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Faculteit Bedrijfseconomische Wetenschappen

master in de handelswetenschappen

Masterthesis

Product innovation in craft family firms

Monica Jaki Audet

Scriptie ingediend tot het behalen van de graad van master in de handelswetenschappen, afstudeerrichting ondernemerschap en management

PROMOTOR :

Prof. dr. dr. Frank LAMBRECHTS

BEGELEIDER :

Mevrouw Nguyen Phuong Anh DUONG



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This master thesis was written during the COVID-19 crisis in 2020. This global health crisis might have had an impact on the (writing) process, the research activities and the research results that are at the basis of this thesis.

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Monica Jaki Audet

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Executive summary

This master thesis discusses innovation in the craft family firms and formulates answers to the following three research questions: "How are families involved in innovations in craft family firms?", "How are the innovations conducted or organized?" and "How do craft family firms use tradition to innovate?". The last question has a sub question that goes as follows: "How do craft family firms store or codify past knowledge?". As far as I know, no research has been done on craft family firms. This paper researched the gaps found in the literature and wanted to confirm certain researches.

Literature suggested that family firms are conservative and committed. It showed us that the innovation process in family firms was categorized as being risk-averse, incremental in its changes and that an open approach was used. The literature, additionally, examined innovation through tradition (ITT-strategy) and we wanted to know how this works in a craft family business. Lastly, there was a gap in the literature about storing and/or retrieving past knowledge.

After the literature study, a qualitative research was conducted. Maene Piano's was used as a case study. Prof. Dr. Dr. Frank Lambrechts suggested this company because it was a leading innovative company in the craft sector. In total, eight people were interviewed. This ranged from family members to non-family members. Employees from different functions were interviewed. This ensured that everyone was represented in the company.

The research showed that knowledge, passion, low decision autonomy, neutral agency costs (no control, but a high family concentration) and functional organization (everyone was allowed to give advice on the project) were all the factors found when discussing family involvement in innovation in a craft family firm. Passion and knowledge were new and important findings.

When it came to the innovation process itself, the research found that the reputation, willingness to be risk taking, low formation, implementing radical changes, using a closed approach (internal knowledge) and a well-defined long-term orientation were important in a craft family firm. Risk taking, making a radical change and using a closed approach in an innovation process contradicted the literature. The craft family firm made it clear that they made calculated risks, but that they still took risks and that these risks let them become the company they are today. Moreover, the company made a radical change in an industry that had not changed since the 19th century. Passion and knowledge were found to be drivers of radical change. Therefore, this company had the perfect attributes to make a radical change. Furthermore, the closed approach should be discussed. The literature discussed that family firms usually use an open approach (external knowledge) towards innovation. Our study found that the craft family firm used a closed approach (internal knowledge).

Lastly, innovation through tradition was examined. The interviewed company had combined tradition with innovation. First of all, the company made sure that past knowledge was shared and understood. Second of all, they used old techniques (dating back to the 19th century) and combined them with modern, new techniques to build a brand-new piano. Digitalized files made sure that the knowledge could be explored and retrieved at any time. They made sure that the product brought out an emotional response and thereby created meaning for the employees, clients and the general public.

At the end of the master thesis, a few recommendations were given. Crafting businesses are widespread. This means that every sector should be considered when studying this field. It would also be interesting to compare a successful craft family firm with an unsuccessful craft family firm. More specifically, why are some companies able to integrate tradition with new technologies when others are not? Do the findings compare to other successful companies?

Another question that should be researched more closely, is the openness of knowledge sharing. Why does this company share its knowledge? Is the company not worried about protecting their new technologies and past knowledge? Which factors contribute to the openness?

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Product innovation in craft family firms

Monica Jaki Audet

Under the supervision of Prof. Dr. Dr. Frank Lambrechts

Abstract

Innovation in family businesses has been extensively researched. However, innovation in craft family firms has not been researched to the best of my knowledge. There could be some work-in-progress or recent publication that we are not aware of. Craft family businesses are different because of the interwoven traditions. This is the reason for our study. Three research questions and one sub question will be answered through the empirical results of the qualitative study. First of all, we looked at family involvement in innovations in craft family firms. The results show that families are involved in a major way through knowledge, passion, low decision autonomy, neutral agency costs and functional organization. Secondly, we looked at how the innovations were conducted or organized. This is through a well-thought-out strategy encouraging change. Reputation, risk taking, low formation, radical change, closed approach and long-term orientation aided in the innovation process. Hereafter, we looked at the way craft family firms use tradition to innovate. Tradition is successfully integrated into the innovation through codified past knowledge. Additionally, we wanted to know how craft family firms store or codify past knowledge. Past knowledge is stored in digitalized files easily accessible to all the employees in the business.

