciprocity also enhances stability, in the sense that decisions made by previous generations still influence current generations. The family's values are over time typically transferred from one generation to the next and these values shape the family firm's vision, norms and interaction patterns, which encompass all dimensions of social capital. Hence, these enduring social interactions among family members, give family firms the potential for developing social capital (Arregle et al., 2007). The stability of the family relations within the firm is typically transferred throughout the firm and creates firm-level social capital. In support of this view the literature often describes commitment, dedication and trust, which are important elements of social capital, as important resources in the family business that create competitive advantage (e.g. Cabrera-Suarez et al., 2001). Therefore, as stability is a main feature of many business families (e.g. Kets de Vries, 1993; Salvato et al., 2010), and as these longstanding stable relationships create organizational social capital, we propose that stability fosters social capital in family firms.

Proposition 3: Stability as outcome within the family firm facilitates the development of social capital.

2.3.5. Change and Social Capital

As discussed above, social capital within the family firm thus stimulates the activation of the mechanisms that support change. When, following this, change episodes are in fact initiated, the normal organizational processes are interrupted and this often creates a lot of ambiguity and uncertainty (Ford et al., 2008). This uncertainty poses substantial pressure on relationships. Changing the way work is organized entails that all members of the firm are involved and need to come in contact with each other. People who are not used to talking to each other, now need to work together to make the change effort successful. This often leads to a lot of frustration and poses strain on all intra-firm relationships (Schein, 1996a). What is more, people in the organization often experience the change effort as a broken psychological contract and thus trust is violated. Therefore, we argue that change episodes pose a lot of strain on the social capital resources within the firm.

Important periods for change in family firms are succession periods (Poza, 2007). In the current rapid changing economy next-generation leaders need to be able to rejuvenate and change the family firm. Barach and Ganitsky (1995), for instance, discuss how changing the organizational structure (which is a form of organizational innovation) is important for accommodating the firm to the successor's personality and need for autonomy. However, like most change processes, the succession process is loaded with uncertainty (Le Breton-Miller et al., 2004). Evidence for the difficult nature of the succession process can be found in the declining cohesion and the increasing number of conflicts between family members in later generation family firms (e.g. Bammens et al., 2008; Davis and Harveston, 1999; Ensley and Pearson, 2005). Whereas trust is a key feature of family firms in the early stages of development, in later stages trust tends to decrease (Steier, 2001). Trust, cohesion and conflict can all be seen as important indicators of the quality of relationships.

Although change episodes are difficult and can put relationships (and thus social capital) under pressure, it is important to note here that change as outcome can also be good for the quality of relationships. Specifically, as high-quality relationships foster organizational learning (Carmeli and Gittell, 2009), this organizational learning also fosters high-quality relationships. Learning behaviour in organizations enhances people's performance (Edmondson, 1999), the organization learns to function better as a system. As such, it does not offer a quick fix, but the underlying causes of problems are addressed. This makes people better able to constructively work together and enhances the quality of relationships.

Taken together, while the change process can put a lot of strain on social capital in family firms, specifically in a generational dynamic, change as outcome can enhance the quality of relationships. Hence, we propose in general that change initiatives in a family firm influence social capital.

Proposition 4: Change as outcome influences social capital in the family firm.

Because we argued that social capital is needed for facilitating change in family firms and also plays an important role in maintaining stability, it is important for family firms to find ways to help maintaining social capital strong enough when it is under pressure during complicated periods of change. For this, other, more formalized structures are needed. Social capital is crucial for linking stability and change in family firms, but will not suffice in itself. Therefore, we introduce two governance structures, namely family institutions and the board of directors that constitute important additional mechanisms for the combined search for stability and change, where strong social capital is thus the key linking pin.

2.3.6. Family Institutions

The first governance structure concerns family institutions. They are an important aspect of so-called relational governance and can be defined as "family systems and processes that are intended to facilitate the family's links with ownership and business" (Mustakallio et al., 2002, p. 208). Relational governance in family firms concerns all informal and formal governance structures that are based on close social interactions among family members. In this sense, relational governance concerns mostly informal social controls that are based on mutual trust, shared vision and commitment to the firm (Uhlaner et al., 2007). In other words, they involve controls based on social capital resources. We, however, focus here on the more formal family institutions that encompass all family meetings and family plans, namely a family council and a family charter. Putting into place these institutions creates opportunities to come into contact with each other and discuss issues, which heightens the intensity of the interactions between family members. In this sense, a family council is described as "a formal structure where family institutional attributes such as values, norms, interests, and expectations are legitimately exercised" (Melin and Nordqvist, 2009, p. 325). In other words, a family council can form a formal institution for maintaining or restoring the important relational social capital resources. Steier (2001) discusses how new governance mechanisms are needed in evolving family firms to restore the declining level of trust. Family councils can form such a new governance mechanism as they can play an important role in handling conflict and giving advice. They constitute a forum for developing consensus around key issues (Le Breton-Miller et al., 2004). Jaffe (2005) argues how getting together in a family council may challenge established communication and power structures, which is important to create a learning orientation. Also the process of setting up a family charter can be viewed in this regard: Family members are required to come into contact with each other to discuss and make decisions about important family-related business issues. This also increases interactions, challenges thinking and thus, when everybody involved ultimately supports the family charter, heightens trust, norms and identification and thus social capital. Research shows that a high variety of family institutions like a family council in the family firm leads to more social interaction (Mustakallio et al., 2002), which thus can help to maintain social capital during change efforts. This formalization thus helps to sustain social capital as certain things become better regulated: People are obligated to come in contact with each other and talk things over, clear rules are established.

As discussed above, change, and particularly change in a context of succession, can pose relationships and thus social capital under pressure. Installing family institutions creates opportunities to discuss issues and thus helps to stimulate a learning orientation towards the change efforts. This way, new norms can be developed and trust and commitment can be restored. Family institutions thus support social capital during difficult change episodes. Therefore, we propose that:

Proposition 5: Family institutions support social capital in the combined search for stability and change.

2.3.7. Board of Directors

Just like more formal governance structures in the form of formal family institutions are over time needed to maintain social capital, other (contractual) governance structures are needed to make sure that social capital effectively keeps fostering the mechanisms for stability (Mustakallio et al., 2002). Although, as discussed above, social capital supports the stability of the firm, more formal arrangements actually support these more informal social capital resources, specifically in more complex and uncertain circumstances, like during an organizational innovation process (Poppo and Zenger, 2002; Gnan et al., 2013). Particularly control tasks and setting limits are important mechanisms for stability (Simons, 1995) that social capital resources can't sufficiently stimulate on their own. Research shows that in family firms control is the main task of the board of directors (e.g. Bammens et al., 2008). Therefore, we argue that the second important mechanism supporting social capital in family firms is the board of directors. The primary task of the board of directors is to look at the firm independently from the family's needs and thus to focus on all business-related issues (Jaffe, 2005). Whereas family institutions thus deal with all family-related issues, an active board of directors performs the needed business-related control tasks and sets the necessary limits, which are, as discussed above, important mechanisms for stability. Le Breton-Miller and colleagues (2004) for instance, specifically describe the board of directors as an important tool to monitor the different stages of the succession process.

However, many family firm boards are so-called paper boards that exist on paper but perform little effective control tasks (Huse, 1990). Minichilli and colleagues (2009) argue that effective boards have highly committed board members and are able to openly discuss task-related issues, which are two important features of social capital. In line with this, research actually shows that high social capital increases the board member's influence on decisions (Stevenson and Radin, 2009). Hence, an active and effective functioning board requires social capital. So, in itself, the board of directors does not per definition promote the mechanisms for stability within the family firm, as the board requires strong organizational social capital to be effectively functioning. Hence, it is the combination of the informal social capital resources with the formal board of directors that creates the necessary stability within the family firm and indirectly thus also change. Therefore, we argue that the board performs the necessary control tasks needed for stability in the family firm, when there is sufficiently strong social capital, and thus propose the following:

Proposition 6: The board of directors supports social capital in the combined search for stability and change.

2.4. Discussion

The purpose of this chapter was to understand how family firms combine stability and change for organizational innovation. Organizational innovation requires firms to be able to constitute their core competencies and at the same time keep enough openness for change (Bouwen and Fry, 1988; Farjoun, 2010). This is a difficult but important challenge for all firms, but the family aspect in family firms brings an additional dimension to it. Family firms are often considered as being more conservative (e.g. Aronoff and Ward, 1997), because of their concern for preserving their socio-emotional wealth and institutional integrity, and thus more inclined to promote stability over change. However, the scant literature on change in family firms also discusses various family firm characteristics that seem to encourage change, like their more informal structure and their stronger commitment (e.g. Craig and Moores, 2006). The question therefore is how these contradictory tendencies can be reconciled to strive for stability and change at the same time.

We argued that stability and change are not necessarily incompatible, but rather mutually enabling (Farjoun, 2010). Pursuing stability and pursuing change are not a matter of "or/or" but rather a matter of "both/and". In the long run, stability enables change and change enables stability. With this view in mind, we presented a cyclical process model that links change and stability, hereby showing how family firms combine the search for stability and the search for change. As such, stability and change are not seen as antithetical, but rather compose two halves that make the circle round. We argued how social capital, and specifically relational social capital as the dimension indicating high-quality relationships, is the key link and process motor for the combined search for stability and change, aided by two more formal mechanisms, namely family institutions and the board of directors. Based on this, six propositions were formulated, indicating that family firms have the potential for successful organizational innovation because they simultaneously support the mechanisms for change and the mechanisms for stability through their social capital and their typical family governance structure. Overall, the basic premise of our model is that the strength of family firms to adequately combine stability and change lies in their strong relational processes. Social capital in family firms facilitates openness, creativity and other mechanisms that stimulate change. But at the same time, this social capital also fosters stability, in the sense that it enforces habits and compliance to rules and customs through higher loyalty, trust and commitment. The processes that follow out of social capital and the ones that create social capital stand in a dialectical relationship towards each other and as such form a reinforcing cycle. In this sense, social capital itself requires stability to develop. Stability leads to dense network ties, a shared vision and a shared language, high trusting relationships, strong identification and mutual feelings of obligation, which are the important features of social capital. Hence, stability enables social capital and social capital enables stability. Social capital is thus reinforced through stability. However, change and the generational dynamic in family firms can pose strain on these relationships. Therefore, formal structures are needed to make sure that social capital can continue to flourish. The first formal structure concerns family institutions, like a family council or a family charter. Family institutions deal with all family-related issues of the business and help to preserve social capital as the firm develops. It can be seen as a formal forum to discuss, challenge and keep an eye on all family-related issues going on in the business and thus to help maintain social capital sufficiently strong. Yet, to protect the long-term stability as the family firm develops, family institutions and social capital alone are not enough. An empowered board of directors is over time also needed, in combination with social capital, to deal with the specific needs of the business and to promote stability through the monitoring of all important business issues and processes. This then makes the circle round. Our model is thus in essence a cyclical process model where social capital is the key process motor for managing the tension between stability and change, aided by two formal governance structures, namely family institutions and the board of directors.

The conceptual model presented in this chapter is specific for family firms for three reasons. First of all, more than other firms, family firms have the potential for developing strong social capital, as family relations bring a closer, warmer type of relationships to the firm that is often transferred throughout the entire firm, affecting family members as well as non-family members. Secondly, the model included family institutions as an important supporting mechanism for the combined search for stability and change, which is a form of relational governance that is unique for family firms. Lastly, the paradox of stability and change is more prevalent in family firms, as family firms are in the literature on the one hand often regarded as conservative firms more inclined to support stability over change, and on the other hand as firms having important characteristics that support change, like strong commitment.

It is important to note here that in this chapter, we developed a conceptual model, but not yet a theory. The difference between a theory and a model has been succinctly summarized by Van de Ven (in: Crossan et al., 2011; p. 447): "A framework or model consists of a set of concepts, while a theory explains how, why, and when these concepts are related." Although our model can be seen as a fruitful means for understanding the combining of stability and change in family firms during organizational innovation, the challenge of developing an overall theory of the paradox of stability and change still remains an open one. While the presented conceptual model provides important insight in how family firms combine the search for stability and change, it cannot explain all the factors that potentially influence the organizational innovation process in family firms. For instance, firms might react differently depending on whether the organizational innovation process was triggered by internal or external factors. Internal factors can for example concern performance gaps that urge innovation. In this case, the innovation process might follow a rational economic decision-making course of action, in the sense that the firm then makes independent, rational decisions in order to maximize gains in the most efficient way (Abrahamson, 1991). Outside influences on the other hand, could require a different course of action, which rather follows the logic of institutional theory. As such, firms operating in different institutional settings (made up by economic, as well as social and political factors) are confronted with the interests and power of different stakeholders who can pose substantial pressures on the firm to adapt. Firms thus face different challenges and accordingly react differently to these challenges (DiMaggio and Powell, 1983). The emphasis laid on the concepts used in the model might therefore be altered depending on whether the firm follows a rational choice theory or institutional theory logic. Future research could as such extend and enrich the proposed conceptual model.

This chapter contributes to the literature as a new perspective for dealing with stability and change is provided. Traditionally stability and change are viewed as antithetical: Organizations weigh off striving for stability or striving for change. Inspired by the ideas of Farjoun (2010) and in line with calls for more paradoxical thinking in an increasingly complex world (Smith and Lewis, 2011), we argued that for successful organizational innovation it is crucial to strive for stability and change at the same time. Therefore, we provided a cyclical process model that shows how exactly this can be achieved within the context of family firms. Consequently, we first of all contribute to the family firm literature as our framework reconciles the typical weaknesses and strengths often ascribed to family firms. On the one hand, family firms are often considered to be conservative with a strong emphasis on maintaining stability and therefore less inclined to change and innovate. For instance, various scholars discuss how preserving socio-emotional wealth is a key concern for family firms (Gomez-Mejia et al., 2007). On the other hand, researchers have identified several characteristics of the family firm that have been positively related to change. These characteristics all relate to the relational dimension of the family firm, for instance an open culture (Hall et al., 2001), a strong organizational identity (Hatum and Pettigrew, 2004) and a culture of commitment (Zahra et al., 2008). Our model now integrates all these tendencies present in the family firm and posits that the relational dimension, conceptualized as social capital, is the heart around which the combined search for stability and change revolves, aided by more formal structures like family institutions and an active board of directors. Secondly, we also contribute to the general organizational change and innovation literature, as our model demonstrates how social capital in all firms can be the linking pin for the dynamic combined search for stability and change, aided by a certain degree of formalization. Contrary to the traditional view where change and stability are considered to be supported by different mechanisms, we argued that the mechanisms for change and the mechanisms for stability are largely supported by the same relational processes. Third, our model also has important practical implications for family firms as well as non-family firms. Family firms should be aware of the fact that their potential for high-quality family relations throughout the firm (in combination with the right formal structures) can be an important strength, making them particularly able to combine stability and change. While the model is specifically for family firms for several reasons discussed above, other non-family firms could learn from the conceptual model as well, as all firms are to more or lesser extent confronted with the paradox of stability and change and therefore, should be aware of the importance of not neglecting the relational dimension within the firm. As such, non-family firms could take the high-quality relations in family firms as an example.

3. Supporting Innovation in Small and Medium-Sized Companies through Board Involvement in Control

3.1. Introduction

The current economy with its dynamic markets, continual technological evolution and increasing complexities poses substantial challenges to firms. Changing customer needs and market demands challenge firms to continually search for new products and services (i.e. product innovation). Likewise, increasing requirements on internal productivity challenge firms to develop new and more efficient production processes (i.e. process innovation). Therefore, it is not surprising that prior research showed that innovation is one of the main strategies for firm performance, long-term wealth creation and competitive advantage (e.g. Hitt et al., 1996; Teece et al., 1997; Zahra and Garvis, 2000; Zahra et al., 2000). As the board of directors is generally regarded as having an important role in strategic decision-making (Forbes and Milliken, 1999; Pugliese et al., 2009), several scholars investigated the relationship between board demographics and corporate innovation strategies (e.g. Brunninge et al., 2007; De Cleyn and Braet, 2012; Hitt et al., 1996; Zahra et al., 2000). However, existing evidence on the board demographics-innovation relationship remains largely inconclusive. For example, Zahra et al. (2000) found an inverted U-shaped relationship between board size and innovation while De Cleyn and Braet (2012) reported a positive relationship.

Agency theory is the dominant theoretical perspective for this kind of board research (e.g. Baysinger and Hoskisson, 1990; Jones and Butler, 1992; Zahra et al., 2000). The key reasoning is the idea that the board of directors prevents managers from developing strategies that privilege their own interests rather than the firms' interests, and as such stimulate them into supporting often risky, but needed innovation efforts. While agency theory has considerably increased our understanding of board functioning, critical voices have raised concern about the tendency to oversimplify the nature of board decision making (e.g. Forbes and Milliken, 1999; Huse, 2005, Stiles, 2001; Zona and Zattoni, 2007). After all, there are many different types of managers who each have different goals and different attitudes towards innovation (Ravasi and Zattoni, 2006). In this sense, managers can be self-interested as well as firm-interested, risk-averse as well as risk-taking. According to agency theory, in the latter cases there would be no specific role for the board as the manager already acts in the best interest of the firm. In this sense, the general board literature (e.g. Chi and Lee, 2010) argues that the effect of governance mechanisms on firm outcomes is conditional on the existence of potential agency conflicts (e.g. separation of ownership and management). In line with these ideas, board involvement in control is expected to have no effect on innovation in the absence of potential agency conflicts. We, however, argue that the board of directors can still play an important positive role in stimulating innovation, *regardless* of potential agency problems. Therefore, we introduce a new theoretical framework within board research that complements the traditional agency theory.

For this, we draw on recent theoretical developments that conceptualize stability and change as a duality (Farjoun, 2010). Stability and change, although they seem to be opposites, are not mutually exclusive, but can be mutually enabling (Farjoun, 2010). The mechanisms that are traditionally seen as enabling stability, can also enable change, and vice versa. Control is such a mechanism that is traditionally seen as enabling stability, often in the form of formal planning systems or performance reviews. As SMEs often lack those formal systems, the board of directors is expected to perform an important control role (Gabrielsson, 2007). Control is viewed here in an enabling rather than in a coercive manner (Adler and Borys, 1996). According to the duality view of stability and change, such a board of directors may not only enable stability, but also enable change and innovation as it first of all helps to focus and regularize the innovation. Secondly, it reduces uncertainty as it provides the CEO with the necessary feelings of psychological safety (Edmondson, 1999; Edmondson et al., 2001) and finally, it offers a consistent frame wherein the often difficult innovation implementation can take place (Ghoshal and Bartlett, 1994). Hence, we argue that board involvement in control facilitates innovation in SMEs *regardless* of agency conflicts.

Therefore, the objective of this chapter is to examine the predictions of the agency view versus the duality view of stability and change by investigating the relationship between board involvement in control and innovation in SMEs under several agency conditions. The duality view of stability and change predicts a positive relationship between control and innovation in *any* case. The agency view predicts a positive relationship when potential agency problems exist and no relationship when these problems are absent. Consequently, both theoretical views are not in contrast for the entire range of different agency situations. Therefore, our empirical test will distinguish between situations for which both theoretical views differ in their predictions, namely when no agency conflicts are present, and situations in which they predict the same relationship, i.e. when there are agency conflicts. This way, we will argue that the duality view of stability and change forms an insightful new theoretical framework in board research that complements agency theory.

This chapter contributes to the literature in at least two ways. First, we contribute to the empirical research on board governance and innovation, as we empirically test the relationship between board involvement in control and product and process innovation in SMEs. Traditionally, board research relied on demographic approaches linking board demographic variables, like board size and CEO duality, to firm outcomes, wherein these demographics are seen as proxies for underlying board behaviour (e.g. Daily et al., 2002). However, as mentioned above, this had led to various inconsistencies regarding their effect on firm innovativeness. Therefore, research has evolved towards more behavioural approaches, linking actual board behavioural variables such as the board's ability to perform board tasks effectively to outcomes variables (e.g. Gabrielsson, 2007; Pugliese et al., 2009; Zattoni and van Ees, 2012; Zona and Zattoni, 2007). For our analysis of the role the board plays in innovation, we thus rely on actual board role behaviour rather than board demographics. Gabrielsson (2007) and Gabrielsson and Politis (2009) were, to our knowledge, the first to examine the role of actual board behaviour in stimulating innovation. Using different measures for board behaviour and innovation, we build further on these studies and offer an alternative theoretical explanation to agency theory for which we provide empirical support. This brings us to the second important contribution of this chapter.

Drawing on the duality view of stability and change (Farjoun, 2010), we go beyond traditional agency theory offering an alternative, complementary explanation for the role that boards play in innovation (van Ees et al., 2009). Board involvement in control supports innovation in SMEs because it provides the stability needed for a successful innovation process. Although agency theory partly overlaps with this viewpoint, we argue that it does not paint the full picture. As such, we answer the call of many scholars (e.g. Stiles, 2001; Hambrick et al., 2008; Huse, 2005; Minichilli et al., 2009; van Ees et al. 2009) for alternative, behavioural theories to better understand all the complexities of the broader role the board plays in ensuring that organizational efforts are effectively and efficiently directed towards organizational goals.

The remainder of the chapter is structured as follows. First, we discuss the literature on innovation and present the theoretical framework of stability and change as a duality. Second, drawing on these insights, we go into the role the board of directors plays in stimulating innovation and develop our hypotheses. Third, the method section follows, which includes a description of the sample, measures and analyses used in the study. Fourth, we report in detail the data analyses and results. In the concluding section, we discuss the results and their implications for theory and practice.

3.2. Theory and Hypotheses

3.2.1. The Control-Innovation Relationship Revisited

Innovation is a very broad concept that encompasses different forms. Therefore, Wolfe (1994) argues that for accumulating knowledge in the field, it is important that researchers clearly specify the type of innovation that they focus on. The most commonly used typology concerns product and process innovation (Abernathy and Utterback, 1978; Damanpour, 1991; Damanpour and Aravind, 2006; Damanpour and Gopalakrishnan, 2001). We view product innovation as new products or services that the firm introduced to the market. What "new" means can vary from a product or service that is new to the company (e.g. a firm specialized in biscuits, that starts producing pizzas) to products/services that are new to the market (e.g. the firm specialized in biscuits that invents something completely new, like a pizza biscuit). Product innovation has an external market focus and is primarily customer-driven. Process innovation, on the other hand, entails new production-related technologies developed by the firm, like work and information flow mechanisms (e.g. the biscuit firm implementing a new robot that facilitates the production process). Process innovation has an external as well as internal focus and is primarily efficiency driven (Damanpour and Gopalakrishnan, 2001; Zahra et al., 2000; Huang and Rice, 2012). Both types of innovation are important for competitiveness and wealth creation in SMEs (Garcia and Calantone, 2002). Product innovations help firms in gaining advantage over competitors in the market, as they can reach new customers and markets. Process innovations improve the firm's productivity and efficiency (Wolff and Pett, 2006).

Given the importance of innovation for long-term wealth creation, it is important to gain insight into the antecedents of successful innovation. A recurring theme in the literature on change and innovation has been the importance of an organic organizational structure, characterized by, for example, decentralized decision-making and horizontal communication lines (Damanpour, 1991; Hage, 1999). Organic structures are traditionally contrasted to mechanistic structures, which are characterized by more control, formalization, centralization and rigidity (Burns and Stalker, 1961). The former are thought to be required for dynamic and non-routine tasks, such as innovation, whereas the latter are more suited for specialized routine tasks in stable environments. The implementation of control mechanisms, for instance, would lead to predictability, regularity and static efficiency. In other words, organic structures are thought to support change; mechanistic structures support stability. However, according to Farjoun (2010), the organizational forms and practices that support change and the ones that support stability are not necessarily incompatible and therefore stability and change can be seen as a duality. Farjoun (2010) argues that stability promoting mechanisms like habits, routines and control can also enable change and innovation.

In line with these ideas, we specifically focus on the innovation supporting control role of the board of directors in SMEs. We define the concept of control as encompassing all organizational processes and procedures aimed at gaining cooperation among individuals and channelling their efforts towards organizational goals (Langfield-Smith, 1997). It is important to note that control is viewed here in an enabling manner rather than in a coercive manner (Adler and Borys, 1996). In the enabling logic, control signals organizational problems that become opportunities for improvement. Mistakes are an opportunity to learn, rather than a prerequisite for punishment. In the coercive logic, control is a means to highlight whether organizational members act in compliance and to highlight shirking. Enabling control procedures guide member's efforts rather than punish them in the case of deviations. They clarify the processes they regulate and provide the organizational members with feedback on their performance. The board of directors can be seen as one of the most important entities within SMEs that performs this enabling control role.

Specifically in relation to innovation, we argue, in accordance with Farjoun (2010), that there are three ways in which enabling control mechanisms can support innovation. First of all, control *channels search* in the right direction. For instance, mission statements that communicate the firm's core values and goals can help focus attention in such a way that new ideas are in line with the organization's goals. Although it sounds counterintuitive, setting clear boundaries can also support change and innovation, as boundaries define the limits wherein creativity is allowed and these limits then provide reference for improvement (Ghoshal and Bartlett, 1994; Simons, 1995). A board of directors that gives close attention to internal and external organizational behaviour can make sure that new customer needs and (efficiency) problems are more easily detected, which then can become triggers for product or process innovation. Second, control *reduces uncertainty*. Innovation often creates feelings of uncertainty and therefore it is important to foster psychological safety, which has been defined as the belief that one is safe for interpersonal risk-taking and capable of changing (Edmondson, 1999; Schein and Bennis, 1965). The CEO's psychological safety can be enhanced when he/she is not the only one keeping an eye on everything that is going on in the business and when other people involved, like a board of directors, inform him/her about what does and does not work (Garvin et al., 2008). In this sense, adequate feedback channels are likely to reduce insecurity and defensiveness, which then heightens openness to innovation efforts (Edmondson, 1999). Third, control can create a *consistent framework* wherein the innovation can take place (Ghoshal and Bartlett, 1994). The process that leads up to the introduction of a new product to the market, or the implementation of a new production process, requires not only brainstorming by creative minds and responsiveness. It also demands clear goal setting clarifying what the firm wants to attain with the innovation. A stable, reliable frame is necessary so that the steps for implementing the innovation can be taken in an effective and efficient manner and results can be evaluated during the process. This is in line with Ghoshal and Bartlett (1994), who state that change and innovation requires an organizational context of trust and support on the one hand, but also stretch and discipline on the other hand. Trust and support are soft elements associated with the so-called organic structures, whereas stretch and discipline are hard, 'mechanistic' elements such as clear performance standards, fast feedback and thus control. Given the above, we conclude that control can be an important facilitator of innovation. However, the question remains how exactly this innovation enabling control role is performed by a board of directors in SMEs. In the next paragraph, we will discuss the different ways in which board involvement in control can promote innovation in SMEs and consequently develop our hypotheses. We will work with contrasting hypotheses in the sense that we will first develop hypotheses that are in line with the traditional view of agency theory. Afterwards we will develop the hypotheses that are in line with the complementary duality view of stability and change.

3.2.2. Board of Directors and Innovation

Agency view. An important governance body in SMEs is the board of directors (Forbes and Milliken, 1999; Van den Heuvel et al., 2006). There is a growing amount of research on the role the board of directors plays in change and innovation efforts (Baysinger and Hoskisson, 1990; Baysinger et al., 1991; Brunninge et al., 2007; Gabrielsson, 2007; Gabrielsson and Politis, 2009; Golden and Zajac, 2001; Hung and Mondejar, 2005; Westphal and Frederickson, 2001; Wu, 2008; Zahra, 1996; Zahra et al., 2000; Zhang and Rajagopalan, 2010). Most of this research has been done from an agency theory perspective. Specifically, there are three ways described in the agency theory literature wherein the board of directors supports innovation. The first and classic view (Jensen and Meckling, 1976), which is held by most of the research on boards and innovation, starts from the assumption that managers are primarily self-interested. Therefore, they focus more on short-term goals that receive immediate rewards, rather than uncertain long-term innovation projects. The board of directors is then needed to counter this reluctance towards innovation, ensuring that long-term value creation is supported (Zahra 1996). In other words, an active board of directors counters a manager's reluctance to take risks and encourages him/her to pursue more long-term oriented strategies that are in the best interest of the firm, like innovation activities (Jensen and Meckling, 1976; Jones and Butler, 1992). This reasoning only applies in firms where ownership and management are separated and CEOs thus need to be controlled in order to offset their self-interested and often short-term focused behaviour (Zahra, 1996). Managers who are also owners of the firm, which is often the case in SMEs, are expected to act in line with the long-term organizational goals and thus support innovation for creating firm value. So the agency logic of aligning the interests of owners and managers only applies in firms where ownership and management are separated.

