Family Business and Start-Up Collaboration

Building Bridges Between Family Businesses and Start-Ups: Benefitting From One Another in a Collaborative Innovation System

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Abstract

This research sheds a light on the way in which family businesses and start-ups can benefit from one another through collaboration in order to enhance their innovative capabilities. Family businesses play a crucial role in today's economy. Yet, in the current dynamic economic environment, the family business is challenged to retain its competitive position. On the other hand, start-ups often have promising innovative ideas with high market potential but struggle with the commercialization to capture value from these ideas. Therefore, these two parties are expected to be of value to each other through collaboration. Whereas corporate-start-up collaboration has been given attention by scholars, the distinguishing features of family businesses have not been studied in the context of start-up collaboration. Through a wide data set of interviews, self-assessments and round table sessions with both start-ups and family businesses, the organizational culture, innovation practices and attitudes towards interacting with external collaboration partners is assessed. The collaboration process in all its facets has been studied: the resources to be acquired, the form of the collaboration and the selection of suitable partners. The results supported significant potential for beneficial collaboration for start-ups as well as for family businesses. It also highlighted some differences between the two types of organization and some misunderstandings, and provides a possible explanation of these phenomena and suggestions to overcome them. An extra dimension is added to the results by industry experts highlighting and reflecting on remarkable outcomes of the study. Furthermore, theoretical and practical implications and suggestions for future research are discussed.

Keywords

Family business, start-up, collaboration, inter-firm alliances, innovation, socioemotional wealth

“In the long history of humankind, those who learned to collaborate and improve most effectively have prevailed” - Charles Darwin

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1. INTRODUCTION

Family businesses play a crucial role in today's economy. Between 70% and 80% of all organizations in Europe are family businesses. They generate around 40% of the total revenue in the private sector and provide jobs to 40% to 50% of the working population[1]. Yet, in the current dynamic economic environment that is subject to multiple megatrends changing the competitive environment and shortening the product life cycle, the family business is challenged to retain its competitive position. On the other hand, start-ups often have promising innovative ideas with high market potential but struggle with the commercialization to capture value from these ideas. With this idea in mind, EY started bringing together these two parties in roundtable sessions where global megatrends are being discussed on the basis of presentations from experts on the relevant topic. In these sessions, family businesses and start-ups are encouraged to take up valuable practices and mindsets from the other party in relation to specific business challenges. In addition to this initiative, EY is taking on the 'Snelle Groeiers' program commissioned by the Province of Overijssel where fast growing companies are guided along their growth path. In addition to establishing an individual growth path, the program comprises a collective learning part where inputs from all organizations on specific topics are used as a basis for interactive learning.

In line with EY's idea behind bringing together corporates and start-ups to stimulate an environment where organizations learn from external parties, the collaboration between corporates and start-ups is a topic that has been given increasing priority on both the research agenda as well as on the corporate agenda. There are already numerous examples of successful corporate-start-up incubator or accelerator programs out there. Consider for example BMW's Startup Garage, where BMW will serve as the early adopter for innovative start-ups, opening up the gateway into the multi-trillion dollar automotive industry, or Microsoft, who has adopted a talent management platform for matching projects with technical talent developed by Rallyteam, one of the participants in their accelerator program.

Why are these programs so popular? In today's fast changing economy, corporates need to adopt an external oriented approach to innovation to speed up their innovation process, lest they be outperformed by competitors (Weiblen & Chesbrough, 2015). It cannot be ignored that start-ups across all industries are disrupting the economy by replacing incumbent technologies and changing existing business models. Driven by their entrepreneurial spirit and powered by agility and digitalization, multi-billion dollar companies such as Uber and Spotify are only less than ten years old and have already changed the way of doing business in entire industries (Mocker et al., 2015). Therefore, despite the many forms that these start-up programs can take,

[1] http://www.europeanfamilybusinesses.eu/family-businesses/facts-figures

they all serve the same purpose: creating a competitive edge by transforming start-ups into engines of corporate innovation (Weiblen & Chesbrough, 2015).

Digitalization of the economy, the aftermath of the dot-com bubble and increasing government-funded support systems make the ecosystem seem ready to support a growing number of start-ups (Weiblen & Chesbrough, 2015). It would be short-sighted to simply view start-ups as a competitive threat. Interfaces between corporations and start-ups provide a unique platform for long-term growth and corporate renewal (Kohler, 2016). The growth and increasing viability of start-ups creates a new stimulus for a more agile engagement of start-ups within the corporate culture: corporates open up their innovation process. It creates an environment where corporates can explore, test and develop new technologies with less costs and reduced risk to a corporate's core operations (Kohler, 2016; Mocker et al., 2015; Weiblen & Chesbrough, 2015).

In general, the collaboration between corporates and start-ups has been recognized as a fruitful phenomenon for the innovation success of both parties (Kohler, 2016; Mocker et al., 2015; Weiblen & Chesbrough, 2015). In EY's roundtable sessions, there is a specific focus on a more specific group of organizations: the family business. The family business is an organization with unique features that distinguishes itself from non-family owned corporates in a number of ways. Among these ways are performance, entrepreneurial activities and perception of environmental opportunities and threats (Sharma, 2004). The family business's strategic goals and values are, therefore, expected to differ from those of non-family owned corporates. Furthermore, family firms are expected to explore and exploit innovative opportunities in a unique way. These features are expected to shape the company culture, strategy and thus operations, as well as the way family businesses interact with external partners, such as start-ups. The other way around, from the perspective of a start-up, the specific characteristics of a family business are expected to influence the form of collaboration as well as the specific resources a family firm could provide for a start-up. However, these distinguishing features have not been studied in the context of start-up collaboration. To take advantage of the unique features of family businesses in these collaborations, the dynamics of family business-start-up collaboration should be investigated more in-depth.

To study the dynamics of this collaboration and the effect it has on a firm's innovative capabilities, this research will touch upon the way in which family businesses and start-ups can benefit from one another. The unique features of both start-ups and family businesses are expected to shape the entire collaboration process as well as the outcomes of the collaboration. Thus, the criteria influencing the selection process of a collaboration partner will be subject to influences from the specific organizational culture of both family business and start-ups. Also, the way in which the collaborative relationship is being shaped might differ from collaborations between corporates and start-ups. For example, the ownership structure in a family business-start-up collaboration might differ. Or the intensity of the collaboration and the form of communication might be distinctive from that in a corporate-start-up collaboration. In addition, the resources a family business could provide are expected to differ from those a non-family business could. This might shape the collaboration goals for both parties entering the collaborative relationship. All in all, there are many different aspects in which a family business-start-up collaboration could differ from the corporate-start-up collaboration, all resulting from the unique features of the family business. Therefore, the dynamics of family business-start-up collaboration will be studied taking on a broad perspective to all the aspects of collaboration.

The objective of this research is to increase the -until now- limited understanding of the establishment of collaborations between family businesses and start-ups and the way in which it allows for the development of either one's innovative capabilities. More specifically, this research will aim to answer the following research question:

"How can family businesses and start-ups benefit from one another through collaboration in order to enhance innovative capabilities?"

By answering the central research question, this research will contribute to existing research in a way that it deepens the current understanding of corporate-start-up collaborations. Whereas current researchers have focused on a relatively broad area of the business field, this research narrows down the scope of corporates to a more specific sub-segment of organizations with unique features. This will create a better understanding of the specific dynamics of family businesses and start-ups and will close the gap in existing research on the collaboration between them. In addition, this research will aim to provide a managerial guideline towards understanding and implementing family business-start-up collaboration. It will help EY and the Province of Overijssel understand why family business-start-up collaborations are relevant and how they can contribute to their establishment. In addition, managers of family businesses and start-ups will understand the critical elements that should be closely considered before entering an inter-firm collaboration, deploy organizational resources most effectively during the collaborative interactions, and sustain the success in a later stage in or even after the collaboration.

To answer the research question, the research is build-up as follows. This research will first assess the organizational culture, innovation practices and attitudes towards interacting with external collaboration partners of the family businesses and start-ups independently. Then, based on the outcome of the first part, this research will compare the two types of organizations. It will aim to build a bridge between family businesses and start-ups for collaboration through the identification of key elements of this relationship. To achieve this, the remainder of the paper is structured as follows. The paper will start with an analysis of the state-of-art literature, followed by an empirical study to analyse the potential of family business-start-up collaboration. The results will then be reflected on by industry experts to validate them. The results could serve as a guideline for family business-start-up collaboration. The paper will conclude with a summary of all findings and will highlight the implications for further research.

2. THEORETICAL FRAMEWORK

To understand the underlying ideas behind family business-start-up collaboration, this chapter will elaborate on the relevant concepts that are found in the literature. Starting with an investigation of the overarching theory on inter-firm alliances, the idea of open innovation and the way in which these two phenomena relate to one another. This is followed by the description of a more specific type of inter-firm collaboration for pursuing innovation that has been given increasing attention in the past years: corporate-start-up collaboration. Then, this research will take a deep dive into the literature on the unique features and characteristics of both the start-up and the family business that shape all aspects of their organizations, culture and strategies.

2.1 Inter-firm alliances

Inter-firm alliances are a common way of collaboration between firms. An alliance is "a collaborative relationship among organizations to pursue a common goal that could not be easily reached by the individual firms alone" (Di Guardo & Harrigan, 2012). Firms that engage in alliances have been found to outperform competitors that pursue a closed innovation strategy (Neyens et al., 2010). These alliances are established for many different reasons (Gulati, 1998). Firstly, Nohria and Garcia-Pont (1991) found that the possibility of bringing together complementary assets possessed by different organizations is among the strong incentives of establishing alliances. For example, firms may join forces when each one has a specific strength in a different phase of the product's value chain. For example, when one firm has a strongly innovative idea but lacks production facilities whereas the other firm lacks innovativeness but can produce at low cost due to the benefits of economies of scale. These complementary assets are not necessarily tangible, but can also be intangible assets such as new know-how and skills (Hagedoorn, 1993; Hamel, 1991). Secondly, alliances are established to finance costs and share risks when firms are involved in high-cost, either capital or development intensive, or highly uncertain initiatives (Hagedoorn, 1993). Spreading the costs and the risks associated with these projects increases the innovation activity of firms and the lead time of their initiatives, improving the firm's competitive position (De Man & Duysters, 2005). In addition, there is a large group of researchers focusing on alliances from a sociological perspective, exploiting a network analysis approach. Strategic alliances can alter a firm's competitive position (Kogut, 1988) or increase its market power at the expense of other competitors (Pfeffer & Nowak, 1976). Stuart (2000) built on these findings and found that technology alliances with large and innovative partners improved baseline innovation and growth rates, but collaborations with small and technologically unsophisticated partners had an immaterial effect on performance. Alliances can, therefore, be more than pathways to resources and know-how; they also serve as signals of recognition and social status. Even more, they are a signal of firm quality as alliances with large innovative firms can help young or small organizations build public confidence and attract risk averse customers (Stuart, 2000).

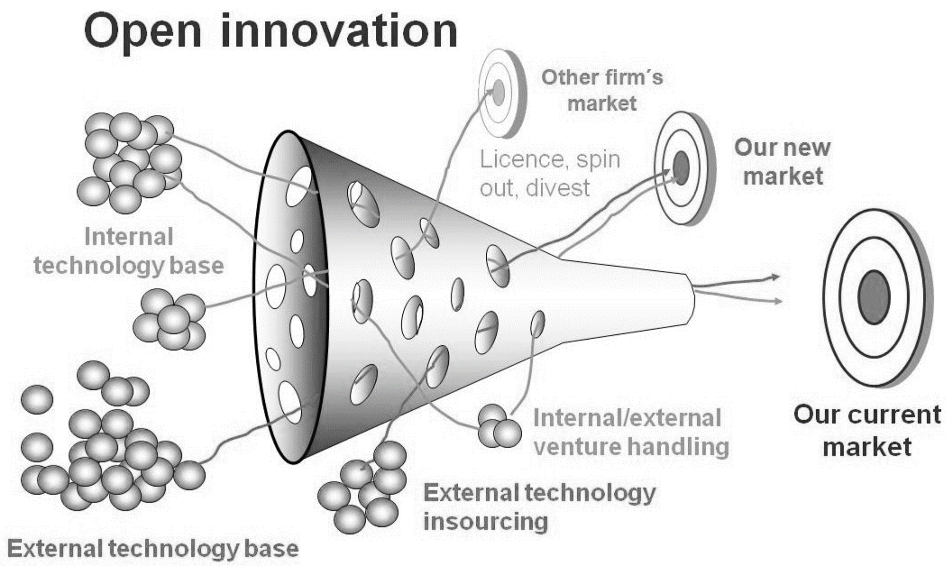
This research will take an open approach towards the numerous different benefits resulting from inter-firm alliances, not limiting the scope of research to one specific benefit. The argument for doing so is that, even though it is assumed that family firms and start-ups have a different organizational culture and they can most likely benefit from each other's knowledge on organizational practices, the scope of their challenges in today's economy is not limited to merely organizational culture aspects. There is expected to be a lot more that these two can take up from each other by establishing a collaborative relationship, reaching from the tangible assets such as financial resources to the intangible assets as knowledge, skills and reputation. This research will have a slight focus towards the more intangible assets of collaboration, as it focuses on the unique features of family businesses and start-ups that are mostly intangible since they relate to organizational goals and values and the perception of environmental opportunities and threats as well as entrepreneurial behaviour (Sharma, 2004). However, if a participant in the sample shows a focus on other more tangible benefits of inter-firm alliances, such as achieving financial benefits, it will still be relevant to study the dynamics of and its attitude towards inter-firm collaborations between family firms and start-ups.

2.2 Open innovation

2.2.1 The concept of open innovation

Cooperation through inter-firm alliances is strongly related to the phenomenon of open innovation, a concept that was introduced by Henry William Chesbrough (2006) and is defined as "the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology". According to this phenomenon, innovation will no longer stop at the boundaries of the firm, but will extend to the incorporation of customers, suppliers, partners and the general society as a whole (Chesbrough et al., 2006). Under the closed model of innovation, research projects are initiated from the internal science and technology base of the firm, after which they proceed through a development process where only a few successful projects are selected for further development to enter the market. Innovation projects can only enter the innovation process in one way: beginning from the company's internal knowledge base, and exit the innovation process in one way: by being brought to the market. Therefore, this innovation process is considered to be closed. In contrast, the open innovation process allows for projects to enter or exit at various points and in various ways. The model assumes that firms can and should use both internal and external ideas, and internal and external paths to the market. The basic idea of the open innovation model is presented in figure 1.

Figure 1. The open innovation model.



Source: Chesbrough (2006)

Chesbrough (2006) distinguishes between two kinds of open-innovation: outside-in and inside-out. Projects can be launched either from the internal knowledge base, or from external technology sources. Also, new technologies can enter the process at various stages. When companies open their innovation process to many kinds of external inputs and contributions, it is referred to as outside-in innovation. This aspect of open innovation has received the greatest attention, in terms of both literary as well as practical. In case of the inside-out part of the open innovation model, unused or underutilized ideas are brought outside of the organization for others to use in their business. So, innovation projects can make their way to the market in numerous varieties. For example, through licensing, via spin-offs or through the company's own channels.

When relating this definition of open innovation to the topic of collaboration in innovation, it can be clearly stated that family business-start-up collaboration is a form of open innovation as it is characterized by the activity of expanding the firm's business practices across organizational boundaries towards the adoption of external knowledge and resources. To be more specific, based on this characterization of family business-start-up collaboration, it is mostly a form of the more well-known part of the open innovation model: outside-in innovation. Yet, it does not exclusively have to be related to this part of the model. Even though family businesses and start-ups will mostly be expected to benefit from each other through the knowledge and resources provided by one another, it might also be the case that family businesses open up their box of unexploited ideas for start-ups to build upon. If this were the case, it could be referred to as a collaboration in line with the inside-out part of the open innovation model.

Open innovation has become a well-recognized and widely discussed topic that brought a real paradigm shift within innovation management (Gassmann, 2006). The open innovation concept has deeply rooted into business practice and has extended far beyond simply being a hype, making it irreversible and creating long-term impact (Gassmann et al., 2010). However, this term is more than a catchy buzzword; it contains a powerful message. Organizations are constantly trying to be bigger, better, faster, and thus function more efficient while increasing the speed of innovation. However, to derive at a steady stream of new innovations is hard for most companies, and only very few can accomplish that with deploying their own means only. In order to successfully innovate, performance needs to be shifted from an internal to an external perspective to fill existing gaps and provide resources the company lacks. Cooperation will, therefore, improve future innovation performance of a firm (Chang, 2003; Ritter & Gemünden, 2003, 2004).

2.2.2 Results of collaboration in (open) innovation

The result of collaboration in innovation can be twofold: either an innovation emerges that would not have been possible without the collaboration or an innovation is realized a lot faster than without the firms collaborating (Harrigan, 1988). Even though there is a lot of literature supporting the positive effects of collaboration on innovation performance of firms (Chang, 2003; Ritter & Gemünden, 2003, 2004), alliances may also have a negative effect on innovation performance. Empirical work studying the performance outcomes of strategic alliances has found that most firms fail to achieve the predefined goals (Harrigan, 1988). Differences in corporate culture, processes and knowledge base may impede a smooth knowledge transition (Lane & Lubatkin, 1998). The complexity of integration may take away the attention from the actual innovation process. Moreover, firms may enter an agreement with a 'hidden agenda', aiming to absorb the other partner's knowledge, skills and assets rather than achieving a mutually beneficial collaboration (Duysters, 1996). Also, when the collaboration is not fully rooted into a firm's strategy, it undoes the positive effects on innovation (De Man & Duysters, 2005).

In line with the recognition that alliances in innovation are not all about successes, Chesbrough (2006) identifies some underlying conditions that need to be met in order for open innovation to be successful. Firstly, the workforce should be mobile. To move knowledge and take full advantage of the outside-in flows of open innovation, people need to be moved with the project to integrate the project successfully into the new firm. A second boundary condition is the presence of internal R&D. A common misunderstanding is that open innovation is considered a rationale for outsourcing R&D. However, to be able to effectively transfer knowledge in a way that companies can make use of it, a certain amount of abrasion and working time on the project is required. The best result of open innovation is realized when people are moving from one organization to the other to collaborate intensively. In addition, people with a boundary-spanning role are required to connect the knowledge from different sources and merge it into new combinations. Hansen (2001) refers to people with this function as T-shaped managers. Lastly, another condition to enable open innovation are some basic IP rules, especially in situations that require capital-intensive investments. In industries that get to scale and reach the growth phase of involving dominant designs, capital investments will be required to retain a competitive position in the market. In order to offer a return on investment, an organization requires some level of IP protection to capture the value of the innovation.