Keywords: innovation, craft, family firms, qualitative research, tradition, knowledge, passion, risk taking, radical change

1. Introduction

In the last few decades, innovation has been a hot topic. When thinking about innovation, new inventions come into mind. However, innovation is not only limited to that definition. According to Thompson (1965, p. 2) innovation is defined as follows: "Innovation is the generation, acceptance and implementation of new ideas, processes products or services."

According to the European Innovation Scoreboard (EIS), Belgium has scored sixth place in 2019. The score was measured using an average of 27 indicators. This is an improvement considering Belgium was in eighth place in 2018 (Publication Office of the European Union, 2018, 2019).

The definition of handicrafts is also needed in this research. Handicraft is a term known by people all over the world. However, the definition of this term is not explicitly

given because everyone defines it in a different way.

The most well-rounded definition is most definitely given by UNESCO/ITC (1997) "Artisanal products are those produced by artisans, either completely by hand, or with the help of hand tools or even by mechanical means, as long as the direct manual contribution of the artisan remains the most substantial component of the finished product. The special nature of the finished products derives from their distinctive features, which can be utilitarian, aesthetic, creative, culturally attached, decorative, functional, traditional, religiously and socially symbolic and significant." (1997, p. 6).

The handicraftsman is important in this definition because his/her knowledge and skills are what make the handicraft. Handicrafts can be classified in a lot of different ways. One source has divided the handicraft sector into these different subcategories: crafts in construction, crafts regarding the maintenance in buildings, production crafts, repair crafts, nutrition crafts, healthcare crafts (tapis plein vzw, 2014).

Belgium has a register for crafting companies. There are three requirements to legally apply. You need to be registered at the "*Kruispuntbank van ondernemingen*" as a natural or legal person who practices one or more activities in a profitable manner. The second condition is that the company cannot have more than twenty employees. Lastly, the firm should be producing, repairing, restoring, or transforming products or providing services. This register makes it easier to know which companies fall into the crafting sector (FOD Economie, 2019).

Lastly, the term family business is important for this thesis. A definition is given

by Chua, Chrisman and Sharma (1999, p. 25). "The family business is a business managed and/or conducted with the intention to pursue and shape the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families."

In Belgium, family enterprises take up more than 75 percent. The percentage of the GDP in Belgium for family businesses is 33 percent (The Family Business Network (FBN) Belgium, 2019).

It is clear that this thesis cannot explore every definition and subcategory in innovation and handicrafts. Therefore, choices will be made in regard to which categories will be studied. First of all, the term innovation will be specified in product innovation. Product innovation consists of a knowledge search and a recombination process by which companies search for knowledge components across multiple domains in an attempt to identify novel combinations (Henderson & Clark, 1990). The choice was made because of the substantial research that has been done in this domain. Processes will also be left aside in this thesis. Furthermore, the term handicrafts will be specified. All the service crafts will not be included.

Lastly, this thesis will focus on a craft family firm in Flanders, Belgium.

This paper will examine product innovation in craft family businesses. Therefore, the study will be answering these following questions: "How are families involved in innovation in craft family firms?", "How are the innovations conducted or organized?" and "How do craft family firms use tradition to innovate?" with the sub question "How do craft family firms store or codify past knowledge?"

In-depth interviews from a case study will aid this research. This method is a qualitative research method where a semi-constructed interview is conducted. The goal is to help us understand how craft families innovate and how the innovation is conducted. More specifically, how craft family firms use tradition to innovate and store past knowledge or codify it. Now that we have defined the most important terms in this thesis, we can start with the literature study.

2. Literature

This literature study will be discussing the different aspects of product innovation in craft family firms. Firstly, we will take a closer look at craft firms. Secondly, we will position family firms. Thereafter, product innovation in family businesses will be discussed. Lastly, Innovation Through Time will be studied. Throughout all of these subjects, these questions will be kept in mind.