The literature that discusses the relationship between board involvement in control and innovation largely ignores the other two types of agency problems that have been discussed by agency scholars (Schulze, et al. 2001; Hendry, 2002). The separation of ownership and management is not the only source of agency problems that is considered in the literature. The second one is specifically related to family firms, which is important in an SME context as many SMEs are in fact family firms. Family relationships and dynamics can also give rise to unique agency threats that have been ignored by the classic Jensen and Meckling agency model (1976). Specifically, altruism towards family members and the presence of non-economic preferences can cause problems, for example when an owner chooses to hire a less capable family member over a more capable nonfamily member or when an owner is reluctant to innovate because he/she does not want to put the personal wealth at risk (Schulze, et al., 2001). The board of directors is also in this case needed to offset this nepotistic inclination towards pursuing family-interested objectives rather than objectives that are in the best interest of the firm, like needed innovation activities. The third type of problems that can arise is actually an extension of agency theory and concerns the problem of honest incompetence (Hendry, 2002). This problem does not, like the above discussed agency problems, start from the assumption that people and thus also CEOs are inherently self-serving, but rather that human knowledge and rationality is limited and thus that people often make inadequate judgments and interpretations. In this sense, CEOs would repeatedly make non-rational decisions regarding firm strategy and innovation (Brouthers et al., 1998). The board of directors can then form a control towards more objectivity and rationality in strategic decision-making.

Overall, in the agency theory logic, the board and other governance mechanisms are expected to play a more important role in firms with greater potential agency problems. However, little prior research has controlled for the degree of agency threats (Chi and Lee, 2010). Board involvement in control is expected to have a positive effect on innovation when there are potential agency costs in the firm. When these potential agency costs are not present in the firm, board involvement in control is not needed to support innovation in SMEs and it is expected that there is no significant positive association between the two. As this effect is expected for product as well as process innovation, we postulate the following two hypotheses in line with agency theory:

H1a: There is a positive association between board involvement in control and product innovation when there are potential agency problems in the firm.

H1b: There is a positive association between board involvement in control and process innovation when there are potential agency problems in the firm.

Duality view of stability and change. While agency theory is the dominant viewpoint for studying the role the board of directors plays in innovation, we argue that agency theory does not paint the full picture of actual board behaviour and the influence it has on innovation. Countering self-interested or incompetent behaviour is not the only and most fundamental role of the board of directors in stimulating innovation efforts. We argue that board involvement in control supports innovation in SMEs, *regardless* of the CEO's self-interested, family-interested or firm-interested motivations, *regardless* of his/her honest incompetence, and thus *regardless* of possible agency threats. While in some cases board involvement in control might be needed to offset short-term focused behaviour in order to stimulate innovation efforts, it does more than that. Board involvement in control stimulates innovation in more ways than agency theory postulates. Therefore the duality view of change and stability (Farjoun, 2010) can form a meaningful complementary theoretical framework next to agency theory. As discussed above, our reasoning implies that for successful innovation CEOs need a certain degree of structure, focus and certainty in order that the innovation efforts are taken in an effective and efficient manner (Gabrielsson and Politis, 2009), even when there are no clear agency problems. In other words, they need a certain degree of stability when initiating and implementing an innovation process. We now posit that this provision of stability is exactly what the control role of the board of directors entails to support innovation in SMEs, going beyond the agency logic.

Although the interest for board tasks like advice and networking is growing, the control role, which was traditionally considered the most fundamental role, remains important, even in SMEs (e.g. Bammens et al., 2008; Fiegener, 2005; Van Den Heuvel et al., 2006). Board involvement in control specifically entails three tasks, namely behavioural control, output control and strategic control. Behavioural control involves a wide array of tasks ranging from monitoring budgets, quality of products and other internal company affairs. Output control concerns monitoring financial performance and value creation for external stakeholders. Strategic control involves monitoring and evaluating strategic decisions (Huse, 2005). All three control tasks of the board foster innovation in SMEs in several ways. As such, when the board closely monitors and steers internal and external organizational behaviour and strategic decisions, it will become easier for the firm to introduce new products/services or to implement new production processes. The board first of all helps to keep the goals of the firm in mind and thus to *focus the search* for new ideas in the right direction. Research has effectively shown that boards impact a firm's strategy through developing the mission and establishing long-term goals (Pugliese et al., 2009). The board can therefore assist in evaluating whether the new product/service is in line with the firm's mission, competencies and market. The board can also help to evaluate whether the new production process can actually work within the specific context of the firm. What is more, when the CEO feels that he/she is not the only one keeping an eye on everything that is going on in the business, his/her feeling of psychological safety is enhanced and therefore, he/she *will feel more secure* to support new innovative ideas (e.g. Edmondson, 1999). As such, the board's knowledge and information can contribute to dealing with these uncertain circumstances (Rindova, 1999). The board can follow and regulate the entire implementation process of the new product/service or new production process. This way, the board also helps to provide the necessary parameters and *structure* for transforming the innovative idea into a marketable product/service or into a functioning production process (Farjoun, 2010). The board assists in allocating the necessary resources in the right way (Pugliese et al., 2009). Problems that occur during the innovation process are also more rapidly detected and adjusted and the results of the innovation can be evaluated (Gabrielsson, 2007). This way, the board performs the control tasks that are needed to enable innovation in line with the view of change and stability as a duality (Farjoun, 2010). The innovation enabling control tasks discussed here thus concern more than merely countering the CEO's shortcomings, as posited by agency theorists. Hence, we hypothesize that board involvement in control supports the introduction of new products/services as well as new production processes, regardless of potential agency threats.

H2a: There is a positive association between board involvement in control and product innovation regardless of potential agency problems in the firm.

H2b: There is a positive association between board involvement in control and process innovation regardless of potential agency problems in the firm.

3.3. Method

3.3.1. Sample

To test the hypotheses of the study, we used data from a mail survey. Questionnaires were sent out to CEOs from Belgian SMEs in 2004. Corporate governance systems may differ between countries. The specific Belgian situation is as follows. As a French-civil law country (La Porta et al., 1998), Belgium applies a one-tier corporate governance system with a single board of directors that may delegate responsibilities to managers. The board is elected by the company's shareholders at the general assembly and all appointed board members are responsible for the company's course of affairs. All limited firms are required to install a board of directors (Voordeckers et al., forthcoming). We used the CEO as key informant as in SMEs the CEO is often well-informed regarding the company's strategic decision-making processes and other important company affairs. As such, the CEO generally has a good overview and access to all information. The choice for the CEO as the key informant can therefore be considered satisfactory for the purpose of the study.

Firms were selected based on three criteria. First, as our focus lies on SMEs, we selected firms based on the size criterion of 5 to 250 employees. Second, only firms from the manufacturing industry were selected (industry code NACE Section D; 16-36), as they generally are the most innovation-friendly firms and therefore are more relevant for studying product and process innovation. And lastly, all firms had an independent ownership structure, meaning that the firm owner is not affiliated to a larger group. To compose the sample frame, publicly available financial information from Bureau Van Dijk, namely the Belfirst database, was used. From this database, 2000 firms were randomly selected.

We received 150 completed questionnaires, giving a total response rate of 8 percent.

We used two methods to evaluate potential response bias. First of all, we analysed late and early respondents. Using late respondents as a surrogate for non-respondents (Kanuk and Berenson, 1975), a t-test was conducted to identify possible differences between the early respondents and the late respondents. Results indicate that there are no significant differences between the two groups on any of the variables included. This suggests that no bias is to be expected on any of the variables used in this study (e.g. Hawes and Crittenden, 1984). Secondly, we compared the 150 firms that responded to the 2000 firms of the sample frame on several important firm characteristics. Specifically, we compared them on average number of staff, leverage, return on equity, return on assets, board size and CEO duality. None of the t-tests we performed showed significant differences between the sample frame and the group of respondents.

3.3.2. Measures

Dependent Variables. To measure product and process innovation, we used the scales developed by Zahra and colleagues (2000). The scales consist of five items related to product innovation and four items related to process innovation. The CEO was asked to rate the firm’s emphasis on the innovation components on a five-point Likert scale. We subjected the survey items to principal component factor analysis with varimax rotation. The reversed coded question related to process innovation was left out, as it could not consistently be related to one of the factors in the analysis. As expected, with the remaining eight items, we found two significant factors: product and process innovation. The

Cronbach's alpha (α) for product innovation is 0.90 and the factor explains 44 percent of the variance. The process innovation scale has a Cronbach's alpha of 0.81 and the factor explains 29 percent of the variance. These results are in line with those of Zahra et al. (2000). The results of the factor analysis for the innovation measures can be found in Appendix 1.

Independent Variables. Board involvement in control was measured on a five-point Likert scale indicating the degree to which the board of directors is active in different control tasks. The scale consists of the mean of 12 items (α = 0.94), based on the three dimensions of board involvement in control from Huse (2005). First of all, *behavioural control* (seven items) has an internal focus and concerns monitoring the CEO's and other top managers' behaviour. More specifically, it entails monitoring budgets, quality of products and other internal company affairs. The second board role concerns *output control* (three items). Output control has an external focus and consists of monitoring the firm's financial performance and value creation for external stakeholders. Finally, the *strategic control* task (two items) has a strategic focus and concerns evaluating and monitoring strategic decision-making. The 12 survey items can be found in Appendix 2.

Control Variables. The controls used in our analyses are firm-level as well as board-level controls. On the firm-level, we used size and sector. *Firm size* is often used as a control variable in studies on innovation, as many scholars have found that size matters in innovation (e.g. Acs and Preston, 1997; Vaona and Pianta, 2008). Size was measured by the natural logarithm of the number of full-time-equivalents that are employed by the firm. The fact that firms are involved in high-technology manufacturing may influence board roles (Forbes and Milliken, 1999) and their need for innovation. Therefore, in line with Gabrielsson and Winlund (2000), respondents were asked to indicate whether they perceived their company as a *high-tech company* or not.

On the board-level we used three control variables. First, because various studies showed that CEO power influences board involvement (Fiegener et al., 2000), *CEO duality* was included as a dichotomous variable indicating whether the CEO also served as board chair or not. Second, *board size* can be expected to influence the way the board performs and was therefore included as a statistical control variable. We measured board size as the number of directors on the board. Lastly, independent, external board members have been shown to add value to the board's decision making process (Baysinger et al., 1991). Therefore, we included a dummy variable indicating whether there are *external board members* or not.

3.3.3. Analytical Procedure

Our hypothesis testing is performed in various separate steps. First, we use basic multiple regression analyses to test whether board involvement in control actually has a positive effect on product and process innovation, without including potential agency problems. Next, for our actual hypothesis testing, we perform separate regression analyses for the three above described agency problems respectively. We specifically test whether our results are driven by the agency theory explanation (in line with hypotheses H1a and H1b) or by the duality view explanation (in line with hypotheses H2a and H2b). As such, we test several interaction effects between board involvement in control and a proxy for the specific agency problem. We included four moderating variables as proxies for the specific agency problems. For the first type of agency problems stemming from the separation of ownership and management, we tested the interaction effect including a dummy indicating whether the firm is owner-managed or outside-managed. To test the second type of agency problems, the analyses were performed on the smaller subsample of family firms. As a proxy for nepotism problems, the variable 'creating family employment' was used, indicating the degree in which the goal of creating family employment is important (five-point Likert scale). For the third type of agency problems relating to the problem of honest incompetence, two variables were used to test interaction effects in two separate regression models. First, a dummy indicating whether the CEO is higher or lower educated was used. Secondly, we used CEO's experience, measured as the number of years the CEO occupied his/her position.

3.4. Results

3.4.1. Main results

Before we ran these analyses, we checked whether common method bias presented a problem in this study. As ex ante remedy for common method bias, the study was designed to minimize similarities between the measure of the predictor and criterion variables, which is in accordance with the procedural remedies proposed by Podzakoff and colleagues (2003). The measures for board involvement in control and innovation were temporally and psychologically separated, as the items were placed far from each other in the questionnaire and under different headings giving the impression that the one has nothing to do with the other. In addition to this ex ante procedural remedy for common method bias, we also performed a statistical remedy, namely Harman's one-factor test (Podsakoff and Organ, 1986). The test revealed multiple factors in which the dependent and independent variables were clearly separable. This indicates that common method bias did not pose a problem in this study.

Table 1 shows the means, standard deviations and bivariate correlations for the variables used in the regression analyses.

Table 1. Descriptives and correlations – Chapter 3.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Product innovation	0	1	1											
2. Process innovation	0	1	0.00	1										
3. Board inv. control	3.60	0.97	0.05	0.22**	1									
4. Firm size	3.45	0.80	0.03	0.16*	-0.06	1								
5. High-tech	0.29	0.46	0.10	0.08	-0.18**	0.12	1							
6. CEO duality	0.62	0.49	0.01	0.07	0.08	-0.28***	0.14	1						
7. Board size	3.69	1.55	0.04	0.05	-0.01	0.28***	-0.04	-0.18**	1					
8. External board members	0.34	0.48	0.30***	-0.05	-0.11	0.23***	0.15*	-0.21**	0.30***	1				
9. Owner-managed	0,81	0,39	0,07	0,04	0,01	-0,11	0,08	0,48***	-0,03	-0,18**	1			
10. Goal family employment	2,94	1,34	-0,07	0,00	0,25***	-0,28***	-0,07	0,07	-0,09	-0,23***	0,04	1		
11. Education CEO	0,57	0,50	0,20**	0,13	-0,07	0,22***	0,04	-0,08	0,02	0,20**	-0,06	-0,14*	1	
12. Experience CEO	15,71	10,70	0,03	0,23***	0,20**	-0,03	0,11	0,32***	0,02	-0,14*	0,24***	0,11	-0,25***	1

Notes: standard deviation (SD), significance levels: * <.10, ** < .05, *** <.01

To make sure that multicollinearity did not present a problem, we calculated the Variance Inflation Factors (VIF) for the explanatory variables used in the regression analyses and found that they all had low VIF values (all lower than 1.30). This finding indicates that multicollinearity is not a problem. Before we performed our actual hypothesis testing, we performed basic multiple regression analyses to test whether board involvement in control in fact has a positive effect on product and process innovation, without including potential agency problems. The results of these multiple regression analyses are presented in Table 2. Specifically, we tested two models with product innovation as the dependent variable and two models with process innovation as the dependent variable. First, we included only the control variables for product and process innovation separately. We found that the presence of external board members on the board significantly increased product innovation. Firm size had a significant positive effect on process innovation. None of the other effects were significant. Next, because hypotheses H1a and H2a relate to a positive association between board involvement in control and product innovation, we included board involvement in control as the independent variable and product innovation as the dependent variable in the analyses. There was no association between board involvement in control and product innovation, which contradicts hypotheses H1a and H2a. Third, related to hypothesis H1b and H2b, referring to the positive association between board involvement in control and process innovation, we repeated the analyses with process innovation as the dependent variable. The relationship between board involvement in control and process innovation was positive and significant. Overall, we thus found evidence that board involvement in control positively affects process innovation, but not product innovation.

Table 2. Basic regression results.

Variable	Product innovation	Process innovation	Product innovation	Process innovation
	(1)	(2)	(3)	(4)
Control variables				
Firm size	-0.05	0.24*	-0.04	0.23*
	(0.12)	(0.13)	(0.12)	(0.13)
High-tech	0.14	0.16	0.16	0.29
	(0.20)	(0.22)	(0.22)	(0.22)
CEO duality	0.05	0.30	0.03	0.29
	(0.20)	(0.21)	(0.21)	(0.21)
Board size	0.00	0.03	-0.00	0.04
	(0.07)	(0.08)	(0.08)	(0.08)
External board members	0.71***	-0.11	0.72***	-0.14
	(0.20)	(0.21)	(0.21)	(0.21)
Independent variables				
Board involvement in control			0.05	0.26***
			(0.10)	(0.10)
F	3.02**	1.34	2.49**	2.26**
R^2adjusted	0.08	0.02	0.08	0.07

Notes: The table reports unstandardized regression coefficients and standard errors between parentheses, significance levels: * <.10, ** < .05, *** <.01

As discussed earlier, board involvement in control entails three distinct control tasks, namely behavioural control, output control and strategic control. To test whether the three distinct tasks have a different effect on process innovation, we repeated the regression analyses for the three tasks separately. All three board involvement in control tasks significantly contributed to process innovation, albeit that the effect of strategic control ($\beta = 0.26$, $p = 0.01$) is stronger than the effect of output control ($\beta = 0.22$, $p = 0.02$) and behavioural control ($\beta = 0.22$, $p = 0.03$). The complete results of these analyses are presented in Table 3.

Table 3. Basic regression results for the three control tasks separately.

Variable	Process innovation	Process innovation	Process innovation
	(1)	(2)	(3)
Control variables			
Ln(Firm size)	0.26**	0.21*	0.21*
	(0.13)	(0.13)	(0.13)
High-tech	0.23	0.28	0.25
	(0.23)	(0.22)	(0.22)
CEO duality	0.31	0.28	0.33
	(0.22)	(0.21)	(0.21)
Board size	0.03	0.03	0.02
	(0.08)	(0.08)	(0.08)
External board members	-0.16	-0.12	-0.12
	(0.22)	(0.21)	(0.21)
Independent variables			
Behavioural control	0.21** (0.10)		
Output control		0.23** (0.10)	
Strategic control			0.23*** (0.08)
F	1.99*	2.06*	2.40**
R^2adjusted	0.05	0.05	0.07

Notes: The table reports unstandardized regression coefficients and standard errors between parentheses, significance levels: * <.10, ** < .05, *** <.01

Next, we performed our actual testing of hypotheses H1b and H2b related to process innovation by including potential agency problems. As discussed above, several scholars (e.g. Gabrielsson, 2007; Zahra, 1996) explain the relationship between board involvement in control and innovation from an agency theory lens. The literature describes three types of agency problems that might be relevant in the relationship between board involvement in control and innovation. The first type stems from the separation of ownership and management (Jensen and Meckling, 1976), the second type is typical for owner-managers in family firms who are inclined to act opportunistically in favour of the family rather than the firm (Schulze et al., 2001), and the third relates to the problem of honest incompetence (Hendry, 2002).

As for the first type of agency problems, we tested whether our results are driven by the agency theory explanation in line with hypothesis H1b, or by the duality view explanation in line with hypothesis H2b. In line with Yip and Tsang (2007), we therefore repeated our regression analyses with process innovation as the dependent variable for two mutually exclusive groups: the group of owner-managed firms (N=109) and the group of outside-managed firms (N=25). We define an outside-manager as a CEO who is a paid employee with no equity in the firm and an owner-manager as a CEO who owns a certain percentage of the firm's equity[3] (Ang et al., 2000). Owner-managed firm as well as outside-managed firm were dummy variables (coded 0 or 1). Specifically, we tested the following regression model:

$$\textit{Process innovation} = \alpha + \beta_1\,(\textit{owner-managed} \times \textit{board control}) + \beta_2\,(\textit{outside-managed} \times \textit{board control}) + \zeta X + u$$

[3] We performed the same analyses with a different definition of owner-managed firms, namely the CEO is an owner-manager when he owns at least 50% of the firm's equity. These analyses yielded the same results.

where ζX is the vector of control variables and u the regression residual. According to the agency theory explanation (hypothesis H1b), only β_2 should be significant. According to the duality view of stability and change (hypothesis H2b), β_1 and β_2 are expected to be positive significant. The results of these analyses are presented in Table 4. We found that β_1 and β_2 were positive and significant ($\beta_1 = 0.40$, $p = 0.03$; $\beta_2 = 0.33$, $p = 0.07$). The relationship between board involvement in control and process innovation thus remains significant for the group of owner-managed firms, which is in support of our argument of change and stability as a duality and thus indicates that countering the first type of agency problems cannot be the major explanation for the relationship between board involvement in control and innovation. As for the first type of agency problems, we found that hypothesis H1b is rejected and hypothesis H2b is confirmed.

Table 4. Regression results hypothesis testing (first and second agency threat).

Variable	Product innov.	Process innov.	Variable	Product innov.	Process innov.
Control variable			**Control variable**		
Firm size	-0.02	0.26*	Firm size	0.00	0.26*
	(0.12)	(0.13)		(0.15)	(0.15)
High-tech	0.18	0.40	High-tech	0.03	0.28
	(0.22)	(0.24)		(0.26)	(0.27)
CEO duality	-0.04	0.26	CEO duality	0.04	0.29
	(0.23)	(0.25)		(0.24)	(0.25)
Board size	-0.04	0.02	Board size	-0.01	0.16
	(0.08)	(0.09)		(0.10)	(0.10)
External board members	0.64***	-0.19	External board members	0.77***	-0.34
	(0.21)	(0.23)		(0.27)	(0.28)
Independent variable			**Independent variable**		
Owner-managed x board control	0.07	0.25**	Board involvement in control	-0.09	0.24*
	(0.10)	(0.11)		(0.12)	0.13
Outside-managed x board control	0.01	0.23*	Goal family employment	-0.04	-0.04
	(0.12)	(0.13)		(0.10)	0.10
			Family employment x board control	0.15	0.07
				(0.10)	0.11
F	1.79*	1.92*		1.30	1.93*
R^2adjusted	0.05	0.06		0.03	0.08

Notes: The table reports unstandardized regression coefficients and standard errors between parentheses;
Sign. levels: * <.10, ** <.05, ***<.01

Considering the second type of agency problems, we performed the following test for the group of family-owned firms within our sample (N = 118). The agency threat here entails that owner-managers in family firms are inclined to act opportunistically in favour of the family rather than the firm (Schulze et al., 2001). As a proxy for these nepotism problems, we used the variable 'creating family employment'. Specifically, respondents were asked to indicate to what degree the goal of creating or keeping employment for the family is important. This variable is a good indication of the degree to which the owner-manager favours family members regardless of merit, and thus is inclined to place family objectives above firm objectives. Therefore, we tested whether pursuing 'creating family employment' as an important business goal would change the relationship we found between board involvement in control and process innovation. We thus included the goal of family employment (five-point Likert scale; mean = 2.94; standard deviation = 1.34) as a moderator. We performed new multiple regression analyses to test this interaction effect, after mean-centring the board involvement in control and family employment variables. The results are also presented in Table 4. We found that the main effect of board involvement in control remained significant (β = 0.23, p = 0.06), whereas the goal of family employment (β = -0.04, p = 0.74) and the interaction effect (β = 0.07, p = 0.54) appeared to be not significant. Creating family employment as an important business goal does not influence the relationship we found between board involvement in control and process innovation, which implies that the role of the board here cannot be merely countering opportunistic family firm CEOs. Again, this is in support of our argument of change and stability as a duality and thus indicates that countering the second type of agency problems cannot be the major explanation for the relationship between board involvement in control and innovation. As for the second type of agency problems, hypothesis H1b is rejected, hypothesis H2b is confirmed.

The third type of agency threats relates to the problem of honest incompetence (Hendry, 2002). It might be that board involvement in control is needed because of the CEO's cognitive shortcomings. As a proxy for this, we used two variables and as such tested two regression models. The first proxy we used was the CEO's education level. In line with Yip and Tsang (2007), we again repeated our regression analyses with process innovation as the dependent variable for two mutually exclusive groups: the group of higher educated CEOs (N=86) and CEOs who did not have higher education (N=64). Higher educated CEOs as well as lower educated CEOs were dummy variables (coded 0 or 1). Specifically, we tested the following regression model:

$$\textit{Process innovation} = \alpha + \beta_1 \textit{ (higher educated} \times \textit{board control)} + \beta_2 \textit{ (lower educated} \times \textit{board control)} + \zeta X + u$$

where ζX is the vector of control variables and u the regression residual. According to the agency theory explanation (hypothesis H1b), only β_2 should be significant. According to the duality view of change and stability (hypothesis H2b), β_1 and β_2 are expected to be positive significant. The results of these analyses are presented in Table 5. We found that β_1 and β_2 were positive and significant (β_1 = 0.50, p = 0.01; β_2 = 0.47, p = 0.02). The relationship between board involvement in control and process innovation thus remains significant for the group of higher educated CEOs, which is in support of our argument of change and stability as a duality and thus is a first indication that countering honest incompetence is not the most important task of the board of directors in stimulating process innovation.

Table 5. Regression results hypothesis testing (third agency threat).

Variable	Product innovation	Process innovation	Variable	Product innovation	Process innovation
Control variable			**Control variable**		
Firm size	-0.09	0.21	Firm size	-0.03	0.18
	(0.13)	(0.13)		(0.12)	(0.12)
High-tech	0.15	0.29	High-tech	0.13	0.20
	(0.22)	(0.23)		(0.22)	(0.22)
CEO duality	0.07	0.30	CEO duality	0.04	0.06
	(0.21)	(0.22)		(0.22)	(0.22)
Board size	0.00	0.04	Board size	-0.02	0.02
	(0.08)	(0.08)		(0.08)	(0.08)
External board members	0.63***	-0.17	External board members	0.70***	-0.05
	(0.21)	(0.22)		(0.21)	(0.21)
Independent variable			**Independent variable**		
Higher educated x board control	0.11	0.28**	Board involvement in control	0.05	0.19*
	(0.10)	(0.11)		(0.10)	(0.10)
Lower educated x board control	0.03	0.25**	Experience CEO	0.00	0.02**
	(0.10)	(0.10)		(0.01)	(0.01)
			Experience CEO x board control	0.00	0.01
				(0.01)	(0.01)
F	2.51**	1.96*		1.69	2.57**
R^2adjusted	0.09	0.06		0.05	0.11

Notes: The table reports unstandardized regression coefficients and standard errors between parentheses;
Sign. levels: * <.10, ** <.05, ***<.01

As a second proxy, we used the CEO's experience, measured as the number of years the CEO occupied his/her position (mean = 15.71; standard deviation = 10.70). Therefore, we tested whether the level of the CEO's experience would change the relationship we found between board involvement in control and process innovation. We thus included the CEO's experience as a moderator. We performed new multiple regression analyses to test this interaction effect, after mean-centring the board involvement in control and experience variables. The results are also presented in Table 5. We found that the main effect of board involvement in control remained significant (β = 0.18, p = 0.07). The CEO's experience also appeared to be positive and significant (β = 0.25, p = 0.02). Yet, the interaction effect (β = 0.10, p = 0.32) appeared to be not significant. The CEO's experience, although significantly affecting process innovation, does not influence the relationship we found between board involvement in control and process innovation, which implies that the role of the board here cannot be merely countering the CEO's lack of experience. Again, this indicates that countering the third type of agency problems cannot be the major explanation for the relationship between board involvement in control and innovation. Also for the third type of agency problems, we found that hypothesis H1b is rejected and hypothesis H2b is confirmed.

3.4.2. Robustness section

Service role. Besides involvement in control tasks, the board of directors also performs important service tasks. These service tasks specifically entail providing advice and counsel, networking and strategic participation (Huse, 2005). To test how these tasks relate to product and process innovation, we repeated the basic regression analyses with board involvement in control including the three service tasks respectively in this robustness section. The results of these analyses are presented in Table 6.

Table 6. Basic regression results – Service role.

Variable	Product inn.	Process inn.	Product inn.	Process inn.	Product inn.	Process inn.
Control variable						
Firm size	-0,05	0,23*	-0,06	0,22*	-0,04	0,29
	(0,12)	(0,13)	(0,12)	(0,13)	(0,12)	(0,12)
High-tech	0,20	0,30	0,23	0,33	0,17	0,20
	(0,22)	(0,23)	(0,22)	(0,23)	(0,22)	(0,22)
CEO duality	0,03	0,30	0,02	0,29	0,03	0,40*
	(0,21)	(0,22)	(0,20)	(0,21)	(0,21)	(0,21)
Board size	0,02	0,04	0,03	0,05	-0,00	0,00
	(0,08)	(0,08)	(0,08)	(0,08)	(0,08)	(0,08)
External board members	0,70***	-0,15	0,72***	-0,14	0,71***	-0,01
	(0,21)	(0,22)	(0,20)	(0,21)	(0,21)	(0,21)
Independent variable						
Board involvement in control	0,02	0,21	0,03	0,22*	0,07	-0,06
	(0,13)	(0,13)	(0,11)	(0,12)	(0,15)	(0,15)
Service: Advice and Counsel	0,13	0,12				
	(0,12)	(0,13)				
Service: Networking and Lobbying			0,12	0,11		
			(0,08)	(0,09)		
Service: Strategic participation					-0,02	0,34***
					(0,12)	(0,12)
F	2,57**	2,18*	2,72**	2,30**	2,12**	3,13***
R^2adjusted	0,09	0,07	0,10	0,08	0,07	0,12

Notes: The table reports unstandardized regression coefficients and standard errors between parentheses;
Sign. levels: * <.10, ** <.05, ***<.01

We found that regarding product innovation, the effect of none of the service tasks was significant. Regarding process innovation, only the effect of strategic participation appeared to be significant. What is more, the effect of board involvement in control diminished when board involvement in strategic participation was added to the equation. The effect of board involvement in advice and counsel and board involvement in networking and lobbying respectively appeared to be not significant and only marginally altered the effect of board involvement in control. The sole strong effect of strategic participation is however not surprising. The composition of the strategic participation (board involvement in service) and the strategic control (board involvement in control) scales stem from Fama and Jensen's (1983) classic agency theory distinction between decision management, referring to the initiation and implementation of decisions, and decision control, referring to the ratification and monitoring of decisions. While this division makes sense in the agency theory logic, both the strategic control and strategic participation scales fit well within our duality view of stability and change. After all, strategic participation of the board of directors implies that the board more or less functions as a constructive sounding board, which is in line with our argumentation of board involvement in control stimulating innovation as it provides focus, reduces uncertainty and provides a consistent frame.