Concluding, the innovation and alliance literature is highly fragmented, taking a multidisciplinary approach for understanding this phenomenon. Di Guardo and Harrigan (2012) consider this a positive finding, yet the different perspectives have not been successfully brought together into one comprehensive perspective.

2.3 Corporate-start-up collaboration

2.3.1 Benefits of corporate-start-up collaboration

The literature and practical field have now taken a more specific approach to alliances in innovation, introducing the topic of corporate-start-up collaboration. Weiblen and Chesbrough (2015) believe that start-ups are no longer viewed as simply agents of disruption, but are transforming into engines of corporate innovation stimulating an entrepreneurial mindset (Kanbach & Stubner, 2016). This collaboration allows for scanning the environment for innovative opportunities at low cost, getting a 'sneak preview' without fully committing corporate activities to them (De Man & Duysters, 2005).

The benefit of the collaboration is not just on behalf of the corporate. Start-ups often lack the required physical, human and financial assets to commercialize an innovation (Alvarez &

Barney, 2001). In addition, because of their newness, start-ups lack a reputation of quality, reliability and legitimacy that corporates have developed over the years (Baum et al., 2000). Continuous alliances have been found to be enhancing the radical innovation performance of start-ups (Neyens et al., 2010).

Kohler (2016) summarized the engagement spectrum of corporates and start-up. He identified the following engagement methods: corporate hackathons, business incubators, corporate incubation, corporate venturing and merger and acquisition. He distinguished these methods from a common collaboration interface between corporates and start-ups: corporate accelerators. Corporate accelerators "are company-supported programs of limited duration that support cohorts of startups during the new venture process via mentoring, education, and company-specific resources" (Kohler, 2016). Table 1 presents the different types of collaboration methods.

Table 1. Corporate start-up engagement spectrum.

ENGAGEMENT METHOD	**DESCRIPTION**	**DISTINGUISHING CHARACTERISTICS OF CORPORATE ACCELERATORS**
Corporate Hackathons	Intense collaboration of diverse teams within a restricted time limit to solve a corporate innovation challenge (see Newton, 2015).	Offer more substantial and longer-term engagement with participants.
Business Incubators	Company-supported flexible working space with additional value—added services such as centralized legal or marketing support (Bruneel, Ratinho, Clarysse, & Groen, 2012).	Selection of startups is competitive and cyclical, cohorts of startups with shorter time duration and limited or no equity stake.
Corporate Incubation	Provides a path to market for corporate non-core innovations (Dee, Gill, Livesay, & Minshall, 2011; Miller & Stacey, 2014).	Internal efforts fall short of the full capability of corporate accelerators to tap into external innovators.
Corporate Venturing	Permits corporations to participate in the success of external innovation and helps to gain insights into non-core markets and access to capabilities (Weiblen & Chesbrough, 2015).	Focus on innovation and business development rather than predominantly pursuing financial investments in external companies. Engagement with a larger number of startups is possible thanks to a more standardized approach than any single engagement.

Mergers & Acquisitions	Quick and impactful way of buying complementary technology or capabilities that solve specific business problems and enter new markets (Lerner, 2013; Weiblen & Chesbrough, 2015).	Allow selection and pilot programs with larger number of startups to select potential targets for M&A.

Source: Kohler (2016)

The promise of the collaboration in corporate accelerators lies in building bridges between corporations and start-ups; two types of decidedly different organizations. Start-ups are considered to be innovative, growth-oriented businesses in search of a repeatable and scalable business model (Blank & Dorf, 2012). Anthony (2012) characterized them as a source of innovative ideas and new technology, managed by talented and passionate founders, operating using nimble processes. Yet, their liability of newness makes execution of their ideas difficult (Stinchcombe, 1965). In addition, there is increasing competitive pressure on successful organizations due to the increasing ease and decreasing cost of launching a start-up (Kohler, 2016; (Kerr, Nanda & Rhodes-Kropf, 2014). On the other hand, corporates are designed to execute a repeatable, scalable business model using optimized business processes. However, the processes are optimized for execution, but might interfere with search activities required to identify innovation opportunities. This might result in misused opportunities (Chesbrough, 2014; Wolcott & Lippitz, 2007). In collaboration, start-ups receive help to improve business execution and corporates are supported in spotting innovative opportunities. Through the system of a corporate accelerator, all types of corporate-start-up collaborations can arise (Kohler, 2016). A commonality in all these forms of collaboration is that the complementary nature of corporates and start-ups suggests that both can benefit from collaborating

2.3.2. Conditions for a successful corporate-start-up collaboration

Even though there is a rapid increase in the number of corporate-start-up collaboration initiatives, evidence on the role and efficacy of these programs is limited (Hochberg, 2016). In order for the corporate-start-up collaboration to be successful, there are a few conditions that need to be met. In addition, Kohler (2016) set up four design dimensions of corporate accelerators that each have their individual points of attention when establishing a program. The dimensions comprise the proposition, the process, the people and the place. The program is all about what the program offer. The process describes how the program is run. The people contains who is involved in the program. Lastly, the place determines where the accelerator is hosted. The long list of questions to be considered by corporate accelerator leaders that he drew up, illustrates that setting up a successful corporate-start-up collaboration is not an easy, self-evident process.

A few conditions for successful collaboration that are identified are the following. Firstly, due to a growing and more globally dispersed start-up ecosystem, corporations are required to speed up their decision making process when it comes to screening, identifying, working with and monitoring start-ups. Second, in line with the 'hidden agenda' argument by Duysters (1996), corporates should establish a clear value proposition to compete with venture capitalists, incubators and support institutions to attract start-ups. When this is not done properly, start-ups risk losing control over their own activities and the freedom to pivot (Forrest, 1990; Crichton, 2014) and unintended knowledge spillovers might even threaten the long-term survival of the start-up (Alvarez & Barney, 2001). Thirdly, the general difficulties in establishing alliances hold for the corporate-start-up collaboration as well. The corporate's strategic goals should reflect the model of engagement with the start-ups (Weiblen & Chesbrough, 2015). This is in line with the proposition dimensions as proposed by Kohler (2016), since he argues that clear strategic intent should be formulated and corporate goals should be aligned with start-up expectations. Throughout the process, corporate alignment should continuously be ensured (Kohler, 2016). Even more, the cultural clashes, different organizational clocks and organizational working practices between the involved parties should be managed carefully to realise the potential value of collaborative initiatives (Doz, 1987; Weiblen & Chesbrough, 2015). Fourth, the involvement of corporates in the business process of start-ups is tremendous. There is the risk that start-ups achieve a fitted solution to a corporate's challenges, but lack the scalability to fit an entire industry problem. Also, corporates might overprotect start-ups, leading to dependency or increasing the likelihood of failure in a later stage. If start-ups are shielded from market forces, they could miss out on important feedback they would otherwise get from the market, leading them to be unable to optimize their product-market fit. Lastly, start-ups could be prevented from pursuing partnerships with other organizations that threaten the corporate backer (Kohler, 2016).

The key in dealing with these challenges towards the establishment of a successful corporate-start-up collaboration is argued to be the achievement of mutual benefit (Kohler, 2016). Effective collaboration offers potential benefits to both parties involved. As start-ups and corporates each have their own arguments for entering a collaboration, the key challenge lies in bringing these two perspectives together in a way that creates value for both parties.

2.4 The start-up

The previous chapter already touched upon a few distinctive characteristics of a start-up. Literature and the practical field agree upon the fact that start-ups undoubtedly are types of organizations with their own unique features. However, the start-up concept lacks a clear unified definition. Literature has agreed on the idea that a start-up, as already mentioned, "is a temporary organization designed to search for a repeatable and scalable business model" (Blank & Dorf, 2012). Another widely accepted definition of a start-up was introduced by Ries (2011): "A startup is a human institution designed to create a new product or service under conditions of extreme uncertainty". Even though widely accepted, these definitions both remain subjective. Experts in the field of start-ups on an economic level as well as on research level have racked their brains over defining the criteria for a start-up. A set of characteristics of start-ups are repeatedly mentioned by those experts. Firstly, start-up goeroe Graham (2012) stated that "start-ups are companies designed to grow fast". In line with Blank and Dorf's (2012) definition, this means a continuous search for a repeatable and scalable business model, for example, through the smart use of available resources such as real estate (AirBnb) or taxis (Uber). Secondly, the definite form of the organization has not been cast in stone yet. Start-ups are continuously testing and validating their product and business model. The lean start-up method as introduced by Ries (2011) supports this idea by adopting a combination of business hypothesis driven experiments, iterative product releases in the form of a minimum viable product (MVP) and validated learning through a build-measure-learn loop, all with the goal to continuously develop businesses and their products in shortened cycles. Lastly, start-ups have a specific mentality, a specific company culture. Start-ups constantly probe for new possibilities, requiring, fostering and rewarding creativity and innovation (Mathews, 2012).

It are those unique characteristics that are expected to create the potential benefit for an incumbent in the industry to profit from a collaboration with a start-up. As recognized in the corporate-start-up collaboration literature, start-ups are a great source of innovative ideas and new technologies directed by people with an entrepreneurial spirit who are passionate about their idea and are eager to learn. The ability to integrate these features into the organizational practices and culture of any established organization through entering a collaborative relationship is expected to create a unique competitive edge.

2.5 The family business

2.5.1. Defining the family business and framing its uniqueness

In theory, there is broad agreement that family firms are those where a firm's affairs are strongly influenced by its family owner (Gomez-Mejia et al., 2011). In terms of more operational definitions in the empirical literature, there is a wide variety of proxies that have been used to capture the family firm construct. These proxies include, among others, a single family that holds the majority of shares (Gallo & Sveen, 1991), a minimum of 50% of ordinary voting power in the hands of family members (Westhead et al., 2001), a family member as an officer or director (Anderson & Reeb, 2003a), 10% or more of company shares in the hands of the family (Allen & Panian, 1982) and 5% or more family ownership and at least one person with family ties on the board (Gomez-Mejia et al., 2003). Moving away from the ownership and voting power construction, other authors have defined the family business along the varying degrees of family involvement.

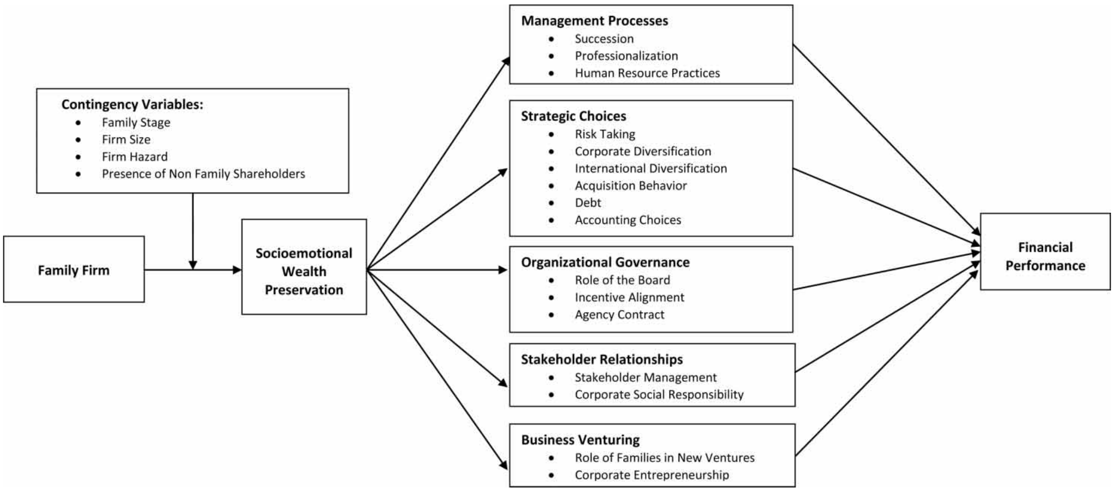
Depending on the definition employed, scholars refer to a family business as “family owned,” “family managed,” “family owned and managed,” and “family controlled.” Based on these distinctions, Astrachan and Shanker (2003) define family businesses in three ways of which the most stringent definition classifies family firms as such when the family retains voting control of the business and multiple generations are involved in the day-to-day management and operations. For the purpose of this research, this definition will be considered leading.

Family businesses are broadly recognized to be substantially different types of organizations than non-family businesses (Gomez-Mejia et al., 2011; Sharma, 2004). What makes these organizations special is the influence of the family and the interplay of ownership, family and organization (Kraus et al., 2011). Sharma (2004) found that family firms are different from non-family firms on several dimensions, such as performance, entrepreneurial activities and perception of environmental opportunities and threats. For example, it is generally acknowledged that family firms aim to achieve a mixed combination of financial and non-financial goals (Davis & Tagiuiri, 1989; Olson et al., 2003; Stafford et al., 1999). Habbershon and Williams (1999) suggest that it is the “familiness” that makes family firms unique, and that this can either be a source of strategic competence due to its distinctiveness or a source of constriction due to inflexibility and closed mindedness by family firms. Therefore, it is important to understand the strategic decision making process of family firms and the role of their beliefs and culture in it. With the help of these insights, the establishment of inter-organizational relationships can be studied in greater detail, incorporating the unique features of family firms over other corporates.

2.5.2. Socioemotional wealth in the family business

The broadly acknowledged aim to achieve a mix of financial and non-financial goals within family businesses can be explained by the importance of so-called “socioemotional wealth” and the strong desire to maintain this (Gomez-Mejia et al., 2011). Socioemotional wealth, or SEW, refers to the non-financial aspects or “affective endowments” of family owners. Put simply, the socioemotional wealth suggests that family firms are typically motivated by, and committed to, the preservation of their SEW. In this formulation, gains or losses in SEW represent the primary frame of reference that family-controlled firms apply to make major strategic choices and policy decisions (Berrone et al, 2012). According to Gomez-Mejia et al. (2011), as shown in figure 2, the preservation of non-financial aspects of socioeconomic wealth is assumed to influence a wide range of dimensions, encompassing most key organizational decisions.

Figure 2. Family firm research from a socioemotional wealth preservation perspective.



Source: Gomez-Mejia et al. (2011)

There is overwhelming empirical evidence showing that family firms are different from non-family firms. A red line in these notions of difference is that family firms are motivated by and committed to the preservation of non-financial goals of affective endowments, that are referred to as socioemotional wealth. Therefore, Gomez-Mejia et al. (2011) believe that it is this that is the defining feature of the family business. The study by Berrone et al. (2012) further builds upon the all-encompassing approach of SEW and proposes that there are five major dimensions of SEW that are labelled as FIBER:

- *Family control and influence*

  Family members in family businesses exert control over strategic decisions (Chua et al., 1999; Schulze et al., 2003b), either directly, such as being CEO or board member, or more subtle by appointing members of the management team. Control and influence are highly desired by family members and are an integral part of SEW (Zellweger, Kellermanns, et al., 2011). In other words, to preserve SEW, family members require control. Therefore, to achieve the goal of preserving SEW, the family members require continued control of the firm. It is for this reason that family businesses are more likely to secure the owner's direct and indirect control and influence over the firm's operations (Gomez-Mejia et al., 2007).

- *Family members' identification with the firm*

  Family businesses owe their unique identity to the interplay of family and business (e.g., Berrone et al., 2010; Dyer & Whetten, 2006). The family business owner's identity is inextricably tied to the organization causing the businesses to be an extension of the family, often embodied by the business carrying the family's name. This has both internal as well as external influences. Internally, for instance, the attitude towards employees, internal processes and product quality is affected (Carrigan & Buckley, 2008; Teal et al., 2003). Externally, the company image projected to customers, suppliers and other stakeholders is put high on the agenda (Micelotta & Raynard, 2011). Because of the strong emotional identification of family members with the firm, family businesses are found to exhibit higher levels of corporate social responsibility and social entrepreneurship (Berrone et al., 2010; Craig & Dibrell, 2006; Dyer & Whetten, 2006; Post, 1993). Also, they take particular care to perpetuate a positive family image and reputation (Sharma & Manikuti, 2005; Westhead et al., 2001).

- *Binding social ties*

  Cruz, Justo and De Castro (2012) argue that SEW provides kinship ties with some of the same collective benefits that arise in closed networks, such as social capital, relational trust and feeling of interpersonal solidarity. Family businesses often have long-term buyers and suppliers that may even be viewed as members of the family (Uhlaner, 2006). Also, among non-family employees, there is often a sense of belonging and commitment to the organization (Miller & Le Breton-Miller, 2005). The social bonds could reach far beyond firm boundaries into the entire community as family businesses are expected to pursue general welfare around them (Brickson, 2005, 2007). Berrone et al. (2010) argued that family firms are highly involved in their communities and often sponsor associations and activities that are valued in the community, either for altruistic reasons, for the enjoyment of receiving recognition for generous actions (Schulze et al., 2003b), or for both.

- *Emotional attachment*

  The dominating family relationships in family businesses come along with a long history of knowledge and shared experiences that shape today's activities, events and relationships. The intermingling of family emotions with business activities is seen as a distinctive attribute of family businesses (Eddleston & Kellermanns, 2007; Taguiri & Davis, 1996). Because the boundaries between family and business are rather blurred in family businesses (Berrone et al., 2010), a whole scale of emotions that are typically seen in families permeate the organization, influencing the family business's decision-making process (Baron, 2008). The emotional links of family firms within and outside the organization make the business a place where the need for belonging, affection and intimacy are satisfied (Kepner, 1983) and where the family's sense of legacy is fostered (Sharma & Manikuti, 2005; Shepherd et al., 2009). Even though Fletcher (2000) states that "the interpersonal linkages, emotional bondings and affectionate ties that characterize all firms are possibly more complex and embedded in family firms" (p. 164), the exact influence, both positive and negative, of emotions in the decision-making process of family businesses remains understudied.