- I. How are families involved in innovations in craft family firms?
- II. How are the innovations conducted or organized?
- III. How do craft family firms use tradition to innovate?
 - a) How do craft family firms store or codify past knowledge?

2.1 Craft firms

Within the crafting sector, tradition is a key aspect. As we have already defined this sector in the previous section, we will now take a closer look at what it means to be a crafting business. For craft businesses tradition plays a major role. A nice quote explaining tradition in a company: "Tradition involves accumulation of know-how, symbolic and cultural content, and micro-institutions of

practice handed down across generations and contributing to shaping the identity of individuals, organizations, and territories" (De Massis, Frattini, Kotlar, Petruzzelli, Wright, 2016, p. 95-96).

Hence, innovation is not a word that comes to mind when thinking about the tradition in companies. However, studies show that this is incorrect. An important study confirming this theory was conducted by De Massis *et al.* (2016). They took time into consideration when thinking about innovation. Therefore, inventing "Innovation through time" (ITT). ITT is a new product innovation strategy. This technique will be discussed in detail in another paragraph. However, an important example was given in this study. Baretta, a worldwide gun seller, used their craftsmanship and family love for hunting to make guns. To keep up with the competition, this company innovated (up-to-date technologies) and more importantly kept its traditional craftsmanship. Therefore, after 500 years, they are still making guns and play a major part in the industry. There are many examples of companies all over the world who applied the same practices. They kept their traditional character but kept innovating to keep up with the competition. Basket weavers, beer crafters, high-fashion apparel designers, etc. are just some of the examples that have done this and have succeeded.

2.2 Family firms

Now that we have a better understanding of the crafting industry, we will position family firms. Many crafting firms are also family companies. This can be confirmed by the example given in the previous section. As well as these following craft family firms in Belgium: Europlay, Brewery Dubuisson,

Flanders Fashion Design, Carpentry Vandenbogaerde & Allgro. Baretta is a family firm that started as a crafting family firm. Therefore, we will look at family firms because more research has been done on this subject.

As argued by De Massis *et al.* (2016), long-lasting family firms are successful in product innovation through their ability to leverage tradition and access to past knowledge. There are potential perks for considering outlying knowledge. This includes an enhanced reliability, legitimacy of innovation, diminished risk of retaliation and incorrect application use and uniqueness (Hargadon & Douglas, 2001; Nerkar, 2003).

The exclusion of past knowledge will lead to "recency bias". This means that enterprises give more value to the most recent knowledge and more importantly overlook the possible benefits of past knowledge (De Massis *et al.*, 2016). It is therefore important to not be influenced by this bias when researching product innovation in craft family firms.

Recently, Calabro, Vecchiarini, Gast, Campopiano, De Massis, & Kraus (2019) researched innovation in family firms. Herein more advantages when compared to non-family businesses are given. One of these is that family culture is unique and cannot be easily replicated. Hence, this brings forth competitive advantages (Zahra Hayton, & Salvato, 2004). The family culture also gives a feeling of trust and encourages shared goals (Dibrell & Moeller, 2011). However, there are also a few disadvantages. One of these is the inclination to keeping control (Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson & Moyano-Fuentes, 2007). Another is the aversion of risk (Morris, 1998).

Family firms are typically seen as path depended, conservative and basically less

innovative than non-family firms (Gomez-Mejia *et al.*, 2007). However, different innovation outcomes and behaviors may be found in family firms (Chrisman & Patel, 2012; De Massis *et al.*, in press; Kotlar *et al.*, 2014). Patel & Chrisman (2014) argue that in some instances family enterprises are more innovative than non-family firms. This might for example happen when the firm performance level is below aspiration levels. We assume the same might happen in craft family firms.