As such, it is important to note here that the service role and the control role of the board of directors are highly correlated (r=0.68). This is in line with what is found in the literature (e.g. Gabrielsson and Winlund, 2000; Minichili et al., 2009). Active boards appear to be active in all tasks (Hillman and Dalziel, 2003). As such, in the real world, boards do not perform these tasks separately, but rather interchangeably. Therefore, it is difficult to clearly demarcate where the control task ends and the service task begins (Payne et al., 2009; Rindova, 1999). We however, decided to explicitly focus on the control role in this chapter for several reasons. First of all, the control role is traditionally the most important and fundamental task of the board of directors (e.g. Bammens et al., 2008; Fiegener, 2005; Van Den Heuvel et al., 2006). Secondly, an important contribution of this chapter is providing an alternative behavioural explanation to the control focussed agency theory for the role the board plays in innovation. For this, we thus relied on the duality view of stability and change (Farjoun, 2010), where the importance of stability promoting mechanisms, like control, for stimulating change and innovation is highlighted. Although intuitively (and according to the classical literature on change and innovation), control might not seem to be positively related to innovative behaviour, the duality view argued, and our results actually showed, that control effectively can foster innovation. Although the service role on the other hand intuitively might seem to have a more straightforward relationship with innovation, our results showed that apart from strategic participation, the relationships are not significant.

Endogeneity. In cross-sectional research designs the possibility of endogeneity problems must be taken into account. As such, caution is warranted in making bold statements about causality. In our argumentation and regression models, it is argued that board involvement in control positively influences process innovation in SMEs. However, maybe the causality is reverse. Maybe it is the innovation orientation of the firm that influences certain board activities. The instrumental variable method (Bascle, 2008) effectively addresses these endogeneity problems. Specifically, this method focuses on the variations in X that are uncorrelated with the error term. The first step herein is to find a valid instrument, meaning that the instrument should be relevant and exogenous. To instrument for “board involvement in control”, we used the degree of functional diversity (e.g. sales, finance, accounting) among the board members in the firm. We argue that this is a valid instrument as it most likely influences board involvement in control, while at the same time there is less theoretical reason to believe that innovation is related to this. Diversity in functional backgrounds influences the cognitive and communication processes in the boardroom and as a consequence also the way in which the board performs the important control task (Forbes and Milliken, 1999; Minichilli et al., 2009). It is however unlikely that the composition of the board is altered due to the innovation activities of the board, as the board composition in general is not easily changed (Lynall, et al., 2003). Next, in line with Bascle (2008), we performed a 2SLS regression with this instrument, which revealed the same results as the basic regression analyses reported in this chapter. As such, board involvement in control remained significantly positively related to process innovation ($p=0.02$).

3.5. Discussion and Conclusion

3.5.1. Summary of Results

The purpose of this study was to examine the role of the board of directors in stimulating product and process innovation in SMEs. Drawing on the duality view of stability and change (Farjoun, 2010), we looked beyond traditional agency theory offering an alternative complementary explanation for the role that boards play in innovation (van Ees et al., 2009). Board involvement in control supports innovation in SMEs because it provides the stability needed for a successful innovation process. For our analysis, we relied on a statistical analysis of a sample of 150 Belgian firms and focused on actual board task behaviour rather than board demographics (such as board size and CEO duality), which is in line with recent developments in the corporate governance literature (e.g. Gabrielsson, 2007; Zona and Zattoni, 2007). We formulated two contrasting hypotheses, which we further subdivided in the relationship between board involvement in control and product innovation and process innovation respectively. The first hypothesis was in line with the traditional agency theory and stated that board involvement in control would only have a significant positive effect on innovation when there are potential agency problems present in the firm. The second hypothesis was in line with the new duality view of stability and change, and stated that board involvement in control would positively affect innovation regardless of agency threats. The following paragraphs present a detailed discussion of our most important findings.

First of all, we found that the board's involvement in control is positively related to a firm's emphasis on process innovation, but not related to a firm's emphasis on product innovation. This finding is in line with Gabrielsson and Politis (2009), who, using a different interpretation of the control tasks of the board of directors, also found a positive relationship with process innovation and no relationship with product innovation. This indicates that, although several studies showed that product and process innovation are largely supported by the same mechanisms (Damanpour and Aravind, 2006) and researchers thus often are inclined to study product and process innovation together (for example, in the form of research and development (R&D) strategy, e.g. Baysinger et al., 1991), there are in fact important mechanisms for innovation that differentiate between product and process innovation. While the board's involvement in control seems to enable process innovation, this is not the case for product innovation. A possible explanation for this finding is that product innovation requires more collaboration with, and follow-up by, other stakeholders instead of the board of directors, such as customers and technical specialists. New products are often developed through close contact with the dynamics on the market, through listening to customer needs and concerns. This thus calls for a more external market focus and more experimentation, which is to a lesser extent what the control role of a board of directors entails. Process innovation, on the other hand, concerns internal company processes that need to be renewed and is often more focussed on reducing costs and avoiding risks, which calls for a more internal focus. It is frequently a more large-scale and long-term project (Damanpour and Gopalakrishnan, 2001), which requires more supervision during the process, for instance, by an active board. However, further research is needed to get more insight into the underlying processes that can explain the differences we found between product and process innovation.

The control role of the board of directors specifically entails three tasks, namely behavioural control, output control and strategic control (Huse, 2005). We checked whether the three distinct tasks have a different effect on process innovation. All three board involvement in control tasks significantly contributed to process innovation, albeit that the effect of strategic control is the strongest. This is in line with our expectations as the initiation and implementation of process innovations entail important decisions of a strategic nature.

Next, as discussed above, the control role of the board of directors has mainly been studied from an agency theory perspective (e.g. Brunninge et al., 2007; Gabrielsson, 2007). An important contribution of our research was to establish whether the relationship between board involvement in control and innovation would hold regardless of possible agency problems. Therefore we contrasted the agency theory explanation (hypothesis 1A and hypothesis 1B) with the duality view (hypothesis 2A and hypothesis 2B). Specifically, we identified three types of agency problems. The first type is the classical view and stems from the separation of ownership and management (Jensen and Meckling, 1976). The second type is typical for owner-managers in family firms who are inclined to act opportunistically in favour of the family rather than the firm (Schulze et al., 2001). The third type refers to the assumption that board involvement in control is needed to counter a CEO's honest incompetence. We specifically tested three interaction effects between board involvement in control and a proxy for the specific agency problem. We found that none of the interactions significantly altered our results. This thus indicates that the presence of an agency threat does not significantly alter our findings, which implies that countering the above described agency problems cannot be the major explanation for the relationship we found between board involvement in control and process innovation. This justifies an alternative explanation, which our duality view of stability and change offers.

Board involvement in control thus encompasses more than simply countering the CEO's intentional or unintentional shortcomings. Our findings indicated that the agency theory logic cannot sufficiently explain what the role of the board of directors in stimulating innovation entails. In line with the view of stability and change as a duality (Farjoun, 2010), we argued that it involves providing enough stability in order that CEOs feel safe and the innovation process can occur in a focused and efficient manner. Future research, in which these intermediate processes can be tested, is needed to further examine this theoretical explanation.

In our analysis we relied on actual board task behaviour and controlled for the board demographics CEO duality, board size and the presence of external board members. In line with recent developments in the corporate governance literature (e.g. Gabrielsson, 2007; Zattoni and van Ees, 2012; Zona and Zattoni, 2007), where various scholars claim that the classic board demography approach is not able to capture the actual board processes leading to board effectiveness, we also found that these board demographics yielded few significant results, whereas actual board behaviour in the form of board involvement in control did. Hence, board demography is of minor importance in comparison to actual board behaviour. Boards that actually closely keep an eye on things help to support innovation, which is also in line with our explanation of a board active in control providing focus, certainty and structure.

Lastly, the basic regression results yielded a remarkable finding that was not hypothesized. Having external board members on the board appeared to be strongly positively related to product innovation (but not to process innovation). As discussed above, new products are often developed in close contact with the market and thus require an external market focus. Outside directors can be expected to play an important role in establishing this external market focus. Future research could give more insight in explaining this notable finding.

3.5.2. Theoretical Implications

Overall, our research contributes to the literature in several important ways. First, and in line with recent calls (e.g. Huse, 2005; Huse et al., 2011), we drew on an alternative theory for explaining the relationship between board roles and innovation, complementing the traditional agency theoretical view. Agency theory has always dominated the field of corporate governance in SMEs and family business. Although this strong reliance on agency theory has increased our knowledge on the topic, critics have raised concern about the oversimplification of board decision making typical for agency theory. Based on the view of change and stability as a duality (Farjoun, 2010), we offered a complementary, more behavioural approach, arguing that board involvement in control enables innovation because it provides the necessary amount of stability. More precisely, it provides focus, certainty and a consistent frame wherein the innovation can take place. Second, the general innovation literature also learns from this study as an important, rather counterintuitive and therefore often neglected, factor stimulating innovation is highlighted, namely the role of board involvement in control. As also discussed in Chapter 2, the duality view of change and stability can form a useful framework for studying innovation processes. Lastly, we contribute to the empirical research on board governance. In line with Gabrielsson (2007) and Gabrielsson and Politis (2009), we found that actual board involvement in control (and not just board demographics) facilitates innovation in SMEs. Contrary to these previous studies on board involvement in control and innovation, we moved beyond agency theory in explaining this relationship, drawing on a different theoretical argument. Whether or not there are agency threats present in the firm, our results indicating that actual board involvement in control facilitates innovation in SMEs, remain the same.

3.5.3. Practical Implications

This chapter also has important practical implications. As there often exists a large overlap between ownership and management in SMEs, the classical agency problem is less prevalent in these firms (Forbes and Milliken, 1999). Accordingly, the control role is often considered to be less important than other board roles such as the service role (Long et al., 2005; Van den Heuvel et al., 2006). However, our results suggest that, rather than being a solution for agency problems, board involvement in control plays a significant role in stimulating process innovation in SMEs through the active monitoring of internal and external firm behaviour or strategic decision-making. Therefore, entrepreneurs should be aware that board involvement in control may be a valuable resource when trying to walk the path of successful innovation because board involvement in control provides focus, certainty and structure.

3.5.4. Limitations and Future Research

Our study is not without limitations. First, because we used a cross-sectional design, we cannot infer causal relationships. Future (longitudinal) studies that measure different aspects of the innovation process, for example, the different phases of the process or the outcomes of the innovation, could give more insight into the issue of causality. Second, we relied on a single respondent. Other board members might have a different perspective which might also be valuable, as the study concerns board role performance, which is less objective than demographics such as size and membership. Lastly, we did not test the intermediate processes between board involvement in control and innovation. To further examine our framework of stability and change as a duality, it might be interesting to include intermediate variables, like psychological safety.

4. Embeddedness as an Opportunity for Organizational Innovation in Family Firms

4.1. Introduction

Today's dynamic and highly competitive business environment challenges family firms to be flexible and innovative. A firm's capability to adapt its internal structure and behaviour to these changes in the environment is essential for its competitiveness and survival in the marketplace (Leana and Barry, 2000; Tushman, 1997). Organizational innovation forms an important approach for dealing with these challenges. Organizational innovation is defined here as introducing new managerial and working practices (Damanpour, 1987; Zahra et al., 2000) or in other words, changing the way work is organized[4]. This kind of innovation can be a direct source of flexibility (Armbruster et al., 2008). For instance, it may facilitate the efficient use of technical innovations or encourage employee creativity through the introduction of more responsive organizational structures, more team-oriented organizational cultures or empowerment programs. Successful organizational innovation thus may increase the capability to innovate in the future (Bouwen and Fry, 1991; Tuominen at al., 2004).

The study of the process and dynamics of organizational innovation in general is a very complicated endeavour. Scholars as well as practitioners agree that the process of changing the way work is organized is complex and challenging for all organizations (Beer and Nohria, 2000; Whelan-Berry and

[4] In this chapter, we view organizational innovation as a type of innovation, next to product and process innovation. Various other scholars (e.g. Damanpour, 1991) view organizational innovation more broad as encompassing all types of innovation taking place within an organization. Our view of organizational innovation is similar to Damanpour's (1991) concept of administrative innovation.

Somerville, 2010). As such, many organizational innovation efforts do not live up to their expectations. Research shows that only about one-third of all initiated change processes deliver the expected results (Shin et al., 2012). Creating a better understanding of this kind of innovative behaviour is therefore an important challenge for researchers today.

We will address this within the specific context of family firms. While the study of organizational innovation has become a very important research domain (e.g. Wolfe, 1994; Beck et al., 2001; Pettigrew et al., 2001), research that particularly addresses family firms is still limited (e.g. Hatum and Pettigrew, 2004; Craig and Moores, 2006). However, as family firms represent the majority of all firms in the economic landscape (Astrachan and Shanker, 2003; IFERA, 2003), the study of organizational innovation within this organizational context is particularly important. What is more, family firms have several unique characteristics that may facilitate or hinder the change process. The classic idea regarding innovation in family firms is that they are rather reluctant to take risks (Gomez-Mejia et al., 2007). Therefore, family firms are in the literature often characterized as being traditional, conservative and resistant to change. On the other hand, the family firm literature describes several cases of firms that actually succeeded in implementing important changes, arguing that family firms have specific characteristics that facilitate the change process (e.g. Litz and Kleysen, 2001; Ng and Roberts, 2007; Salvato and Melin, 2008; Salvato et al., 2010). In this sense, there is an important gap in the literature on change and innovation in family firms as there are opposing viewpoints that contradict each other. When are family firms actually able to make important changes? How exactly do the typical characteristics of family firms assist in forwarding a change process?

These questions will be addressed from a relational embeddedness perspective. The basic premise behind the research on embeddedness in organizations is that all action is embedded in ongoing social ties and that this influences several organizational outcomes, like organizational innovation (Uzzi, 1997). As such, various scholars have used the concept of embeddedness as a means for explaining change and innovation processes (e.g. Dacin et al, 1999; Greenwood and Suddaby, 2006; Reay et al., 2006). However, the embeddedness approach has largely neglected the one social institution in which all entrepreneurs are embedded and that is evidently most prevalent in family firms, namely the family (Aldrich and Cliff, 2003). The concept of embeddedness can nevertheless form a useful means for explaining the seemingly contradicting tendencies in these firms (Le Breton-Miller and Miller, 2009). Family social bonds are typically long-lasting and encompassing and the firm is accordingly often highly embedded in the family in the sense that family relations have a strong impact on firm processes. The often high degree of embeddedness will likely have important consequences for the way in which a family firm enacts an organizational innovation. In other words, family social ties play a significant role in the innovation process.

Overall, we will specifically address two research questions in this chapter. Our first research question concerns: *When* can family firms with high embeddedness realize an organizational innovation process? This question specifically addresses context, as we are looking for the conditions wherein embeddedness facilitates innovation. The literature that studies the role of embeddedness in organizational innovation is rather inconclusive whether high embeddedness helps or hinders change (e.g. Reay et al., 2006). We will investigate under which circumstances a family firm's embeddedness can be an advantage for the innovation process. Secondly, besides context, we will also study process, answering the question of *how* exactly this embeddedness contributes to advancing an organizational innovation process. We will examine which concrete actions that are based on embeddedness foster the innovation process.

A qualitative study is used to find an answer to these questions. We draw on an inductive theory building approach, based on the interview data of 12 CEOs of family firms. The remainder of this chapter is structured as follows. In the next section, we will discuss the literature on relational embeddedness with regard to organizational innovation. Then we describe our research method. In what follows, we will discuss the insights that we drew from the data and link these to our research questions. We will end with a discussion of our most important results. In general, this chapter contributes to the understanding of the organizational innovation process in family firms, from the unique perspective of relational embeddedness. Specifically, we will argue that family firms with high embeddedness are capable of change and that they actually draw on this embeddedness to make the innovation effort work.

4.2. Embeddedness and Organizational Innovation in Family Firms

4.2.1. Organizational Innovation

Organizational innovation is an important but difficult undertaking for firms today. Creating a better understanding of this kind of innovative behaviour is therefore an important challenge for researchers. We define successful organizational innovation in line with Yin (2003, p. 152) as "firms that have undergone broad-based change, affecting nearly all areas of the business and resulting in real improvements in business performance". Research shows that, as an organizational innovation process often is a large-scale and long-term project and thus typically involves a lot of people within the organization, the success of it relies strongly on the support and enthusiasm of everybody involved (Piderit, 2000). The attitudes and behaviour in response to the change of all the involved members of the organization appear to be crucial for the success of it, as they are the ones who ultimately have to make it happen (Armenakis and Harris, 2009). However, many of the people involved are rather inclined to resist a change initiative. The change is often experienced as disruptive, because people need to adjust to new ways of working, new work relationships and workloads may increase. For many members of the organization such an organizational innovation is therefore often perceived as a stressful, emotional and fatiguing process (Shin et al., 2012). Many researchers so far therefore have tried to investigate how an organization can make sure that everybody involved fully supports the innovation and effectively applies it. In this sense, recent research has shown that high-quality relationships result in less resistance to the change initiative during the process (Ford et al., 2008). For instance, making sure that feelings of trust are kept at a high level is regarded as an important prerequisite for this. Having shared experiences, being able to openly discuss ideas and mutual questioning are also discussed as important characteristics of these high-quality relationships (Bouwen and Fry, 1989; Lambrechts et al., 2009; Steyaert et al., 1996). This indicates that the crucial factor here is relational in nature. However, it is still not clear how these high-quality relationships precisely foster the change initiative in a family firm and under which circumstances. Therefore, our research will focus on these questions, taking a relational perspective, as we will focus on relational embeddedness.

4.2.2. The Concept of Embeddedness

As mentioned above, various scholars have used the concept of embeddedness in explaining change or innovation (e.g. Dacin et al, 1999; Greenwood and Suddaby, 2006; Reay et al., 2006). Embeddedness research starts from the assumption that all economic activity is shaped and conditioned by social context (Granovetter, 1985). In other words, all economic activity is embedded in continuing patterns of social relations. Embeddedness thus can be defined as "the degree to which actors and their actions are linked to their social context" (Reay et al., 2006; p. 978). Research in this domain therefore focuses on understanding how social relations influence organizational processes (Dacin et al., 1999), and consequently, is particularly suited for explaining a predominantly relational phenomenon, like an organizational innovation process (e.g. Steyaert et al., 1996).

As mentioned above, the embeddedness approach has mostly overlooked the one social context in which everyone is embedded and that is specifically important in family firms, namely the family (Aldrich and Cliff, 2003). Research has indicated that family relationships play an important role in entrepreneurial phenomena, like opportunity emergence and recognition. The norms, values and attitudes held by entrepreneurial families likely affect the process of seeing and dealing with new opportunities. As family members have spent most of their lives together, family social bonds are typically long-lasting and highly emotional. When these family bonds become entwined with a business context, they are bound to have an impact on all people involved in the family business, family as well as non-family members. Embeddedness of the family firm can thus be seen as the degree in which members of the family firm are linked to the family (Le Breton-Miller and Miller, 2009). In family firms with high embeddedness, members of the family firm are strongly linked to the family via close ties. In other words, in these firms the family has a strong impact on firm processes. High embeddedness of the firm in the family does not merely mean that the family is highly involved in the firm quantitatively on a demographic level, but that the family impacts the firm also qualitatively on several more behavioural dimensions. Concretely, this impact can take the form of a variety of tangible as well as intangible firm characteristics. It can imply that many family actors play a significant role in the firm (Le Breton-Miller and Miller, 2009), in the sense that, for instance, the board of directors is exclusively occupied by members of the family or that the firm is run by a single, influential founder. Another example of a tangible indicator of high embeddedness concerns the time that employees have spent in the family firm (Lee et al., 2004). Low employee turnover implies that many employees are very loyal to the family firm and often stay their entire careers in the firm, which is thus also an indicator of embeddedness. On a more intangible level, there are indicators of embeddedness that have to do with family values and family ties that are spread throughout the company. Examples of this concern all members of the family firm feeling part of the family, relationships that are close and enduring, high trust and high commitment to the firm (Miller et al., 2009). Overall, this embeddedness of the firm in the family generally implies that members of the family firm have a long shared experience with the firm, that they have a deep knowledge of the firm and have close relationships with each other.

4.2.3. Embeddedness as a Constraint

Several studies have investigated how embeddedness influences a firm's ability to innovate. These studies have primarily viewed embeddedness as a constraint (e.g. Greenwood and Suddaby, 2004; Seo and Creed, 2002). People who are highly embedded in their social context are highly shaped by rules, norms and routines that are taken-for-granted and therefore more constrained by their social context. They are highly socialized within these routines and have been used to do things in a certain way for a long time. As a consequence, they are not motivated to make changes and are less open to new alternatives (Greenwood and Suddaby, 2004). Too much embeddedness makes people rather inward looking. They hardly have links to outsiders who can potentially contribute innovative ideas (Uzzi, 1997). In this view, innovation can only occur through people who are not deeply embedded. Seo and Creed (2002) also argue that high embeddedness leads to resistance to change and that change is therefore only possible when people are less embedded, through newcomers for example, or when people become less embedded due to so-called 'institutional contradictions' or in other words, tensions and conflicts that arise within the established social arrangements.

The above described view of embeddedness as constraining for change actually is in line with the classic idea of family firms as risk-averse and conservative. The literature describes family firms as having an inclination towards stability, due to their heavy emotional involvement in the business. In this sense, the legacy of the founder, the deeply rooted entrepreneurial tradition and the fear of losing family harmony often lead to resistance to change (Salvato et al., 2010). Le Breton-Miller and Miller (2009) describe how family firms with high embeddedness of the firm in the family pursue objectives that only benefit the family rather than the entire firm, which would make them more close-minded and less inclined to invest in needed innovation efforts.

4.2.4. Embeddedness as an Opportunity

Although many researchers view embeddedness as a constraint, there have been calls to focus on embeddedness as an opportunity for organizational innovation (e.g. Reay et al., 2006). In this regard, highly embedded actors use their deep contextual knowledge, prior shared experience and close relationships to perform certain concrete actions that help advance the change process. This way, they are for instance able to recognize the right time to take action, they know how to fit the new into the existing organizational systems and structures and they know how to convince everybody involved of the value of the new. Through these so-called micro-processes, individuals create small wins that solidify past achievements and renew enthusiasm for future change. Other researchers (e.g. Lambrechts et al., 2009) also argue that it is important that interactions during change are embedded in the organizational context, rather than stand alone. For change efforts to be successful, the fit with the relational context needs to be considered. Put differently, remaining congruence with the existing organizational operations is important. The literature describes various ways in which embeddedness can foster an innovation process. Moran (2005) explains how closeness and trust, two important attributes of embeddedness, facilitate the transfer of complex and tacit knowledge, reduce uncertainty and enhance support to persevere, which are all important qualities during a complex organizational innovation process. Uzzi (1997) distinguishes three main components of embeddedness, namely trust, fine-grained information transfer and joint problem-solving arrangements. These characteristics facilitate change because actors can better identify organizational problems and carry out coordinated solutions for them. Furthermore, due to close relationships, people feel safer to risk changes (Edmondson et al., 2001). They will feel more comfortable to discuss problems and get direct feedback. This makes it easier to work through the problems that inevitably occur during organization-wide innovation efforts. Stable teams that have been working together for a long time can more easily learn a new task because they fully understand one another's capabilities and can more easily coordinate their actions.

We will therefore argue that family firms with high embeddedness are capable of change and that they actually draw on this embeddedness to make the innovation effort work. Members of the family firm who are highly linked to the family first of all experience more trust, solidarity and loyalty towards each other and the business, which makes them more inclined to support needed innovation efforts (Arregle et al., 2007). They also have more intimate knowledge of the firm and more (informal) collaboration to achieve a common purpose, which facilitates the often difficult and long-term innovation process. However, as discussed above, there is an extant literature which cannot be easily ignored, that describes family firms as more close-minded and conservative, or with an inclination towards family-serving interests rather than firm-serving interests, precisely because of that close link with the family (Le Breton-Miller and Miller, 2009). Therefore, an important purpose of our research is to find out when family firms actually use this embeddedness to forward the innovation initiative. As discussed above, embeddedness can foster an organizational innovation process as the shared beliefs, shared experiences, the intimate knowledge and strong connections make them able to take the appropriate actions for advancing the change initiative. But, as also previously mentioned, it can also become a liability. So under which circumstances is it the former and when is it the latter? Therefore one of our two research questions concerns: *When can family firms with high embeddedness realize an organizational innovation process?* The other main purpose of our research is to identify which are exactly these appropriate concrete actions that facilitate the innovation process in family firms. The literature describes many ways in which embeddedness can be an advantage for the innovation process, but so far it is not clear how exactly family firms use their embeddedness to execute an organizational innovation process. *How do family firms draw on their embeddedness for taking appropriate actions?* In other words, through which micro-processes do they advance change? Inspired by Reay and colleagues (2006), we define micro-processes here as concrete actions that individuals take during a change process and that taken together significantly assist in bringing the innovation process forward. It is thus the sum of the individual-level (micro-level) actions that bring forward an organizational-level (macro-level) change.

4.3. Research Method

4.3.1. Research Design

To address the specific research questions in this chapter, we were interested in the concrete actions that family firms take to advance change and the particular circumstances in which this is possible. For this, we drew on a qualitative study. As discussed above, the literature offers positive as well as negative consequences of embeddedness in relation to organizational innovation in family firms. Qualitative research is particularly valuable for dealing with competing tendencies like these (Ng and Roberts, 2007), as it can effectively take into account context, for answering our 'when'-question, as well as process, for answering our 'how'-question. Through this qualitative research, we can provide a richer understanding of embeddedness as an opportunity for organizational innovation in family firms. Multiple case design was used as it provides a more robust and generalizable answer to our research questions than single case designs (Yin, 1989). Only relations that arise over multiple cases are retained (Eisenhardt and Graebner, 2007). The dataset included interviews with 12 CEOs of private family firms in Belgium. All CEOs were family members. We chose the CEO as key informant as they generally have a good overview. They have access to all information within the organization and are in charge of all business activities (Chandler and Jensen, 1992). The 12 firms were selected based on theoretical sampling. For this, we worked together with an important employer organization. We chose these firms that offered rich theoretical insight into the phenomenon of interest (Eisenhardt, 1989). In other words, we chose family firms that could inform us about how their embeddedness influences their change processes until we reached theoretical saturation. Concretely, we chose family firms that were first of all going through important changes. We specifically focused on firms wherein growth is an important goal, we focused on firms that want to innovate. Secondly, we only included family firms that were relatively successful in their innovation efforts, according to the above described definition of Yin (2003). As indicator for success, the perception of the CEO was used. Lastly, all family firms in our sample were characterized by relatively high embeddedness of the firm in the family. Starting from this extensive data set, we used an inductive or grounded theory-building approach to identify the concrete actions and contingencies that foster organizational innovation in family firms (Strauss and Corbin, 1998).

Table 7 provides an overview of the 12 cases, indicating the industry, firm size, return on assets (ROA), return on equity (ROE), leverage and generation of the firm. The last column gives several indicators of embeddedness that the CEOs implicitly mentioned themselves during the interview. We did not deliberately ask how embedded the firm was in the family, but looked for quotes that indicate that the family has a strong impact on firm processes. We found tangible as well as intangible indicators for this in all 12 firms, indicating that embeddedness is relatively high in all the firms in our dataset.

Table 7. Summary of cases.

Case	Industry	Firm size	ROA	ROE	Leverage	Generation	Indicators of embeddedness	
							Tangible	**Intangible**
1	construction	55	3,82	5,25	1,54	1	Low turnover	Proud personnel
							Only family in board of directors	Enthusiastic personnel
							Shares in hands of the family	Strong reliance on intuition
								Son socialized within company
								Close relationships
								Familial atmosphere
2	manufacturing	4	4,33	4,41	0,42	2	CEO > 90% shares	Personnel grows with the firm
							Shares in hands of the family	Close relationships
							Only family in board of directors	High commitment
							Low turnover	Strong reliance on each other
3	construction	203	7,38	22,55	4,17	2		High trust
								High commitment
								CEO grew up in the firm
								Emphasis on human aspect
								CEO preoccupied with firm
4	manufacturing	101	5,19	7,34	0,56	1	Only family in board of directors	High commitment
								Emphasis on continuity
								Familial atmosphere

5	manufacturing	289	-6,72	-51,68	5,13	3	Family forum Family charter Recruitment favors internals Low turnover	Genuine concern for people Emphasis on human aspect High commitment High attachment to each other
6	retail	226	37,77	38,98	0,23	2	Family charter	Family values throughout company Enthusiastic personnel Emphasis on continuity
7	retail	447	34,02	60,94	1,21	3	Family charter Shares in hands of the family	High commitment Authenticity Community feeling Feeling of family throughout the firm People driven
8	manufacturing	229	5,64	9,90	0,88	2	Family charter Shares in hands of the family	Family stays Emotional connection High trust
9	construction	105	8,00	36,13	5,33	3		High commitment Emphasis on continuity Close relationships
10	retail	56	5,57	11,09	2,33	1	Shares in hands of the family	One-man show One vision Capable original employees Stability

11	wholesale	37	16,27	24,24	1,06	3	Shares in hands of the family	First-name basis
								Feeling part of the family
								High involvement
								High trust and respect
								Emphasis on continuity
								Lived through experience
12	manufacturing	23	-0,06	-0,86	0,71	4	Low turnover	Knowing everybody personally
							Shares in hands of the family	Emphasis on continuity

4.3.2. Data Collection

We collected data through semi-structured interviews with 12 CEOs of family firms. As can be seen in Table 7, our sample was made up by very diverse firms covering various industries, firm sizes and firm ages. As discussed above, the sample only included firms that were successful according to the perception of the CEO. Besides this, we also included financial measures (return on assets, return on equity and leverage) as more objective measures of success for triangulation reasons. These data revealed that there nevertheless is considerable variation between the firms when it comes to financial performance. Yet, no notable differences can be found in the results between the more successful and the less successful firms.