- *Renewal of family bonds to the firm through dynastic succession*
  One of the central aspects of SEW has been found to be transgenerational sustainability, or, in other words, the intention to hand the business down to future generations (Zellweger & Astrachan, 2008; Zellweger et al., 2011). The aim for dynastic succession has a large impact on the time horizon of the decision-making process in family businesses. Family members often view the organization as a long-term family investment with the key goal for it to be handed over to their descendants (Berrone et al., 2010), symbolizing the family's heritage and tradition (Casson, 1999; Tagiuri & Davis, 1992). Many family businesses exhibit long-time planning horizons, resulting in both positive and negative consequences. On the one hand, managerial entrenchment or conflicts over succession may occur. On the other hand, however, the preservation of the family dynasty contributes to a "generational investment strategy that creates patient capital" (Sirmon & Hitt, 2003), commitment to building capabilities, and learning.

Socioemotional wealth influences appear at all levels in the organization and impact different variables. Yet, the results of studies on the impact of family ownership on the financial performance of family firms remains mostly inconclusive. Family ownership is either found to have no effect or at its best a slight advantage when compared to non-family owned organizations (Gomez-Mejia et al., 2011). Because of the infancy of the SEW approach, there has only been limited practical research on this model. Further empirical studies might contribute to a better understanding of the conditions under which the positive forces of family involvement can be unleashed and directed towards objectives of both financial and non-financial firm performance. Also, it might shed a light on why, when, or how the pursuit of non-financial goals might lead to positive performance outcomes (Berrone et al., 2012).
Because the influence of socioemotional wealth, the defining feature of the family business, is seeping through in every layer of and every decision in the business, it is a force to be reckoned with when studying the collaborative behaviour of family businesses. While investigating the

possibilities of collaboration with start-ups, the influence of socioemotional wealth in shaping these collaborations and defining the strategic goals should be high on the radar as it is expected to be of significant influence.

2.5.3. Entrepreneurship and innovation in the family business

Entrepreneurship and innovation have become the cornerstone of almost all growth and competitiveness strategies. However, due to their strong links with the past, family businesses are conventionally prejudiced as conservative and ultimately less innovative than non-family businesses (Gomez-Mejia et al., 2007). This has been countered by scholars who found family businesses to portray extremely diverse innovation behaviours and outcomes (Chrisman & Patel, 2012; De Massis et al., 2016; Kotlar et al., 2014). Operating under specific circumstances, family businesses are even found to be more innovative than their non-family competitors (De Massis et al., 2015; Patel & Chrisman, 2014) and are better able to extract value from innovation input (Duran et al., 2016).

In the state-of-art literature, innovation has been closely linked to entrepreneurship and entrepreneurial behaviour. The occurrence of innovations is facilitated and encouraged by the act of entrepreneurship. On the flipside, entrepreneurship creates opportunities and environments to realize and commercialize those innovations (Veeraraghavan, 2009). Supporting this view, Zhao (2005) found that entrepreneurship and innovation are positively related in a way that they are complementary to one another. The interaction of these two dynamic and holistic processes helps organizations flourish in times of highly competitive and dynamic environments. In family businesses, even though the research field on this topic is limited, entrepreneurship and entrepreneurial behaviour seem to differ from that in non-family counterparts (Kraus et al., 2012). When family businesses are able to manage the complex interplay of ownership, family and organization (Kraus et al., 2011), they are found to be able to keep the entrepreneurial spirit alive in their business for the next generation to build upon, promising success for the present and the future (Kraus et al., 2012). Again, SEW concerns seem to influence entrepreneurship in the family business, making entrepreneurial behaviour in family businesses distinctive from that in non-family businesses. Yet, results on this linkage remain inconclusive. Whereas some scholars argue that kinship ties, unique to family firms, positively impact entrepreneurial opportunity recognition (Aldrich & Cliff, 2003) and that the nature of long-term ownership fosters entrepreneurship (Zahra et al., 2004), others reason that conservativeness in risk taking associated with entrepreneurship occurs because of family owners' and managers' strong desire to protect family wealth (Naldi et al., 2007; Zahra, 2005). Furthermore, existing evidence suggests that the strongly established links between entrepreneurial orientation (EO) and performance (Rauch et al., 2009), may not be as straightforward when put in the context of family businesses (Short et al., 2009). Naldi et al. (2007), for instance, found risk taking to be not only a distinct dimension of EO in family businesses but also negatively associated with a firm's performance. Taking in mind that in most family businesses the desired performance outcomes are a mix of both financial and non-financial goals (Sharma, 2004), the influence of SEW on entrepreneurship in family businesses should require further attention.

All in all, there are quite a few theories that are related to the research topic of this paper: family business-start-up collaboration. Literature on inter-firm alliances suggests numerous tangible and non-tangible resources to be acquired from collaboration. In line with the inter-firm alliance literature, theory on open innovation recognizes the long-term impact of the phenomenon and its potential value. Yet, to apply the phenomenon of open innovation successfully, there are a number of conditions for success to be reckoned with. A specific type of inter-firm alliance and open innovation is corporate-start-up collaboration. Its potential lies in building bridges, where the corporate and start-up are complementary to each other, filling gaps where the other party misses out. However, the evidence on the role and efficacy of these programs is limited and there are quite a number of conditions for success. When studying family business-start-up collaboration, the state-of-art literature outlines distinctive features for both types of organization. Start-ups are organizations with a substantially different organizational culture. Family businesses are characterized by their mix of financial and non-financial goals and the interplay of family, ownership and organization, possibly explained by the phenomenon of socioemotional wealth. To combine these theories into a comprehensive research, studying the dynamics of family business-start-up collaboration, the method as described in the following section was set-up.

3. METHODOLOGY

To study the inter-organizational relationship between family businesses and start-ups, empirical testing is required. To create a deeper understanding of the dynamics of family business-start-up collaboration in the field of innovation, this research will first aim to gain insight into the organizational culture, organizational goals and innovation management practices of the family businesses and the start-ups under study. In addition, the attitude towards the incorporation of external partners in the strategic development path will be analysed for both parties. More specifically, for family businesses, the attitude towards incorporation of start-ups in their organization will be studied, and for start-ups, the attitude towards collaboration with family businesses will be analysed.

3.1 Sample

3.1.1. Units of analysis

The units of analysis in this research are managers of family businesses and start-ups. This research classifies the two samples as follows. A family business is classified as such when the management team has consisted of at least two, but preferably more, subsequent generations of a family. The involvement of the family should comprise both the ability in terms of discretion to act idiosyncratically and the willingness in terms of intention and commitment to pursue family-oriented goals (De Massis et al., 2013). For the purpose of this research, it is of high importance that the family business has been managed by multiple generations of the same family. The multi-generational dimension and the family influence that create the unique dynamics and relationships of family businesses are strongly expected to influence the family business-start-up collaboration. In the case of a one-generational family business, or a family business where the family is merely the majority stakeholder without active involvement of the family members in the day-to-day management of the organization, the influence of the family is expected to be less noticeable.

The definition of the start-up sample is more difficult, due to the absence of a clear unified definition and the subjectivity of all start-up definitions and criteria as discussed in the previous chapter. Therefore, the sample for this research classifies as a start-up when they self-classify themselves as a start-up or the business classifies as one based on the following criteria: it should be less than 10 years of age, should have a maximum of twenty employees and an annual total revenue of no more than 5 million euros.

In addition to managers of family businesses and start-ups, industry experts in either the field of the family business or in the field of start-ups were asked to participate in this study. To support the research results from the family businesses and start-ups with the view of more objective outsiders, they were asked to share their insights as well. Their expertise and findings will pose the possibility to identify specific behavioural and attitudinal patterns in the family business and start-up culture. Selection of the industry experts was based on their job descriptions and functional as well as educational backgrounds.

3.1.2. Sample selection and size

To select potential candidates, the researcher's professional network, EY's network and businesses participating in EY's 'Snelle Groeiers' program were contacted. 'Snelle Groeiers' have to meet the following criteria. Their headquarters are located in the province of Overijssel in the Netherlands, there is a maximum of 250 employees and annual revenue should reach a minimum of 1 million euros. In addition, the company must have grown with a rate of 10%

annually in revenue and number of employees over the past three years. Lastly, the organization should show strong growth ambitions. Based on the established criteria for the family business and start-up, each potential participant was assessed to see whether it qualified as either one of them.

To determine the sample size, the concept of theoretical saturation was applied. For the purposes of the grounded theory, as introduced by Glaser and Strauss (1967), theoretical saturation occurs when the researches reaches a point where no new information is retrieved from any further new data. The saturation point determines the sample size as it indicates that sufficient data has been collected to conduct a thorough analysis, valuing variation in data over quantity (Morse, 1995). Due to the research design comprising multiple methods, this study comprises multiple samples, as will be explained in the following sections. The saturation method was applied for the interview sample and led to a sample of 8 family businesses, 5 start-ups and 5 industry experts. The EY Growth Navigator sample consisted of 22 participants, of which 10 classified as a family business and 3 classified as a start-up. Of those that classified as a family business, 4 have been included in the interview sample. The other participants were neither a family business nor a start-up, and are therefore not included in the sample. To total sample of this study, combining the interview sample and the EY Growth Navigator sample of family businesses and start-ups, resulted in 24 participants. In addition, 4 industry experts were asked to reflect on the outcomes of this research.

3.2 Method

To get an in-depth and holistic understanding of the dynamics behind family business-start-up collaboration, a wide set of data and multiple methods will be used for this study. Using a mixed method research design will allow for the collection of a richer and stronger array of evidence than would be accomplished by the application of any single research method (Yin, 2011).

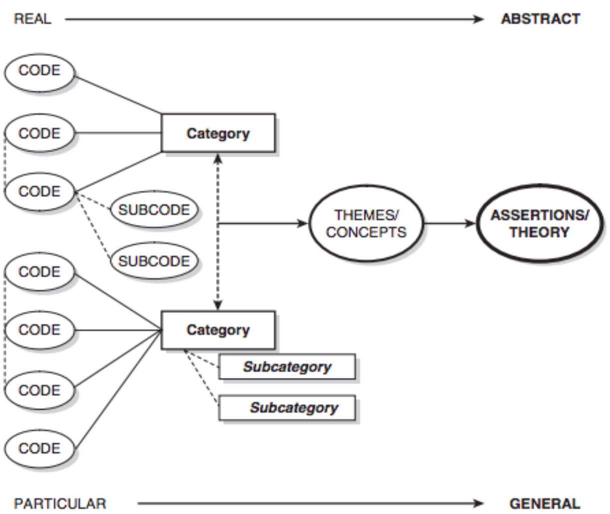
3.2.1. Semi-structured interviews

Firstly, semi-structured interviews with managers of both family businesses and start-ups have been conducted. The semi-structured interview had open ended questions and were conducted either face-to-face or over the telephone. This semi-structured setting of the interview created the possibility to ask additional questions, if necessary, and as such provided the opportunity to gain in-depth knowledge (Yin, 2014). Using a qualitative method may also have its downsides due to validity issues. Poor articulation of questions could case the interviewees to give biased answers. Furthermore, response bias could occur when interviewees have a limited understanding of the topic under study. Also, due to reflexivity, interviewees could provide answers that are socially desirable to the interviewer (Yin, 2014.) These aspects were important to keep in mind both in preparing for the interviews as well as in conducting the interviews to increase the validity of the research. To best prepare the interviewees for the interview, the subject to be covered in the interviews and the interview procedure was sent in an explanatory email in advance. The interviewees were asked to free 30 to 45 minutes of their time for the interview. The approximate duration of conducted interviews was 30 minutes. In addition, to ensure the respondents' privacy, all data was anonymized.

To formulate interview questions, the topics under study were operationalized. In order to transform the concepts into open-ended questions, an operationalization table was developed (Appendix I). The particular questions are displayed in both English and Dutch, as all interview partners were native Dutch speakers. First, interviewees were asked for a general introduction of their organization and their function within it. Then, they were asked about their organizational culture and organizational goals. Following, the role of innovation in the organization was under study. Afterwards, they were asked about collaboration with innovation partners and in particular collaboration with either family businesses or start-ups.

Every interview was audio recorded and transcribed. The first interviews were literally transcribed, after which the following interviews were transcribed in a more summarizing way, where merely the new, additional insights were fully transcribed. The analysis of the transcripts was carried out by using qualitative data analysis software Atlas.ti 8.2.3. To structure the data coding process, the basic, streamlined scheme for inductive coding as introduced by Saldaña (2013) was applied. The model is presented in figure 3.

Figure 3. A streamlined codes to theory model for qualitative inquire.



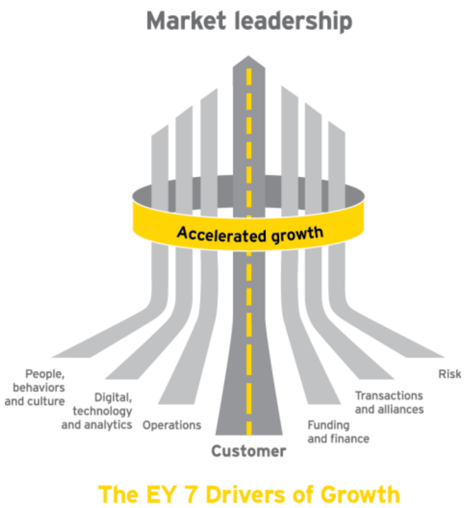
Source: Saldana (2013; pp. 13)

To follow Saldaña's (2013) model, several coding techniques were applied to structure the data. Interviews were first coded using open-ended coding techniques, as recommended by Strauss and Corbin (1990). To identify codable phrases with potential research relevance, line-by-line examination of the transcripts was executed. Open coding resulted in the identification of 491 fragments of text that results into a list of 130 codes. To establish the list of codes, the initial codes were examined and, in case of commonalities or alikeness, were combined into one code. During the second analytical phase of so-called axial coding (Strauss & Corbin, 1990), the list of final codes was examined and codes were grouped into common themes that were assigned an overarching code. For a full list of codes and their assigned code groups, see Appendix II. Thematic analysis through axial coding resulted in 12 key data categories that became the focus of the study. In a third and final phase of selective coding, the categories were analysed and used to build up the key findings of this research. The result of the coding process and the structure of the findings based on the assigned codes is presented in Appendix III.

3.2.2. EY Growth Navigator

In addition to the semi-structured interviews, a sample of 22 businesses who are all participants in EY's 'Snelle Groeiers' programme was invited to participate in an EY Growth Navigator session. Based on extensive research and the analysis of the growth journeys of hundreds of companies worldwide in all growth stages across many industries combined with in-depth interviews with winners of their Entrepreneur of the Year program, EY developed seven drivers of growth, as presented in figure 4: 'the customer', 'people, behaviours and culture', 'digital, technology and analytics', 'operations', 'funding and finance', 'transactions and alliances', and 'risk'.

Figure 4. EY's seven drivers of growth.



Source: EY Growth Navigator

These seven drivers of growth expand beyond the traditional focus on people, systems and processes and take into consideration a wider set of capabilities to accelerate and sustain growth. In order to gain insight into a business' present and aspired state along each of these seven drivers, the Growth Navigator has been developed. The EY Growth Navigator is a self-reflection based experience that enables business' leadership teams to assess a business' capability to deliver growth plans. A company's position is charted against the EY seven drivers of growth, assessing performance against leading practices classifying performance along an axis with three stages: developing, established and leading. To optimize a company's growth strategy, a balanced focus across all EY's seven drivers of growth should be achieved, prioritizing activities along the drivers that are most relevant based on specific growth ambitions.

Due to the limited scope of this research, only the input on two specific drivers of growth is of relevance. The "people, behaviours and culture" driver is the key center of attention. EY describes the content of this driver as a driver that is all about creating an inclusive culture that values diversity to attract and retain the right people to grow a business. Not just talented people, but those that share a company's vision and fit the company culture. In addition, leading businesses provide strong leadership and facilitate an environment where people can innovate to drive the business forward. In addition, they invest in their employees to nurture their talent and develop skills that makes the business constantly able to meet market demands throughout all phases of growth. Because of the incorporated elements of company culture and innovation, the input of the participants on this driver is of relevance for the scope of this research. Furthermore, the "transactions and alliances" driver is of importance. Leading the market through economic growth alone is rare in today's economy. Therefore, the "transactions and alliances" driver concerns the establishment of successful partnerships and strategic acquisitions that help enhance growth, profitability and competitiveness of leading organizations. To achieve these successful alliances, it requires a concerted effort to remain alert, build a profile in the market and ensure a position in the market that allows for seizing opportunities as soon as they arise. Because of the collaborative nature of this driver, the participants' input on this driver is useful to test the organization's attitude towards collaboration in innovation.

However, in practice it turned out that, due to time limitations, an average of only three drivers was discussed during an EY Growth Navigator session. Since most participants did not choose to dive into the "transactions and alliances" driver, this driver generated no useful data for this research. However, the "people, behaviours and culture" driver was an often selected topic of choice. Therefore, the results of the self-reflective analysis on this relevant driver of growth were used as input for this research to create a deeper understanding of their current and desired practices in relation to their organizational culture and innovative practices. The EY Growth Navigator sessions were all minuted in high detail. This data was used to support the findings from the interviews. To analyse the data, the meeting minutes were added to the data set of the interviews and were coded in a similar manner using the Atlas.ti 8.2.3. software.

3.2.3. Roundtable sessions

Thirdly, EY organizes roundtable sessions with family businesses and start-ups around the global megatrends that are impacting the economic playing field. The family businesses and start-ups were observed during these sessions and their behaviour, attitudes and lines of reasoning were analysed.

3.2.4. Validity testing through industry experts

When all data was transformed, the coding process was finalized and the findings had been put onto paper, the results of this process were presented to four industry experts. A critical view on the outcome of the empirical study allowed for a validity check of the results. As an add-on to the proper interview preparation and conduction, the outcomes were presented to the experts to find out if they make sense and can be trustworthy. This strategy is known as triangulation: the research is done from multiple perspectives. The effectiveness of triangulation, thus, rests on the premises that the weaknesses in using one single method will be compensated by the counter-balancing strengths of another (Jick, 1979). Applying this strategy increases the level of knowledge about family business-start-up collaboration and strengthens the results from various perspectives. In addition, alternative explanations for research results were investigated to exclude other scenarios influencing the outcomes. The reflection on the results by industry experts led to a critical analysis of the outcomes of the empirical study and allowed for a more comprehensive and holistic understanding of the research results.