2.3 Product innovation process

Now, we shall take a closer look at the product innovation process. De Massis, Di Minin & Frattini (2015) gave us three key aspects to determine how an innovation process in a company might take place. The first one is *strategy*. Two questions are important in this section. Does the firm choose a radical (entirely new product) or incremental (small change on an existing product) innovation? And the second question is: closed (considering internal information) versus open approach (external information)? The second key aspect is *organization*. The two important questions in this section are: a cross-functional team or a functional organization? This means that there is a team made out of the workforce in the company or that everyone in the company is allowed to work on this project besides their other commitments. The other question is: is there a high or low decisional autonomy? The last key aspect is *climate*. Following the last two aspects, it has two questions. Is the company risk taking or not is the first question? Is there a high or low formalization is the last question when it comes to climate. All these three aspects together make the product innovation process. We can now mention that family

firms, in comparison to non-family firms, are more likely to focus on incremental innovation and lean towards external sources for knowledge. This was in regard to the strategy aspect. However, Nieto, Santamaría & Zulima (2015) have researched the agency theory¹. In this theory, they have encountered a contradicting finding. Family-managed firms spend less on research and development and are supposedly less likely to turn to external sources for innovation and technological collaborations. When looking at the organization, we see that it is a functional organization and has a high decisional autonomy. The third and final aspect, the climate, shows us that family firms are risk-averse and they have low formalization (De Massis *et al.*, 2015b). Now that we have a better understanding of family firms, it would be interesting to see how craft family firms differ when asking these questions since there has not been done research into this subject. We assume that the findings will generally overlap. However, a study done by Memili, Eddleston, Kellermanns, Zellweger & Barnett (2010) believes that when a family has high expectations regarding the performance of the company, the CEOs are motivated to pursue more risky endeavors. Additionally, a study shows that a company with more family ownership is prone to take on more risky projects (Lee, Chae, Lee, 2018). Moreover, Poletti-Hughesa and Williams (2019) researched the venturing risk and concluded that family firms take bigger venturing risks than non-family firms do. Thus, we believe that craft family firms might be more risk taking.

¹ It explains how best to organize relationships in which one party (principal) determines the work and which another party (agent) performs or makes decisions on

New product development has extensively been researched. One of these studies has been done by Cassia, De Massis & Pizzurno (2011). They compared different small and medium-sized family firms. Considering craft family firms are usually small, this study will be of use in this paper. The study found that there are five different attributes that may help produce more successful products. The first one is communication among family members, more specifically a high level of communication. The second one is that the company needs a long-term orientation which is pronounced and known by the entire company. The third attribute is a high aspiration for the firm's reputation and a desire to promote the family name. The fourth element is shared family values and the last trait are low agency costs. Low agency costs are due to close observation of the workforce and concentrated ownership (family owners) (Fama & Jensen, 1983). A year later, Cassia *et al.* (2012) did another research. This one looked at family involvement within management when considering non-family and family businesses. They found that the attributes of new product development process are affected by family involvement in management. There are positive and negative managerial factors differentiating non-family and family firms. The positive traits are cohesiveness, commitment and (long-term) time orientation. On the other hand, these attributes are detrimental for family firms: conflict, agency costs and conservativeness of strategic behaviors. Gomez-Mejia, Nunez-Nickel and Gutierrez (2001) suggest that high

behalf of the principal (Jensen and Meckling, 1976; Schroeder *et al.*, 2011)

agency costs occur when the company does not fire incompetent family members. Typically, family firms are different with respect to the entire product innovation process, due to the authority structures, orientation, incentives, behavioral attitudes and idiosyncratic resources (De Massis *et al.*, 2015). We think the same results will be found when comparing small family firms to craft family firms. All of these attributes are just as important in craft family firms and all the detriments will be negative for craft family firms. We do suspect that the craft family company will be more committed. A study done by van Driel, Verloop, van Werven & Dekkers (1997) shows us the importance of commitment in the craft of teaching. Especially when it comes to innovation and making a better system for the students, a commitment was shown as a crucial factor. Thus, it suggests that the craft industry might be more committed.

Bouwen and Fry (1988) gave us an idea about how to approach innovation in a company. If the company can manage the continuity, it will make the process easier. Managing continuity means paying attention to what it is that currently sustains the firm's ability to function. The company needs to know what the core competencies or inherent strengths are. Once they start the process of innovation, these strengths should be considered. This means that a company needs to incorporate tradition and past knowledge in the innovation process. If they fail to incorporate these strengths in the process, there will be resistance. Resistance happens when employees feel threatened and underappreciated. Our research will see if craft family firms are successful in this step of

the process of innovation. A study by Koenig, Kammerlander, & Enders (2013) also looked at continuity in firms after changes were made. They concluded that adaptation aggression can be reduced by family influence and that family firms are quicker to implement adoption decisions and with more endurance.