All interviews were taped and transcribed and they typically lasted about two hours. The interviews consisted of exclusively open-ended questions to make flexible and informal dialogue possible. We started each interview with a broad question in which the CEO was encouraged to tell the story of the most important change that they implemented in the family firm. After this opening question, our interview protocol served as a checklist of topics that we wanted to explore further in order to ensure enough depth in the CEO's story of the change process. The topics for the interview protocol were identified based on an extensive review of the literature on organizational change and innovation. This way of interviewing fits our grounded theory approach very well, as both are "open-ended yet directed, shaped yet emergent, and paced yet unrestricted" (Charmaz, 2006, p. 28). The interview protocol can be found in Appendix 3.

4.3.3. Data Analysis

As mentioned above, in order to answer our research questions, we used a grounded-theory building approach (Eisenhardt, 1989). In this method, researchers let underlying constructs and patterns emerge from the data. So therefore, it is important to be open to multiple possibilities while analysing the data (Strauss and Corbin, 1998). The data was coded manually, as we identified themes through reading of the interview transcripts. For answering the 'how'-question, we specifically looked for concrete actions that are aimed at forwarding the organizational innovation and that are based on embeddedness. In other words, we looked for concrete actions that facilitate change and that could only take place because of the firm members' deep knowledge, rich experience, close relationships or high involvement. For every case, all the concrete actions that we could identify were tagged and as such, made up the first-order codes. In the next analyses round, these tags were then examined for similarities to develop theoretical concepts that lie behind the first-order codes. We thus grouped all the first-order codes over all the cases into various second-order codes. To identify the micro-processes, we again looked for similarities across the second-order codes, frequently going back to the original data, and this way looked for the theoretical constructs that underlie them. As such, we identified the micro-processes that are based on embeddedness. After this, we applied the same approach in order to answer our 'when'-question, this time looking for additional contingencies that play a role in determining when embeddedness in fact leads to these concrete actions. Is embeddedness in itself enough as a basis for achieving the micro-processes or do the CEOs point to another important prerequisite to make the innovation process work? Detailed evidence for the coding can be found in the appendices (Appendix 4-8).

4.4. Embeddedness as an Opportunity for Organizational Innovation

How can members of the family firm realize major changes in their way of working? Our analyses of the interviews of 12 CEOs of family firms, indicate that high embeddedness forms the foundation for accomplishing four micro-processes along the way. These micro-processes precisely concern: (1) trial-and-error learning, (2) framing the change initiative, (3) providing necessary structure, and (4) fast decision-making. All these activities can either occur at the same time, or sequentially, or even repetitively. But each one assists in forwarding the organizational innovation process in its own way. All four micro-processes are initiated by the CEO and other members of the upper echelon of the company. However, this does not imply that the micro-processes only take place at the top of the firm. The CEO sets the tone and this behaviour is further translated throughout the company. The execution of the micro-processes at the top of the firm thus facilitates the execution of the micro-processes at other levels of the firm. This answers our "how" question. Our analyses also indicate that while embeddedness forms the basis for realizing these micro-processes, an organizational culture of openness complements this embeddedness in order to be really successful. While embeddedness in combination with openness seems to be a 'contradictio in terminis', we will argue that the one does not necessarily preclude the other, but that it is in fact the ideal combination for accomplishing the important organizational innovation supporting micro-processes. A family firm with high embeddedness that at the same time has a culture of questioning oneself, being vigilant for changes in the environment and keeping open to building relationships with external stakeholders, is the perfect blend for realizing the four micro-processes that foster the organizational innovation process. This then answers our "when" question.

4.4.1. Micro-process 1: Trial-and-Error Learning

"The world changes anyhow and the company will change too. We need to be able to respond to that. How our employees do that, by falling down five times, that doesn't matter to me. The important thing is that they learn from it, from the mistakes that might be made."(Case 8)

The first micro-process based on embeddedness that is brought on by members of the family firm concerns trial-and-error learning. The concept refers to *learning by doing* and *learning from the inevitable mistakes* that one makes during the process. Ideally, people involved in a change process actively try out the new ways of working, they are not afraid to make mistakes during the process, but instead, they learn from them. They reflect on what went wrong, they can discuss it with their co-workers and then try it again and do it better.

The initiation and implementation of an organizational innovation is seldom a fixed and linear process (Birkinshaw et al., 2008). But rather, it is complex and recursive with problems occurring along the way that require reflection, refinement and adaptation of the original ideas. For example, when an organization wants to promote worker empowerment through a flatter organizational structure, it is not clear from the start how the new structure will actually work. It is not the new structure itself which will make employees more empowered. The employees themselves are the ones who have to make it work together and thus, who need to be committed to the change and able to try it out without being afraid of making mistakes and being punished for them. It is important that they are able to openly discuss everything that needs to be discussed. When they make a mistake, they will not try to cover it up, but instead they will discuss it with others, reflect on it and learn to do it better in the future. As such a change process is never an individual project, people have to work together to make it work. They thus have *to learn from each other* and together forward the change process.

Or, as two CEOs told us:

"Everybody here can give constructive feedback, can speak his mind, can offer ideas. That's healthy. Why should I as superior place myself above that? They can approach me anytime, I can improve myself too. I still improve myself regularly. I am not perfect at all. I have always been open to learning from experiences, learning from others. And that is what I want for my entire company, everyone. Everyone is just as good. Everyone is approached naturally and uniquely, as person, no cant. People like to work here, they feel involved." (Case 1)

"Let people do things on their own and they will find out new possibilities. You don't have to constantly tell them exactly what they have to do. I think this is important, even if it sometimes goes wrong. Not everything I do, always works out either. It's like this for everybody. But if you always say that they are not allowed to do something, you will cut off all initiative." (Case 9)

As indicated by the previous quotes, *support* from superiors as well as co-workers is very important here. A certain amount of freedom and responsibility gives people the necessary space to try out the new ways of working. What is more, when people feel supported in any circumstance, they will feel safe enough to actually risk making mistakes and therefore they will be able to learn. Only then, they will actively seek out new things, they will not be afraid to speak their mind, they will feel comfortable discussing problems and disagreements, and they will openly share information about what works and what does not work (Garvin et al., 2008), which is all important positive behaviour when advancing a change process through trial-and-error learning. The literature also points to this important prerequisite for trial-and-error learning with the concept of psychological safety (Edmondson, 1999). Psychological safety refers to the belief that one is safe for interpersonal risk taking. More specifically, it involves a sense of confidence that one will not be embarrassed, rejected or punished when trying new things. An organizational innovation process always entails a certain degree of insecurity. It is something new that involves the efforts of a lot of people who can make it or break it. So nobody can be sure from the start how the change initiative will eventually work out. Therefore, taking steps in the process always involves a certain amount of risk taking, that people will only be inclined to do when they feel psychologically safe enough. Mistakes are inevitable during a change process; it is how you deal with them which makes the difference. If you learn something from it, it will not have been in vain.

The question that remains is what makes a firm capable of this important trial-and-error learning. What makes people feel safe enough to take risks and try out new things? Family firms seem to be particularly capable of it:

"As a family firm you can more easily afford to try out new things compared to a nonfamily firm. If it doesn't work out, it's not so bad, because it's the own family who has to finance it. If everybody stands behind it, it is ok." (Case 2)

Based on the interviews and illustrated by the previous quotes, we can reasonably argue that high embeddedness of the firm in the family enhances trial-and-error learning. This is precisely because in these firms there is more support, more involvement, more room for personal contact, and this from the top of the organization all the way to the bottom, between family members and nonfamily members. *Relationships are closer* and more enduring, people have a longer shared history together (Miller et al., 2009). This builds trust, people will feel that they can rely on others to act in their best interest, which is an important requirement for psychological safety (Edmondson, 1999; 2003).

A few quotes illustrate this further:

"People need to dare say what they have to say. Ideas and opinions have to come immediately, on the job. This is all very friendly. They need to be open for that. Everybody may approach me, you just saw that, my door is always open. It is practically one big family here. Nobody here has the feeling of "that is the boss", because then they won't bring on ideas. Everybody here feels like "we are working together" and then ideas come. And I don't differentiate between family and non-family. I am who I am."(Case 1)

"Make sure that everybody in the company can be himself/herself, that he/she feels comfortable." (Case 3)

"Throughout the entire organization, there is a flow to give people responsibility because everybody is confronted with mistakes that are made, but in the spirit

of 'learning from them' and improving. From top to bottom, we pay attention to that." (Case 8)

(See Appendix 4 for additional evidence)

4.4.2. Micro-process 2: Framing the Change Initiative

"You keep people involved through informing them a lot. It is important to constantly inform them about where the firm is going. Information is very important. Open, honest and clear information." (Case 3)

The second micro-process we identified entails the important task of framing the change initiative in such a way that everybody involved recognizes the value of it and that it is accepted and supported throughout the entire organization. The concept of framing refers to organizing experiences in a meaningful way (Goffman, 1974). In an organizational innovation context, it basically involves interpreting and making sense of the new reality, which is important to reduce the uncertainty often associated with it (van Vuuren and Elving, 2008). It basically involves giving employees the necessary *information* about the change initiative, but this entails so much more than a mailing to all employees or an information session. We found that high embeddedness of the firm in the family specifically forms a good basis for this for two reasons. First, as stated by one CEO:

"The key is to keep what was good and at the same time make your own contribution, which can be, and probably will be, different from the previous generation. And this is a continuing process." (Case 6)

The interviews showed that deep knowledge of the firm and the long shared history and experiences, make members of the family firm extremely well-informed regarding what works in the firm and what does not, what important needs exist among employees and how firm values are actually translated into practice (Reay et al., 2006). This understanding helps the top of the organization in their approach on how to initiate and implement the organizational innovation. They know what changes are needed and realistic, they know how to advertise it to their employees, how to convince them of the value of the change and they know which concrete steps need to be taken to heighten the chances for a successful implementation. Going down the company ladder, thanks to employees' shared experience and deep knowledge, they re-translate or re-frame the initiatives coming from the top of the organization to make it work in their own concrete work environment. In short, members of the embedded family firm are highly knowledgeable about how to frame the change within the specific context of the firm, from the top of the organization all the way to the bottom. Thanks to the long shared experience of everyone involved, it is expected that there is more accordance in the way they frame the situation (Dewulf and Bouwen, 2012).

What is more, in the literature on change and innovation in family firms, family firms are often described as conservative and reluctant to change, precisely because of their heavy emotional involvement and past legacy or, in other words, because of their embeddedness (Le Breton-Miller and Miller, 2009). However, Salvato and colleagues (2010) describe how these so-called inhibitors can be transformed into facilitators of change, in the sense that family firms focus on the future while respecting the past achievements and core values of the firm. In other words, they legitimize future-focused change through past-anchored values and thus frame the change carefully within the specific organizational context of the family firm. One CEO explained it as follows:

"The connection between renewal and the fact that we are a family firm, lies in continuity. I build further on what I always heard from my father, and I pass that on to my children. They constantly hear that. We always try to be innovative, to take a head start."(Case 9)

In this case, there will be more support for it because people involved will experience a certain sense of *continuity* with the past, which reduces the feelings of disruption often associated with large-scale innovation efforts (Bouwen and Fry, 1988). They will feel that the change effort is realistic and feasible and they will be more convinced of the value of the organizational innovation for the firm and its employees.

Another CEO referred to it this way:

"*During all those change and renewal strategies, we always communicated extensively and we always tried to involve as many people as possible. When necessary, the right decisions need to be made, but we always tried to get a team of people behind the changes, to effectively get them implemented. If you merely impose changes, it won't lead to big successes, I believe. It is important to let everyone play a role in it."(Case 4)*

This quote brings us to the second reason why embeddedness helps to frame the change and to create support for it. Changes cannot be imposed to people. People need to be *actively involved* in order to really make the changes work (Bouwen and Fry, 1991). Embeddedness and the close social relations associated with embeddedness facilitate this. CEOs and top management in family firms are often inclined to actively involve everyone during a change process, precisely when they are in close contact with their employees, when they know them personally and when they have a long shared history with them. In other words, they are inclined to do so when there is high embeddedness of the firm in the family.

A few quotes of CEOs illustrate this further:

"When you are closer to your employees, you hear what your employees need, what they like. And of course, you take this into account." (Case 2)

"We are family; we have a good connection with the union and with our people. We didn't want to lay off people. So we decided to ask the opinion of our people." (Case 5)

"Everybody who works with you has to be convinced that he/she is doing a good job. They have to be convinced of what is important. That's what I see in many non-family firms, that people don't know why they have to do something. It is important that you know why you do something. Everybody has to be convinced that what he/she does is useful. That is important and I always succeeded at this." (Case 10)

(See Appendix 5 for additional evidence)

4.4.3. Micro-process 3: Providing Necessary Structure

"After a while, people need structure. Structure is like the staircase railing. It gives grip. There needs to be structure, there need to be rules, people need to know what they stand for. What they need to do. That is very important."(Case 10)

We found that providing structure during the organizational innovation process is very important, which we identified as the third micro-process. As discussed above, organizational innovation is a large-scale, long-term process that creates a lot of uncertainty along the way. It is often experienced as a disruption from things as usual and it places high demands on everybody involved (Bouwen and Fry, 1988). In the interviews several CEOs therefore noted the importance of structure:

"In the past we also gave a lot of freedom, worked with little teams, with a lot of freedom. But it surprised me. I learned from it that people are not always looking for freedom. Above all, people want clarity. And good leadership is often worth a lot more than freedom."(Case 3)

"I strongly underline that a lot of agreements are made. That's why we started the family forum, in which all things that have to do with shares and family bonds are discussed. There is also a family charter in which agreements are settled. This way, everybody knows what is expected from them and what is not."(Case 5)

CEOs highlight that, on all levels of the firm, a certain amount of structure is important because it gives people involved grip on the situation. We found that the key is to create a feeling of stability in every employee so that they do not need to worry about the future, but can effectively do their jobs while moving forward in the change process. Concretely, this entails that, initiated by the top management in the firm attention is given to maintaining the core competencies of the firm during the change process and setting up a flexible action plan. Our idea of *structure* is in line with Brown and Eisenhardt's (1997) concept of 'semistructures', which means that some aspects of the organization are precisely prescribed, but some are not. Things like responsibilities, timing and priorities are clearly defined so that there is no chaos, but *not as rigidly* that necessary adaptations are no longer possible. A certain amount of flexibility should still be possible, which evidently is essential during an uncertain organizational innovation process. The CEOs of the family firms that we interviewed specifically highlighted the importance of structure without forgetting the *human aspect* of the firm:

"Today I realized that structure in the company is secondary to people. So we went back to a classical structure, with commercial leadership and technical leadership. But in the end the entire vision was changed, people work together. There is understanding for each other. The best interest of the company is the most important thing, and no longer the individual's best interest or the best interest of a certain department." (Case 3)

"Everything starts from the basic values, the tradition of our family, the family firm, where people want to help each other, take care of each other. The keywords are authenticity – every employee can be himself, every employee! – complementarity and teamwork. The personnel policy, the HR systems, the HR process, the structure, have to start from there. It all serves to support realizing our values and our mission. We always put a lot of effort in that."(Case 7)

Family firms draw on their embeddedness for being able to provide this needed structure, first of all because they have the knowledge about which structures need to be set up, kept, changed or removed. Based on long experience, close involvement and deep knowledge, members of the family firm know their core competencies that must be kept and they know their shortcomings that must be addressed. Therefore, top management of the family firm knows how to translate structure in such a way that it works within the specific situation of the family firm, so that it is accepted by everybody involved.

But secondly, and perhaps most importantly, family firms draw on their embeddedness in the sense that they want to set up structures that do not exclude the emotional connection with the firm, which is important on all levels of the organization. Everything needs to breathe the shared human values, which is an important strength of the embedded family firm regarding their ability to change.

(See Appendix 6 for additional evidence)

4.4.4. Micro-process 4: Fast Decision-making

"The family firm has shorter communication lines. This is very important! It can go unbelievably fast when making decisions. In fifteen minutes we can have made a decision, which we then present to the board of directors. I mean, the power of speed is unbelievable. I absolutely find that an advantage of family firms."(Case 6)

The last micro-process based on embeddedness concerns fast decision-making. We found that CEOs in family firms placed high emphasis on this for making an innovation process work. For change efforts to be effective nowadays, decisions have to be made fast (e.g. Eisenhardt, 1990; Eisenhardt, 2013; Judge and Miller, 1991; Kessler and Chakrabarti, 1996; Wally and Baum, 1994). For the initiation of an organizational innovation, firms need to be able to react quickly when new opportunities arise or when imminent threats occur. For the implementation of the innovation, fast decision-making helps firms in keeping enough flexibility to make the right adjustments that might be needed during the uncertain process. When something goes wrong during the process, the necessary improvements are made fast. The CEOs that we interviewed repeatedly mentioned this *speed in decision-making* as an important advantage of the family firm.

"We very quickly had a good overview of the case and we could decide very quickly. We could easily investigate the potential of the company, in all domains, everything that was possible. This was the reason why we could change faster." (Case 4)

The shorter communication lines that exist in family firms play a very important role in this decision-making speed. Everybody is easily approachable and thresholds are lower. Many CEOs referred to the fact that in a family firm communication between family members as well as non-family members is more open, which makes it easier to discuss things and make a decision.

"What I find important here is communication, in every direction, from every direction. From left to right, from bottom to top, from inside to outside, from outside to inside. There can't be inhibitions. That's an advantage of a family firm, I think. We can respond quickly to circumstances, we can respond more flexibly to changes. I talk to you in the same way as I do to anybody else, I don't differentiate. Healthy common sense is important."(Case 1)

"The familial character is an advantage for the company. Despite our large structure, our communication lines are shorter (compared to a nonfamily firm): "We communicate to our people very well." When my dad and I write something in a note, it is not written in 'big words', but in familial words. So we make sure that the connection stays very close and that it is recognizable to all people. I often walk through the firm to talk to people, to listen to what they have to say, to hear from them what is going on. We try to keep that connection close." (Case 5)

"The family can deal with each other in a trusting and open way. We can easily discuss problems with each other, and take certain decisions. And we all support the decisions then, you sort of get a unity." (Case 8)

The closeness between people, which is an important characteristic of highly embedded firms, appears to be crucial. Because the firm is highly embedded in the family, the connection between all members of the family firm is closer, which makes communication more personal and less formal and it makes commitment stronger. What is more, in highly embedded firms, members generally have a long shared experience with the firm, which is also a characteristic that is associated with higher speed in decision-making (Judge and Miller, 1991; Kessler and Chakrabarti, 1996). Overall, the familial aspect is crucial here, which goes so far that many CEOs point to the fact that they want all members of the family firm to *feel part of the family*.

"I think renewal is easier in family firms. Decisions can be made faster and easier. Anything can be discussed here in the company, everybody can give his opinion. The ties are very close. In a big non-family firm, not necessarily a multinational, twenty steps need to be taken first. Good ideas can be put into practice more easily in a family firm. The road is shorter, you know each other better, you work closer together, in a different atmosphere. It is different."(Case 11)

"As a family firm, you are closer to the people. With regard to people that come from very big companies, I sometimes have the idea that there are two parties, with a big distance in between, while that actually is not the intention. The emotional aspect is different for people who work in a family firm. The relationship between the entrepreneur and the employee is often more fluent in

a family firm compared to a multinational. The difference between a multinational and a family firm is that you're just closer to the people. And because of that, it's nicer to work together, which is actually quite logical."(Case 2)

"We are a family firm. We also want that our employees are part of the family, that it is a family. Also the closeness and availability of me as person is an advantage herein. Everybody can approach me. Everybody can call me immediately and I am available." (Case 3)

(See Appendix 7 for additional evidence)

4.4.5. The Role of Openness

"It's dangerous when contentment slips in in the form of "everything more or less goes like it should go." Then there is too little drive for renewal. I always put it this way: "The will not to change, is the base for you demise." And even if it's good, that doesn't mean that it can't be better. You have to keep looking around that your environment doesn't change."(Case 12)

The literature on the relationship between embeddedness and change is ambivalent as to whether embeddedness is a good thing or a bad thing. On the negative side, it is argued that too much embeddedness would make people too inward looking, hardly having links to outsiders who can potentially contribute innovative ideas (Uzzi, 1997). High embeddedness would then lead to resistance to change and therefore, change is only possible when people are less embedded (Seo and Creed, 2002). This is precisely in line with the classic idea of family firms as risk-averse and conservative, which would be due to their heavy emotional involvement in the business (Salvato et al., 2010).

Embeddedness of the firm in the family would then limit contact with other external stakeholders and innovation (Le Breton-Miller and Miller, 2009). However, based on the interviews, we can reasonably argue that high embeddedness of the firm in the family does not necessarily preclude openness to new ideas or openness to learning from outsiders. Two CEOs stated it as follows:

"It's absolutely important to step outside the box sometimes and to look from a distance at what is lying on my desk, what I'm going to do and what needs to be done in the company." (Case 7)

"What I always found very important in a familial SME, is that you have to realize that you don't have all the expertise in house. So therefore it is logical that at a certain point in time you include an external to support you in your growth. We do a lot of networking, in all sorts of domains. It is important to lay contact with people who are afterwards approachable for commerce as well as collaboration. It is also about sharing experiences on a problem, that we can help each other in some way with commercial aspects, strategic thinking. It is in a way a process of support." (Case 4)

These CEOs are aware of the need to *question oneself* and to *look broader* to find better ways to improve the business. They then tend to spread this open mindset throughout their firm through role modeling, mission statements, organizational procedures, etc. (Schein, 1995). Consequently, these family firms have developed an open culture to complement their embeddedness. As discussed above, their embeddedness gives them a lot of advantages in the sense that it facilitates certain needed micro-processes that advance change, which thus answered our 'how'-question. But as an answer to our ‘when’-question, the interview data showed that this will only be the case when embeddedness is accompanied with openness to ideas, coming from insiders as well as outsiders. Thus, while it could be that embeddedness of the firm in the family implies a risk for family firms to be more close-minded, many family firms are aware of this risk for so-called ‘company blindness’. These family firms often know how to make themselves more open-minded, and consequently succeed in turning their embeddedness to their advantage, realizing the above discussed micro-processes. Specifically, CEOs point to the importance of networking in order to keep open to the outside world, making renewal possible.

"The most important reason to work with externals in the board of directors, is that we want to eliminate company blindness. The external members contribute a lot, because they are very critical." (Case 5)

"If you can ask a second opinion of a fellow entrepreneur, it just works better. It comes from practice. You learn a lot from it. For me the networks with fellow entrepreneurs are an informal board of directors in a way. You have people that you can check your ideas with." (Case 12)

"When there were problems that my father and I couldn't solve on our own, we got some external advice. We wanted to discuss the problems and learn how other family companies solved them. It's always a good thing to get some feedback from outside." (Case 2)

Including *external members* on the board of directors or the management team, discussing problems with fellow entrepreneurs through *external networks* or asking *external expert advice*, are all examples of how family firms make efforts to be open to the outside world and to learn from that.

External members on the board or the management team generally have different experience and expertise, and often can make more neutral judgments. In their external networks, CEOs can discuss problems and learn from others. Professional external expert advice helps many family firms how best to change. This openness together with the firm's embeddedness then fosters the innovation process in the sense that it makes the accomplishment of the four micro-processes possible.

(See Appendix 8 for additional evidence)

4.5. Discussion

The full model that summarizes the findings is presented in Figure 2.

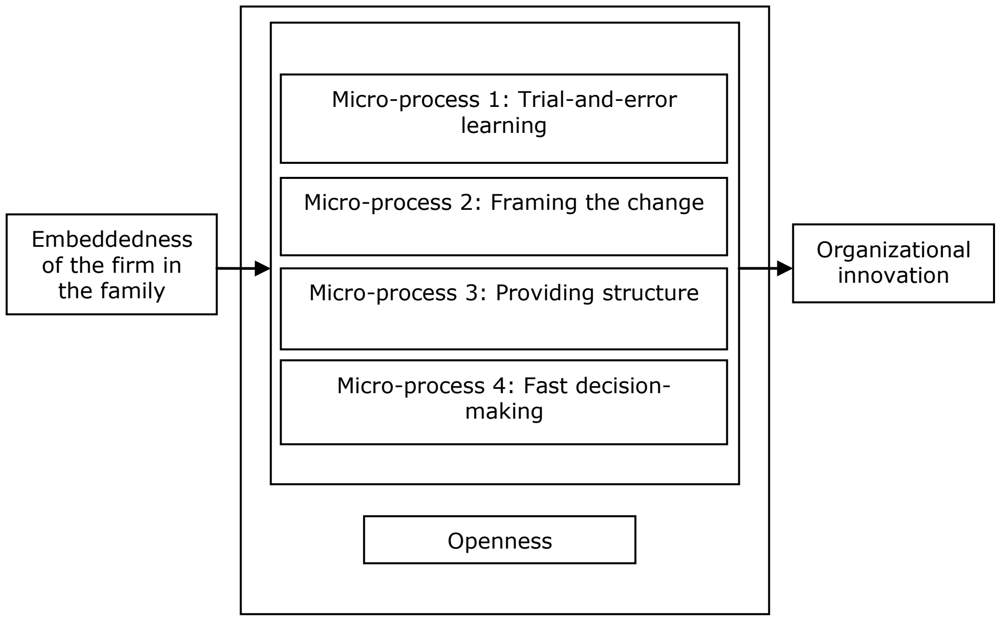

Figure 2. Model of embeddedness as an opportunity for organizational innovation in family firms.

The figure answers the two research questions of this chapter: *How* and *when* can family firms with high embeddedness achieve change? As an answer to the 'how'-question, Figure 2 shows how embeddedness of the firm in the family forms the basis for achieving four micro-processes during an organizational innovation process, namely trial-and-error learning, framing the change, providing structure and fast decision-making. These four micro-processes are important facilitators of the innovation process and increase the success of it. Members of the family firm use their long shared experience, deep knowledge of the firm and close relationships to perform these concrete actions.

First, their close relationships and long experience with each other build trust en the feeling that one is safe to take risks, which makes trial-and-error learning easier. Members of the family firm dare to try out new things, they don't need to be afraid to be punished for mistakes and they dare to speak their mind when something is not going well, which are all important actions during an uncertain and difficult organizational innovation process. Second, deep knowledge of the firm and shared experiences facilitate framing the change in the right way. Knowing what works and knowing what precisely the firm and its members need, help to frame the change in such a way that everybody involved fully understands it and stands behind it. Full support and commitment by everybody involved is crucial for an organizational innovation process to be successful. Third, the same qualities of embeddedness are important for realizing the third micro-process, namely providing necessary structure. Providing stability during an uncertain innovation process is important. Thanks to high embeddedness of the firm in the family, members of the family firm are knowledgeable about which structures are needed and at the same time they place high value on core competencies and (familial) values from the past that must be kept. Fourth, high embeddedness of the firm in the family makes relationships within the family firm more personal and often gives everybody, family members as well as non-family members, the feeling of being part of one big family. This makes communication within the firm more informal and more flexible, which shortens the communication lines within the firm and thus speeds up decision-making. Fast decision-making is important when you want to be able to continually adapt to changing needs before as well as during the innovation process.

These micro-processes can either take place at the same time, sequentially, or even repetitively. And although each one forwards the innovation process in its own way, they are related to each other, as the same processes related to embeddedness underlie all the four micro-processes. For instance, quickly responding to things that go wrong (fast decision-making) can help to learn from mistakes easier (trial-and-error learning). They are related because both micro-processes need close, trusting relationships and communication (embeddedness) to make them happen.

As high embeddedness also has a downside, it was important to also find an answer to the 'when'-question. Therefore, the model includes another important attribute that needs to complement embeddedness in order to realize the micro-processes, namely openness. Family firms that are aware of the risk that embeddedness can render the members of the firm to be more close minded, generally have developed an open culture in which they are able to question themselves, in which they are open for building networking relationships with external stakeholders and continually vigilant for changes in the environment. As such, it is important that family firms keep open to the inside as well as outside environment. This open culture starts with a CEO who is aware of the risk for 'company blindness' and who consequently spreads a more open mind throughout the company.