Due to the exploratory nature of this research, this broad range of qualitative measuring instruments will allow for a thorough analysis of the organizations under study. Comparing the similarities and differences yields combined insights that will contribute to a comprehensive understanding of family business-start-up collaboration.

4. RESULTS

The following section presents the results of the empirical study. First, the findings from the sample of start-ups are outlined. Following, the results from interviewing and analysing family businesses are presented. For each type of business, the results are split up into sub-segments based on the main topics of the interviews and analysis of the EY Growth Navigator self-assessment.

4.1 Start-ups

4.1.1. The start-up culture and its unique characteristics

During the interviews, the interviewees referred to the culture in their start-up as a "typical start-up culture". When asked about what that typicalness comprises, a set of characteristics was referred to. Firstly, the start-up culture is considered highly informal. Also, start-ups have an open culture. Illustrated by the following quote, the low-hierarchical structure and open communication in start-ups is shown:

> Respondent 14: *"In the beginning, we were looking for ways to be fully honest with each other and were able to challenge each other. Even sometimes fully disagree with one another. This has grown into the culture we have now: everyone is asked for their opinion and we are open in communication, accepting each other's' opinion. Opinions have not been casted in stone yet."*

Furthermore, start-ups are found to be flexible organizations where functions have not been casted in stone yet, and organizational and employee flexibility is highly valued. When a once-in-a-lifetime chance arises, the organization is able and employees are willing to go the extra mile to seize that opportunity. This flexibility possibly originates from a few other indicated characteristics of the start-up culture. Start-up employees are found to be passionate about their jobs and show strong eagerness to learn and improve. Employees are selected based on this mindset. Creativity is, therefore, highly valued in start-ups. Yet, it might also relate to the mentioned characteristic of start-ups being opportunistic. These characteristics are illustrated by the following quotes:

> Respondent 20: *"In case of great opportunities, employees are willing to work at night time or during the weekends. The sky is the limit!"*
>
> Respondent 20: *"Most employees show this spirit and match the company's ambition level."*
>
> Respondent 1: *"Some are extreme soccer fans and, therefore, believe that this is the best job in the world."*
>
> Respondent 10: *"Everybody is eager to book results."*
>
> Respondent 1: *"Everybody is eager to learn and improve."*
>
> Respondent 20: *"Besides being ambitious, we are opportunistic - we never say no."*

Respondent 14: *"Start-ups have an opportunistic character. It has to happen now. It's like liking and disliking on Facebook: it has to happen fast, but you get rid of it just as easily."*

Besides their distinctive culture, there are a few more characteristics identified that set start-ups apart from other types of organizations. The respondents mentioned that start-ups typically operate in uncertainty. They often operate in a non-existing domain. Also, the speed of development is considered important. In the competition field of start-ups, there is a 'go fast or go die' mentality. This is reflected in the risk-taking behaviour associated with start-ups. The interviewees mentioned that start-ups tend to take (too) much risk and do things too fast, which might cost them in the end. In addition to this pitfall, the respondents highlighted some more possibly limiting characteristics. First of all, start-ups have difficulty in realizing a product-market fit. This might be due to the fact that they think they know it all, where it often turns out they do not. Namely, a characteristic frequently mentioned is start-ups' lack of experience. In their earliest stages, start-ups are unknowingly incapable. When they proceed and learn through trial and error, the successful ones will be able to turn this around into knowingly incapable and, eventually, knowingly capable. Secondly, the interviewees mentioned start-ups' lack of resources, both financial and intangible ones. Thirdly, when entering the market, start-ups struggle because of their lack of reputation. From the start, they are not considered to be a trustworthy partner because they have not yet built their brand.

4.1.2. Innovation practices and entrepreneurship in a start-up

As expected, innovation is the cornerstone of development in start-ups. Multiple start-ups explicitly emphasized that innovation is their 'raison d'être' and that it is at the core of their business. All business and product development centralizes around the ambition of commercializing an innovative solution. Furthermore, start-ups are dominated by entrepreneurship. An entrepreneurial mindset is seen at the management level, but is also stimulated across the entire organization. Several interviewees supported this:

Respondent 12: *"What we do is almost exclusively innovation, it is our reason for being."*

Respondent 16: *"Innovation is key."*

Respondent 20: *"We want to be seen as an innovative company, applying the newest technology and solutions for our customers."*

Respondent 20: *"We want employees to consider it as their own money."*

Even though innovation is at the heart of the organization, the source of the innovation differs across the sample. Whereas in some start-ups, innovation occurs from all levels of the organization, in others, innovation is driven by the management team or the founder of a start-up.

Respondent 14: *"His or your word is just as important as what I am driveling… If we want to innovate, it is important that the entire organization innovates in the same direction and shares the vision to enable this."*

Respondent 12: *"Innovative ideas come from the management team. In that sense, they are the most innovative."*

The underlying reason for this difference remains unclear, since all start-ups in the sample are technology driven organizations applying the newest technologies in their product. It might have been explicable if tech-start-ups showed innovation from the management team, as it requires a certain level of expertise, but this is not the case here.

4.1.3. Collaboration in innovation in a start-up

Attitude towards collaboration

In general, start-ups show an extremely open attitude towards collaboration in innovation. Most respondents recognize that opening up the innovation process to input from outside organization boundaries adds direct value. Start-ups have a lot to learn, and involving others in that process will speed up their development significantly. Collaboration in innovation allows for numerous opportunities to learn from each other and will enrich both parties in the relationship without posing threats. An open attitude towards input from others and collaboration in the innovation process is even found to be a critical success factor for start-ups. When start-ups are aware that they have a lot to improve and involve others in the process of doing so, they are expected to be more likely to succeed. The open attitude towards collaboration and the potential value of it are illustrated by the following quotes:

Respondent 10: *"In general, start-ups are open for a nudge in the right direction."*

Respondent 7: *"We are not afraid to share… You can always help each other move forwards and you never know what that might lead to."*

Respondent 14: *"We have an open innovation environment… That poses so many opportunities to learn from each other and enrich each other."*

Respondent 10: *"The ones who realize they can't do it alone, go a lot faster."*

Respondent 8: *"Collaboration is important to every start-up - you can't do it alone… They need external partners to move on and acquire complementary assets they don't possess themselves"*

On the contrary, start-ups might be sceptical towards collaboration. This scepticism arises from a fear of losing something that you consider your own. Despite knowing that collaboration might speed up the process and increases the chance of success, start-ups sometimes find it difficult to let go of their own idea. Fear of losing control or ownership of the organization, losing your product or identity, the risk of being absorbed into another organization play a role here. Also, when opening up your start-up to input from the outside world, critique might feel as a disappointment.

> Respondent 10: *"I think that is the fear: it is your own, so you want to do it yourself. Besides that, there are the scare stories: what if they take over, or kick me out."*
>
> Respondent 10: *"I can imagine: if you come in with a great idea and hear that you have to do things different, it might feel as a disappointment."*

In addition, there is a certain level of stubbornness in start-ups. Because it is their own idea, there is a tendency to be willing to find out everything on their own. In addition, some entrepreneurs think they know it all, and therefore, are not open to the input of others. However, both start-ups and start-up experts noted that start-ups most of the time do not know what is best for them, and might have severe misunderstandings on the way the market works and underestimate the complexity of realizing success. In some cases, a mirror should be held up to them to make them realize that it is not in their favour to be willing to do everything independently.

> Respondent 1: *"As a start-up you think: 'if we make something cool that helps you make good decisions, money will be made naturally", but that is unfortunately not how it works."*
>
> Respondent 10: *"You often see that start-ups have an idea an exactly know what to do, but often they don't realize that there are quite a few steps to make and things to discover. Once they realize that, they can become successful."*

Resources to acquire from collaboration

According to the respondents, there are many resources to acquire from collaboration in innovation. One of the main aspects start-ups lack is money. Therefore, a key resource to be gathered from collaboration is financial support. Remarkable here is that nearly all respondents emphasized that it is not just about the funding. According to them, funding should be backed up with other, intangible resources. Among these resources are access to data, access to technology and production facilities. Even more, there is a strong emphasis on resources such as access to markets, social networks and reputation. These are resources that start-ups typically lack, but are crucial for turning their innovative idea into a commercial success. Furthermore, start-ups look for collaboration partners that can offer them insights into their best practices and provide them with advice. Acquiring these resources through involving collaboration partners is argued to contribute to the speed of development of start-ups, an element previously identified as highly important in the start-up environment. The speed of development is realized through the access to resources, but is also argued to be achieved because collaborations help start-ups to focus on their core competency. The risk of inexperienced start-ups is that they take on too much, leading them to get lost. Parties that could share their knowledge and experience with start-ups are regarded highly valuable. Some start-ups even claim to reject a collaboration partner who will not be able to offer more than just financial resources. In those cases, the intangible resources are a critical component in determining whether to enter a collaboration. The following quotes illustrate these findings:

> Respondent 1: *"The investment we received comes from a party directly from our market and provides us with guidance and contacts. We get a lot more than the financial aspect. Just finances only helps so much"*

> Respondent 7: *"An investor should bring more than money. I need to bring it to the market. Just money is no good to me."*

> Respondent 10: *"It is often about access to a market, contacts and networks. I believe that is often a reason to collaborate."*

> Respondent 14: *"Collaboration brings speed, ideas come to mind and mature faster. And it helps you to focus on your core competency. The risk of a young entrepreneur is to get lost, take on too much and do things that are better left to another."*

Characteristics of the collaboration

Even though some start-ups fear risking the ownership of their company when entering a collaboration, quite some respondents acknowledge that start-ups should not have the ambition of maintaining full ownership. It should be noted here that the respondents are only willing to give up ownership partly and reassurance should be given that the start-up will not dissolve into the collaboration partner.

> Respondent 1: *"That is something I will always fight for: the moment I create value for an organization, I want to profit from it… That is all part of the start-up game: because you accept high risk, you are compensated for it."*

> Respondent 8: *"I think this is a thing for many start-ups, but if you attract investors, you should not have the illusion to retain full ownership… It is not a positive thing to want to do it all on your own… Start-ups should be given a sense of certainty that it is OK to give up a bit of ownership."*

The interviewees noted that there is no golden rule for success when collaborating, but there are some elements the collaboration must contain. The goals of the parties entering the collaboration should be aligned, and preferably have a timeframe for realization. Start-ups highly value that the expectations of the goals of collaboration are in harmony. When discussing these goals, the establishment of mutual benefits is high on the agenda as nearly all respondents mentioned this element in various shapes and sizes. In addition to establishing mutual benefits, there should be mutual responsibility as well. A model of shared risk, shared revenue with commitment of both parties is mentioned multiple times. Lastly, openness is considered a must in collaboration. Communication should be transparent and partners should at all times be honest. The following quotes illustrate this:

> Respondent 14: *"The alignment of common goals and a shared timeframe, to find a compromise on the time you have to spend."*

> Respondent 1: *"There should always be a healthy dialogue about the reciprocal expectations and how that will be organized."*

> Respondent 7: *"We look for collaborations that can bear fruit for both parties."*

> Respondent 8: *"Win-win situation… You should both feel it when the collaboration fails. If you don't, there is an unhealthy balance"*

> Respondent 12: *"There should be a common goal… There should be shared revenue, shared risk. They should also have the commitment to make it work."*

Selecting the collaboration partner

Apart from the characteristics of the collaboration itself and the elements it must contain, start-ups have to select their collaboration partner. The criteria they maintain here are, according to the interviewees, mainly based on gut feeling. The feeling with a potential partner must be right and a basis of trust should be present:

> Respondent 8: *"The feeling must be right. When the feeling is right, you can collaborate."*

4.1.4. Collaboration in innovation with family businesses in a start-up

When the respondents were asked about collaborations with family businesses in particular, they recognized that family businesses are significantly different from other types of organization. Therefore, the resources a family business could provide and the characteristics of the collaboration differ from those with a non-family business collaboration partner.

Differences between family business and non-family business

According to start-ups, family businesses are a unique type of organization that differ from non-family businesses and start-ups in particular. First of all, the respondents touched upon the long-term vision of a family business. They are not in it for the short-term win, but aim for succession to following generations. Second, the goals of family businesses are found to comprise non-financial ones as well. It is about more than money. Thirdly, some respondents mentioned family businesses being traditional. They are, both, thought to operate in more traditional industries and adopt more traditional approaches within their organization, sustaining organizational practices they have adopted years ago. This traditional approach and aim for succession makes the respondents sceptical as to whether the right person is at the right position in a family business. The quality of management is questioned because members of the family might have simply inherited their management position. Fourth, family businesses are considered more emotional than non-family businesses. The balance between rational and emotional decision-making is different than in other organizations. Following from these characteristics, the decision-making process in family business is believed to be different. However, the opinion on this is two-fold. On the one hand, the majority of the respondents argued that family businesses have short lines of communication, speeding up the decision-making process. Whereas, on the other hand, others argued that the constant debates with the family and the emotional component in decision-making might slow down the process. This set of characteristics is illustrated by the following quotes:

> Respondent 1: *"In family businesses, it is a lot about keeping the business healthy for the next generation, so they have a strong long-term vision."*
>
> Respondent 10: *"It is about more than money."*
>
> Respondent 14: "*It is more like the classical patriarchal structure."*
>
> Respondent 12: *"Family businesses are a lot more emotional than other companies"*
>
> Respondent 12: *"You are closer to the fire: lines are shorter and decisions are made faster."*
>
> Respondent 10: *"In my opinion, everything goes a notch slower."*

Innovation and entrepreneurship in family businesses

According to start-ups, the innovativeness of family businesses is only mediocre. On product innovation, family businesses are expected to perform well. However, the processes in family businesses are considered rather traditional.

Respondent 14: *"There is technical product innovation, in which family businesses do the greatest things. But innovativeness in the sense of organizing the business, there they are slower. You often see rooted habits."*

On the contrary, conflicting the opinion on innovation in family businesses, start-ups consider family businesses as highly entrepreneurial. Because the entrepreneurial spirit of grandpa is transferred to his children and grandchildren, this mindset is expected to hold up in the culture of a family business.

Respondent 8: *"It is the entrepreneurial spirit in the organization that adds value: grandpa knows how the company was founded and actively involves his kids and grandkids in this history to keep the entrepreneurial spirit alive."*

Resources to acquire from a family business

The resources a start-up could acquire from collaborating with a family business are the following. First of all, the respondents mentioned that family business have possession over a wealth of knowledge that could be extremely valuable for a start-up. This knowledge originates from their long existence and the entrepreneurial and business experiences that have been transferred across generations. This experience could assist start-ups in realizing a better product-market fit, something that most start-ups struggle with. Moreover, family businesses are argued to have large networks with close relationships. The value of the family businesses' brand within these networks is of immense value to the start-ups. It would support the commercialization of their innovation by having access to markets and helps them build a trustworthy reputation.

Respondent 10: *"Family businesses possess a lot of knowledge. From generation to generation, they have been through a lot, loads of experience."*

Respondent 1: *"The connections a family business has can strongly contribute to a start-ups success."*

Respondent 14: *"Family businesses excel on that part: they have long relationships with employees, customers and suppliers."*

Apart from the intangible assets, most start-ups require funding. When it comes to receiving funding from a family business, the respondents perceive this as more challenging than receiving funding from a corporate. The main arguments for this are that family businesses are being sparing with their money. Because it is their own family fortune at stake, they are more careful in spending large sums of money. Start-ups believe that family businesses require more evidence on what the money is being spend on and require more certainty on the success of the innovation than corporates would. This directly relates to the risk-taking behaviour of family businesses. According to start-ups, family businesses are more risk averse than non-family businesses. This is considered as a factor slowing down the innovation. On the other hand, one respondent mentioned that family business are highly aware of the value of money. In mentoring the start-ups, it would be a valuable resource to teach start-ups how to spend their money wisely. To profit from this knowledge, one interviewee noted that it is important to receive the funding from the family, and not from the family business.

> Respondent 12: *"The thing with family businesses is that it is their own money and that matters a lot… The perception of risk is different, it feels different. They spend their own money and don't want things to fail."*

> Respondent 14: *"In receiving funding from a family business, you should distinguish receiving it from the firm of from the family...These are two different perspectives… The value of money and carefulness of spending it is in their bones. "*

In general, the attitude towards collaboration with family businesses and the resources to be acquired from it is two-fold. Considering the perceived innovativeness, risk-taking behaviour and willingness to fund, start-ups are hesitant towards collaborating with family businesses. On the other hand, family businesses are believed to possess a set of valuable resources start-ups could profit from. Furthermore, the value of collaboration with a family business over a non-family business lies in the entrepreneurial character: family businesses know what is like to build something up from the ground and their experience in entrepreneurship will make them understand start-ups better than corporates would.

> Respondent 1: *"You know the family business won't take stupid risks because they aim for succession. On the other side, it might restrain innovation because they are not willing to take huge risks like start-ups."*

> Respondent 14: *"I would rather work with a family business than a non-family business. This has to do with the fact that they understand is from the entrepreneurial mindset, they have been there before. In addition, there is more openness and transparency… On the other side, you should consider whether the speed is fast enough and there is enough open-mindedness.*

Characteristics of the family business collaboration

When asking the respondents about typical characteristics of a collaboration with a family business, start-ups referred to the long-term vision as a valuable aspect. Start-ups could learn from family businesses in establishing a long-term vision themselves, but even more important, there is time to build towards a mutually beneficial goal. This makes a family business in the eyes of a start-up a reliable collaboration partner. Respondents mentioned that they perceive family businesses as a trustworthy partner, that will not be in it for the short term win and will be open and transparent in communication, giving the start-up a sense of reassurance.

> Respondent 10: *"With a family business, there is faith that it is not all about the money, but more about applying their knowledge and the long-term collaboration… A family business gives you a lot of trust."*

Because family businesses are, according to start-ups, more hesitant in providing funding and taking risk, a characteristic of the collaboration is that it will revolve more around the intangible assets the family business could provide for a start-up, such as building a reputation and having access to valuable social networks.