2.4 ITT

We will now take a closer look at innovation through tradition. This was a study done on innovative family firms. Internalization is the first key capability that the ITT framework needs. It enables the assimilation and sharing of knowledge related to the practices of the corporation or the customs of its territories throughout the enterprise as expressed in the various forms of codified and implicit knowledge used to develop new goods. Reinterpretation is the second key capability. It firstly facilitates the development of new goods to incorporate selected aspects of past knowledge with up-to-date technologies. This was suggested by the suggested capabilities view of Helfat and Peteraf (2003). Secondly, work on temporary innovation research is used to classify the resources from which past knowledge can be explored and retrieved (Messeni Petruzzelli & Albino, 2012). Moreover, organizational studies and knowledge management suggest that when companies internalize past knowledge, it may take different forms, both codified² and tacit³, which feeds the process of product innovation (Cowan, David & Foray, 2000). Finally, the third key is that innovation research indicates that it is possible to generate two different types of product innovation approaches by integrating codified or implicit forms of past

² raw materials, product signs, manufacturing processes

³ basic assumptions and beliefs

knowledge with new technologies: functionality innovation or an innovation of meaning (Veryzer, 1998).

Now that we have seen several researches on family involvement in family firms, mainly on traditional family firms, we can start to think about the possible outcome of our research. De Massis *et al.* (2016) gives us an opportunity in understanding craft family firms and the possibilities. They conducted research on six companies and one of those will be an addition to our research. Sangalli is an haute couture high fashion space in Milan. It is a small family business that uses Milanese hand sewing techniques and combines these with high-tech textiles. Hence, making it a craft family firm. De Massis *et al.* (2016) found that this company used the customs of its territory (ancient hand sewing technique found in the heritage of the Milanese high-fashion tradition). Another discovery was that this company used codified knowledge, in particular the manufacturing process of the old sewing methods, as their past knowledge. By incorporating fiber optics into textiles, Sangalli changed the meaning in high-fashion apparel. This is an example of using past knowledge to lead to important modifications in the meaning of existing products. Innovation through tradition has suggested to us that it is perhaps possible for craft family businesses to apply this strategy. It is up to this research to see if the small craft family businesses can apply the past in a way that is beneficial to the company. The companies should be able to reinterpret tradition. Hence, creating advantages in the competitive market. Only offering a conservative application of past knowledge, without any attempt to adjust to changing market conditions, equals failure. Consequently, this research will find out if the

past has positive effects on crafting family firms.

Additionally, we would like to understand how a craft family firm stores or codifies their past knowledge. Firstly, according to Maggitti, Smith and Katila (2013), a firm can internalize knowledge by creating a sense of cultural proximity between past knowledge and employees ingrained in the company or territorial heritage. This is consistent with De Massis *et al.*'s (2016) findings on the theory of *Innovation Through Tradition*. Secondly, Maggitti *et al.* (2013) state that a firm can internalize such knowledge and recognize the appropriate ways in which it can be processed and retrieved. This section of the definition reinforces De Massis *et al.*'s (2016) findings of reinterpretation. Lastly, Maggitti *et al.* (2013) conclude that they can leverage the stored knowledge by reducing the risk of misinterpretation and wrong application in the product innovation process. The last part of the definition adds on to the theory from De Massis *et al.* (2016). Moreover, it adds the leveraging factor to the theory. Given the fact that we will be considering craft family firms, it would be interesting to see if they store and/or codify knowledge and get the same benefits as suggested by Maggitti *et al.* (2013). We do believe that craft family firms will be able to leverage these benefits even more given the fact that they are craftsmen and are known to spend a fair amount of time on perfecting their craft.