This study is not without limitations. First of all, the case study data comes from a single respondent per firm, namely the CEO. Although it can be reasonably argued that the CEO is very well informed about everything that is going on in the business and generally has a strong impact on all firm processes (Chandler and Jensen, 1992), a more comprehensive view of the processes that foster organizational innovation will be attained when more people involved in the change effort are included in the data set. Secondly, we only did one in-depth interview with the CEOs. As implementing an organizational innovation often is a long-term process, it might be interesting to follow the companies during the entire period. We tried to counter this shortcoming as we used a more story-telling approach of interviewing, asking the CEOs to go back in time and tell the story of their recent, most important change process. Third, although there is considerable variation in the cases used (see Table 7), the dataset only included cases that were more or less successful. Studying cases where the innovation process did not yield the expected results, may bring interesting additional insights into the processes and contingencies leading to success. Lastly, a general limitation of a case-study approach is that the ideas remain speculative. Future research is therefore needed to further investigate our model.

Overall, this chapter contributes to the understanding of the organizational innovation process in family firms, from the unique perspective of relational embeddedness. Research so far was inconclusive as to whether embeddedness facilitates or hinders change (e.g. Reay et al., 2006; Seo and Creed, 2002). Based on our qualitative data, we highlighted that embeddedness can be an important ground for accomplishing important micro-processes during an organizational innovation process, as long as the firm keeps the eyes open to opportunities and threats. We learned from our interviews that the one does not necessarily preclude the other. Many family firms are highly embedded in the family in the sense that they place high value on close relationships, their shared values and shared history, but at the same time they are open for new opportunities and have broad networking relationships. Family firms are in the literature often regarded as conservative and resistant to change because of their strong emotional involvement in the business (e.g. Salvato et al., 2010), which makes them inclined to pursue objectives that only benefit the family rather than the entire firm. This would make them more close-minded and less inclined to invest in needed innovation efforts (Le Breton-Miller and Miller, 2009). We, however, argued that this strong emotional involvement, or in other words this high embeddedness of the firm in the family, does not necessarily preclude openness in the firm. Openness and embeddedness actually can match perfectly, precisely because the combination makes the realization of the four micro-processes possible. These family firms have a spirit for renewal, for entrepreneurship, but in a humane way, with respect for and together with people.

While this chapter thus primarily contributes to the field of family business, it also adds to the innovation and embeddedness literature. The fact that a firm can be highly embedded in the family is of course unique for family firms. As such, adding to the field of family business, this chapter showed that, although the literature regularly argues otherwise, this embeddedness forms an important potential for the family firm's innovativeness. Embeddedness of the firm in the family makes the accomplishment of the four micro-processes more likely, when the firm succeeds in combining this embeddedness with enough openness to the outside and inside environment. However, the four micro-processes self are not unique for family firms. They can be seen as important ingredients for making a change process work in all firms, which adds to the innovation literature in general. Being embedded, not necessarily in a family, can help in accomplishing these micro-processes as they require deep knowledge of the firm, long shared experience and close relationships. In line with Reay and colleagues (2006), this study adds to the view that embeddedness thus can be an opportunity for change and innovation.

5. Innovative Work Involvement in Family Businesses: The Role of Basic Psychological Needs

5.1. Introduction

The importance of innovation is nowadays widely accepted among scholars and practitioners. In order to survive in the current economy, firms need to be able to change and adapt (Trott, 2008). Consequently, innovation is a topic which has received a lot of academic interest. As to family firms, the study of innovation has long been largely neglected by researchers, but recently there is a growing interest in the topic among family business scholars (De Massis et al., 2013). Innovation in family firms is different than in non-family firms because they have several unique attributes that may facilitate or hinder the change process. Traditionally, family firms are considered rather reluctant to take risks due to their heavy emotional involvement in the business and their strong desire to protect their socio-emotional wealth (Gomez-Mejia et al., 2007). Therefore, there is a stream of literature that characterizes family firms as being traditional and conservative, which would hinder innovation projects. On the other hand, another stream in the family firm literature argues that family firms have unique resources that facilitate innovation (Habbershon and Williams, 1999). For example, family firms may excel in developing social capital (Arregle et al., 2007). Enduring and close relationships within family firms may result in trusting and collaborative interactions that foster innovation (Litz and Kleysen, 2001). Given these conflicting viewpoints in the literature, the relationship between family involvement in the business and innovation appears to be quite complex. So far, there is little consensus on the topic and there is need for more research to clear things out. In order to make progression in this field, it is important to clearly establish a focus. After all, family involvement may influence diverse aspects of innovation in a different way, which could be an explanation for the inconsistencies that appear in the literature (Lichtenthaler and Muethel, 2012). As such, most research focuses on various firm-level innovation inputs (e.g. R&D expenditures) or outputs (e.g. patents), investigating the influence of certain family firm characteristics on these inputs or outputs. Many scholars however call for research that further investigates how processes of innovation take form (e.g. Craig and Moores, 2006; Chirico and Salvato, 2008; Classen et al., 2013; DeMassis et al., 2013). We will precisely dig into this black box starting from an employee perspective. In a time where organizations constantly need to adapt to changing circumstances, employees' initiative and involvement is considered very important in order to constantly keep the finger on the pulse (e.g. Frohman, 1997, Zhou and George, 2001). Yet, little research on innovation in family firms has looked into the perspective of the employees (Bammens et al., 2014). The research question that we are addressing in this chapter precisely concerns how does family business employment influence the innovative work involvement of employees? In other words, how does being employed by a family firm influences employees to become motivated to take initiative, to be creative, to take certain risks at work? Previous research by Bammens and colleagues (2014) addressed this question focusing on the role of organizational support as a key mediating mechanism. Employees who work in family firms generally experience more organizational support and as a consequence become motivated to be involved in innovative activities. Whereas their research focused on a specific family firm attribute, i.e. organizational support, we will focus on the underlying motivational processes that the family business work environment stimulates. In this sense, we will elaborate further on the research by Bammens and colleagues (2014) taking a more explicit and in-depth employee perspective.

For investigating the underlying motivational processes, we rely on the viewpoint of Self-Determination Theory (SDT) (Deci and Ryan, 2000), which is one of the most elaborate and best validated frameworks of human motivation today. In this framework, three basic psychological needs form the basis for motivation, namely the needs for autonomy, competence and relatedness (Ryan and Deci, 2000). When satisfied, these needs lead to enhanced self-motivation, optimal functioning and well-being. When thwarted, people experience diminished motivation and well-being. The three basic needs have been studied in a variety of contexts and they appear to be essential for facilitating optimal functioning in all sorts of domains. In line with this, we will specifically argue that employees, whose basic psychological needs are fulfilled at work, will experience higher innovative work involvement, because they will become more autonomously motivated to do their jobs. SDT posits that the main source of need satisfaction is a person's social environment. The family business concerns an omnipresent, yet unique work environment that could be particularly apt to promote this need satisfaction. We will therefore argue that family business employment leads to higher innovative work involvement among employees precisely because this family business work environment promotes the satisfaction of the three basic psychological needs which makes employees autonomously motivated to make innovative efforts in the firm.

This chapter contributes to the literature in two important ways. First of all, we take on an employee-level perspective, studying how employees are motivated to engage in innovative behaviour. Most research on innovation in family firms takes on a firm-level perspective, investigating top management's viewpoint on the firm's innovativeness. Yet, the employees cannot be neglected as considerable research shows that employees can fundamentally contribute to innovation (Shalley et al., 2004; Zhang and Bartol, 2010). Specifically, we will compare the innovative work involvement of employees who work in a family firm with employees who do not work in a family firm. Secondly, we take an in-depth look at a specific innovation process, as we focus on the underlying employee-related processes that link family business employment to innovative work involvement. We will concentrate on SDT's basic psychological needs which, we will argue, are more easily satisfied in family firms compared to nonfamily firms. The remainder of this chapter proceeds as follows. In the next section we will discuss the literature on family business employment, SDT and innovative work involvement, leading up to our hypothesis. Afterwards, we will discuss the methods used and the most important results. We will conclude with a discussion of the most important findings and the implications for theory and practice.

5.2. Theory and Hypotheses

5.2.1. Family Business Employment and Innovative Work Involvement

For firms to remain competitive in today's rapidly changing work environment, it is highly valuable that employees are encouraged to be innovative and creative (Shalley and Gilson, 2004; Zhang and Bartol, 2010). Employees with high innovative work involvement, or in other words, employees who are motivated to be creative and suggest new ideas to enhance productivity or solve problems, are an important asset for firms today. As such, all members of the firm can be seen as potential entrepreneurs and thus, all members of the firm need to be encouraged to give suggestions and take initiative (Hall et al., 2001). After all, innovation is always the result of micro-processes executed on all levels of the firm, which need to be stimulated by a macro-level innovation supportive organizational environment (Litz and Kleysen, 2001). Various scholars therefore have looked into the question of how such an innovation supportive organizational context can be created (e.g. Woodman et al., 1993; Chandler et al., 2000).

In this sense, previous research has shown that the family business work environment entails important encouragements for employee innovativeness (Bammens et al., 2014). Specifically, the more caring and supporting employment relationships that are present within family firms appear to encourage the innovative work involvement of employees. As such, the literature on innovation in family firms repeatedly highlights the positive effect of this encouraging, nurturing family atmosphere and the close relationships associated with it (Hall et al., 2001; Litz and Kleysen, 2001; Miller et al., 2008; Kellermans et al., 2012; DeMassis et al., 2013). However, more research is needed that investigates how these characteristics of family firms actually contribute to their innovativeness (Classen et al., 2013). Which underlying processes account for the relationship between the specific family firm work environment and their innovation capabilities? The research by Bammens and colleagues (2014) already pointed out that the key underlying process that stimulates employees' innovative work involvement in family firms is motivational in nature. We will therefore elaborate further on this viewpoint and specifically look into the underlying motivational processes that the family business work environment excites in their employees. For this, we focus on SDT's concept of basic psychological needs. The theoretical model wherein we link family business employment to innovative work involvement is presented in Figure 3. We will successively explain all the paths in the following paragraphs.

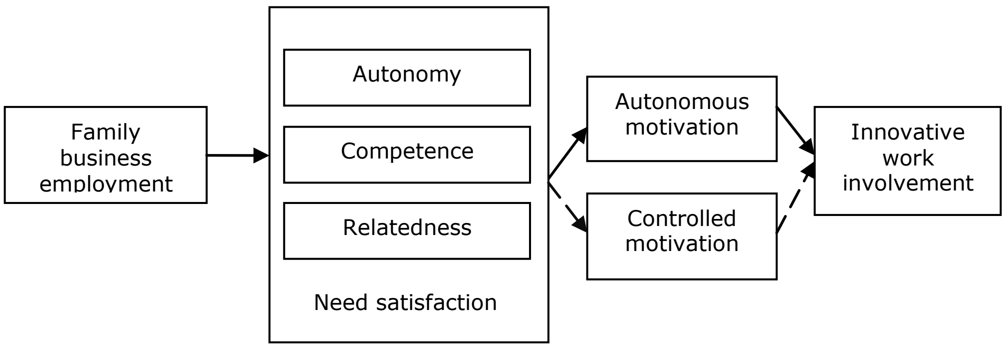

Figure 3. Theoretical model linking family business employment to innovative work involvement.

5.2.2. Family Business Employment and Need Satisfaction

SDT starts from the assumption that people are inherently proactive with a natural tendency towards growth and development (Deci and Vansteenkiste, 2004). People want to learn, develop themselves, master new skills. By nature, they show effort and commitment in their lives. However, this positive tendency does not happen freely, but it requires nutriments from the social environment (Ryan and Deci, 2000). Certain social environments are stimulating and lead people to thrive, whereas others thwart this natural tendency leading people to become apathetic, irresponsible, frustrated and unproductive. Specifically, people thrive in a social environment that allows for the satisfaction of three basic psychological needs that can be seen as "innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being" (Deci and Ryan, 2000, p.229). These needs are autonomy, competence and relatedness.

The need for autonomy refers to being able to self-regulate one's behaviour, to experience volition, to be the owner of one's choices. In SDT's conceptualization, being autonomous does not mean being independent of others, it does not mean individualism or complete freedom to do whatever one wants, but rather it refers to a sense of choice when acting (Sheldon et al., 2003). In this sense, besides the opportunity to make personal choices, it can also mean that one autonomously takes in an external request. As such, an employee can feel autonomous while taking in a request from a superior when this request is, for instance, accompanied by a meaningful rationale or when that employee has the feeling that his/her viewpoint is being acknowledged. The need for competence refers to the desire to effectively deal with the environment, to effectively apply and develop one's capabilities. People want to feel capable, to be able to effectively deal with various challenges, to produce desired outcomes. The need for relatedness concerns the desire to interact with, to be connected to and to care for other people. It refers to a striving for close and intimate relationships. Employees want to feel part of the team, they want trusting relationships with their co-workers and superiors.

The work environment plays an important role in promoting the satisfaction of the three needs (Gagné and Deci, 2005). We argue that the family business work environment is particularly apt to satisfy their members' basic psychological needs. People who work in a family business are more likely to experience autonomy, competence and relatedness at work. As for the need for *autonomy*, Gagné and colleagues (2000) describe an autonomy-supportive context as entailing three aspects, namely providing a rationale for the task, acknowledging feelings and providing choice. Given the typically closer relationships in family firms (Arregle et al., 2007), this open autonomy-supportive communication is more likely. People stand closer together, there is more informal communication, people trust each other. Superiors are in closer contact with their co-workers and therefore there is more two-way communication discussing tasks and goals. As such, family firms are often less formalized than other firms (Kets de Vries, 1993). This means that they generally have less strict rules and as a consequence, people who work in a family firm generally have more autonomy to make personal decisions. What is more, Miller and colleagues (2008) empirically showed that family firm members are more likely to have more responsibilities and broader jobs, which thus gives them more autonomy. Besides autonomy, we argue that also the need for *competence* is more easily satisfied in a family firm work environment. Feedback is an important means to satisfy the need for competence, as long as it is given in an informational rather than controlling way (Deci and Ryan, 2000). The closeness that exists in family firms makes it easier to give spontaneous feedback in an informal way (Mustakallio et al., 2002), which is less likely to be experienced as controlling. In addition, people who work in a family firm generally have longer tenure (Le Breton-Miller and Miller, 2006). Turnover is usually lower in a family firm and as such, people often spend their entire careers in the family business. As a consequence, because of their long tenure in the business, they generally have a lot of knowledge about the firm, which makes them more competent to do their jobs. What is more, the above mentioned research by Miller and colleagues (2008) actually showed that family firms invest more in training of employees en give their employees more opportunities to develop their skills, which heightens the feeling of competence. Lastly, we argue that employees who work in a family firm often have a higher feeling of *relatedness* compared to employees who work in a nonfamily firm. The family culture and family atmosphere is often transferred throughout the firm (Karra et al., 2006). Family firms typically create an inclusive and warm culture, in which people constructively work together (Miller et al., 2008). As such, this familial atmosphere often makes all members of the family firm feel part of the family, which heightens their feeling of (literal) relatedness.

5.2.3. Need Satisfaction and Motivation

As discussed above, the satisfaction of the three basic psychological needs are essential for psychological growth and well-being (Deci and Ryan, 2000). This is so because need satisfaction promotes optimal motivation. As such, according to SDT, motivation is not merely a matter of quantity (one can be less or more motivated), but also a matter of quality (certain types of motivation are better than others). This idea translates in the distinction between autonomous motivation and controlled motivation (Gagné and Deci, 2005).

Autonomous motivation can refer to two things (Gagné and Deci, 2005). First of all, it refers to being motivated for an activity because the activity is inherently interesting. The activity in itself is simply fun or interesting to do. For example, a secretary is motivated to answer the phone because he/she enjoys the social contact. This type of motivation is called intrinsic motivation and is traditionally contrasted to extrinsic motivation. Extrinsic motivation entails being motivated for an activity because there is a desired consequence that is external to the activity, whereas in the case of intrinsic motivation, the interest completely lays in the activity itself. There is no other desired consequence that one wants to reach by doing the activity, because the activity is in itself fun to do. Extrinsic motivation can nevertheless be autonomous as well, which brings us to the second type of autonomous motivation. Autonomous motivation can entail being motivated for an activity because one finds the activity important. One identifies with the activity in such a way that the action is accepted as personally important, although it may not be inherently interesting or fun to do. For example, an accountant is motivated to keep the books in check because he/she finds it important that the company's financial transactions are correctly managed. This type of motivation is called identified motivation. Intrinsic motivation and identified motivation together form an autonomous motivation composite, which thus means that one is motivated for the behaviour because one wants to do it and not because one is pressured to do it.

Controlled motivation on the other hand is always extrinsic and refers to being motivated for an activity because one is being pressured to do it. This can also entail two things (Gagné and Deci, 2005). First, it can entail external regulation, which refers to being motivated for an activity in order to get a reward or to avoid a punishment. This can be either material (e.g. working hard to receive a bonus or to avoid being fired) or social (e.g. working hard to get appreciation from the superior or to avoid criticism). In other words, there is an external pressure for you to do the activity. Secondly, it can entail that one is motivated for the activity from pressure that comes from within. One is motivated because one wants to avoid negative feelings such as guilt, shame and fear, or because one wants to experience positive feelings like pride. The pressure comes from within the person because he/she has connected his/her feeling of self-worth to the activity. This is called introjected motivation, which is thus also a form of controlled motivation, albeit that the control comes from within instead of from something external. External regulation and introjected motivation together form a controlled motivation composite. Whereas the quantity of motivation thus can be equally high for autonomous and controlled motivation, the quality of motivation is clearly different. As we will discuss later on, autonomous motivation is qualitatively better, as it has considerable positive consequences.

Central to SDT is the assumption that need satisfaction promotes autonomous motivation, but not controlled motivation. As such, when the three basic psychological needs are satisfied, an employee will be more likely to work hard because of autonomous motivation rather than controlled motivation. A few examples illustrate this. When employees of a family firm feel they are part of the family and thus when they feel *related* to their co-workers or superiors, they will be more likely to take in the firm values and identify with them and as a consequence, they will be more likely to work hard because they find it important to act in the best interest of the family firm (i.e. identified motivation). People who feel *competent* at their jobs will be more likely to actually enjoy the job (i.e. intrinsic motivation). People often like to do what they are good at. This relationship between need satisfaction and autonomous motivation has been empirically validated in numerous ways and in numerous contexts (For an overview: Deci and Ryan, 2000).

5.2.4. Motivation and Innovative Work Involvement

Autonomous motivation promotes optimal functioning and wellbeing at work, whereas controlled motivation does not. This has also been confirmed in many empirical studies (For an overview: Gagné and Deci, 2005; Van den Broeck et al., 2009). In general, employees who are autonomously motivated for their jobs feel better at their jobs and in life in general, they show more commitment to the firm and they perform better. Specifically important here is the evidence indicating that autonomous motivation promotes organizational citizenship behaviour (e.g. Gagné, 2003). Organizational citizenship behaviour concerns voluntary extra-role behaviour that entails doing more than is strictly expected and that benefits the organization (Podsakoff et al., 1996; 2000). For example, it can concern helping out colleagues or serving on a committee. It can also concern taking initiative, suggesting new ideas or looking for creative solutions for problems, which are all examples of innovative work involvement. Hence, innovative work involvement can be seen as an aspect of organizational citizenship behaviour and as a consequence, we can reasonably argue that autonomous motivation promotes innovative work involvement for the same reasons it promotes organizational citizenship behaviour.

As such, employees who do efforts for their jobs because they find their work interesting or because they find it important (autonomous motivation) are more likely to be willing to go the extra mile and take innovative initiatives that support the firm's functioning. Amabile (1996) for instance, states that people are more creative when they are motivated by the interest and challenge of the work itself. The importance of intrinsic task motivation and self-determination for innovative behaviour is also highlighted in the family firm literature (Litz and Kleysen, 2001). When employees find their work important, they will have internalized the firm goals and values, and as a consequence will be more likely to do extra efforts that are in the best interest of the firm, like looking for creative solutions for problems. On the other hand, employees who merely go to work every day because they need bread on the table or because they think it's the right thing to do (controlled motivation), will be more likely to just do what is expected from them, nothing more and nothing less.

5.2.5. Hypothesis

Taken together, we thus hypothesize that people who work in a family business are more likely to have their basic psychological needs satisfied at work. As a consequence, the likelihood increases that they have higher autonomous motivation rather than controlled motivation at work, which in turn heightens their innovative work involvement.

5.3. Methodology

5.3.1. Sample and Data Collection

To test the hypothesis in our study, we used data from an online survey. The sample was drawn from the iVOX database. iVOX is a renowned Belgian firm with a strong expertise in survey research and with an extensive database consisting of 110 000 registered panel members. The sample consisted of 1000 Dutch-speaking individuals who are active in the labour market and was stratified based on age and sector subcategories. We excluded respondents who work in the public sector from our analyses. Because we wanted to compare people who work for family firms with people who work for non-family firms, other firms from the private sector are a more relevant group of comparison. The final sample consisted of 503 respondents who represent a variety of job types, organizational settings, ages and tenures.

5.3.2. Measures

Family business employment. As a measure for family business employment, we used a dichotomous perceptual measure asking respondents the following question: "Many organizations can be described as a family business in which strategic decisions are directly or indirectly influenced by members of the same family. Would you describe the organization you work for as a family business?" (1 = "yes"; 0 = "no"). There is a lot of variety in defining a family business and all have their own benefits and weaknesses (Gomez-Mejia et al., 2011). This viewpoint of the family business as a firm where a coalition of family members influences the organization's decision making can be seen as the most important distinctive feature of a family business (Chua et al., 1999). What is more, because our respondents entail employees from all levels of the organization, this definition is the best applicable, as using a more formal measure of family involvement in the business, like percentage of family ownership, would be difficult for many of our respondents.

Psychological need satisfaction. The measure of basic psychological need satisfaction was based on the Work-Related Basic Need satisfaction Scale (Van den Broeck et al., 2010). All items were to be answered on a five-point scale (1 = "not at all" tot 5 = "very strongly"). The scale consisted of 14 items in total, with four items measuring 'Autonomy' (e.g. "I feel like I can be myself at my job") (Cronbach's alpha = 0.82), three items measuring 'Competence' (e.g. "I feel competent at my job") (Cronbach's alpha = 0.88), and seven items measuring 'Relatedness' (e.g. "At work, I feel part of a group") (Cronbach's alpha = 0.89). We conducted a Principal Component Analysis and found three factors with an eigenvalue above 1, reflecting the needs of relatedness, autonomy and competence respectively. The scree-plot showed a drop in eigenvalue from the first (eigenvalue = 5.57), to the second (eigenvalue = 2.29) and third factor (eigenvalue = 1.46), which indicated that the use of a general need satisfaction scale is empirically justified. This is also in line with the assumptions of self-determination theory and previous research (e.g. Van den Broeck, et al., 2008). The total need satisfaction scale of 14 items had a Cronbach's alpha of 0.88. The items can be found in Appendix 9.

Autonomous and controlled motivation. The motivation scales were also based on Van den Broeck and colleagues (2010). Respondents rated the 14 items on a five-point scale (1 = "not at all" to 5 = "very strongly"). The items specifically measured to which extent respondents were motivated to do their jobs because of external regulation (e.g. "Because I want to avoid criticism from others"), introjection (e.g. "Because I will feel bad about myself otherwise"), identification (e.g. "Because the things I do in this job are very meaningful for me") or intrinsic motivation (e.g. "Because I enjoy this work very much"). In line with SDT, the external regulation and introjection items were grouped to form the controlled motivation scale (7 items, Cronbach's alpha = 0.84). The identification and intrinsic motivation items were grouped to form the autonomous motivation scale (7 items, Cronbach's alpha = 0.89). The items can also be found in Appendix 9.

Innovative work involvement. For measuring employees' innovative work involvement, we used a scale based on Zhou and George (2001). The scale consisted of eleven items that rate the degree in which employees suggest new ideas and are creative on the job (e.g. "I suggest new ways to realize objectives"). The items were rated on a five-point-scale (1 = "never or very seldom" to 5 = "very often"). The innovative work involvement scale had a Cronbach's alpha of 0.95. The items can be found in Appendix 9.

Control variables. We included two firm-related and two employee-related variables as controls in the analyses. On the firm-level, we included sector and size. The innovation-friendly climate varies across firm sectors (Damanpour, 1991). The *sector* variable consisted of three dummy variables, representing three sectors in which the firm is active, namely primary, industrial or service (primary as suppressed category). We also included size as control variable as research has shown that in innovation size makes a difference (e.g. Acs and Preston, 1997; Vaona and Pianta, 2008). Five dummies represent the firm *size*, namely "less than 10 employees", "10 to 50 employees", "51 to 250 employees", "251 to 1000 employees" and "more than 1000 employees" ("more than 1000 employees as suppressed category). On the employee-level, we included job tenure and occupation as research has shown that they influence an employee's innovative behaviour (e.g. Ng and Feldman, 2010; Ohly and Fritz, 2010). *Job tenure* concerned the logarithm of the number of years active in the current function. *Occupation* was reflected in 4 dummy variables ("blue collar worker", "white collar worker", "middle management", "top-management/self-employed"; "top-management/self-employed" as suppressed category).

5.4. Analyses and Results

5.4.1. Preliminary Analyses

Before we performed the actual hypothesis testing, we checked whether there were problems with our data that could affect the results. First of all, we checked whether common method bias presented a problem in our study. To test this, we conducted Harman's one-factor test (Podzakoff and Organ, 1986). The test revealed multiple factors in which the dependent, independent and mediating variables were clearly distinguishable. This indicates that common method bias did not present a problem in this study. Secondly, we tested for multicollinearity. We entered all variables in the study in a multiple linear regression analysis with innovative work involvement as the dependent variable. We then calculated the Variance Inflation Factors (VIF) for the explanatory variables used in the regression analysis. We found that all had low VIF values (all were lower than 1.913), which indicates that there were no multicollinearity issues in the study. Table 8 shows the means, standard deviations and bivariate correlations for the variables used in the regression analyses.

Table 8. Descriptives and correlations – Chapter 5.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. FB employment	0,34	0,47	1																	
2. Need satisfaction	3,63	0,55	0,07	1																
3. Autonomous motivation	3,72	0,73	**0,08**	**0,60**	1															
4. Controlled motivation	2,94	0,81	0,03	-0,01	**0,29**	1														
5. Innovative WI	3,11	0,76	**0,12**	**0,32**	**0,37**	**0,11**	1													
6. Primary sector	0,02	0,15	-0,03	-0,04	-0,02	-0,05	-0,01	1												
7. Industry sector	0,44	0,50	0,07	0,04	-0,05	-0,04	0,00	**-0,14**	1											
8. Service sector	0,54	0,50	-0,06	-0,03	0,05	0,06	0,00	**-0,17**	**-0,96**	1										
9. Size <10	0,14	0,34	**0,33**	0,00	0,06	-0,03	**0,08**	-0,02	-0,07	**0,08**	1									
10. Size 10-50	0,18	0,38	**0,15**	-0,02	-0,02	-0,03	-0,01	0,06	-0,02	-0,00	**-0,19**	1								
11 Size 51-250	0,21	0,41	0,02	-0,02	-0,02	0,04	-0,00	0,02	**0,11**	**-0,11**	**-0,20**	**-0,24**	1							
12 Size 251-1000	0,18	0,38	**-0,09**	0,03	-0,03	-0,05	-0,06	-0,00	**0,11**	**-0,11**	**-0,18**	**-0,22**	**-0,24**	1						
13 Size >1000	0,30	0,46	**-0,32**	0,00	0,00	0,05	-0,00	-0,05	**-0,12**	**0,13**	**-0,26**	**-0,31**	**-0,34**	**-0,30**	1					
14. Employee tenure	1,96	1,21	-0,04	**0,15**	**0,15**	-0,04	**0,11**	-0,02	**0,11**	**-0,11**	**-0,08**	**-0,14**	-0,01	0,06	**0,13**	1				
15. Blue collar	0,31	0,46	-0,02	-0,01	**-0,16**	-0,07	**-0,21**	0,06	**0,29**	**-0,30**	**-0,08**	-0,04	**0,08**	0,06	-0,03	-0,01	1			
16. White collar	0,52	0,50	0,02	-0,05	0,03	0,04	-0,02	-0,01	**-0,23**	**0,23**	-0,01	**0,08**	-0,03	0,00	-0,04	-0,05	**-0,71**	1		
17. Middle management	0,10	0,30	**-0,14**	0,01	0,07	0,02	**0,18**	-0,05	0,01	0,01	**-0,09**	-0,05	-0,00	**-0,08**	**0,18**	0,03	**-0,22**	**-0,35**	1	
18. Top mgmt/self-employed	0,07	0,25	**0,15**	**0,11**	**0,17**	0,02	**0,22**	-0,04	-0,07	0,09	**0,27**	-0,04	**-0,08**	-0,02	**-0,09**	0,09	**-0,18**	**-0,28**	**-0,09**	1

Notes: standard deviation (SD), correlations in bold are significant at 0.10-level.