> Respondent 14: *"Having a long-term orientation and building a reputation of trust, that is where we can learn a lot."*

In family business-start-up collaboration, start-ups maintain the same basic criteria for elements that should be present for the collaboration to be successful. Also, the same criteria for selection a potential collaboration partner hold-up. However, they add one more prerequisite when it comes to working with a family business: for many start-ups it is important that the entrepreneurial spirit should be alive in the family business. The entrepreneurial spirit contributes to openness for renewal. One respondent particularly mentioned the value of the so-called NextGen in family businesses for a start-up, the next generation. The NextGen is expected to bring a breath of fresh air into the family business and opens up the potential for profiting from a start-up collaboration.

> Respondent 8: *"The family business should have an entrepreneurial mindset. The family has to be involved in a way that entrepreneurship lives on and is propagated."*
>
> Respondent 14: *"I believe that renewal can arise with the next generation. Such a new generation can benefit a lot from a network with start-ups."*

Overcoming barriers

Since start-ups believe that family business are substantially different types of organizations, they were asked about strategies to overcome these differences. First of all, a certain level of respect is crucial. Both parties should respect the wishes of the other and should aim to compromise on these interests. A one-way collaboration will never be successful. Furthermore, a neutral party mitigating the communication between the two parties might contribute to establishing a collaboration where goals are aligned and benefits are mutual. The mitigator might point out the weaknesses of both parties, seeing right through the stubbornness and flaws of either one, holding up a mirror to establish a point from where they can move forward through collaboration.

Respondent 1: *"The degree to which differences are respected. If start-ups expect a family business to do all the work without getting shares, it won't work. If a family business expects a start-up to give up all shares, it won't work either."*

Respondent 10: *"Both parties are stubborn in their own way. If they can negotiate in Swiss neutrality, it might speed up the process."*

4.2 Family businesses

4.2.1. The family business culture and its unique characteristics

The interviewees recognize that the culture in their family business is distinctive from other types of organization. A special trait of the high degree of appreciation for employees. There is a lot of effort put into employee satisfaction and comfort. There is a strong sense of responsibility towards employees and employees can count on the family and their business.

Respondent 2: *"Feeling responsible for the 400 employees that work here makes us see things different than just business-wise."*

Respondent 4: *"Many of our boys have been working here a long time. You get a sense of family. It is important to know each other as a person. People should feel comfortable."*

Furthermore, respondents refer to their open communication culture with short lines of communication. Also, there is a down to earth mentality. People are doers, they roll up their sleeves and do what they say they will do.

Respondent 21: *"There is a lot of open communication with employees."*

Respondent 3: *"People are used to rolling up their sleeves and stepping up."*
Respondent 5: *"No nonsense. We do what we say. We say what we do. I sometimes wish they would be a bit more flashy, but they are not… You don't need high heels to show you are smart."*

Even more, there is a strong sense of familiness in the organizations under study, adopting the standards and values you would find in any regular family. Respondents mention a high sense of belonging and a personal connection with employees. Major emphasis is put on the commitment of, both, the family and the employees to the business. Family members are believed to be more committed to the business' success than management in non-family businesses would be. In addition, employees work hard and are proud to work for their employer. Even more, in times of trouble, they show extreme loyalty to the family business and walk the extra mile in order to keep the business afloat. Even though some respondents mention that the business is still depending on the family and their management, there is confidence in the capabilities of the employees and they are actively involved in the strategic plans of the organization.

Respondent 5: *"When you work here you receive a Family Box and Welcome-to-the-family letter. It should feel like a warm nest, like home."*

Respondent 11: *"The family business is basically your child."*

Respondent 4: *"Employees are proud to work for [company X]… This commitment is what makes us so strong as family business."*

Respondent 3: *"There is strong familiness. We have had some rough times and we noticed people really stood by us… All employees collective contributed to suffer the least."*

Respondent 5: *"At a certain point, one employee had to leave or everyone had to give up 10%. The "family" collectively decided to give up 10% to keep that person's job… That's something you would never see in a corporate."*

Respondent 9: *"Employees find it most important to be involved… They are heavily involved in the company's future."*

One of the exceptional characteristics of the special culture in a family businesses, as the start-ups also confirmed, is their long-term vision. The primary goal of most respondents is to hand over a healthy business to their descendants. Continuity and stability are characteristics of a family business that are translated into a reputation of reliability and trust. The respondents argued that doing business with a family business offers certainty because they are reliable in both the quality they deliver and the relationships they build with their customers and suppliers in the long run. The respondents value these aspects because they have a reputation to uphold. The family name is often directly linked to the business, harming the personal reputation of the family members when they fail in delivering the promised quality or misuse the trust of their social contacts. The trustworthy reputation, on the other hand, creates a certain goodwill factor for family businesses in the eyes of other players in the market and potential customers.

Respondent 11: *"You want to keep the company going. You often don't sell for the ultimate price, but you want to make sure your family can continue… How great would it be if we could double 'till 12 generations?!"*

Respondent 3: *"Maintaining long-term relationship is important and you only do that one way: deliver quality."*

Respondent 18: *"For our large clients, we are an A-class supplier: reliability and quality."*

Respondent 5: *"Everyone in the region knows I am running this business, so if things go wrong it will hurt my reputation."*

Another characteristic of the family business, as the respondents argued, is their aim for non-financial goals. This is in line with their primary goal of aiming for succession. It is not about the money on the short-term, but about creating value on the long-term in any way or form that is valued by the family. One of the non-financial goals commonly referred to is their interest in social responsibility. Interviewees said to experience a strong sense of commitment to the community and have strong connections with them.

Respondent 5: *"Compared to corporates, we are even not enough financially driven".*

Respondent 9: *"Our core value is our return...Our return is having our kids around in a pleasant way and being able to do whatever we want."*

Respondent 11: *"It is not about the money, but about the value you create and passing something on."*

Respondent 2: *"The uniqueness of [company X] is our social awareness and responsibility."*

Respondent 17: *"We are community oriented."*

The decision-making process in family businesses is unique and subject to many influences. Firstly, due to the short lines of communication, respondents consider themselves to be decisive and capable to adjust to market demands quickly. A second influence is the strong emotional impact. Because of the familiness of the organization, family business managers tend to react more emotional in specific circumstances and base their decision less on ratio than a non-family business would. Many decisions are based on their gut feeling. What contributes to this way of decision-making is the fact that most family business have no accountability to other parties apart from their family. It gives a degree of freedom, but the interviewees are also highly aware of the responsibility that comes with it. This is reflected in their risk-taking behaviour, where most respondents showed risk-averseness and calculations of incurred loss. A family business will never bet the farm.

Respondent 13: *"We have a flat hierarchical structure, making us able to respond to market demands quickly. We are decisive."*

Respondent 2: *"Ratio and emotion - that is a whole different dynamic in a family business."*

Respondent 9: *"My emotion is the best guidance."*

Respondent 4: *"The impact in family businesses is big… There is a lot more at stake: family fortune, his job and, above all, his reputation."*

Respondent 11 and 24: *"The only one I have to account to is myself."*

4.2.2. Innovation practices and entrepreneurship in a family business

Supported by nearly all respondents of the family business sample is the importance of innovation to the family business. As opposed to the prejudicial opinion of the start-ups, family business show an extremely positive attitude towards the relevance of innovation for the long-term survival of their business. For many, innovation is regarded as the cornerstone of their development and their reason for being. They recognize that, without innovation, there family business would no longer exist. The market forces them to be innovative, but even more, it is a deliberate choice and desire to put innovation high on the strategic agenda. The respondents argued that the radical innovations are mostly driven by management. Yet, employees are actively stimulated to contribute to the process of exploring and exploiting opportunities for more incremental innovation and management is open for ideas on more radical innovation projects.

Respondent 4: *"Innovation is one of our reasons of being...You can't do the same thing for 100 years. Family business are working on it even more than others."* Respondent 5: *"Family business that don't innovate don't exist anymore. You have to do new things. What companies did 100 years ago, they are not doing now. The prejudice about family businesses not being innovative is wrong. If you don't innovate, it will destroy you!"*

Respondent 9: *"That is inherent to a successful family business - innovation… They are constantly capable of adjusting to changing circumstances."*

Family businesses are dredged with entrepreneurship. The respondents mention the entrepreneurial mindset and experience on entrepreneurship in a family business moreover. They show strong interest in exploring new ideas and pursuing their personal business goals. Even more, they get inspired from sharing experiences and ideas on entrepreneurship with others.

Respondent 5: *"In a good family business, there especially is a lot of entrepreneurship. It has been taught from childhood."*

Respondent 9: *"It is way too much fun. You might just as well die if you don't feel like doing new things anymore. It is never a must, it is about enthusiastic willing."*

4.2.3. Collaboration in innovation in a family business

Attitude towards collaboration

Generally speaking, the respondents showed a positive attitude towards openness in innovation through collaboration. Most interviewees recognized that they are not able to recognize, explore and exploit all opportunities independently. Involvement of their customers and suppliers in their development process is not an uncommon phenomenon. In addition, there is continuous conversation with partners about the developments in the markets and the trends the company must potentially act upon. Exploiting their network and opening up the innovation process as much as possible is a common activity in family businesses.

> Respondent 2: *"We don't believe we can all do it ourselves… I started with bringing in fresh and renewing blood - I would always do it."*

> Respondent 4: *"We look together with our partners into the machines that are coming, what is on the market and what the changes and developments are… I am definitely open to it, I think it is interesting."*

Furthermore, respondents recognize that collaboration helps them to focus on their core competency, outsourcing the elements of their business process that decrease efficiency and increase costs. Respondents recognize that it is the collaboration and openness that gives you strength. Whereas, in the beginning they would hold their cards close to the vast, over time they experienced that input from outside organization barriers contributed positively to the strength of their business.

> Respondent 9: *"I strongly believe in the open model - if you don't tell, you never hear… It is the collaboration that makes us stronger. In the beginning, I thought: 'we are not telling anything, because it is our secret, our database, our clients. They are not touching it.' 20 years later we say: 'tell me what you want to know, it's fine.'."*

> Respondent 9: *"We are divesting our sub-activities and consider ourselves a spider in a web of external partners."*

> Respondent 5: *"I am glad we don't have to do it all alone and set-up departments for it. We have our partners for that."*

However, the family businesses in niche markets are more sceptical towards collaboration in innovation. Whereas they do mention to be open for input from the outside, they also remark that they have a natural desire to be self-sufficient. Because they operate in a niche market, there were a lot of elements they had to figure out themselves in the process of growing to where they stand now. Furthermore, in order to shape the developments, those family businesses would like to keep these processes close to the heart and have not expanded outside firm boundaries on all divisions of the business.

Respondent 3: *"I think that, in origin, our culture is to be willing to be self-sufficient."*

Respondent 4: *"Then, I'd rather keep the development close to the organization, so we can shape it ourselves.*

Characteristics of the collaboration

In family businesses, there is a strong belief that the collaboration should fit in with the business. It should be in line with the corporate strategy, supporting its development. In addition, the entrepreneurial character of the family business moves the respondents to remark that they are willing to know the ins and outs of the collaboration. Active involvement is preferred, where the family business is actively contributing to the development of the collaboration.

Respondent 3: *"It should fit in with our culture and philosophy. There are unwritten rules for that."*

Respondent 4: *"I want to understand and see it myself. I am not investing in someone who tells me what to do, from where I turn around and never look back."*

Respondent 24: *"When I do something, I want to participate and be involved… I want to help along the thought process."*

Respondent 2: *"When we participate in the thinking process, we would also like to participate in it for ourselves."*

Respondents noted that goal alignment is a crucial element in collaboration. There should be a certain level of reciprocity, where expectations of one another are clearly formulated. Family businesses should clearly see what is in it for them, otherwise they are not willing to participate in a collaboration.

Respondent 2: *"If goals are not aligned, you get nowhere...In the collaboration, it is especially important to align your expectations.*

Respondent 5: *"Reciprocity: what's in it for us? What do we get from collaboration with someone? If I don't see that, the deal is off the table."*

The opinion on providing funding to collaboration partners is divided among the interviewees. Some family businesses state that they are willing to provide some financial capital, whereas others would rather keep the collaboration to a state of providing the collaboration partner with experience and advice. However, in most cases, the commercial prospects of the innovation to collaborate on determines a family business' willingness to fund. The outlook on a profitable commercialization with added value for the family business will make them open up their financial resources.

Respondent 2: *"We relatively liquid assets, so we could do some financing."*

Respondent 4: *"I would not necessarily provide funding, but rather take time to engage in a dialogue. Depending on the idea, I could potentially invest."*

Respondent 11: *"I want to help you with word and deed, but not with money. If you want to brainstorm, it's alright. If you come for my wallet, I'm out. Yet, I still do it sometimes…"*

Respondent 24: *"Financial support could be given based on commercial feasibility. If the commercialization seems to be far away, I don't see the added value."*

The previously discussed risk-taking behaviour of family businesses is reflected in their willingness to commit to a collaboration. To mitigate the risk of failing a collaboration, multiple respondents noted that they are careful in their decision-making. They make the deliberate consideration what they are willing to put at risk. In most cases, they only risk what they can afford to lose. As opposed to non-family businesses, who are believed to be greedy and bet the whole farm, family businesses would not take such high risk.

Respondent 24: *"You only risk what you can lose."*

Selecting the collaboration partner

In selecting the partner for a potential collaboration, the respondents mentioned three main selection criteria. First of all, the collaboration partner should be reliable. Transparency and trustworthiness are considered relevant factors in the selection process of a partner.

Respondent 2: *"How reliable is he? How financially reliable is he? These are all things you look at. Transparency and reliability."*

When it comes to the innovative idea of the collaboration partner, the feeling about it must be right. Moreover, a potential partner should be able to present his or her idea in a powerful and short pitch. The small details of the plan are not relevant to the family business. As long as the broad outline of the plan makes sense and is promising, the respondents are willing to further investigate the opportunities.

Respondent 24: *"The feeling about the idea must be right."*

Respondent 11: *"It is extremely important that someone can present an idea brief and to the point… The small details are irrelevant, the essence of the idea is important."*

Lastly, and most importantly, the interviewees highlight the importance of a cultural and emotional fit. There should be a match on a personal level with the family business. What that match comprises, the respondents find difficult to explain. It is all based on emotion, feelings and a fit with the family culture. Characteristics shown by a potential collaboration partner that the respondents generally have an aversion to are arrogance and greed. As previously illustrated, family businesses do not prefer to work with collaboration partners that are just in it for acquiring financial resources. The following quotes illustrate the relevance of an emotional fit:

> Respondent 11: *"First of all, there should be a click… You go with your gut feeling."*
>
> Respondent 4: *"Basically speaking, the person means a lot. I can't explain what he must comply with, it is a feeling and that feeling must be right… I would first get a feeling with someone, and then look into his idea."*
>
> Respondent 5: *"The person that walks in here is of major importance. He should fit in with our culture… He should fit within the family."*

4.2.4. Collaboration in innovation with start-ups in a family business

When the family businesses were asked about collaboration with start-ups in particular, there were a few distinctive features they mentioned. The potential value of a start-up collaboration and the required characteristics of the collaboration according to the respondents will be presented here.

Resources to acquire from a start-up

Respondents were asked about the potential value a start-up could bring into the family business-start-up collaboration. First and foremost, the mentality of a start-up is considered highly beneficial. Interviewees noted the eagerness and the mindset of start-ups as a valuable source for a family business. Start-ups are regarded as a source of new ideas because of their open mindedness and the breath of fresh air they are able to bring into the organization. They see things differently than the family business would, and have a certain openness and interest into anything that is new and of potential value. In addition, start-ups are viewed as a source of new technology. They are regarded as organizations that work with the newest technologies and develop products that might be applicable in the family business' context. Start-ups could, for example, contribute to developments in the areas of automation, digitalization and artificial intelligence. The innovative application of these technologies are considered to potentially be of high value, but most respondents admit that this is out of their scope and core capabilities. Therefore, bringing it in through a collaboration with start-ups could create a competitive advantage for the family business.

> Respondent 9: *"A start-up has that eagerness and has an idea to translate into a solution. They think completely different, not building on something already existing - they look for new things and work round the clock."*

Respondent 2: *"I think it is unbelievably refreshing for your company… The value of start-ups is their newness, their dynamics… In general, they are smart and entrepreneurial people. Sometimes naive, but in an incumbent organization they bring added value in the company culture, putting it on edge."*

Respondent 11: *"A start-up is new and fresh, open to everything."*

Respondent 2: *"It is good to fly in that real high-tech."*

Respondent 3: *"Robotics, that's an upcoming theme. In our branch, we have little experience with that… We are definitely running behind and can learn."*

Despite the immense source of potential value a start-up could bring for a family business, the interviewees had a few critical notes when it came to working with start-ups that possibly endanger the value of collaboration. First of all, respondents considered start-ups as risk-taking organizations. The respondents implied that risky behaviour relates to a low success-rate. Because start-ups are believed to apply a scattergun approach, most ideas fail. In support to this argument, family businesses criticize the short-term vision of start-ups. The value they create is a bubble; hypothetical future value. Family businesses, who aim for the long-term value, have difficulty understanding this attitude towards value creation. Thirdly, respondents showed scepticism towards the idea of a start-up. This probably relates to the first argument that most start-ups fail. Respondents have a critical attitude towards the potential value of the idea of a start-up. They question whether the start-up understands the market demand, and question the commercial application and value of their idea. Besides, the underdeveloped idea of a start-up might disrupt the ongoing processes in a family business, causing stress and costing time.

Respondent 9: *"That is a characteristic of start-ups: many try and every now and then one has a product they continue with, or they find someone with money and they are gone again."*

Respondent 5: *"The way value is created in the start-up world is an air bubble. It's all short-term… I know that it's partly future value, but a family business is more down to earth and realizes that money has to be made at this time as well. It feels like your own checkbook."*

Respondent 9: *"In the past, it has not lead to anything of structural value."*

Respondent 24: *"I am willing to have a look at it, but when it comes to product development I don't see a commercial application… Sometimes, I am sceptical. Maybe that's stupid. You actually should be very open minded."*

Respondent 3: *"If they are still experimenting on serial productions, it costs so much time and stress and it will disrupt the whole process."*

Resources family businesses could provide for a start-up

When discussing the collaboration with start-ups, the interviewees mentioned a set of resources they could potentially offer a start-up. Family businesses recognize that start-ups often lack market knowledge and expertise on growing a business. The added value of collaborating with a family business for a start-up is, according to the family business, the experience you bring into the start-up through partnering with a family business. Family businesses state that they are willing to be a coach for the start-ups. Coaching would comprise elements of critical reflection on the business idea, sharing life lessons from being an entrepreneur to prevent them from making the same mistakes, and supporting them in growing the business successfully.

> Respondent 5: *"Family businesses think differently: they ask us questions we don't ask ourselves."*
>
> Respondent 11: *"I am willing to share some life lessons with them, but other than that they have to do it on their own… You can have a great idea, but that doesn't make you* an entrepreneur*. That second step, that is where you need guidance."*
>
> Respondent 24: *"I would know how to make something small bigger… I can help with that, that would be my added value."*

In addition to sharing their know-how with a start-up, the previous section illustrated a family business' willingness to fund. In the case of start-ups, the same rules apply as for any other type of collaboration partner. When a family business sees the future potential of an idea and is willing to provide financial resources, that would be another resource for start-ups to acquire from family-business start-up collaboration. Summarizing these aspects, family business claim to be of value to a start-up in all elements of their business through providing both tangible and intangible resources.

Characteristics of a start-up collaboration

When establishing a start-up collaboration, in addition to the previously mentioned general characteristics of a collaboration in innovation, there are a few aspects the family business consider important. In discussing the development phase of the idea of the start-up, most respondents emphasized that the idea may still be in an early stage of development. Plans do not have to be fully developed before knocking at the door of a family business for their participation in it. However, there are also respondents who do require the idea of the start-up to be fully developed and proven. If not, it will disrupt their current business processes too much. Opinions on this matter are, thus, divided. The following quotes illustrate that:

Respondent 2: *"It can definitely still be in its infancy, but is has to come to an idea… In the second and third meeting, we have to make progress on this - what will it be and what will it look like. Then we will decide whether we will work together or not."*

Respondent 4: *"It doesn't have to be a comprehensive plan… People shouldn't think they have to write a full report first. I'd rather just have them come and see me."*

Respondent 3: *"The problem is that for us it is important that the idea is well-developed."*

About the ownership structure when collaborating with a start-up, especially in the case of bringing in financial assets, the respondents stated that they have no interest in receiving full control of the start-up. They showed no ambition to absorb the start-up into their organization and make the start-up dissolve. When there are no financial resources involved, the start-up would at all times be standing on its own feet, with full control over all its shares.

Respondent 2: *"How do you divide ownership? That is sometimes a point of discussion, but we don't want it all for ourselves."*

Respondent 13: *"We made financial resources available and in return became minority shareholder."*

Respondent 9: *"We would approach start-ups as stand-alone partnerships with full ownership at the start-up."*

Because of the risk governance in a family business, most of the time start-up collaborations will take place on the side of the organization. According to the respondents, it is unlikely that these collaborations will take place at the core of the family business, unless there is a clear overview of the potential risks and they have all been mitigated.

Respondent 5: *"So far, we keep all collaborations outside the core of [company X]. That is risk avoidance… Many things we test there, we apply for our customers here. It is kind of a playground."*

An essential element in the start-up collaboration would be, just as for any other type of collaboration, the mutual benefit. It is all about establishing a collaboration in consultation with both parties entering the relationship. Attention should be given to the interests of the family business, just as much as attention should be given to the requirements of the start-up. The following quotes illustrate this:

Respondent 2: *"It is about the collectivity. If it is just about a bag of money, we won't participate. It is more about collectively delivering added value… It is never just about the sack of money!"*

Respondent 5: *"It has to cut both ways."*

In addition, also the previously mentioned criteria for selecting a collaboration partner hold up when selecting start-ups for a collaborative relationship. There is strong reliance on the gut feeling of the family business and there must be a match on personal level. In addition, the start-up should be able to communicate its idea short and sweet. However, because family businesses have a strong sense of responsibility for the success of their business, have a reputation to uphold and put their own money at stake, they are, as the respondents mention, quite critical when it comes to selecting start-ups. Family business cannot afford to put their finances and, even more, reputation at stake in a shady collaboration. Therefore, they are critical in the decision-making process of finding potential start-up candidates for collaboration.

> Respondent 3: *"The person trumps everything… That holds up globally: every start-up is judged by its team and not by its idea per se. It's about the people, whether they give you confidence."*

> Respondent 5: *"We become more critical in who we will collaborate with. We have a name to uphold… A family business can't just throw money at it, so I believe they are more critical in selecting a start-up."*

4.3 Synthesis of the findings

This study is guided by the central research question *"How can family businesses and start-ups benefit from one another through collaboration in order to enhance innovative capabilities?"*. To provide an answer to that, the findings on the individual parties in the relationship have been presented. However, a collaboration involves bringing together the two participants of the collaborative relationship. Therefore, this sub-section will synthesise the commonalities and differences between the start-up and the family business.

When comparing the family business and the start-up in terms of company culture, the role of innovation and entrepreneurship in the organization and the attitude towards collaboration in innovation, there are a quite a few commonalities, but also some differences that have to be taken into account when bringing the two of them together in a collaborative environment. First of all, the company culture of both types of organization is strongly characterized by its openness and informality. Lines of communication are short and the door is always open. In family businesses, this is referred to as a strong culture of familiness relating to the previously discussed socioemotional wealth. Yet, a difference in their cultural setting and typical characteristics lies in the opportunism in start-ups and the long-term vision of family businesses. Whereas start-ups have a 'go fast, or go die' mentality, diving into all possible opportunities that arise, family businesses tend to be more thoughtful and deliberate in their decision-making process. This may be explained by the long-term vision of a family business, aiming for succession to following generations and their strong sense of reliability for the success of the company. Furthermore, they have a reputation to uphold, making them unwilling to put that at stake by making thoughtless choices. In respect to the required speed of development in a start-up, the possible match with the family business characteristics remains unclear. On the one hand, family businesses are said to have short lines of communication and do not have to account to external shareholders, making start-ups able to communicate directly with the top management level of the organization being more easily able to cut the cord than a corporate would. On the other hand, because family businesses are found to be more careful in their decision-making and are not in it for the short-term win, it might be a mismatch with the start-up in collaboration because it slows down the innovation process.

Considering the innovativeness and entrepreneurial mindset in the organizations, there are some interesting findings. Start-ups consider themselves to be highly innovative and portray an entrepreneurial mindset, as also confirmed by the family businesses. However, whereas family business seem to be extremely innovative, realizing that innovation is required for their long-term success, the perception of the start-up about the innovativeness of a family business is the complete opposite. Start-ups believe family business to be less innovative, sticking to traditional business processes. In addition, family businesses are mostly open minded to innovative ideas from outside firm boundaries. When operating in niche markets, there is less openness in innovation, but the door is always open for ideas. The assumed lack of innovativeness and closed-mindedness of family business is a misunderstanding that causes the value of a family business collaboration in innovation to be underestimated by start-ups. The start-ups that have been involved with family businesses recognize the innovativeness of the family business and especially value the NextGen effect. However, the start-ups who have not been in contact with family businesses perceive them as less innovative and underestimate their potential value in collaboration.

In collaboration in innovation, start-ups in their earliest stages sometimes tend to be rather stubborn, pursuing to develop their innovation independently. However, when they grow and realize there is a lot to learn, they take on an open minded attitude to steering inputs from experienced parties. In collaboration, they do tend to be cautious when it comes to losing control over their product, business or corporate identity. Generally speaking, the family businesses in this research are open to collaboration, but did not show interest in taking over start-ups. They would rather let the start-up develop independently or receive a minority part of the shares when investing financial resources. In addition to the ownership structure when it comes to funding, both start-ups and family businesses display that they have no interest in a purely financial relationship with a collaboration partner. Start-ups look for financial resources that come along with intangible resources, and family businesses enjoy being actively involved in a collaboration to provide advice to the start-up. Therefore, on this matter, the start-ups and the family business seem to match as potential partners.

Diving deeper into the resources in family business-start-up collaboration, family business are able to provide a lot of resources start-ups are looking for. In return, start-ups are a great potential source of new ideas and technologies for a family business. Despite some scepticism of family businesses about the potential commercial value and feasibility of the ideas, they recognize that it is always valuable to have an open vision to the new and refreshing ideas of start-ups. Start-ups believe family business could provide them with access to markets through the established networks, know-how and a reputation of trust. This is indeed confirmed by the family business, but even more, they refer to their humongous amount of experience that has been passed on from generation to generation, starting to be handed over from their early childhood. Whereas start-ups recognize the entrepreneurial mindset in family businesses, they seem to underestimate the value and advantages it can bring them when they can tap into that source of experience.

From the results, it appears that start-ups believe that it is more difficult to acquire funding from a family business because they tend to be more careful with their money, and their decision-making process is thought to slow down the speed of innovation. This seems to relate to their deliberate decision-making and their risk-aversion because of the family fortune and reputation at stake. However, most family businesses are willing to fund when they are convinced about the commercial value of the start-up's idea. It can therefore be argued that because family businesses make more careful and deliberate investment decisions, the likelihood of success will also increase. Nevertheless, some start-ups let the perceived risk-aversion of family business overshadow the value of their resources. In order for a family business to provide funding to a start-up, it is important to them that it is not just about the money. Furthermore, the start-up must be able to pitch the idea in a short and convincing way, setting out the broad lines and prospects of the idea. There is little interest in the small details at the early stages of collaboration.

When establishing a collaboration between a family business and a start-up, for both parties it is extremely important to align the goals and establish mutual benefits. Both parties should be committed to the success of the results of collaborating through a model of shared risk and shared revenue. In the process of establishing this, start-ups perceive family businesses to be a reliable and trustworthy partner, not having a hidden agenda, and could therefore be considered a preferred partner. In selecting collaboration partners, both types of organization seem to have rely on their emotions and their gut feeling. A personal click with the potential partner is a crucial determinant. For start-ups, it is a must that the family business displays its entrepreneurial mindset. For family businesses, the start-up should be convinced about his idea and should be in it for more than just the financial resources. Start-ups should be aware of the selection criteria of a family business and the role of the emotional component in selecting a potential partner when preparing their pitch.

All in all, there are a lot of dynamics influencing the family business-start-up collaboration. The most important differences in collaboration in innovation for a start-up with a family business as compared to a collaboration with a corporate indeed relate to the previously outlined FIBER dimensions of socioemotional wealth (Berrone et al., 2012). Despite the potential pitfalls of family business-start-up collaboration, the general attitude towards it seems to be positive. Yet, the potential value is not fully recognized. As one of the respondents mentioned:

> Respondent 5: *"The core value of a family business is a different way of working than in the corporate world… Start-ups have their own comparative advantages compared to corporates… If you combine these two: the close ties of employees in a family business with the speed of a start-up, you have a kick-ass new company!"*

5. DISCUSSION AND CONCLUSION

The findings relating to the individual parties of the collaboration have been analysed and the findings on start-ups and family business have been brought together into one comprehensive insight. In this section, four industry experts were asked to reflect on the outcomes of the empirical findings to add a critical note to the results and offer a possible explanation for the observed outcomes. In addition, to define the theoretical contribution of this research, the results are summarized and the commonalities and differences to the previously described theories are outlined. Furthermore, the practical contribution for the involved stakeholders of this research are presented. Lastly, the limitations and practical contribution of this research are discussed.

5.1 Industry experts reflecting on the outcomes

To test the viability of the results, professionals from EY were asked to reflect on the empirical results of this research from their perspective as industry experts. Whereas many of the results were recognizable and, in their opinion, made sense, a few findings were noted as remarkable through the eyes of the experts. In this section, the remarkable findings are outlined and are provided with a possible explanation according to the industry experts.

First of all, the industry experts found the focus of start-ups on the non-monetary aspects of collaboration striking. In their opinion, the prior focus of most start-ups is to acquire funding to commercialize their idea. Even though start-ups argue to look for more than financial resources in a collaboration, the industry experts doubt whether the absence of intangible assets would indeed be a deal breaker. A possible explanation for the focus on intangible assets could be the influence of the start-up's environment: all start-up facilitators, programs, incubators and advisors tell start-ups that there is more to acquire from collaboration partners than simply money. Therefore, start-ups strive for that ideal image of a collaboration. The second point that stood out to the experts is that, based on the findings of this research, start-ups tend to underestimate the value of a family business. According to the experts, most start-ups require funding and approach investment funds or corporates to acquire that. However, in order to commercialize their innovation successfully, they must validate their product. Family businesses possess a lot of experience and are often equipped with all requirements to test the idea of a start-up. The feedback from the managing family, who will be around in the workplace on a daily basis, and the possibility to experiment are of crucial value to any start-up. However, when start-ups look for collaboration partners, they often directly turn to the large international players in the market. This idea, again, is fed by accelerator programs. Experts believe that the reason why start-ups do not actively tend to look for collaboration with family businesses could possibly be explained by the seldom participation of family businesses in start-up programs. This causes start-ups to not be aware of the potential of the family business and vice versa. According to the experts, family businesses do not join these programs because start-ups touch upon aspects that are unknown to the family business. Family businesses are considered to be innovative, but rather in an evolving way than a disruptive one. The experts believe they are active in innovation that is adjacent to their current business, whereas start-ups are more keen on radical innovation. Thirdly, the sceptical attitude of family businesses towards providing funding is commonly seen by the experts. Family businesses have a solid ground for being sceptical, since many start-ups develop unsuccessful ideas or consider themselves to be true entrepreneurs where they have not proven anything yet. Therefore, family businesses are found to be critical and tend to select only the ideas that have potential to survive in the long run. In addition, family businesses invest their own money and are, therefore, careful in making investment decisions. Whereas an investment fund could invest in ten start-ups, where one becomes highly successful and the other nine do not make it, the experts note that family businesses aim to invest in that one start-up that will be successful. The industry experts believe that instead of considering this a disadvantage, start-ups should see the value of the selection process in combination with the experience and opportunities for experimenting of a family business when they indeed claim to achieve more than intangible resources.

5.2 Summary of the findings and contribution to existing literature

All in all, there lies an enormous potential value in family business-start-up collaboration. Both parties show an open attitude towards collaboration with either a start-up or a family business and there are quite a few common denominators in both company culture, the characteristics of the collaboration itself and the selection process of a potential partner. However, the perception of both parties about each other is the main barrier to successful collaboration. This research shows that family businesses are hesitant when it comes to collaboration with start-ups to innovate on areas that are unfamiliar to them. On the other hand, start-ups misunderstand and undervalue the resources of a family business. The start-ups who indeed have experience in collaboration with family businesses have a better understanding of the innovativeness of the family business and the value of working with them, such as collaborating with the NextGen of a family business. Therefore, in order for these barriers to be overcome, both parties should be made more aware of the benefits of family business-start-up collaboration and mediating parties should facilitate the interaction between these two types of organization.

This study confirms that there are substantial differences in corporate-start-up collaboration and family business-start-up collaboration. First of all, corporate start-up programs are designed for supporting cohorts of start-ups (Kohler, 2016). These programs all tend to be designed to solve a specific corporate dilemma in terms of either core or non-core innovations. In family business-start-up collaboration, collaboration seems to occur on an individual level. Family businesses in this study are open for innovative ideas of start-ups, but did not show intent to set up full programs for large scale collaboration initiatives yet. Second, the selection process of start-ups is often competitive and the engagement method is standardized based on the program's characteristics (Bruneel et al., 2012; Weiblen & Chesbrough, 2015). In family business-start-up collaboration, the selection process is non-competitive and is not solely based on financial prospects. Even though family businesses must acknowledge the potential value of a start-up's idea to participate in a collaborative relationship, the fundamental criteria in the selection process of a start-up relate to the emotional fit. Also, the guidance of start-ups is far from standardized. Management of the family business displays the desire to be directly and personally involved in the collaboration process with the start-up. Thirdly, corporates are designed to optimize their business processes to achieve the best financial returns, limiting them in the search activities required to identify innovative opportunities (Chesbrough, 2014; Wolcott & Lippitz, 2007). Due to the fact that family businesses achieve a mix of financial and non-financial goals (Davis & Tagiuiri, 1989; Olson et al., 2003; Sharma, 2004; Stafford et al., 1999), there is more freedom in the organization to tap into the possibilities of start-up collaboration to pursue innovation. Family businesses are not held accountable by external shareholders for profits not being maximized at all times. Also, management of the family business expresses its willingness to help start-ups by sharing their life lessons, for the sake of potential business value but even more for the sake of their own pleasure. They understand what it means to build up a business from the ground, and are happy to share their insights with start-ups. Fourthly, in line with this idea, value creation in family businesses is about more than financial value. It is about succession, enjoying the act of entrepreneurship and working in a family-like environment. This research shows that these distinguishing organizational goals influence the dynamics of start-up collaboration, whereas corporates tend to solely focus on optimizing their business processes (Chesbrough, 2014; Wolcott & Lippitz, 2007). In return, the vision of the family business on value creation makes start-ups see family businesses as trustworthy and reliable collaboration partners. In case of corporate-start-up collaboration, there is a significant risk for start-ups to lose control over their own activities and freedom to pivot (Forrest, 1990; Crichton, 2014) because the collaboration is entered with a 'hidden agenda' (Duysters, 1996). The fear of this hidden agenda seems to be a lot less when start-ups collaborate with a family business. Fifthly, in order for a collaboration to be successful, cultural clashes should be managed carefully (Doz, 1987; Weiblen & Chesbrough, 2015). Since this research showed that the organizational culture of the start-up and the family business have many similarities, it might be easier to realise the potential value of the collaboration than in a corporate-start-up collaboration. Lastly, the nature of the resources to be acquired from collaboration for start-ups is different when collaborating with a family business instead of a corporate. Even though literature does not elaborate in detail on the financial resources to be acquired from corporates, this research displayed a strong focus on the intangible resources of a family business. Family businesses are willing to fund, however, because they have a reputation to uphold and invest their 'own' money, they are more thoughtful in the decision making process of providing financial resources to a start-up than a corporate probably would, which is in line with research of Naldi et al. (2007) and Zahra (2005). Based on all these outcomes, this research adds a new dimension to studies in the field of collaboration in innovation.