5.4.2. Hypothesis Testing

We hypothesized that family business employment leads to more need satisfaction, which in turn leads to more autonomous motivation and consequently to more innovative work involvement. As SDT distinguishes controlled motivation next to autonomous motivation, we wanted to compare the above described hypothesized model with the parallel model including controlled motivation instead of autonomous motivation, expecting no or less effect of controlled motivation. Therefore, in line with Hayes (2013), we propose a four-step mediated model, in which we entered family business employment as the independent variable, innovative work involvement as the dependent variable, and need satisfaction, autonomous motivation and controlled motivation respectively as three serial mediating variables. This way, variables expected to be causally prior are modelled as affecting all variables later in the causal sequence. Strictly speaking, we did not hypothesize an effect of autonomous motivation on controlled motivation, but Hayes (2013) states that estimating potential causal influences that are not hypothesized can have important advantages, as you might learn new and unexpected things. We will specifically estimate all the direct and indirect effects linking family business employment to innovative work involvement. We performed ordinary least squares regression to estimate all effects and ran the corresponding inferential tests simultaneously. All analyses were performed using Process for SPSS 20 (Hayes, 2013).

The direct effects are presented in Figure 4. We included the four above described control variables for all the regression analyses. We found that family business employment has a positive significant effect on innovative work involvement, which is in line with our expectations. The effects of family business employment on need satisfaction as well as autonomous and controlled motivation however appeared to be positive but not significant. In line with our hypothesis, we found that the effects of need satisfaction on autonomous motivation and innovative work involvement were positive and strongly significant. The effect of need satisfaction on controlled motivation was negative and significant. Autonomous motivation appeared to lead to significantly more innovative work involvement, which is also in line with our hypothesis. Not hypothesized, but nevertheless clearly significant and positive is the effect of autonomous motivation on controlled motivation. Lastly, controlled motivation appeared to have no significant effect on innovative work involvement.

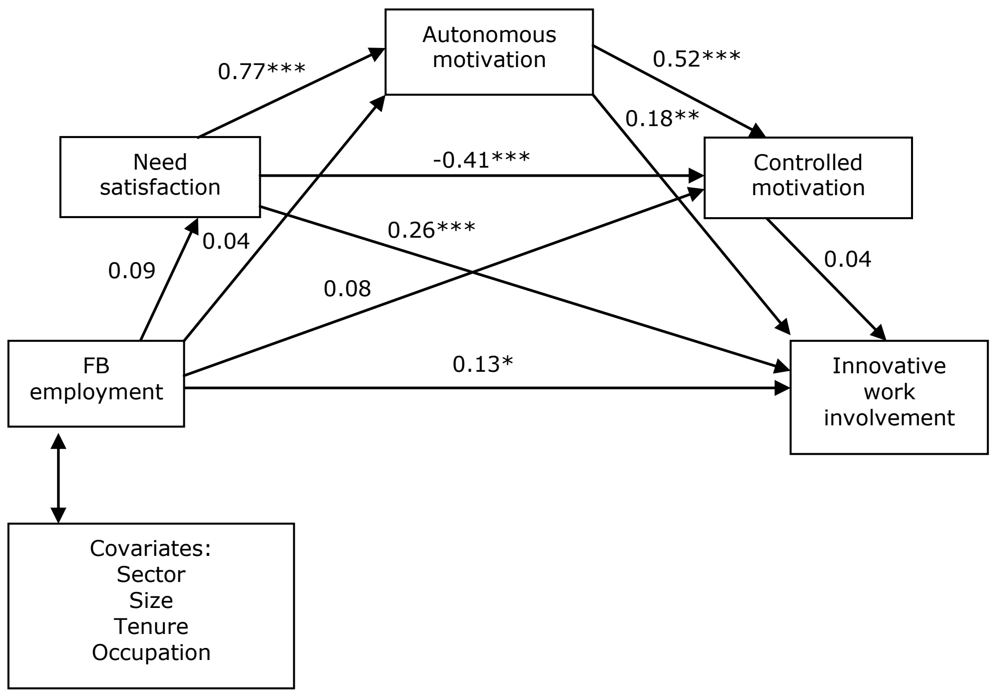

Figure 4. Path diagram showing the direct effect and causal paths linking family business employment to innovative work involvement through need satisfaction, autonomous and controlled motivation (Significance levels: * <.10, ** < .05, *** <.01).

To perform inferential tests for the indirect effects, we used a bootstrapping procedure. We specifically used 10 000 bootstrap resamples to generate 90% confidence intervals. The estimated path coefficients are presented in Table 9. The hypothesized model, measured as the indirect effect of family business employment on innovative work involvement through need satisfaction and autonomous motivation, appeared to be significant. In line with what can be expected, we found no significant indirect effects for the models that included controlled motivation. The models that included only need satisfaction or only autonomous motivation as mediating between family business employment and innovative work involvement appeared to be not significant.

Table 9. Indirect effects and 90% confidence intervals from OLS regression predicting innovative work involvement.

Path	Estimate	90% CI	
		Lower	Upper
FB employment --> need satisfaction --> innovative WI	0,0239	-0,0004	0,0604
FB employment --> need satisfaction --> autonomous motivation --> innovative WI	**0,0127**	**0,0004**	**0,0356**
FB employment --> need satisfaction --> controlled motivation --> innovative WI	-0,0016	-0,0088	0,0005
FB employment --> need satisfaction --> autonomous motivation --> controlled motivation --> innovative WI	0,0016	-0,0005	0,0083
FB employment --> autonomous motivation --> innovative WI	0,0079	-0,0075	0,0340
FB employment --> autonomous motivation --> controlled motivation --> innovative WI	0,0010	-0,0007	0,0082
FB employment --> controlled motivation --> innovative WI	0,0037	-0,0017	0,0222

Note: Path coefficients in bold are significant at 0.10-level.

Because we did not find a direct significant effect of family business employment on need satisfaction, while the complete hypothesized model did appear to be significant, we decided to take a closer look at this need satisfaction and break down the main hypothesis into three separate hypotheses for the three different needs, namely autonomy, competence and relatedness. As such, family business employment might influence the three needs differently. Therefore, we tested three additional four-step mediated models with the three basic psychological needs separately instead of the composite need satisfaction scale.

Again, we estimated via ordinary least squares regression all the direct and indirect effects linking family business employment to innovative work involvement. The direct effects including the need for autonomy, competence and relatedness are presented in Figure 5, 6 and 7 respectively.

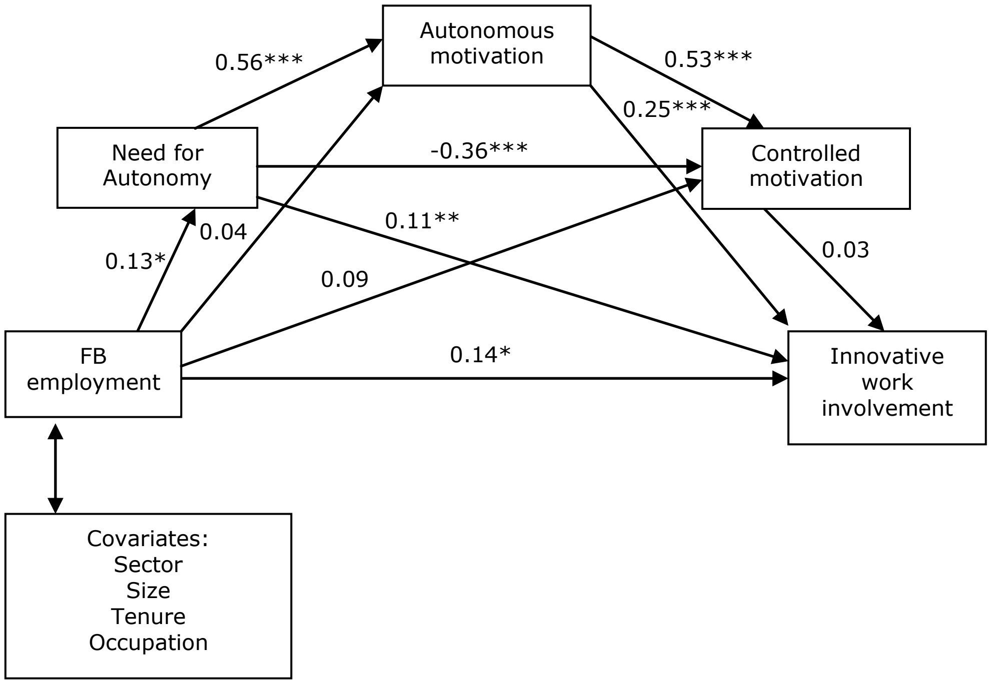

Figure 5. Path diagram showing the direct effect and causal paths linking family business employment to innovative work involvement through the need for ***autonomy***, autonomous and controlled motivation (Significance levels: * <.10, ** < .05, *** <.01).

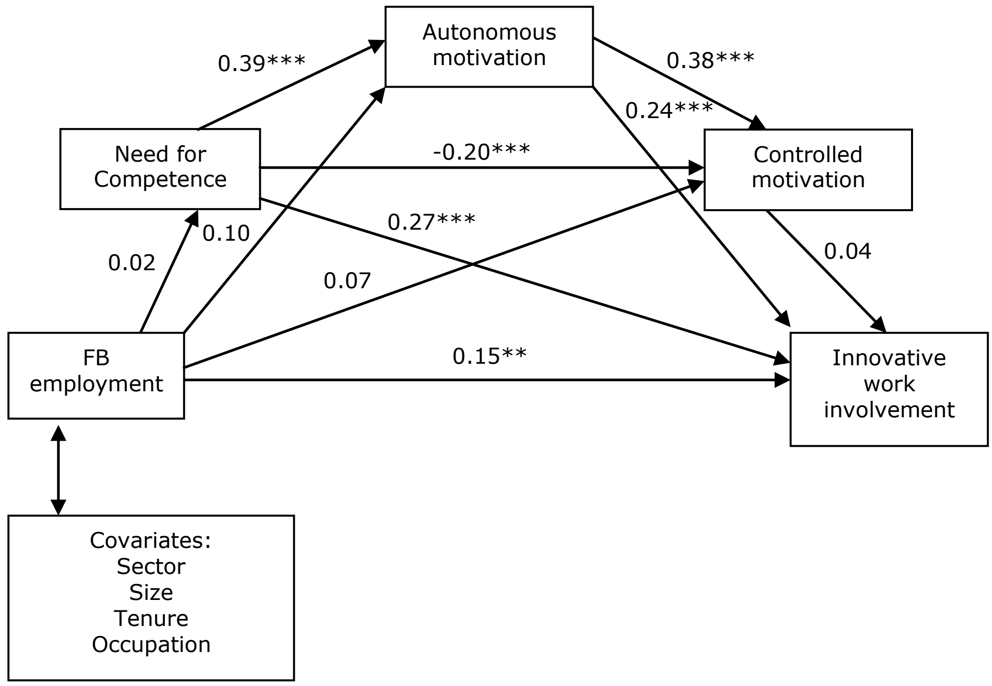

Figure 6. Path diagram showing the direct effect and causal paths linking family business employment to innovative work involvement through the need for ***competence***, autonomous and controlled motivation (Significance levels: * <.10, ** < .05, *** <.01).

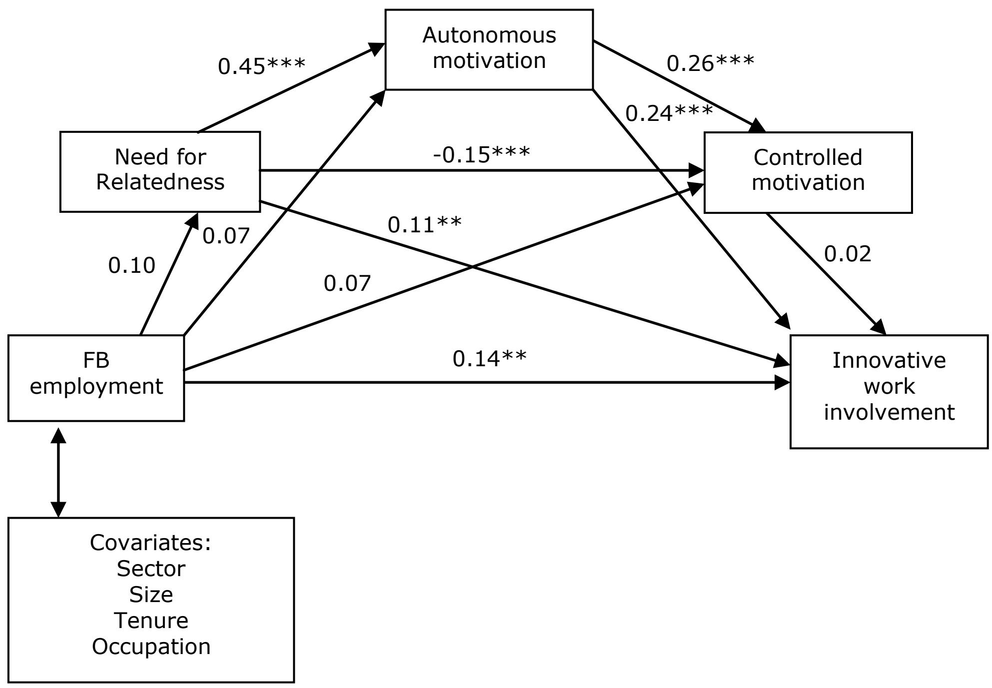

Figure 7. Path diagram showing the direct effect and causal paths linking family business employment to innovative work involvement through the need for ***relatedness***, autonomous and controlled motivation (Significance levels: * <.10, ** < .05, *** <.01).

We found that the direct effect of family business employment on autonomy need satisfaction was positive and significant. The direct effects of family business employment on the needs for competence and relatedness were not significant. All other direct effects were the same as in Figure 4.

Again we performed inferential tests for the indirect effects using a bootstrapping procedure. We specifically used 10 000 bootstrap resamples to generate 90% confidence intervals. The estimated path coefficients are presented in Table 10, 11 and 12 including the needs for autonomy, competence and relatedness respectively. We found evidence that the indirect effect of family business employment on innovative work involvement through autonomy need satisfaction and autonomous motivation, appeared to be significant. The indirect effect through autonomy need satisfaction alone also appeared to be significant. The other paths in Table 10 appeared to be not significant. None of the indirect effects in Table 11 and 12, including competence and relatedness need satisfaction respectively, were significant.

Table 10. Indirect effects and 90% confidence intervals from OLS regression predicting innovative work involvement (including **autonomy** need satisfaction).

Path	Estimate	90% CI	
		Lower	Upper
FB employment --> autonomy NS --> innovative WI	**0,0146**	**0,0004**	**0,0471**
FB employment --> autonomy NS --> autonomous motivation --> innovative WI	**0,0182**	**0,0019**	**0,0450**
FB employment --> autonomy NS --> controlled motivation --> innovative WI	-0,0015	-0,0090	0,0012
FB employment --> autonomy NS --> autonomous motivation --> controlled motivation --> innovative WI	0,0013	-0,0011	0,0072
FB employment --> autonomous motivation --> innovative WI	0,0095	-0,0138	0,0402
FB employment --> autonomous motivation --> controlled motivation --> innovative WI	0,0007	-0,0009	0,0074
FB employment --> controlled motivation --> innovative WI	0,0029	-0,0027	0,0197

Note: Path coefficients in bold are significant at 0.10-level.

Table 11. Indirect effects and 90% confidence intervals from OLS regression predicting innovative work involvement (including **competence** need satisfaction).

Path	Estimate	90% CI	
		Lower	Upper
FB employment --> competence NS --> innovative WI	0,0057	-0,0225	0,0347
FB employment --> competence NS --> autonomous motivation --> innovative WI	0,0020	-0,0072	0,0131
FB employment --> competence NS --> controlled motivation --> innovative WI	-0,0002	-0,0026	0,0004
FB employment --> competence NS --> autonomous motivation --> controlled motivation --> innovative WI	0,0001	-0,0004	0,0018
FB employment --> autonomous motivation --> innovative WI	0,0249	-0,0021	0,0622
FB employment --> autonomous motivation --> controlled motivation --> innovative WI	0,0014	-0,0009	0,0081
FB employment --> controlled motivation --> innovative WI	0,0023	-0,0021	0,0198

Note: Path coefficients in bold are significant at 0.10-level.

Table 12. Indirect effects and 90% confidence intervals from OLS regression predicting innovative work involvement (including **relatedness** need satisfaction).

Path	Estimate	90% CI	
		Lower	Upper
FB employment --> relatedness NS --> innovative WI	0,0103	-0,0017	0,0377
FB employment --> relatedness NS --> autonomous motivation --> innovative WI	0,0113	-0,0033	0,0314
FB employment --> relatedness NS --> controlled motivation --> innovative WI	-0,0003	-0,0038	0,0004
FB employment --> relatedness NS --> autonomous motivation --> controlled motivation --> innovative WI	0,0004	-0,0006	0,0039
FB employment --> autonomous motivation --> innovative WI	0,0177	-0,0077	0,0544
FB employment --> autonomous motivation --> controlled motivation --> innovative WI	0,0006	-0,0010	0,0060
FB employment --> controlled motivation --> innovative WI	0,0015	-0,0030	0,0168

Note: Path coefficients in bold are significant at 0.10-level.

5.5. Discussion and Conclusions

5.5.1. Theoretical Contributions

The purpose of this study was to investigate how family business employment influences the innovative work involvement of employees. We specifically aimed to look deeper into the black box, examining the underlying processes that could explain the relationship between family business employment and innovative work involvement. For this, we relied on Self-Determination Theory (Deci and Ryan, 2000) which emphasizes the importance of satisfying three basic psychological needs for optimal motivation and functioning at work. The study's findings provide evidence that people who work for a family firm are more inclined to act innovative in their jobs because they have their basic psychological needs met at work which makes them autonomously motivated for their jobs. However, the direct effect of family business employment on basic psychological need satisfaction appeared to be not significant.

Therefore, we took a closer look at the three needs separately and repeated our analyses for autonomy, competence and relatedness need satisfaction separately. These analyses indicated that it is mainly the need for autonomy that accounts for the findings in this study. Employees who work in a family firm are more likely to experience autonomy in their jobs, and not so much competence or relatedness. This higher autonomy then makes them more autonomously motivated for their jobs and consequently leads to the higher innovative work involvement. This is surprising, as we had good reason to believe that the family business work environment contains nutriments for all three basic psychological needs. Especially the finding that family business employment did not affect the need for relatedness is rather remarkable. Given the presence of family relations in the firm and the associated familial atmosphere, it was expected that people who work in a family firm would sooner feel that their need for relatedness is met. After all, feeling 'related' to each other seems like a core characteristic of family firms. However, besides the often acclaimed idea that the presence of family in a firm bring warm and cohesive relations, there also exists empirical evidence in the literature that family relations can also bring a serious amount of conflict and rivalry (e.g. Eddleston and Kellermanns, 2007; Harvey and Evans, 1994; Schulze et al., 2001, Sorenson, 1999). These negative tendencies might partly diminish the positive, warm family relationships and could as such explain that we did not find an overall effect of family business employment on relatedness.

The need for autonomy however, did appear to be more often satisfied among people who work in a family business. As discussed above, an autonomy-supportive context specifically entails three aspects, namely providing a rationale for the task, acknowledging feelings and providing choice (Gagné et al., 2000). A possible explanation for the stronger effect on autonomy compared to competence and relatedness could concern the lower degree of formalization in a family firm (Kets de Vries, 1993). This lower formalization gives members of the family firm the feeling that they can make personal choices, but has less impact on the feelings of competence and relatedness. Future studies should look further into this by investigating the effect of more specific family firm characteristics on the satisfaction of the three needs.

In line with SDT (Gagné and Deci, 2005), the study confirms that basic psychological need satisfaction leads to more autonomous motivation and less controlled motivation. Only autonomous motivation appeared to have a positive effect on innovative work involvement, while controlled motivation had no significant effect. As such, controlled motivation did not significantly account in any way for the relationship between family business employment and innovative work involvement. Not hypothesized but nevertheless positively significant however, was the effect of autonomous motivation on controlled motivation. This is not surprising as also previous research on SDT showed that autonomous and controlled motivation are positively correlated (e.g. McBride et al., 2010). As such, people can be motivated for their jobs because of many reasons that can be autonomous as well as controlled. Someone can work hard because he/she finds the work important and at the same time also because he/she wants to get other people's approval. As long as there are also autonomous reasons, there will be a positive effect on innovative work involvement.

This study contributes to the literature on innovation in family firms as it points to and explains an important advantage of family firms with respect to their innovative capacity. Family firms seem particularly capable of creating a work environment that stimulates employees to be creative and propose novel ideas. However, to gain knowledge in the complex and often conflicted field of innovation in family firms, it is important to look deeper and to go beyond merely cause and effect, exploring in more detail the underlying mechanisms. (e.g. Classen et al., 2013, DeMassis et al., 2013). We specifically contribute to this call as we explain how the family firm precisely fosters (a specific aspect of) innovation, relying on SDT for determining the underlying mechanisms linking family business employment to innovative work involvement of employees. Specifically, we found that the family business work environment nurtures basic psychological need satisfaction, According to SDT, three basic needs are present in all humans and are crucial for optimal functioning and well-being, namely the need for autonomy, competence and relatedness. Family firms seem to particularly foster the need for autonomy. Employees who work in a family firm more often feel that they can act according to their own will. According to SDT and as our findings also confirmed in the context of family firms, this need satisfaction fosters a more autonomous motivation rather than controlled motivation at work. Employees who experience need satisfaction are more likely to be motivated for their jobs because they enjoy it or because they find it important rather than because they want to avoid criticism or guilt. Also in line with SDT, we found that this autonomous motivation in turn fosters the innovative work involvement of employees. Employees who are autonomously motivated for their jobs are more likely to do extra efforts that benefit the firm.

Overall, our study thus highlights that people who work in a family firm often act more innovative because they have their fundamental need for autonomy satisfied at work which makes them more autonomously motivated to do creative efforts. These findings are in line with and elaborate on the recent study by Bammens and colleagues (2013). Their study focuses on the caring nature of family firms in explaining the more innovative employees. We further add to this study by explicitly focusing on the underlying motivational processes of the employees, using SDT's concept of basic psychological need satisfaction as the fundamental explanatory variable. It is however possible that the high organizational support in family firms could partly explain how exactly family firms create a work environment that fosters the basic psychological need satisfaction, combined with other family firm characteristics such as formalization and size. In other words, organizational care could be a mediating variable between family business employment and basic psychological need satisfaction. As we will discuss in the next section, future research should further look into the precise attributes of family firms that contribute to their employees' need satisfaction.

5.5.2. Limitations and Future Research

A few limitations need to be mentioned. First, the cross-sectional character of the present study cautions us to be careful of drawing conclusions about causality. Only future studies that use a longitudinal design will be fully able to firmly establish the directions of the relationships. Second, this study uses a rather rough measure of family business involvement that first of all did not allow us to further explore specific characteristics of family firms that might give a fuller image of the need nurturing work environment. Besides that, our measure of family business involvement also does not allow us to distinguish between different types of family firms. Family firms have general unique characteristics, but at the same time there are a lot of important differences between family firms. Future research should include more fine-grained family business variables to get a full picture of what aspects of the family business work environment precisely foster the need satisfaction and consequently the innovativeness of their employees.

5.5.3. Practical Implications and Conclusion

This chapter also has important implications for practice. While the literature on innovation in family firms discusses several advantages as well as disadvantages of family firms with respect to innovation, we point to an important potential of family firms with respect to their innovativeness that is often overlooked in research as well as practice. As such, our study indicates that family businesses should be aware of the nutriments for basic psychological need satisfaction in their work environments as they appear to be important in stimulating the innovativeness of their employees. Creating a work environment that supports feelings of autonomy, competence and relatedness makes employees optimally motivated for their jobs and consequently more inclined to be creative and take initiatives that are in the best interest of the firm. Family businesses appear to be particularly capable of that, especially with regard to supporting the need for autonomy. As such, non-family firms could learn from these family firms, looking for ways to support basic psychological need satisfaction at work.

6. Conclusion

6.1. Outline

The purpose of this dissertation was to advance the understanding of organizational innovation in family firms. This overall objective was addressed by means of four separate studies, each adding a different piece of the puzzle. This concluding section first summarizes the findings of each chapter separately. After that, the main theoretical and practical implications are discussed. Finally, important suggestions for future research are provided.

6.2. Findings

6.2.1. Findings Chapter 2

The aim of Chapter 2 was to develop a conceptual model that explains how family firms combine the search for stability and change during organizational innovation. In order to survive, firms nowadays on the one hand need to be open to change and innovation, but on the other hand have to be efficient, reliable and stable. This is usually perceived as the reconciliation of incompatible, opposite or mutually exclusive objectives (e.g. Brown and Eisenhardt, 1997; Farjoun, 2010; Leana and Barry, 2000; Pettigrew et al., 2001). Recently however, Farjoun (2010) challenged this paradox, arguing that change and stability can be viewed as mutually enabling. In line with this, a cyclical process model was developed in which social capital functions as the important process motor, and family institutions and the board of directors form two important supporting mechanisms. As such, six propositions were formulated, wherein the basic premise lies in the idea that the strength of family firms to adequately combine stability and change lies in their strong relational processes.

Social capital in family firms facilitates openness, creativity and other mechanisms that stimulate change. But at the same time, this social capital also fosters stability, in the sense that it fuels habits and compliance to rules and customs through higher loyalty, trust and commitment. In turn, social capital itself requires stability to develop. In this sense, stability leads to solid network ties, a shared vision and language, trusting relationships, strong identification and mutual feelings of obligation, which are all important features of social capital. Hence, stability enables social capital and social capital enables stability. As such, a reinforcing cycle is formed. However, change and the generational dynamic in family firms can place these relationships under pressure. Therefore, formal structures that rely on the unique family governance structure need to be put in place to make sure that social capital can continue to thrive. First of all, formal family institutions deal with all family-related issues of the business and help to preserve social capital as the firm develops. More specifically, setting up a family council and a family charter can create a forum for developing consensus around key issues. Secondly, also an empowered board of directors is needed to deal with the specific needs of the business and as such supporting stability through the monitoring of all important business issues and processes.

Overall, this chapter first of all contributed to the family firm literature as the often cited weaknesses related to a family firm's propensity for stability (Aronoff and Ward, 1997; Morck and Yeung, 2003)) are reconciled with the acclaimed strengths of family firms regarding their potential for change (e.g. Kellermanns and Eddleston, 2006; Zahra, et al., 2004)). Secondly, this chapter also contributed to the organizational innovation literature in general as new mechanisms explaining a successful combining of stability and change are proposed, building on concepts of social capital and corporate governance.

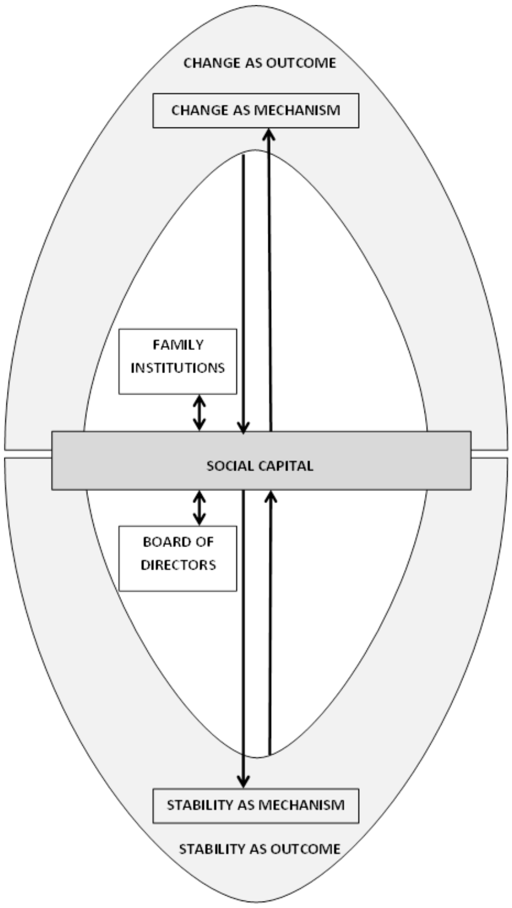

Figure 8. Conceptual model of the combined search for stability and change during organizational innovation in family firms – Chapter 2.

6.2.2. Findings Chapter 3

Chapter 3 zoomed in on a part of the conceptual model presented in Chapter 2, as the role of the board of directors in innovation behaviour in SMEs is examined. Also drawing on the duality view of stability and change (Farjoun, 2010), it is argued that board involvement in control supports innovation in SMEs because it provides the stability needed for a successful innovation process. More precisely, an active board provides focus, certainty and a consistent frame wherein the innovation can take place. As such, Chapter 3 offered a new complementary theoretical framework to agency theory, which has always been the traditional dominant viewpoint in board research. Statistical analysis on a sample of 150 Belgian SMEs revealed that board involvement in control is positively related to process innovation, but not to product innovation, which is in line with a previous study by Gabrielsson and Politis (2009).

An important contribution of Chapter 3 was providing empirical evidence that an alternative complementary framework to agency theory is justified. To this end, the chapter wanted to establish whether the relationship between board involvement in control and innovation would hold regardless of possible agency problems. Specifically, three types of agency problems were identified. The first type is the classical view and stems from the separation of ownership and management arguing that board involvement in control is needed to offset a manager's self-interested short-term focus (Jensen and Meckling, 1976). The second type is typical for owner-managers in family firms who are inclined to act opportunistically in favour of the family rather than the firm (Schulze et al., 2001). The third type refers to the assumption that board involvement in control is needed to counter a CEO's honest incompetence.