According to Gomez-Mejia et al. (2010), socioemotional wealth is assumed to influence most key organizational decisions. The results of this research support the idea that among those key organizational decisions are the decisions that relate to start-up collaboration. The dynamics of family business-start-up collaboration are indeed strongly influenced by family businesses aiming to preserve socioemotional wealth. For example, family members pursue active involvement, and thus control, in the start-up collaboration, family members put their company image and reputation high on the agenda and family members highly value interpersonal linkages and emotional bonding. Therefore, socioemotional wealth can be argued to not only be the driver of family businesses aiming to achieve a mix of financial and non-financial goals, but can also be considered the driver of collaboration behaviour. Socioemotional wealth dimensions can be applied to explain the organizational culture, the attitude towards innovation and entrepreneurship and the attitude towards collaboration in innovation. It is also a strong determinant in setting the stage for a successful collaboration and strongly impacts the selection of potential collaboration partners.

Furthermore, this research studies collaboration in innovation from the perspective of both start-ups and family businesses. Whereas a critique on existing research on collaboration in innovation is that it pays attention to just one side of the collaborative relationship, this research incorporates the ideas of both parties into a comprehensive overview bridging the two perspectives. In addition, this research takes into account the entire process of collaboration: from resources to be acquired, to the form of collaboration, its goals and the selection process of a potential partner.

5.3 Practical implications

This study aimed to understand the ways in which start-ups and family businesses could collaborate to enhance their innovative capabilities. Based on the findings, the research provides empirical evidence that family business-start-up collaboration is indeed a valuable source for enhancing innovative capabilities. The results could serve as a stimulus for start-ups to seek collaboration partners in the form of family businesses, and for family businesses to adopt start-up collaboration programs as a source of strategic business development.

There is no universally applicable golden rule for family business-start-up collaboration. Yet, there are some unique factors that this research highlights that should be considered by managers of both family businesses and start-ups. This research helps them understand the benefits they could potentially gain from a collaboration. Also, a set of common misunderstandings on behalf of either the start-up or the family business about the other party are overcome in this research. Furthermore, it provides some basic guidelines to take into account when considering to enter a collaboration. It helps both partners understand some critical success factors that the collaboration should comprise in order to be of value to both parties in the collaborative relationship. Even more, it provides insight in the preferences of the other party, giving organizations a head start on successfully finding suitable collaboration partners.

More specifically, based on the findings of this research, start-ups are advised to look closer into the potential benefit and value of collaborating with a family firm. Especially in the area of acquiring early stage feedback and tapping into the entrepreneurial expertise of the family firm, there is major potential value for start-ups that seems to be underestimated nowadays. Where start-ups tend to immediately turn to the large corporate organizations and extensive start-up programs, this research proves that it is worth it not to overlook the collaboration opportunities with a family business. When advising the family business, even though the value of new ideas and the fresh mind of start-ups is shown to be appreciated, there seems to be a lot more potential in start-ups in out-of-the-box areas for the family business. Start-ups are currently mostly seen as sources of adjacent innovation for the family business, that must fully fit in with the organizational practices. Some family businesses recognized the potential of start-ups in areas that are outside their scope and core business, such as robotics. The family businesses are advised to explore this potential in more detail and identify the organizational areas where the value of start-up collaboration can be exploited.

In addition, the insights this research provides could assist mediating parties, such as EY, in successfully bringing start-ups and family businesses together. Understanding the attitudes, motivations and hesitations of both parties will allow mediators to facilitate an environment where both the start-up and the family business could flourish and the barriers to collaboration could be overcome. When both parties are assisted in formulating their needs and requirements, are assisted in overcoming misunderstandings and are helped to understand the other party better on neutral ground, it is likely to increase the chances of successful collaboration. Furthermore, by understanding the dynamics of family business-start-up collaboration, EY could actively support their family business clientele in identifying the strategic business opportunities that are created by adopting start-up collaboration. EY's experts could assist family businesses in establishing the pre-conditions for a successful collaboration and could exploit EY's professional network in finding potentially suitable candidates for collaboration.

Research institutes, such as the University of Twente, could apply the results of this research as a basis for further research in the area of family business-start-up collaboration. Since the nature of this research is rather exploratory due to the newness of this research area, future research could serve to deepen the insight on specific findings or perspectives of this research. The following section outlines several suggestions for future research opportunities. In addition, research institutes could also serve as a mediating party in bridging the gap between family businesses and start-ups. Possible ways of facilitating the establishment of a family business-start-up network community are through arranging meetings between family business and start-ups or setting up events that brings them together. Even more, family businesses could be invited as guest speakers in entrepreneurship related study courses to create more awareness about the value of a family business among students with high entrepreneurial intent.

5.4 Limitations and future research opportunities

As all research, this study is subject to a number of limitations. The family business sample size consists of mostly relatively small family businesses, classifying as SMEs. The results might differ when studying substantially larger family business. For example, hesitation towards providing funding to start-ups might change as firm size grows and available capital increases. In addition, the full sample consisted of organizations located in the eastern part of the Netherlands, Overijssel with one exception in the province of Gelderland. This region is believed to have a different culture and mentality than the western part of the Netherlands. Therefore, the cultural differences might limit the application of the results to a more national, or even global scale.

Furthermore, this research found a difference in attitude towards collaboration in family businesses when operating in a niche market. This difference should require further attention in future research, aiming to explain the exact nature of this difference in attitude.

The start-ups in this sample explicitly emphasized the importance of intangible assets over financial resources. However, the industry experts highly doubted the validity of this argument in situations where the start-ups are indeed presented with a financial offer. This might indicate a possible social desirability bias. It could be that start-ups nowadays, due to developments in the market, truly look for more than financial resources in a collaboration partner. Yet, it might also be the case that they claim to look for more than money because it is socially undesirable to state to solely pursue financial gain.

Another limitation of this research is the fact that only few organizations in the sample have experience in extensive collaboration with either a start-up or a family business. This might be explained due to the relative newness of this topic. However, taking this into consideration, it makes most results hypothetical and potentially biased. There is a gap between assuming and knowing, making the results subject to prejudicial influences. Longitudinal studies should provide more insight into the actual experienced benefits over time. Furthermore, future research could provide a better understanding of the actual intent of collaboration. According to this research, there is a general open-minded attitude towards collaboration, but the actual intent to collaborate has not been measured. Future research could also shed a light on a possible explanation for the difference between the generally positive attitude towards collaboration and the fact that family business-start-up collaboration does not occur on large scale yet.

A potential area for further investigation is to look into the collaboration opportunities and dynamics between family businesses and start-ups for different types of innovation. This research focuses on innovation in general, but the dynamics and opportunities of collaboration might be different when looking into more specific types of innovation. For example, future research could differentiate between family business-start-up collaboration in radical innovation and in incremental innovation.

Similarly, this research focuses on collaboration in general. However, the intensiveness of this collaboration and the exact understanding of collaboration are not specifically defined. Future research could establish criteria for specific levels of collaboration intensiveness and investigate the dynamics of family business-start-up collaboration along these different levels.

Another potential research area is the value of the mentioned NextGen effect of the family business in relation to start-up collaboration. Respondents referred to the potential of collaborating with the NextGen of a family business in particular. The characteristics of this NextGen and the potential value for start-ups to collaborate with family businesses that have recently handed over their business to the next generation should require further attention.

Lastly, this research implies that family business-start-up collaboration is mostly a form of the outside-in part of the open innovation model, since it is characterized by the activity of expanding the firm’s business practices across organizational boundaries to adopt external knowledge and resources. The respondents indeed formulated the potential value of collaboration in terms of external knowledge and resources that is being brought into their own organization. Nevertheless, there could possibly lie massive potential in family businesses opening up their organizational knowledge base for external collaboration partners, or in this case start-ups, to build upon. The potential of inside-out open innovation through family business-start-up collaboration could therefore be an array for future research.

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8. APPENDIX I

Operationalization for designing interview questions

Interview Start-Ups

Main topic	*Sub-topic*	*Aspect of sub-topic*	*Interview question (English)*	*Interview question (Dutch)*
	General introduction		- Could you please introduce yourself and your organization?	- Zou jij jezelf en de organisatie kort kunnen introduceren?
Company culture and vision	Role of the founders		- Could you elaborate on the founding procedure and the role of the founders within this procedure/ the organization?	- Kun je iets vertellen over het ontstaan van jullie organisatie?
	Company culture		- How would you describe your company culture?	- Hoe zou je de bedrijfscultuur omschrijven?
	Company goals		- What are the most important development/ performance criteria in your organization?	- Wat zijn voor het bedrijf de belangrijkste speerpunten in de ontwikkeling van het bedrijf?
Family business and start-up collaboration in innovation	Role of innovation in the organization		- How do you innovate? - What is your motivation to innovate? - What role does innovation have within your organization? - How do you stimulate innovation among your people? Please illustrate with examples.	- Hoe ziet jullie innovatieproces eruit? - Wat is jullie motivatie om te innoveren? - Welke rol heeft innovatie binnen de organisatie? - Hoe motiveren jullie werknemers om met innovatieve ideeën te komen/ te innoveren? Hoe worden deze binnen de organisatie ontvangen/ uitgewerkt? Illustreer graag met voorbeelden.
	Collaboration in innovation	Attitude towards collaboration in innovation	- What is your vision on collaborating with external partners in innovation? - Do you engage with external partners in your innovation process? - If yes, how does a collaboration look in its current form?	- Wat is jouw visie op samenwerken met externe partners in innovatie? - Werken jullie (in het innovatieproces) samen met externe partijen? - Hoe ziet zo'n samenwerking er in de huidige vorm uit?

		Goals of collaboration in innovation	- What are the goals of collaborating with external partners in innovation?	- Wat is jullie doel van deze samenwerking? Hoe meten jullie dit?
		Form of collaboration in innovation	- What does an ideal collaboration in your opinion incorporate?	- Hoe ziet een samenwerking met een externe partij er in z'n ideale vorm voor jullie uit? (Omvang, intensiviteit, coördinatie, etc.)
	Collaboration in innovation with family business	Goals of collaboration in innovation with family businesses	- What is/ would be a motive/ the motives for your organization to collaborate with family businesses? - How do these motives differ from the motives to collaborate with non-family owned corporates?	- Wat is/ zijn (zouden kunnen zijn) de motieven om met familiebedrijven samen te werken? - Hoe verschillen deze motieven van de motieven om samen te werken met niet-familiebedrijven?
		Form of collaboration in innovation with family businesses	- What aspects of a potential collaborative relationship would be critical determinants for you? - What would an ideal family business collaboration, in your opinion, look like? (e.g. intensiveness of the collaboration, influence on the start-up, ownership structure, etc.)	- Welke aspecten zouden in een potentiële samenwerkingen voor jullie van belang zijn? - Hoe zou zo'n samenwerking er in jullie ogen uitzien? (Intensiviteit, invloed, eigendom van het bedrijf, etc.)
		Barriers towards collaboration in innovation with family businesses	- Are there any barriers towards engaging in a family business collaboration? Please explain. - How could these barriers, in your opinion, be overcome in the future?	- Zijn er drempels om zo'n samenwerking aan te gaan? Zo ja, welke? - Hoe zouden eventuele drempels in jullie ogen verholpen kunnen worden?

Interview Family Business

Main topic	*Sub-topic*	*Aspect of sub-topic*	*Interview question (English)*	*Interview question (Dutch)*
	General introduction		- Could you please introduce yourself and your organization?	- Zou jij jezelf en de organisatie kort kunnen introduceren?
Company culture and vision	Role of the founders		- Could you elaborate on the founding procedure and the role of the family within this procedure/ the organization? - How many generations have been involved in the day-to-day management of the organization? - To what extent have they been involved?	- Kun je iets vertellen over het ontstaan van jullie organisatie?
	Company culture		- How would you describe your company culture? - Could you please elaborate on the role and the influence of the family in current management? - How did the role of the family shape the organization? Could you please illustrate with some examples?	- Hoe zou je de bedrijfscultuur omschrijven?
	Company goals		- What are the most important development/ performance criteria in your organization?	- Wat zijn voor het bedrijf de belangrijkste speerpunten in de ontwikkeling van het bedrijf?
Family business and start-up collaboration in innovation	Role of innovation in the organization		- How do you innovate? - What is your motivation to innovate? - What role does innovation have within your organization? - How do you stimulate innovation among your people? Please illustrate with examples.	- Hoe ziet jullie innovatieproces eruit? - Wat is jullie motivatie om te innoveren? - Welke rol heeft innovatie binnen de organisatie? - Hoe motiveren jullie werknemers om met innovatieve ideeën te komen/ te innoveren? Hoe worden deze binnen de organisatie ontvangen/ uitgewerkt? Illustreer graag met voorbeelden.

	Collaboration in innovation	Attitude towards collaboration in innovation	- What is your vision on collaborating with external partners in innovation? - Do you engage with external partners in your innovation process? - If yes, how does a collaboration look in its current form?	- Wat is jouw visie op samenwerken met externe partners in innovatie? - Werken jullie (in het innovatieproces) samen met externe partijen? - Hoe ziet zo’n samenwerking er in de huidige vorm uit?
		Goals of collaboration in innovation	- What are the goals of collaborating with external partners in innovation?	- Wat is jullie doel van deze samenwerking? Hoe meten jullie dit?
		Form of collaboration in innovation	- What does an ideal collaboration in your opinion incorporate?	- Hoe ziet een samenwerking met een externe partij er in z’n ideale vorm voor jullie uit? (Omvang, intensiviteit, coördinatie, etc.)
	Collaboration in innovation with family business	Goals of collaboration in innovation with family businesses	- What is/ would be a motive/ the motives for your organization to collaborate with start-ups?	- Wat is/ zijn (zouden kunnen zijn) de motieven om met start-ups samen te werken?
		Form of collaboration in innovation with family businesses	- What aspects of a potential collaborative relationship would be critical determinants for you? - What would an ideal start-up collaboration, in your opinion, look like? (e.g. intensiveness of the collaboration, influence on the start-up, ownership structure, etc.)	- Welke aspecten zouden in een potentiële samenwerkingen voor jullie van belang zijn? - Hoe zou zo’n samenwerking er in jullie ogen uitzien? (Intensiviteit, invloed, eigendom van het bedrijf, etc.)
		Barriers towards collaboration in innovation with family businesses	- Are there any barriers towards engaging in a start-up collaboration? Please explain. - How could these barriers, in your opinion, be overcome in the future?	- Zijn er drempels om zo’n samenwerking aan te gaan? Zo ja, welke? - Hoe zouden eventuele drempels in jullie ogen verholpen kunnen worden?

Interview Industry Experts

Main topic	*Sub-topic*	*Aspect of sub-topic*	*Interview question (English)*	*Interview question (Dutch)*
	General introduction		- Could you please introduce yourself and your function?	- Zou jij jezelf en jouw functie kort kunnen introduceren?
Company culture and vision	Company culture		- How would you describe the typical family company/ start-up culture?	- Hoe zou je de bedrijfscultuur van een typisch(e) familiebedrijf/ start-up omschrijven?
	Role of the founders		- What is your view on the role and the influence of the family/ founder in family firm/ start-up management? - (What is your view on the role of the family in shaping the organization? Could you please illustrate with some examples?)	- Wat is jouw blik op de rol van de familie/ oprichter in het management van een typisch(e) familiebedrijf/ start-up? - (Wat is jouw blik op de invloed van meerdere generaties familie in de bedrijfsvoering? Hoe heeft dit het bedrijf ontwikkeld?)
	Company goals		- What are the most important development/ performance criteria for a typical family firm/ start-up?	- Wat zijn voor een typisch(e) familiebedrijf/ start-up de belangrijkste speerpunten in de ontwikkeling van het bedrijf?
Family business and start-up collaboration in innovation	Role of innovation in the organization		- How do you see the role of innovation in family firms/ start-ups? - How do family firms/ start-ups, in your opinion, follow up on innovative ideas? Are they open for input for innovation? Please illustrate with examples.	- Wat is de rol van innovatie binnen familiebedrijven/ start-ups? - Hoe worden, in jouw ogen, innovatieve ideeën binnen een familiebedrijf/ start-up ontvangen/ uitgewerkt? Staat een familiebedrijf/ start-up hier open voor? Illustreer graag met voorbeelden.
	Collaboration in innovation	Attitude towards collaboration in innovation	- What is your vision on family firms'/ start-ups' take on collaborating with external partners in innovation? - What is your view on the establishment of such a collaboration in a family firm/ start-up?	- Hoe kijk jij aan tegen de samenwerking van familiebedrijven/ start-ups met externe innovatie partners? - Hoe kijk jij aan tegen de opzet/ vorming van zo'n samenwerking in familiebedrijven/ start-ups?

		Goals of collaboration in innovation	- What do you see as the typical goals for family firms/ start-ups for collaborating with external partners in innovation?	- Wat zijn, in jouw ogen, de typische doelen van een samenwerking van een familiebedrijf/ start-up met een externe innovatiepartner?
		Form of collaboration in innovation	- What does an ideal collaboration for a family firm/ start-up, in your opinion, incorporate?	- Hoe ziet een samenwerking met een externe partij voor een familiebedrijf/ start-up er, naar jouw mening, in z'n ideale vorm voor jullie uit? (Omvang, intensiviteit, coördinatie, etc.)
	Collaboration in innovation with start-ups/ family business	Goals of collaboration in innovation with start-ups/ family businesses	- What is/ would be, in your opinion, a motive/ the motives for a family firm/ start-up to collaborate with start-ups/ family firms?	- Wat is/ zijn (zouden kunnen zijn), naar jouw mening, de motieven voor een familiebedrijf/ start-up om met start-ups/ familiebedrijven samen te werken?
		Form of collaboration in innovation with start-ups/ family businesses	- What aspects of a potential collaborative relationship would be, in your opinion, critical determinants for a family firm/ start-up for entering a start-up/ family firm collaboration? - What would an ideal start-up/ family firm collaboration for a family firm/ start-up, in your opinion, look like? (e.g. intensiveness of the collaboration, influence on the start-up/ family firm, ownership structure, etc.)	- Welke aspecten zouden, in jouw ogen, in een potentiële samenwerkingen met start-ups/ familiebedrijven voor familiebedrijven/ start-ups van belang zijn? - Hoe zou een samenwerking met een start-up/ familiebedrijf er voor familiebedrijven/ start-ups, in jouw ogen, idealiter uitzien? (Intensiviteit, invloed, eigendom van het bedrijf, etc.)
		Barriers towards collaboration in innovation with start-ups/ family businesses	- Are there, in your opinion, any barriers for family firms/ start-ups towards engaging in a start-up/ family firm collaboration? Please explain. - How could these barriers, in your opinion, be overcome in the future?	- Zijn er naar jouw mening drempels voor familiebedrijven/ start-ups om zo'n start-up/ familiebedrijf samenwerking aan te gaan? Zo ja, welke? - Hoe zouden eventuele drempels in jouw ogen verholpen kunnen worden?