To investigate this, two hypotheses were formulated. The first hypothesis was in line with the traditional agency theory and stated that board involvement in control would only have a significant positive effect on innovation when one or more of the above described agency problems are present in the firm. The second hypothesis was in line with the new duality view of stability and change, and stated that board involvement in control would positively affect innovation regardless of agency threats. Specifically, three interaction effects between board involvement in control and a proxy for the specific agency problem were tested. The analyses revealed that the presence of an agency threat did not significantly alter the findings, which implies that countering the above described agency problems cannot be the only explanation for the relationship found between board involvement in control and process innovation. This thus justifies an alternative, complementary viewpoint to agency theory, which we provided with the viewpoint of change and stability as a duality.

As such, Chapter 3 answered to the call of many scholars (e.g. Stiles, 2001; Hambrick et al., 2008; Huse, 2005; Minichilli et al., 2009; van Ees et al. 2009) for alternative, behavioural theories to better understand all the complexities of the broader role the board plays in stimulating innovation in SMEs. With the framework of stability and change as a duality, such a behavioural framework is offered. The duality view does not in the first place wish to contradict agency theory, but rather wants to offer a complementary view. As such, it is argued that agency theory, although not wrong, is only part of the story. When there are potential agency problems present in the firm, the board role can entail countering these agency problems, together with the other roles explained in the duality framework. For instance, as an important board role according to the duality view entails providing focus, this can mean providing focus for a short-term oriented manager who needs a more long-term focus, which is in line with agency theory. But also a manager who already has a long-term focus can benefit from a board that helps to keep the goals of the firm in mind. Hence, when there are no agency threats present in the firm, the board still plays an important role in stimulating innovation as the board provides focus, reduces uncertainty and helps to set a consistent frame.

Table 13. Summary of results - Chapter 3.

Hypothesis	**Finding**	**Comment**
H1a: There is (only) a positive association between board involvement in control and product innovation when there are potential agency problems in the firm.	Not supported	The agency theory explanation is not supported.
H1b: There is a (only) a positive association between board involvement in control and process innovation when there are potential agency problems in the firm.	Not supported	
H2a: There is a positive association between board involvement in control and product innovation regardless of potential agency problems in the firm.	Not supported	The duality view of stability and change is supported for process innovation.
H2b: There is a positive association between board involvement in control and process innovation regardless of potential agency problems in the firm.	Supported	

6.2.3. Findings Chapter 4

This chapter investigated organizational innovation from a relational embeddedness perspective. Family social bonds are typically long-lasting and encompassing and the firm is accordingly often highly embedded in the family in the sense that family relations have a strong impact on firm processes (Le

Breton-Miller and Miller, 2009). It is therefore argued that this embeddedness has important consequences for the way in which a family firm pursues organizational innovation. Chapter 4 specifically addressed two research questions. The first research question concerned: *When* can family firms with high embeddedness realize organizational innovation? The literature that studies the role of embeddedness in organizational innovation is rather inconclusive whether high embeddedness helps or hinders change (e.g. Reay, et al., 2006). Therefore, the specific conditions wherein embeddedness facilitates innovation were examined. Secondly, Chapter 4 also examined *how* exactly this embeddedness contributes to advancing organizational innovation. To this end, a qualitative inductive theory building approach was used, based on the interview data of 12 CEOs of family firms.

As an answer to the how-question, the qualitative analysis revealed that embeddedness of the firm in the family can certainly stimulate innovation, as it forms the basis for achieving four micro-processes during an organizational innovation process. Members of the family firm use their long shared experience, deep knowledge of the firm and close relationships to perform these concrete actions that taken together forward the organizational innovation. As such, the sum of the individual-level (micro-level) actions brings forward an organizational-level (macro-level) change. First, high embeddedness makes trial-and-error learning easier. Members of the family firm feel safe enough to try out new things and speak their mind when something is not going well. Second, deep knowledge of the firm and shared experiences facilitate framing the change in the right way. As such, knowing what works in the firm and what does not, helps to frame the change in such a way that everybody involved fully understands it and stands behind it. Third, as also highlighted in the previous chapters, providing a certain amount of stability during an uncertain innovation process is important. Due to their embeddedness, members of the family firm are knowledgeable about which structures are needed to support this stability, placing high value on core competencies and (familial) values from the past that must be kept. Fourth, high embeddedness of the firm in the family makes communication within the firm more informal and more flexible, which shortens the communication lines within the firm and thus speeds up decision-making.

As an answer to the when-question, the model included another important attribute that in combination with embeddedness, helps to realize the micro-processes, namely openness. Family firms that are aware of the risk that embeddedness can render the members of the firm to be more close minded, generally have developed an open culture in which they are able to question themselves, in which they are open for building networking relationships with external stakeholders and are continually vigilant for changes in the environment.

Overall, although family firms are in the literature often regarded as resistant to change because of their strong emotional involvement in the business (e.g. Salvato et al., 2010), Chapter 4 highlighted that this emotional involvement, i.c. this embeddedness, can be an important ground for accomplishing important micro-processes during organizational innovation, as long as the firm keeps the eyes open to opportunities and threats. As such, openness and embeddedness can match perfectly, precisely because the combination makes the realization of the four micro-processes possible.

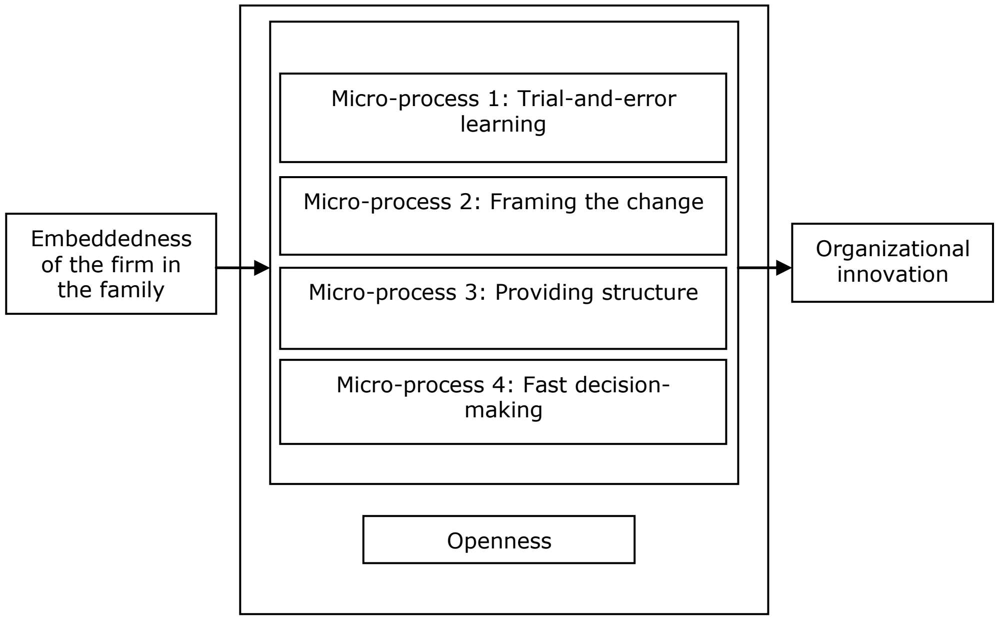

Figure 9. Model of embeddedness as an opportunity for organizational innovation in family firms – Chapter 4.

6.2.4. Findings Chapter 5

Chapter 5 started from an employee perspective, as the effect of family business employment on innovative work involvement was investigated. This focus on employees is important as considerable research has shown that employees can fundamentally contribute to innovation (Shalley et al., 2004; Zhang and Bartol, 2010). Specifically, this chapter compared the innovative work involvement of employees who work in a family firm with employees who do not work in a family firm and found that family firm employees showed more innovative work involvement. As an explanation for this finding, Chapter 5 took a deeper look into the black box, examining the underlying motivational processes relying on Self-Determination Theory (Deci and Ryan, 2000). SDT emphasizes the importance of satisfying three basic psychological needs for optimal motivation and functioning at work, namely autonomy, competence and relatedness. The study's findings provided evidence for the full mediation model indicating that people who work in a family firm are more inclined to act innovative in their jobs because they have their basic psychological needs met at work which makes them autonomously motivated for their jobs. However, as the direct effect of family business employment on basic psychological need satisfaction appeared to be not significant, the three needs were also investigated separately. These analyses indicated that it is mainly the need for autonomy that accounted for the findings in this study. Employees who work in a family firm are more likely to experience autonomy in their jobs, and not so much competence or relatedness. This higher autonomy then makes them more autonomously motivated for their jobs, which consequently leads to the higher innovative work involvement.

Overall, Chapter 5 indicated that many family businesses hold important nutriments for basic psychological need satisfaction in their work environments which is important for stimulating the innovativeness of their employees. By doing this, this chapter contributed to the literature in two important ways. First of all, an employee-level perspective was used, studying how employees are motivated to engage in innovative behavior. Most research on innovation in family firms takes on a firm-level perspective, investigating top management's viewpoint on the firm's innovativeness. Yet, the employees cannot be neglected as considerable research shows that employees can fundamentally contribute to innovation (Shalley et al., 2004; Zhang and Bartol, 2010). Secondly, this chapter took an in-depth look at a specific innovation process, as the focus lay on the underlying motivational processes that link family business employment to innovative work involvement.

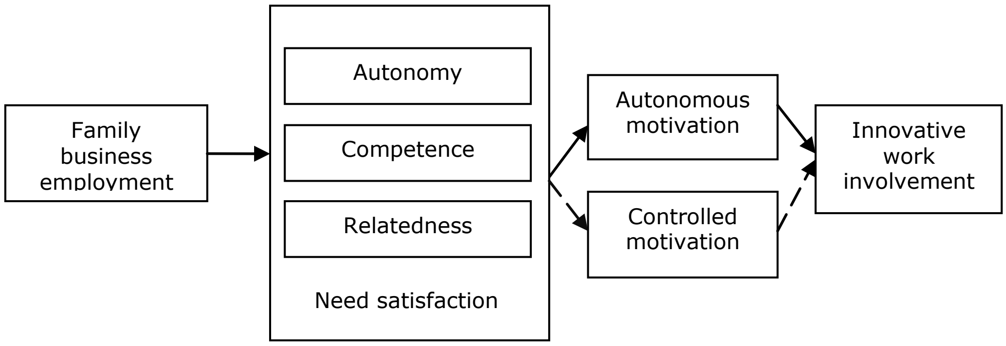

Figure 10. Theoretical model linking family business employment to innovative work involvement – Chapter 5.

6.3. Theoretical Implications

6.3.1. A Diverse Look into the Innovation Potential of Family Firms

Taking the perspective of different actors in the family firm, this dissertation focused on how the members of the family firm co-create their innovation process. To make sense of the complex and seemingly conflicting family firm innovation context, different methodologies, epistemological assumptions and theoretical frameworks were used throughout the dissertation. As such, this dissertation offers a diverse look into the unique innovation potential of family firms. The literature on innovation in family firms has always been rather inconclusive as to the family firm's capacity to innovate. On the one hand, the deeply rooted entrepreneurial tradition and the fear of losing family harmony are often considered to lead to resistance to change (Salvato et al., 2010). On the other hand, the family firm literature describes many cases of firms that succeeded in implementing important organizational innovations (e.g. Ng and Roberts, 2007; Salvato and Melin, 2008; Salvato et al., 2010). Given these conflicting views regarding a family firm's capacity to innovate, this dissertation took a small step in the direction of reconciliation, telling a positive story of innovation in family firms. As such, this dissertation highlighted that the often cited weaknesses of family firms can under certain conditions be turned into strengths. The strong relational and emotional connection is key here, which in Chapter 2 is discussed as social capital and in Chapter 4 as embeddedness. Specifically, a family firm that is characterized by high quality social relationships, combined with the necessary formal structures and openness to the outside and inside environment, largely has what it takes for making an innovation process work. In the next section, a closer look will be taken at how the diverse insights of the different chapters interact with each other.

6.3.2. Interplay between the Different Chapters

To make sense of the growing complexity in today's organizational life, it is important to fully make use of the diversity that organization theory offers (Schultz and Hatch, 1996). As discussed above, this dissertation therefore relied on various viewpoints and methodologies offering very diverse insights into innovation in family firms. As such, each of the chapters offered its own unique contribution to the subject. However, the different types of knowledge used in this dissertation call for both-and thinking rather than either-or thinking, allowing for cross-fertilization between the different paradigms while maintaining diversity. This cross-fertilization will be discussed in this paragraph.

Chapter 2 first of all presented a conceptual model that argues how family firms can combine the important search for change and stability. Social capital specifically functions as the important process motor herein, combined with the installation of certain governance structures, like family institutions and an active board of directors. Chapter 3 built further on this framework and empirically examined how the board of directors fosters innovation through the provision of the needed stability during an often uncertain innovation process. Next, Chapter 4 then took another perspective as an inductive study was set up from an embeddedness perspective. Although the concepts used are different, there are many parallels between Chapter 2 and Chapter 4. First of all, the concept of embeddedness is closely related to the concept of social capital, as both refer to the relational dimension in firm processes. In a family firm context, this means that both refer to the idea that the presence of family relations in a firm brings in a different type of intra-firm relationships characterised by, among others, high trust and commitment. Whereas social capital has in the literature always been considered to promote innovation and change (e.g. Tsai and Ghoshal, 1998), embeddedness was traditionally considered to sooner promote stability rather than change (e.g. Greenwood and Suddaby, 2004; Seo and Creed, 2002). Yet, an important contribution of this dissertation concerns that Chapter 2 highlighted that social capital forms the key around which the search for change as well as stability can be combined. Although not literally discussed in Chapter 4, embeddedness more or less does the same. Hence, the stability and change dynamic is also implicitly present here. After all, the qualitative interview data showed that embeddedness which is traditionally considered to promote stability, can also promote change when it is accompanied with enough openness to the outside environment. More specifically, it was revealed that embeddedness promotes organizational innovation because it makes the accomplishment of four micro-processes possible, namely trial-and-error learning, fast decision-making, framing the change and providing necessary structure. The first two micro-processes promote new ideas, flexibility and responsiveness, i.e. change. The last two micro-processes make sure that the innovation process can take place in an efficient, reliable and stable manner, i.e. stability. Just like social capital, embeddedness thus assists in promoting change and stability at the same time during the often difficult and uncertain innovation process.

Finally, while Chapter 5 might seem like an outsider on the surface, there are also important parallels with the previous chapters. This chapter specifically highlighted the significant role of basic need satisfaction for stimulating employees' innovative work involvement. Evidence was found indicating that the family business work environment holds important nutriments for this important basic need satisfaction. As the measure for family business work environment was a dummy variable, the specific nutriments could not be identified. Yet, because previous research indicated that the key in stimulating employees' innovative work involvement is relational in nature (Bammens, et al., 2014), social capital and embeddedness might also be the crucial factor here. More specifically, Chapter 4 revealed that embeddedness stimulates trial-and-error learning. Long experience in the firm and close relationships make people who work in a family firm more inclined to try out new things. Trying out new things can be seen as a key feature of innovative work involvement. Innovative work involvement of employees is as such closely related to trial-and-error learning.

Basic need satisfaction could as such be an important mediator between embeddedness (or social capital) and innovative work involvement as a different conceptualization of an important micro-process for change.

6.3.3. Relations with Classic Economic Theories in Family Business

As various scholars from different domains argue that there is a need for more theory that digs deeper into the underlying processes of various firm phenomena, like innovation (e.g. Andriopoulos and Lewis, 2009; Chirico and Salvato, 2008; Classen et al., 2013; Craig and Moores, 2006; DeMassis et al., 2013), this dissertation answered to the call for introducing theories from other fields into the domain of family business (Sharma et al., 2012). Another important theoretical contribution of this dissertation thus concerns its reliance on various new theories in the domain of family business. Agency theory and the resource-based view of the firm have always dominated the field (Chrisman et al., 2010; Sharma et al., 2012). Regarding organizational innovation in family firms, agency theory traditionally argued that the deeply rooted entrepreneurial tradition and the fear of losing family harmony are often considered to lead to resistance to change (Salvato et al., 2010) Family owner-managers tend to have most of their wealth tied to the company and therefore have more to lose, which results in risk-averse behaviour and thus less inclination to pursue uncertain innovation efforts. After all, not only the financial but also the socio-emotional wealth of current and future generations is at stake (Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011). The resource-based view on the other hand offered a more positive view of the family firm’s capacity to innovate. As such, the family firm literature describes many cases of firms that succeeded in implementing important organizational innovations (e.g. Ng and Roberts, 2007; Salvato and Melin, 2008; Salvato et al., 2010). It is argued that family firms have unique resources that facilitate innovation (Habbershon and Williams, 1999). For example, family firms may excel in developing social capital (Arregle et al., 2007). Enduring and close relationships within family firms may result in trusting and collaborative interactions that foster innovation (Litz and Kleysen, 2001).

This dissertation also explicitly took these theories into account, as they provided useful insights in family business innovation. Yet, at the same time, the dissertation moved beyond these classic theories, offering new complementary theories that use a more behavioural process approach. As such, insights from agency theory and the resource-based view were combined with insights from the duality view of stability and change, the embeddedness approach and self-determination theory. The introduction of these behavioural process theories made it possible to deepen the understanding of organizational innovation in family firms, integrating the views of the classic economic theories that often yielded contradictory predictions. Consequently, this dissertation offered a multi-logical and multi-voiced view of the innovation process in family firms.

6.3.4. Relations with Organizational Learning Theory

Throughout this dissertation, reference was often made to another important theory in organizational research, namely organizational learning theory (e.g. Argyris and Schön, 1978; Edmondson, 1999). In today's complex organizations, organizational learning is important for firm performance. Organizations that learn how to function better as a whole, that view mistakes as opportunities to learn and that learn on a deeper level through reflection and research, have a much better shot at long-term survival. The key for accomplishing this learning lies in high-quality relationships and psychological safety (Carmeli, et al., 2009), two concepts that have been widely discussed throughout this dissertation. As such, organizational learning theory offers important underlying explanations for the relationships that were drawn in the different models of this dissertation. For example, in Chapter 2, social capital fosters change because people feel psychologically safe enough to try out new things, to offer ideas. The same can be said about the role of embeddedness in stimulating the accomplishment of trial-and-error learning. As discussed in Chapter 3, a good functioning board of directors fosters stability during an innovation process because it can help provide the CEO with the necessary feelings of psychological safety. Also in Chapter 5, psychological safety might play a role in explaining why basic need satisfaction is so important for innovative work involvement.

What is more, given the important role of high-quality relations in organizational learning theory as well as throughout this dissertation, successful organizational innovation often implies organizational learning. This is particularly the case when this organizational innovation is viewed in the more narrow meaning of changing the way work is organized (and to a lesser extent in the broader meaning of all innovations taking place within an organizational context). Through the new way of working, and thanks to the constructive process leading up to it, the organization often learned to function better as a system, learned how important organizational goals can be reached in an effective and efficient manner.

6.4. Practical Implications

This dissertation also holds important practical implications as it includes various suggestions of how family firms can successfully innovate. Despite the common portrayal of family firms as being resistant to change, this dissertation showed that family firms should be aware of (and further exploit) their important potential for organizational innovation. *The quality of relations* first of all appeared to be essential here. The family system in the family firm brings a warmer, more nurturing type of relationships in the firm. This creates the potential for a work environment that is characterized by high trust, strong commitment, caring for each other and short communication lines. These high-quality relations now appeared to be very important in supporting innovation in a family firm because they simultaneously help foster change and stability. They foster change on the one hand, for instance, because trust makes people feel safe enough to try new things and openly exchange information (i.e. trial-and-error learning), or because the shorter and more informal communication lines speed up decision-making and give people more autonomy. At the same time, these relationships on the other hand also make sure that necessary stability can be maintained during the innovation process. For instance, trusting relationships can be a source of grip during the uncertain period, or commitment to the firm's core values can help to keep in mind what made the firm successful and thus what must be kept during the change process.

However important, high quality social relations alone are not enough for making an organizational innovation process work. This dissertation therefore repeatedly stated that, particularly for maintaining stability during the innovation process, a certain amount of *structure* is also needed. For instance, during an innovation process it is important that responsibilities, timing and priorities are clearly defined so that there is no chaos. Specifically the important role of the governance structure is stressed. Change and the generational dynamic in family firms can pose a lot of strain on relationships. It is therefore highly valuable that a family firm over time installs formal family institutions, like a family council or a family charter, and an active board of directors so that the innovation process can take place in a focused and regulated manner.

This dissertation also pointed to a third important prerequisite for organizational innovation in family firms, namely keeping *open to the outside and inside environment*. Family firms are often portrayed as being close-minded with limited contact to the outside environment, which is often related to the fact that the firm is highly embedded in the family (Le Breton-Miller and Miller, 2009). However, the interview data of Chapter 4 clearly showed that embeddedness of the firm in the family does not necessarily preclude openness to new ideas or openness to learning from outsiders. Many family firm CEOs are aware of the need to question oneself and to look broader to find better ways to improve the business. Including external members on the board of directors or the management team, discussing problems with fellow entrepreneurs through external networks or asking external expert advice, are all examples of how family firms can do efforts to be open to the outside world and to learn from that.

Overall, this dissertation highlighted that, due to the presence of family relations in the firm, family businesses appear to have an important potential for organizational innovation. The key particularly lies in their potential for developing high quality social relationships. Therefore, as long as this is accompanied with the necessary formal structures and openness, family firms just might be particularly good at organizational innovation. Not only family firms, but also non-family firms can learn from this, in the sense that all firms should be aware that the relational dimension in the firm should not be neglected.

6.5. Suggestions for Future Research

This dissertation is concluded by making a few suggestions for future research. As mentioned above, this dissertation only takes a step in the direction of understanding the organizational innovation process in family firms. Many avenues for future research thus remain.

First, this dissertation particularly focused on the process of innovation. Therefore, a limitation that needs to be mentioned concerns the fact that the empirical research was based on cross-sectional data. Chapter 3 and 5 were based on survey data questioning CEOs and employees respectively, while Chapter 4 was based on in-depth interview data of 12 CEOs of family firms. As implementing an organizational innovation often is a long-term process, it might be interesting to follow companies during the entire change period. In Chapter 4, this shortcoming was partly addressed using a more story-telling approach of interviewing, asking the CEOs to go back in time and tell the story of their recent important innovation process. Yet, taking interviews or surveys on multiple moments in time during the innovation process, might significantly increase our understanding.

Next, the conceptual models presented in Chapters 2 and 4 were developed using a bricolage approach and a case-study approach respectively.

Future research should empirically test the relationships presented in these models. Chapter 3 partly tested the conceptual model presented in Chapter 2, but specific measures of the concepts and relationships used in the model were lacking. It was established that active board involvement in control fosters innovation, but the underlying reason for this could not be examined. It was argued that the duality view of stability and change presented in Chapter 2 could offer an insightful behavioural explanation which is needed to complement agency theory, but the used data did not include explicit measures for it. Does board involvement in control really provide focus, certainty and consistency and as such assist in innovation? Future research that includes more process variables is needed to test these and also the other relationships presented in the two models.

Third, as discussed above, the concept of psychological safety is often used as an underlying concept explaining the relationships presented throughout this dissertation. However, psychological safety was not measured in the current data. Future research should incorporate this important concept, examining for instance whether the board of directors influences the CEO's feelings of psychological safety, as posited in Chapter 3. The relationship between basic psychological need satisfaction and psychological safety might also be an interesting avenue for future research, enriching the findings of Chapter 5.

Fourth, the two quantitative chapters (Chapter 3 and 5) relied on a rather coarse measure of family business. Future studies should use more fine-grained measures, incorporating different family firm characteristics. Specifically with regards to Chapter 5, including measures like degree of family involvement or generation could give more insight into what aspects of the family business exactly contribute to the higher feelings of autonomy among their employees.

Lastly, the employee perspective in innovation in family firms which was introduced in Chapter 5, has long been neglected by researchers (Bammens et al., 2014), but offers promising avenues for future research. After all, employees are crucial for stimulating innovation in the current rapid changing and uncertain economy (Shalley et al., 2004; Zhang and Bartol, 2010). The Self-Determination Theory could further be used to deepen our understanding, but also other behavioural theories, like work characteristic theories or conflict theories, could enrich family business or economic theories.

Appendices

Appendix 1: Factor Analysis of Innovation Measures Chapter 3

	Product innovation	**Process innovation**
First in industry to introduce new products on market	**0.81**	0.28
Creating radically new products for sale in new markets	**0.76**	0.36
Creating radically new products for sale in firm's existing markets	**0.88**	0.23
Commercializing new products	**0.85**	0.16
Investing heavily in cutting edge product-oriented R&D	**0.68**	0.38
Investing heavily in cutting edge process technology-oriented R&D	0.49	**0.60**
Being first in industry to develop and introduce radically new technologies	0.28	**0.86**
Pioneering the creation of new process technologies	0.18	**0.90**
Eigenvalue	3.54	2.33
Percent Variance explained	44.31	29.14

Notes: Extraction method: Principal Component Analysis,

Rotation method: Varimax with Kaiser Normalization

Appendix 2: Board Involvement in Control Measure Chapter 3

Behavioural control

- The board of directors is involved in the monitoring and adjusting of…
    - …Cost budgets
    - …Sales budgets
    - …Firm liquidity
    - …Investments
    - …The quality of the products
    - …Human resources
    - …Health, work environment and safety

Output Control

- The board of directors is involved in the monitoring and adjusting of…
    - …Affairs related to the environment and pollution
    - …Shareholder's profits
    - …Corporate social responsibility

Strategic control

- The board of directors actively makes long-term strategic decisions.
- The board of directors is active in monitoring/evaluating strategic decisions.

Appendix 3: Interview Protocol Chapter 4

Kadering

Doel interview

Als bekend en succesvol Limburgs familiebedrijf zouden we van u graag willen leren hoe veranderingen/vernieuwingen/innovaties vorm krijgen in uw bedrijf en met welke problematieken/uitdagingen u daarbij werd/wordt geconfronteerd.

Waarom die vraag?

Om in een snel veranderende omgeving een competitief voordeel te behalen èn te behouden is het vermogen van het bedrijf om haar organisatie gepast te veranderen van cruciaal belang.

Er is echter weinig informatie beschikbaar over hoe familiebedrijven veranderingen/vernieuwingen tot een goed einde brengen en continu verbeteren in de richting van een vitaal, productief en lerend systeem.

- Dit onderwerp is het centrale thema van een nieuw onderzoeksproject dat VKW Limburg vanuit het Limburgs Platform voor het Familiebedrijf (LPF) uitvoert in samenwerking met het onderzoeksinstituut KIZOK van de Universiteit Hasselt.

- Dit onderzoek zal resulteren in de uitgave van een nieuw boek en tool die nuttig zal zijn voor familiebedrijven.

Duur van het interview: 1,5 à 2 uur.

- We willen u vragen of we het interview mogen opnemen op tape. Dit maakt dat we met volle aandacht met u in gesprek kunnen gaan en we het interview later kunnen uittypen en verwerken. U krijgt de uitgetypte versie van ons terug zodat u nog kan nalezen.

Interviewvragen

<<We vertrekken graag BREED en zoomen dan geleidelijk aan in. We horen graag uw verhaal>>

A) Terugkijkende op de evolutie van uw familiebedrijf, wat zijn de belangrijkste veranderingen/vernieuwingen die u hebt vormgegeven samen met anderen?

We horen graag uw verhaal. Zoveel te meer dat u kunt aangeven wanneer en op welke manier u samen met anderen veranderingen of vernieuwingen hebt vormgegeven, des te beter.

We zouden graag per verandering/vernieuwing doorvragen op:

- **Wie** initieerde de verandering/vernieuwing? **Wanneer** was dat?

- Wat was de **aanleiding**? Speelden er ook veranderende **omgevingsfactoren** mee? Welke? (technische/technologische vooruitgang, marktwijzigingen, druk van concurrenten, etc.)

- **Hoe** hebt u de verandering/vernieuwing aangepakt? We zijn vooral geïnteresseerd in **de manier waarop** u samen met anderen (Raad van Bestuur, Management Team, de familie, het personeel) de verandering hebt aangepakt.

- **Wie** is er bij betrokken? Wie in welke volgorde? Wie **wanneer**? Op welke manier?

- Wat was/is het **resultaat** van de verandering?

Het kan bijv. gaan over veranderingen/vernieuwingen in
- organisatie (structuur, strategie, HRM, samenstelling en werking Raad van Bestuur en Management Team, manier van (samen)werken,…)
- product/dienst (nieuwe producten/diensten) al dan niet gekoppeld aan aanboren nieuwe markten
- proces (nieuwe productieprocessen, technologieën, nieuwe machines, nieuwe communicatiesystemen,…)

…al dan niet samenhangend met een opvolging.