9. APPENDIX II

Code list

Code	Description	Code Group 1	Code Group 2	Code Group 3	Code Group 4
FB_Access to markets	Family businesses have access to markets	Family Business	FB_Resources of family business		
FB_Attitude towards collaboration	The attitude of family businesses towards collaboration	Family Business	FB_Collaboration in innovation		
FB_Coaching of SU	Family businesses' willingness to coach start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_Commitment (of employees)	Commitment of both family members and employees to the organization	Family Business	FB_Unique characteristics of family business		
FB_Company ownership of SU	Family business ownership of start-up in collaboration	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_Conditions for success	Conditions for success of family business-start-up collaboration	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_CSR	CSR behaviour of family business	Family Business	FB_Unique characteristics of family business		
FB_Decision making	Decision making in family business	Family Business	FB_Unique characteristics of family business	FB_Collaboration in innovation	
FB_Dependency on management	Dependency of family business on their management	Family Business	FB_Unique characteristics of family business		
FB_Down to earth mentality	Down to earth mentality in family business	Family Business	FB_Culture of family business		
FB_Employee satisfaction	Importance of employee satisfaction to family business	Family Business	FB_Unique characteristics of family business		
FB_Entrepreneurship	Entrepreneurship in family business	Family Business	FB_Innovation & entrepreneurship in family business		
FB_Familiness	Familiness in the family business	Family Business	FB_Unique characteristics of family business		
FB_FB aim for succession	Family businesses aim for succession	Family Business	FB_Unique characteristics of family business		
FB_FB are substantially different	Family businesses are substantially different from other types of organization	Family Business	FB_Unique characteristics of family business		
FB_Focus on core competency	Family businesses focus on core competency	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Collaboration in innovation	
FB_Goal alignment	Importance of goal alignment in collaboration to the family business	Family Business	FB_Collaboration in innovation		

FB_Goodwill factor	Good will factor of family business	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Unique characteristics of family business
FB_Growth as cornerstone of development	Growth is a cornerstone of family business development	Family Business	FB_Innovation & entrepreneurship in family business	
FB_Gut feeling	Family businesses operate from their gut feeling	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Unique characteristics of family business
FB_Innovation on all firm levels	Innovative ideas in family businesses come from all levels of the organization	Family Business	FB_Innovation & entrepreneurship in family business	
FB_Innovation on management level	Innovative ideas in family businesses come from management	Family Business	FB_Innovation & entrepreneurship in family business	
FB_Innovativeness	Innovativeness of family business	Family Business	FB_Innovation & entrepreneurship in family business	
FB_Interplay family/ business	Interplay of family and business in family businesses	Family Business	FB_Unique characteristics of family business	
FB_Involvement of employees	Involvement of employees in family business	Family Business	FB_Unique characteristics of family business	
FB_Knowledge/ know-how	Possession of knowledge and know-how in family business	Family Business	FB_Resources of family business	
FB_Lack connections with SU	Family businesses lack connections with start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)	
FB_Long-term vision	Family businesses have a long-term vision	Family Business	FB_Unique characteristics of family business	FB_Resources of family business
FB_Management	Management style of family business	Family Business	FB_Unique characteristics of family business	
FB_Mutual benefit of collaboration	Importance of mutual benefit of collaboration to family business	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Collaboration in innovation
FB_Non-financial goals	Family businesses have non-financial goals	Family Business	FB_Unique characteristics of family business	
FB_People oriented	Family businesses are people-oriented	Family Business	FB_Culture of family business	
FB_Reliability and trust	Family businesses are reliable and trustworthy	Family Business	FB_Unique characteristics of family business	
FB_Reputation	Reputation of family businesses	Family Business	FB_Unique characteristics of family business	
FB_Resources	Resources family business could offer start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)	

FB_Responsibility	Sense of responsibility of family members for the success of the family business	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Unique characteristics of family business	
FB_Risk taking	Risk taking in family business	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Unique characteristics of family business	FB_Collaboration in innovation
FB_Risk taking in SU	Risk taking in start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_Scepticism about success/idea of SU	Scepticism about the success or idea of start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_Selection of collaboration partner	Family businesses' selection of a collaboration partner	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Collaboration in innovation	
FB_Short lines of communication	Family businesses have short lines of communication	Family Business	FB_Unique characteristics of family business		
FB_SU are eager	Start-up (employees) are eager to learn	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU as source of new ideas	Start-ups are a source of new ideas	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU as source of new technology	Start-ups are a source of new technology	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU collaboration at side of FB	Collaboration with start-ups occurs on the side of family business	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU development of idea	Development phase of the idea of start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU lack market knowledge	Start-ups lack market knowledge	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU mindset	The value of a start-up mindset	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_SU short-term vision	Start-ups have a short-term vision	Family Business	FB_Opinion on start-up(s) (collaboration)		
FB_Traditional	Family businesses are traditional	Family Business	FB_Unique characteristics of family business		
FB_Underestimated value	The value of family businesses is underestimated	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Unique characteristics of family business	
FB_Willingness to fund	Family businesses' willingness to fund start-ups	Family Business	FB_Opinion on start-up(s) (collaboration)	FB_Collaboration in innovation	

SU_Attitude towards collaboration	The attitude of start-ups towards collaboration	Start-ups	SU_Collaboration in innovation	
SU_Company ownership	Attitude towards company ownership in start-ups	Start-ups	SU_Collaboration in innovation	
SU_Conditions for success	Conditions for success of family business-start-up collaboration	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Creativity	Start-ups stimulate creativity	Start-ups	SU_Culture of start-up	SU_Unique characteristics of start-ups
SU_Decision making in FB	The decision-making process in family businesses	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Dependency on founder	Dependency of start-up on their founder	Start-ups	SU_Unique characteristics of start-ups	
SU_Eagerness	Start-up (employees) are eager to learn	Start-ups	SU_Culture of start-up	SU_Unique characteristics of start-ups
SU_Entrepreneurship	Entrepreneurship in start-ups	Start-ups	SU_Unique characteristics of start-ups	SU_Innovation & entrepreneurship in start-ups
SU_Entrepreneurship in FB	Entrepreneurship in family business	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB aim for succession	Family businesses aim to sustain business for next generations	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB are close-minded	Family businesses are close-minded	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB are emotional	Family businesses are emotional	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB are reliable	Family businesses are reliable	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB are substantially different	Family businesses are substantially different from other types of organization	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB are traditional	Family businesses are traditional	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB attitude towards collaboration	The attitude of family businesses towards collaboration according to start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB have large networks	Family businesses have large networks	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB have short lines of communication	Family businesses have short lines of communication	Start-ups	SU_Opinion on family business(es) (collaboration)	

SU_FB long-term vision	Family businesses have a long-term vision	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB management	Start-ups' attitude towards management style of family business	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB relationships	Family businesses build strong relationships	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB selection of collaboration partner	Family businesses' selection of a collaboration partner according to start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB specialist knowledge	Family businesses have specialist knowledge	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB support product-market fit	Family businesses support start-ups in finding product-market fit	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_FB willingness to fund	Family businesses' willingness to fund start-ups according to start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Flexibility	Start-ups are flexible	Start-ups	SU_Culture of start-up	SU_Unique characteristics of start-ups
SU_Focus on core competency	Start-ups should focus on their core competency	Start-ups	SU_Collaboration in innovation	
SU_Funding	Funding of start-ups (should not be "empty" money)	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Goal alignment	Importance of goal alignment in collaboration	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Informality	Start-ups have an informal company culture	Start-ups	SU_Culture of start-up	
SU_Innovation as cornerstone of development	Innovation is the cornerstone of start-up development	Start-ups	SU_Unique characteristics of start-ups	SU_Innovation & entrepreneurship in start-ups
SU_Innovation on all firm levels	Innovative ideas in start-ups come from all levels in the organization	Start-ups	SU_Innovation & entrepreneurship in start-ups	
SU_Innovation on management level	Innovative ideas in start-ups come from management	Start-ups	SU_Innovation & entrepreneurship in start-ups	
SU_Innovativeness of FB	Innovativeness of family businesses according to start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Lack of experience	Start-ups lack experience	Start-ups	SU_Resources of start-ups	SU_Unique characteristics of start-ups
SU_Lack of reputation	Start-ups lack a reputation of trust	Start-ups	SU_Resources of start-ups	SU_Unique characteristics of start-ups

SU_Lack of resources	Start-ups lack resources	Start-ups	SU_Resources of start-ups	SU_Unique characteristics of start-ups
SU_Large firms have resources	Large organizations have resources	Start-ups	SU_Collaboration in innovation	
SU_Learning from collaboration	Start-ups can learn from collaboration	Start-ups	SU_Collaboration in innovation	
SU_Look for access to data	Start-ups look for access to data	Start-ups	SU_Collaboration in innovation	
SU_Look for access to markets	Start-ups look for access to markets	Start-ups	SU_Collaboration in innovation	
SU_Look for access to networks	Start-ups look for access to networks	Start-ups	SU_Collaboration in innovation	
SU_Look for access to production facilities	Start-ups look for access to production facilities	Start-ups	SU_Collaboration in innovation	
SU_Look for access to technology	Start-ups look for access to technology	Start-ups	SU_Collaboration in innovation	
SU_Look for advice	Start-ups look for advice in a partner	Start-ups	SU_Collaboration in innovation	
SU_Look for best practices	Start-ups look for best practices in a partner	Start-ups	SU_Collaboration in innovation	
SU_Look for experience	Start-ups look for experience in a partner	Start-ups	SU_Collaboration in innovation	
SU_Look for knowledge	Start-ups look for knowledge in a partner	Start-ups	SU_Collaboration in innovation	
SU_Look for reputation	Start-ups look for reputation in a partner	Start-ups	SU_Collaboration in innovation	
SU_Mutual benefit of collaboration	Importance of mutual benefit of collaboration to start-up	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Mutual responsibility in collaboration	Importance of mutual responsibility of collaboration to start-up	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Need for collaboration	Start-ups’ need for collaboration	Start-ups	SU_Collaboration in innovation	
SU_NextGen in FB	Value of the NextGen in family businesses for start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Non-financial goals of FB	Family businesses have non-financial goals	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Open culture	Start-ups have an open culture	Start-ups	SU_Culture of start-up	
SU_Openness for input	Start-ups are open for input from external parties	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Openness in collaboration	Importance of openness in collaboration	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Opportunistic	Start-ups are opportunistic	Start-ups	SU_Culture of start-up	SU_Unique characteristics of start-ups

SU_Overcome differences	Importance of overcoming differences in collaboration	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Passion	Start-up founders/ employees are passionate	Start-ups	SU_Culture of start-up	
SU_Preference for FB	Start-ups' prefer collaboration with family business	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Product-market fit	Start-ups have difficulty finding a product-market fit	Start-ups	SU_Unique characteristics of start-ups	
SU_Reputation of FB	Importance of reputation of family business to start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Respect differences	Respecting differences between family businesses and start-ups	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Result of collaboration	Result of collaboration for start-ups	Start-ups	SU_Collaboration in innovation	
SU_Risk taking	Risk taking in start-ups	Start-ups	SU_Unique characteristics of start-ups	
SU_Risk taking in FB	Risk-taking in family business	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Selection of collaboration partner	Start-ups' selection of a collaboration partner	Start-ups	SU_Collaboration in innovation	SU_Opinion on family business(es) (collaboration)
SU_Speed of development	Speed of development in start-ups	Start-ups	SU_Resources of start-ups	SU_Unique characteristics of start-ups
SU_Spending behaviour	Spending behaviour of start-up	Start-ups	SU_Unique characteristics of start-ups	
SU_Spending behaviour of FB	Spending behaviour of family business	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Think they know it all	Start-ups think they know it all	Start-ups	SU_Collaboration in innovation	SU_Unique characteristics of start-ups
SU_Uncertainty	Start-ups operate in uncertainty	Start-ups	SU_Unique characteristics of start-ups	
SU_Underestimate value of FB	Start-ups underestimate the value of family businesses	Start-ups	SU_Opinion on family business(es) (collaboration)	
SU_Value creation	Value creation in start-ups	Start-ups	SU_Resources of start-ups	SU_Unique characteristics of start-ups
SU_Value of collaboration	Value of collaboration for a start-up	Start-ups	SU_Collaboration in innovation	
SU_Value of collaboration for FB	Value of collaboration with start-ups for family business	Start-ups	SU_Opinion on family business(es) (collaboration)	

SU_Value of collaboration with FB	Value of collaboration with family business	Start-ups	SU_Opinion on family business(es) (collaboration)

10. APPENDIX III

Code overview and chapter structure

Code Overview - Chapter Structure		
Start-ups		
The start-up culture and its unique characteristics		
		SU_Informality
		SU_Open culture
		SU_Flexibility
		SU_Passion
		SU_Eagerness
		SU_Creativity
		SU_Opportunistic
		SU_Uncertainty
		SU_Speed of development
		SU_Risk taking
		SU_Product-market fit
		SU_Think they know it all
		SU_Lack of experience
		SU_Lack of resources
		SU_Lack of reputation
Innovation practices and entrepreneurship in a start-up		
		SU_Innovation as cornerstone of development
		SU_Entrepreneurship
		SU_Innovation on all firm levels
		SU_Innovation on management level
Collaboration in innovation in a start-up		
	Attitude towards collaboration	
		SU_Attitude towards collaboration
		SU_Openness for input
		SU_Need for collaboration
		SU_Result of collaboration
		SU_Value of collaboration
		SU_Think they know it all
	Resources to acquire from collaboration	
		SU_Funding
		SU_Look for access to data
		SU_Look for access to technology
		SU_Look for access to production facilities
		SU_Look for access to markets
		SU_Look for access to networks
		SU_Look for reputation
		SU_Look for advice
		SU_Look for best practices
		SU_Focus on core competency

- SU_Look for experience
- SU_Look for knowledge
- SU_Learning from collaboration

Characteristics of the collaboration

- SU_Company ownership
- SU_Conditions for success
- SU_Goal alignment
- SU_Mutual benefit of collaboration
- SU_Mutual responsibility in collaboration
- SU_Openness in collaboration

Selecting the collaboration partner

- SU_Selection of collaboration partner

Collaboration in innovation with family businesses in a start-up

Differences between family business and non-family business

- SU_FB are substantially different
- SU_FB long-term vision
- SU_FB aim for succession
- SU_Non-financial goals of FB
- SU_FB are traditional
- SU_FB are close-minded
- SU_FB management
- SU_FB are emotional
- SU_Decision making in FB
- SU_FB have short lines of communication

Innovation and entrepreneurship in family businesses

- SU_Innovativeness of FB
- SU_Entrepreneurship in FB

Resources to acquire from a family business

- SU_FB specialist knowledge
- SU_FB support product-market fit
- SU_Reputation of FB
- SU_FB have large networks
- SU_FB relationships
- SU_FB willingness to fund
- SU_Spending behaviour of FB
- SU_Funding
- SU_Risk taking in FB
- SU_Preference for FB

Characteristics of the family business collaboration

- SU_FB long-term vision
- SU_Mutual benefit of collaboration
- SU_Goal alignment
- SU_FB are reliable
- SU_Openness in collaboration
- SU_Company ownership
- SU_Conditions for success
- SU_Mutual responsibility in collaboration

- SU_Value of collaboration with FB
- SU_Selection of collaboration partner
- SU_NextGen in FB

Overcoming barriers

- SU_Respect differences
- SU_Overcome differences

Family businesses

The family business culture and its unique characteristics

- FB_FB are substantially different
- FB_People oriented
- FB_Employee satisfaction
- FB_Down to earth mentality
- FB_Familiness
- FB_Interplay family/ business
- FB_Short lines of communication
- FB_Commitment (of employees)
- FB_Responsibility
- FB_Dependency on management
- FB_Traditional
- FB_Involvement of employees
- FB_Long-term vision
- FB_FB aim for succession
- FB_Reliability and trust
- FB_Goodwill factor
- FB_Reputation
- FB_Non-financial goals
- FB_CSR
- FB_Decision making
- FB_Gut feeling
- FB_Responsibility

Innovation practices and entrepreneurship in a family business

- FB_Growth as cornerstone of development
- FB_Innovativeness
- FB_Innovation on all firm levels
- FB_Innovation on management level
- FB_Entrepreneurship

Collaboration in innovation in a family business

Attitude towards collaboration

- FB_Attitude towards collaboration
- FB_Focus on core competency

Characteristics of the collaboration

- FB_Decision making
- FB_Willingness to fund
- FB_Goal alignment
- FB_Mutual benefit of collaboration
- FB_Risk taking

- Selecting the collaboration partner
  - FB_Selection of collaboration partner
  - FB_Gut feeling

Collaboration in innovation with start-ups in a family business

- Resources to acquire from a start-up
  - FB_SU are eager
  - FB_SU mindset
  - FB_SU as source of new ideas
  - FB_SU as source of new technology
  - FB_Focus on core competency
  - FB_Risk taking in SU
  - FB_Scepticism about success/idea of SU
  - FB_SU short-term vision
- Resources family businesses could provide for a start-up
  - FB_SU lack market knowledge
  - FB_Coaching of SU
  - FB_Resources
  - FB_Willingness to fund
- Characteristics of a start-up collaboration
  - FB_SU development of idea
  - FB_Company ownership of SU
  - FB_Risk taking
  - FB_SU collaboration at side of FB
  - FB_Conditions for success
  - FB_Mutual benefit of collaboration
  - FB_Selection of collaboration partner
  - FB_Gut feeling
  - FB_Goodwill factor
  - FB_Responsibility