- wie zijn de sleutelfiguren?
- voldoende actieve betrokkenheid?
- is alles bespreekbaar?
- wordt er stilgestaan over "hoe zijn we bezig", "waar zitten verbeterpunten", "hoe kunnen we beter doen"

<<Naar MEER FOCUS>>

We zijn vooral geïnteresseerd in veranderingen
- **in kader van een opvolging**
- **in de samenstelling en werking Raad van Bestuur**
- **in samenstelling en werking van het Management Team**
- **in strategie/koers**
- **in manier van samenwerken**

Vaak hangen deze ook samen.

Heeft er zich in uw bedrijf al een opvolging voorgedaan?

- Zo ja, hoeveel en **wanneer**?

- Wat was de rol van uw voorganger na de opvolging? (bijv. volledig teruggetrokken uit het bedrijf, nog in de Raad van Bestuur gebleven, als voorzitter RvB).

- Deden er veranderingen in de strategie voor na deze opvolging? Zo ja, welke?

- Is er door deze opvolging iets gewijzigd in de samenstelling van de Raad van Bestuur? Zo ja, wat, wie is bijgekomen, weggegaan, andere dynamiek qua samenwerken,…

- Is er door deze opvolging iets gewijzigd in de samenstelling van uw MT? Zo ja, wie is bijgekomen, weggegaan

B) Wat heeft u het meest geholpen om 'bij te blijven' (bijv. met de concurrentie, met de markt, met de technologie,…) en 'te blijven ontwikkelen, vernieuwen en groeien' als familiebedrijf?

Wat heeft u daarin energie gegeven? Wat komt hierbij altijd terug?

C) In welke mate is het familiale een <u>troef</u> om 'bij te blijven' en 'te blijven ontwikkelen en groeien'? Waar gaat de familie helpen/bevorderen?

In welke mate is het familiale een <u>beperking/belemmering</u> om 'bij te blijven' en 'te blijven ontwikkelen en groeien'? Waar gaat de familie tegenwerken?

D) In welke mate worden vernieuwingen/veranderingen gedreven door wat er zich afspeelt in de familie?

Als het gaat over hoe veranderingen worden vormgegeven, hoe denkt u dan dat uw familiebedrijf verschillend is t.o.v. van niet-familiebedrijven?

M.a.w. waar zit het unieke van het familiebedrijf als het gaat over vernieuwen (in vergelijking met niet-familie bedrijven)?

E) Hoe hebt u de openheid voor vernieuwing (nieuwe ideeën, nieuwe zienswijzen, nieuwe manieren van werken,…) kunnen bewaren/hoe bewaart u de openheid voor vernieuwing?

- Betrekt u **<u>externen</u>** (adviseurs, externe bestuursleden RvB, etc.)? Wat maakt dat u daarvan gebruik maakt? Welke expertise brengen zij binnen? Hoe gaat u om met deze externe expertise die binnengebracht wordt? Hoe krijgt u die gedeeld in uw bedrijf?

- Neemt u deel aan **externe netwerken**? Wat maakt dat u daaraan deelneemt? (ideeën, leren van anderen, etc.) Hoe maakt u deze ideeën gedeeld in het bedrijf?

- Hoe werkt u aan de **opleiding en ontwikkeling** van uw personeel?

- Moedig je het naar boven brengen van nieuwe ideeën, leren van elkaar, aan? Hoe? Wat doe je? Wat doen anderen?

F) Hoe grijpt de cultuur (de sfeer, de 'stalgeur') van het familiebedrijf in op het vermogen om bij te blijven en te blijven ontwikkelen? Waardoor wordt uw cultuur gekenmerkt? Waaruit blijkt dat?

G) Wat doet de Raad van Bestuur in dit verhaal? Wat is hun rol? Waaruit blijkt dat?

Hoe dragen zij bij tot uw vermogen om blijvend te ontwikkelen? Belemmeren zij soms ook?

Is de samenstelling en werking van de Raad van Bestuur veranderd over de jaren? Wanneer en hoe?

H) Wat is de rol van uw managementteam en leidinggevenden? Hoe dragen zij bij tot uw vermogen om blijvend te ontwikkelen? Belemmeren zij soms ook?

Is de samenstelling en werking van het managementteam veranderd over de jaren? Wanneer en hoe?

I) Hoe probeer je je begeestering als ondernemer te verbreden naar het hele bedrijf toe zodat iedereen in het familiebedrijf als het ware 'medeondernemer' wordt?

We willen u hartelijk danken voor dit interview! Hebt u nog vragen?

Appendix 4: Evidence for Micro-process 1: Trial-and-error Learning (Chapter 4)

Case	First-order codes and illustrative evidence	Theoretical observations (second-order codes)	Theoretical constructs
2	We invest a lot of time and money in trying out things. We tried to think of and try out as many new things as possible.		
2	As a family firm it is easier to try out new things. If it doesn't work out, it's not so bad, because the one who has to finance it, is the own family. And if they are behind the idea, then it is good.		
7	During the succession period, we just observed and participated during a period of 3 to 5 years. There was no formal plan, we learned by doing.		
8	For the implementation of changes we use 'look and feel' trainings.		
10	I take pragmatic decisions, no big rules, I judge the situation at any time.		
10	I was not economically trained, I had to figure all things out on my own.	learning by doing	trial-and-error learning
10	My son has a different business-unit which he does on his own, with trial and error.		
10	As a family firm you sort of step into the world lonely, and you have to learn 'en cours de route'		
10	You learn by doing.		
11	In the end you've developed an entire structure, but is it really thought through? No. Things happen, different processes and in the meantime structures are formed.		
11	Gut feeling, intuition, that is experience.		
12	My father never explained how to ride a car, or a truck. He just said: "there is a truck". We all knew how to drive a car by the age of 12.		

12	We were always told to just try it.	
8	The world changes anyhow and the company will change too. We need to be able to respond to that. How our employees do that, by falling down five times, that doesn't matter to me. The important thing is that they learn from it, from the mistakes that might be made.	learning from mistakes
4	We evolved towards the idea that talking about problems is not ballast, but is an opportunity towards improvement.	
12	It is important to learn from your mistakes and to make sure that others do too.	
1	Everybody here can give constructive feedback, can speak his mind, can offer ideas. That's healthy. Why should I as superior place myself above that? They can approach me anytime, I can improve myself too. I still improve myself regularly. I am not perfect at all. I have always been open to learning from experiences, learning from others, And that is what I want for my entire company, everyone. Everyone is just as good. Everyone is approached naturally and uniquely, as person, no cant. People like to work here, they feel involved.	learning from each other
1	Employees regularly get a pat on the shoulder. If not from me, then from the customers. It doesn't motivate people when you merely look for mistakes.	
7	Employees learn from more experienced employees.	
8	My children immediately participated in the advice council, because this is part of their learning process.	
9	The children participate in the management team. It is a form of experiencing these things. It's good for their feeling of involvement.	
5	I let people do their thing, of course with control from a distance. But by giving people space and freedom, you see people grow and you see beautiful things happen.	support for learning
3	You give people responsibility, if it doesn't work out, you have to take it	

	back. It's a constant search.	
3	Trust people to take initiative, to be creative. When it goes wrong, it's a pity, but let's learn from this. Act! That is the climate we want.	
2	The middle managers run their section as if it is their own little company. This way they often come with new ideas.	
5	People receive trust and responsibility from me.	
6	When people come with an idea I try to not immediately turn it down, but to always look for the good in it.	
7	It is important for the company to support personal growth and development.	
8	Throughout the entire organization, there is a flow to give people responsibility because everybody is confronted with mistakes that are made, but in the spirit of 'learning from them' and improving. From top to bottom, we pay attention to that.	
9	Let people do things on their own and they will find out new possibilities. You don't have to constantly tell them exactly what they have to do. I think this is important, even if it sometimes goes wrong. Not everything I do, always works out either. It's like this for everybody. But if you always say that they are not allowed to do something, you will cut off all initiative.	
9	Give people freedom to do things.	
10	They work together, they search together, they look for their compatibility together.	
11	We give a lot of trust to each other. We say: "guys, you can do it, we believe in you"	
12	We have a culture of renewal as people can find their own thing here. Although sometimes they make mistakes.	
1	When are you wise and clever? When you can say that you still have a lot to learn	close relationships give safety for learning

1	People need to dare say what they have to say. Ideas and opinions have to come immediately, on the job. This is all very friendly. They need to be open for that. Everybody may approach me, you just saw that, my door is always open. It is practically one big family here. Nobody here has the feeling of "that is the boss", because then they won't bring on ideas. Everybody here feels like "we are working together" and then ideas come. And I don't differentiate between family and non-family. I am who I am.		
2	When you know someone well, it is easier to allow them to try other things. Otherwise you are more inclined to say that it won't work.		
3	Make sure that everybody in the company can be himself/herself, that he/she feels comfortable.		
4	It's good that my brother and I work together as we challenge each other and question each other constantly.		
6	Being able to share difficulties, to share problems is important.		

Appendix 5: Evidence for Micro-process 2: Framing the Change Initiative (Chapter 4)

Case	First-order codes and illustrative evidence	Theoretical observations (second-order codes)	Theoretical constructs
2	The moment you decide to make the product, it is important to communicate it further to the people involved.		
3	You keep people involved through informing them a lot. It is important to constantly inform them about where the firm is going. Information is very important. Open, honest and clear information.		
4	I think it is important to inform the entire team about changes, because otherwise things will happen next to other things and the one is not informed about the other. We can't reach synergy then.		
9	It is important that the people understand what you want to accomplish. If they understand that, you don't have to constantly tell them what they have to do. They will come up with ideas and possibilities themselves.	informing people	framing the change initiative
11	We are always open. People always know what we are going to do, why we are doing something, why something is not allowed. They are always well informed. They always know what is going on and what is going to happen.		
12	It is important to fight against the rigidity of the comfortable life one thinks to have. People often resist the change because they are afraid to lose their comfortable position, while they might end up having a much nicer position.		
5	If we change something, it has to be justified. We want to be sure that we can execute it.	keeping continuity	

6	The key is to keep what was good and at the same time make your own contribution, which can be, and probably will be, different from the previous generation. And this is a continuing process.	
6	Of course you have to change, but not everything. You keep the things that are good. But absolutely, you have to evolve, everyone has to evolve.	
9	The connection between renewal and the fact that we are a family firm, lies in continuity. I build further on what I always heard from my father, and I pass that on to my children. They constantly hear that. We always try to be innovative, to take a head start.	
10	New people in the company want to start making improvements. But they don't know the 45 year-old history of the company and they start to do things that don't work. They make decisions that are not consistent with the past.	
2	Ideas bubble up and then it is important to discuss it with people.	
2	When you are closer to your employees, you hear what your employees need, what they like. And of course, you take this into account.	
3	It is the responsibility of the management team to inform the board of directors well and to use them as sounding board.	
3	We lay the responsibility for changes broad. The management team determines the direction of the firm together with me. Based on their qualities and experience, they direct the organisation in a certain way.	involving people
3	Working on social contact is also very important. We support informal contact, but also when somebody has a problem, a family problem, it is important to pay attention to that and to deal with it in a humane way.	

4	During all those change and renewal strategies, we always communicated extensively and we always tried to involve as many people as possible. When necessary, the right decisions need to be made, but we always tried to get a team of people behind the changes, to effectively get them implemented. If you merely impose changes, it won’t lead to big successes, I believe. It is important to let everyone play a role in it.		
4	People appreciate that the company has a family face that they can trust.		
5	We are family, we have a good connection with the union and with our people. We didn't want to lay off people. So we decided to ask the opinion of our people.		
5	With the restructuring, we told them: "guys, this is the situation, this is the problem, give suggestions." We got a lot of ideas and the entire organisation now supports the restructuring.		
5	Ideas get support within the company through workgroups, where people can discuss everything openly.		
5	A family firm, that is working in trust. If we can work together with someone in trust, then there is a connection. It's not just a customer.		
6	The company has become a lot more open, there are no hidden agendas anymore.		
7	We invest a lot in communication with personnel. All employees come together during an entire day at least four times a year.		
7	The fact that the successor was someone from the family, gave people a feeling of continuity. It can still go wrong, but the family image is very important.		
8	For customers it is important to know the owners. It gives a certain connection.		
8	At the beginning of the change process, we called everyone together and told them about the plans and asked them to think about it. So everyone was involved from the start.		

8	In the meantime I have conversations with my management team and I ask advice about the change. So there is an exchange. I tell them how I would handle it and ask for their opinion.	
8	People are involved in the firm's policy making. This means that they understand very well that the company is supported by different pillars and not just one.	
9	Of course I didn't do it by myself. It is always the work of a group.	
9	I had a weekly meeting with all my people and discussed the changes.	
9	We do a lot of brainstorming about what we are going to do and how.	
9	We not only involve the management team, but also the people in the field. We can talk about anything.	
10	Everybody who works with you, has to be convinced that he/she is doing a good job. They have to be convinced of what is important. That's what I see in many non-family firms, that people don't know why they have to do something. It is important that you know why you do something. Everybody has to be convinced that what he/she does is useful. That is important and I always succeeded at this.	
10	The boss has to be enthusiastic and has to make the employees enthusiastic, and the clients, and the suppliers.	
11	We try to create a good atmosphere through organizing extracurricular activities. And it's important to be there as well. When you are present, you keep the threshold low. They can feel that.	
11	When my father was still around, we were always involved. We have always been involved from the start. That works well, you also are involved with the problems.	
11	People are allowed to give their opinion.	
11	It is important to regularly have a meeting with the key figures in the company.	

11	You can keep everybody enthusiastic by involving them a lot.		

Appendix 6: Evidence for Micro-process 3: Providing Structure (Chapter 4)

Case	First-order codes and illustrative evidence	Theoretical observations (second-order codes)	Theoretical constructs
2	We divided the company into different groups. This is different from how my father used to do it. It makes it easier to implement certain changes. The division into groups makes it safer for the company. It's not good if in a company everything comes down to just one person.		
2	First, you have to find out if the change you want to implement, actually can be implemented. You don't order a new machine just hoping it will work.		
3	Make sure that your internal processes run smooth, so that you have less problems on the work floor. Then you don't have to be on the work floor as much to solve problems.		
3	Entrepreneurship, that is exploration, looking for new things, motivating, inspiring. Management, on the other hand, that is control, it's structures and procedures. Both are needed.	certainty without rigidity	providing structure
3	In the past we also gave a lot of freedom, worked with little teams, with a lot of freedom. But it surprised me. I learned from it that people are not always looking for freedom. Above all, people want clarity. And good leadership if often worth a lot more than freedom.		
3	You need to have the right people. And you need to direct them in the right way, they need to be evaluated on the right aspects.		
4	When you grow, the occasional, spontaneous and ad hoc communication structures don't suffice anymore. Then you have to institutionalize, so that you have a deadline.		

4	It is important to build in continuity as well as professionalization in the company.		
4	Given your growth, it is a point of particular interest to be very critical of the existing structures. You need to be able to make the necessary adaptations.		
4	Consistency is very important. I think a lot of people need the grip it gives them. Not constantly making new business plans that a little while later are set aside again.		
5	When family members have the ambition to enter the company, it is important to make clear agreements and guidelines.		
5	It is important to arrange the succession in the right way, to plan everything carefully, to be aware of the different possible scenarios. It is important for the continuity of the firm.		
5	I strongly underline that a lot of agreements are made. That's why we started the family forum, in which all things that have to do with shares and family bonds are discussed. There is also a family charter in which agreements are settled. This way, everybody knows what is expected from them and what is not.		
8	We try to manage the company professionally, with a marketing department, an HR department, an ERP system, everything, everything, everything.		
8	We work internationally now, which is a big difference. It has the consequence that certainties are spread out over a larger territory, over a larger market. This gives more certainty in the end.		
8	In the past I was the one-man-show. But when you grow, you can't keep doing that. You need to surround yourself with other people.		
9	The continuity of the product is very important. My father always emphasized that and I pass that idea on to my children. They constantly hear that. It is important to take a head start.		
10	In the past I constantly kept an eye on things myself. But when you grow, you can no longer work without a real administration.		

10	After a while, people need structure. Structure is like the staircase railing. It gives grip. There needs to be structure, there need to be rules, people need to know what they stand for. What they need to do. That is very important.	
12	You shouldn't do that too fast, letting go of the past. You need to make the changes gradually before people will support it.	
3	Today I realized that structure in the company is secondary to people. So we went back to a classical structure, with commercial leadership and technical leadership. But in the end the entire vision was changed, people work together. There is understanding for each other. The best interest of the company is the most important thing, and no longer the individual's best interest or the best interest of a certain department.	
3	It is important to not think purely financially, but with a heart for the people, a heart for the company. This can be a major advantage.	
4	It is important to have a professional board of directors to challenge the familial shareholders. But still, we deliberately choose for a familial organization because responsibility is higher and communication lines are shorter.	structure with human character
5	In a large public firm you can make a career and when you no longer satisfy, you get laid off. But in a family firm, you are part of the family and automatically tied to the company. So therefore it is important to make clear settlements and evaluations. Otherwise it will turn out wrong and arguments will arise, which will jeopardise the continuity of the firm.	
5	I rely a lot on gut feeling, but at the same time I also want certainty. But maybe not for 100%.	
5	A family firm has a lot more continuity. The mission and vision of a family firm is also totally different. The basis is completely different than in a large public firm.	

7	The family aspect gives people a feeling of continuity, but at the same time there is still need for some formal planning.		
7	Everything starts from the basic values, the tradition of our family, the family firm, where people want to help each other, take care of each other. The keywords are authenticity – every employee can be himself, every employee! – complementarity and teamwork. The personnel policy, the HR systems, the HR process, the structure, have to start from there. It all serves to support realizing our values and our mission. We always put a lot of effort in that.		
7	Your feedback and remuneration system has to be directed towards giving the people the idea that they are actually working for themselves.		
8	You need to be tolerant towards your people, but there need to be rules as well.		
11	For me it is important that my father is still around, that I can go to him with every question. It gives a safe feeling. I would feel less secure, when he would no longer be around.		
11	You take less big risks, because you think about how it used to be and that there still needs to be something in the future.		

Appendix 7: Evidence for Micro-process 4: Fast Decision-making

(Chapter 4)

Case	First-order codes and illustrative evidence	Theoretical observations (second-order codes)	Theoretical constructs
2	A multinational first works out everything on paper and only takes action when everything is ready. In a family firm it can go faster.	decision speed	fast decision-making
4	We very quickly had a good overview of the case and we could decide very quickly. We could easily investigate the potential of the company, in all domains, everything that was possible. This was the reason why we could change faster.		
4	We can handle things flexibly, close, quickly and good.		
4	An important advantage as familial shareholder is that you can take immediate decisions.		
6	The family firm has shorter communication lines. This is very important! It can go unbelievably fast when making decisions. In fifteen minutes we can have made a decision, which we then present to the board of directors. I mean, the power of speed is unbelievable. I absolutely find that an advantage of family firms.		
7	If the family supports the change initiative, it can go very fast, you get a turbo.		
9	The big advantage of a family firm is that you have short communication lines. When even the smallest problems appear, we are immediately on it.		
10	You learn more when you have short communication lines.		
11	The advantage of a family firm is that communication is easier, discussion is easier. The process just runs smoother when you are closer together.		

12	In many family firms, a change can be more easily implemented, or decided, because you have immediate decision making authority.	
1	But we talk. The family is always together. We constantly talk things over. It is only made official when it's necessary. Not too much paper work, there is already enough to worry about.	
1	I have a lot of informal contact about things. I'm actually constantly directing, constantly looking which way to go.	
1	Many things are discussed while working or over lunchtime.	
1	What I find important here is communication, in every direction, from every direction. From left to right, from bottom to top, from inside to outside, from outside to inside. There can’t be inhibitions. That’s an advantage of a family firm, I think. We can respond quickly to circumstances, we can respond more flexibly to changes. I talk to you in the same way as I do to anybody else, I don’t differentiate. Healthy common sense is important.	
1	Keeping your ears open is important. We make sure we have a lot of contact with our people.	open communication throughout the company
2	In a family firm, you don't need an idea box. You can just report your ideas and we really appreciate that.	
3	We have a culture of knowledge sharing, which doesn't need to be highly formalized.	
5	The familial character is an advantage for the company. Despite our large structure, our communication lines are shorter (compared to a nonfamily firm): “we communicate to our people very well.” When my dad and I write something in a note, it is not written in ‘big words’, but in familial words. So we make sure that the connection stays very close and that it is recognizable to all people. I often walk through the firm to talk to people, to listen to what they have to say, to hear from them what is going on. We try to keep that connection close.	

6	I assume that in the family firm, there are no hidden agendas, less individual interests. It is easier to implement changes that are in the best interest of the company. The big picture is visible for everybody.		
6	I have contact with all departments, with all branches. I talk to the people there and ask them about new ideas and possible improvements.		
7	I also stood in the shop a few times. I know what happens there and what needs to be done.		
8	The family can deal with each other in a trusting and open way. We can easily discuss problems with each other, and take certain decisions. And we all support the decisions then, you sort of get a unity.		
10	When you have an open company culture, everyone speaks their mind. There occasionally are discussions, but that's good.		
11	It's the family character, the first-name basis, the threshold is kept very low here. This gives a lot of advantages on all domains. Problems can be easily solved.		
12	We discuss a lot of things at the kitchen table, that's also an advice counsel.		
12	We strongly emphasize open communication.		
2	As a family firm, you are closer to the people. With regard to people that come from very big companies, I sometimes have the idea that there are two parties, with a big distance in between, while that actually is not the intention. The emotional aspect is different for people who work in a family firm. The relationship between the entrepreneur and the employee is often more fluent in a family firm compared to a multinational. The difference between a multinational and a family firm is that you’re just closer to the people. And because of that, it’s nicer to work together, which is actually quite logical.	family feeling throughout the company	

3	We are a family firm. We also want that our employees are part of the family, that it is a family. Also the closeness and availability of myself as person is an advantage herein. Everybody can approach me. Everybody can call me immediately and I am available		
11	I think renewal is easier in family firms. Decisions can be made faster and easier. Anything can be discussed here in the company, everybody can give his opinion. The ties are very close. In a big non-family firm, not necessarily a multinational, twenty steps need to be taken first. Good ideas can be put into practice more easily in a family firm. The road is shorter, you know each other better, you work closer together, in a different atmosphere. It is different.		

Appendix 8: Evidence for the Role of Openness (Chapter 4)

Case	First-order codes and illustrative evidence	Theoretical observations (second-order codes)	Theoretical constructs
1	I always make sure that I'm very well informed and counselled. I don't want to act like a wisenose, because I'm not one.	need to question oneself	openness
3	It's important as CEO to be able to let things go. You have to respect that other people deal with things in your company in their own way, which might be different from yours.		
4	It's a continual process. We use the term 'flux' for that. Our flux is to constantly question our own organization, to constantly look for improvements. Are we doing a good job? Can we change? What needs to change? We always had our eyes open to the outside world.		
7	It's absolutely important to step outside the box sometimes and to look from a distance at what is lying on my desk, what I'm going to do and what needs to be done in the company.		
12	It’s dangerous when contentment slips in in the form of “everything more or less goes like it should go.” Then there is too little drive for renewal. I always put it this way: “The will not to change, is the base for you demise.” And even if it’s good, that doesn’t mean that it can’t be better. You have to keep looking around that your environment doesn’t change.		
2	It's important that you are aware of everything that happens around you. I often go to international fairs or dealer meetings.	need to look broad	
3	Keeping in close contact with what happens on the market is very important.		

4	What I always found very important in a familial SME, is that you have to realize that you don’t have all the expertise in house. So therefore it is logical that at a certain point in time you include an external to support you in your growth. We do a lot of networking, in all sorts of domains. It is important to lay contact with people who are afterwards approachable for commerce as well as collaboration. It is also about sharing experiences on a problem, that we can help each other in some way with commercial aspects, strategic thinking. It is in a way a process of support.		
4	It's important to always keep your eyes open, on all domains, to constantly look for improvement.		
6	An important barometer for me is the market. What is the market doing?		
8	You have to be able to quickly respond to market situations. If you misjudge the market situation, then you get a social problem. You're almost obligated to do that, to keep the future of your company safe. It's important to constantly keep your eyes open.		
10	You look for possibilities, you look for new plans, you always look around.		
10	You look at the situation, you go to conferences. You look around, hear new things. When you know the market well, you can act quickly on new trends. You look at the advertising of your competitors, their prices. This way you go further.		
11	We keep openness for renewal by staying awake, looking at everything, flyers from competitors for instance, but also from suppliers, markets, etc.		
2	For our management positions it is sometimes better to find someone external, someone experienced who can get more easily accepted by the other employees. They often rather accept someone external, than making a chef out of someone from their own group.	external team members	
3	We have an external chairman of the management team and an external chairman of the board of directors.		

5	The most important reason to work with externals in the board of directors, is that we want to eliminate company blindness. The external members contribute a lot, because they are very critical.	
5	We are going to make our board of directors more active. We are going to involve external people.	
6	We have an external chairman of the board of directors.	
7	We have external members of the board of directors. This was especially important during the succession period. They can make more objective judgments about family members.	
8	We have external managers in our management team. Externals have more expertise in certain domains.	
11	We have three external managers in our management team. During the succession period they started to play a more important role.	
1	I have many friends among my colleagues-competitors. We learn from each other and we discuss problems with each other.	
1	I'm a member of a lot of external networks, like employer and entrepreneur organizations. We can discuss our experiences and problems there.	
2	We go to a lot of international fairs and there we often notice that colleagues-competitors are interested in working together with us.	
2	I'm in a lot of external networks, you meet a lot of people there. And when you have problems or questions, you can discuss them.	external networks
3	External networking is very important. You have to listen to other people, other industries. You constantly have to be alert. This helped me a lot.	
4	I'm in a lot of external networks, I've been the chairman of an important employer organisation.	
5	I'm a member of some employer organizations. For me it is very important to learn from your colleagues.	

6	Keeping in contact with other entrepreneurs via participation in external networks is important.	
7	I'm a member of the board of directors of a few other companies.	
8	External networks are important for knowledge, relationships. You hear a lot about what is going on. You know which people to turn to for certain projects.	
9	I'm active in a workgroup of an employer organization. You see people grow, you see people fight within their own industry. In the end, you find support there, you find encouragement, that is important.	
10	For renewal I get a lot of help from a workgroup at an important management school. There they listen, listen, listen. You invite professionals, you invite speakers. I really learn a lot.	
11	My father learns a lot from other places. He often goes look for new ideas at international fairs, competitors from across the border. He sees wat others are doing, he gets ideas there and tries to do it better. He learns a lot.	
12	We take part of external networks to look at the company differently.	
12	If you can ask a second opinion of a fellow entrepreneur, it just works better. It comes from practice. You learn a lot from it. For me the networks with fellow entrepreneurs are an informal board of directors in a way. You have people that you can check your ideas with.	
1	I had external consulting during the succession period.	
2	For the realization of a few process innovations, we contacted several external companies to help us with that.	external advice
2	Ideas for new products sometimes also come from customers.	

	When there were problems that my father and I couldn't solve on our own, we got some external advice. We wanted to discuss the problems and learn how other family companies solved them. It's always a good thing		
2	to get some feedback from outside.		
	We want to professionalize and got some external expertise. With help of a consulting company we rethought our		
4	entire strategy.		
7	For the strategic exercise that we were doing, we hired an external consultant.		

Appendix 9: Scales and Items Chapter 5

<u>Psychological need satisfaction</u>

Need for autonomy

I feel free to do my job the way I think it could best be done.
I feel like I can be myself at my job.
The tasks I have to do at work are in line with what I really want to do.
At work, I often feel like I have to follow other people's commands. (Reverse coded)

Need for competence

I feel competent at my job.
I am good at the things I do in my job.
I have the feeling that I can even accomplish the most difficult tasks at work.

Need for relatedness

Some people I work with are close friends of mine.
I don't really mix with other people at my job. (Reverse coded)
At work, I feel part of a group.
At work, I can talk with people about things that really matter to me.
At work, I have a feeling of relatedness.
I feel part of the family at work.
I often feel alone at work. (Reverse coded)

<u>Motivation</u>

Why do I do effort in my job?

Controlled motivation

External regulation

…To get other people's approval.
…Because others will appreciate me more
…To avoid criticism from other people

Introjected regulation

…Because only then I can feel good about myself.
…Because I will feel bad about myself otherwise.
…Because otherwise I would feel guilty.
…Because otherwise I would feel ashamed.

Autonomous motivation

Identified regulation

…Because the things I do in this job are personally very meaningful to me.
…Because it is important to me to do effort for my job.
…Because I think it is meaningful to do effort for my job.
…Because doing effort for my job is in line with my other values.

Intrinsic motivation

…Because I like doing this job.
…Because this job is very interesting.

Innovative work involvement

I suggest new ways to achieve goals or objectives.
I come up with new and practical ideas to improve performance.
I suggest new ways to increase quality.
I am a good source of creative ideas.
I am not afraid to take risks.
I promote and champion ideas to others.
I exhibit creativity on the job when given the opportunity to.
I often have new and innovative ideas.
I come up with creative solutions to problems.
I often have a fresh approach to problems.
I suggest new ways of performing work tasks.

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