In the following section, we will see a recent, more detailed research that considers the ITT strategy and the craft industry. More specifically considering meaning-creating innovation and ITT. The crafting family firms were chosen because this is a sector where craftsmen are constantly re-evaluating old

traditions and using it as a tool in the design process (Holmquist, 2018). This is important research because it explains how new design processes are done in different crafting businesses, how new meaning is created and lastly, how tradition and novelty can create new meaning and innovation. According to Micheli, Jaina, Goffin, Lemke & Verganti (2012), it is important to emphasize that design should include not only aesthetics, shape and function of products, but also their emotional and symbolic meanings in relation to their contexts. This is important for this study because crafting families are closely linked to tradition and could create more meaning in their products by focussing on incorporating emotion and/or symbolic meanings in their products. Craft-based design approach was defined by Rossi (2013, p. 71) through a definition founded in the 1970s: "Industrial designers attending to production and appropriating the handmade using craft-based strategies have been a persistent thread in critical and conceptual design practice from its origins in the 1970s. The Italian radical design movement is often seen as a key originator of these approaches' attending to production and appropriating the handmade using craft-based strategies have been a persistent thread in critical and conceptual design practice from its origins in the 1970s. The Italian radical design movement is often seen as a key originator of these approaches."

In the context of ITT, this craft-based design approach is relevant as field designers look back through history to discover old traditions and manufacturing as an important research tool in the design process. This study concluded that tradition created new meaning through ITT.

In conclusion, this literature study has

given us a better understanding of the craft family industry and pointed out the importance of innovation and tradition. The research gaps have been identified. Given the fact that craft family firms are small and have a particular nature of business, what do we expect to find? I do believe that the findings will be similar to the findings of traditional family firms. Even though these might work on a bigger scale (this is not always the case), it does not mean that the thought process will be very different when comparing it to the craft family business. Tradition should consequently equal overall positive effects on craft family firms. Perhaps even more positive than the other companies because they rely heavily on the design and techniques of the past. We will see how the family is involved in the innovation and how a company conducts innovation, and if they follow the suggestion from Bouwen and Fry (1988). Tradition is used in craft family firms when innovating, but to what extent? How do they store their past knowledge or codify it? These are the question we can hopefully answer at the end of this research study.

3. Methodology

The method that will be used for this master thesis is the qualitative research method. A definition is given by Strauss and Corbin (1990, p. 17): "Any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification".

Quantitative research leads to an interpretation of the human condition and a perceived circumstance in various ways (Bengtsson, 2016).

Innovation in craft family firms has currently not been studied. Therefore, we will be using grounded theory. This is one of the

most well-known approaches developed by Glaser and Strauss (1967). The goal of this approach is developing (new) theories. The grounded theory method follows a logically consistent set of data collection.

As mentioned in the introduction, this study will make use of a case study. This is used when you want to sketch the overall picture of a phenomenon in its context. A case study has two goals. First of all, understanding the case itself. Additionally, it should be able to be generalized to similar cases or situations. This means it is of the utmost importance to choose a rich case (Baarda *et al.*, 2013).

3.1 Case selection

As mentioned above, choosing the right case study is important. Our thesis promoter, Prof. Dr. Dr. Frank Lambrechts, helped in the search of the perfect candidate. Eventually, we choose the company “Maene Piano’s”. This is a company working in the retail business of pianos, as well as the restoration/building piano business. This makes for an interesting case for a craft family firm. Maene Piano’s was founded in 1938. It is currently in the hands of Frederic and Dominique Maene, while Chris Maene (the father) still helps out daily. The crafting family firm has lasted three generations. It surpassed 80 employees this

year. The reason for choosing this company was simple. They made a revolutionary piano in 2015. For the first time since the 19th century, the straight-strung piano was brought back. They named it the “Chris Maene Straight Strung Piano” since Chris Maene build this innovative piano for the well-known composer Maestro Daniel Barenboim. Maene Piano’s (MP) combined tradition and innovation in an extraordinary way.

We wanted to have a better understanding of this company. Therefore, eight people in this enterprise were interviewed. Two other students had similar master thesis’. We therefore simultaneously questioned all of these eight employees. This ensured that more points of view were given during the interviews. We made sure that we chose employees with different functions. It guaranteed us that we had the opinions of everyone in the company. The ages of our respondents vary from the late twenties to the sixties. We stopped interviewing at the point of saturation. This means that we reached a point where all the questions were answered and no new information was given (Baarda *et al.*, 2013).

Table 1 reflects the eight interviewees. Age and function are also described.

TABLE 1

NAME	AGE	Family	FUNCTION
RESPONDENT 1 (A1)	40-50	No	CEO (Master of Business Administration) since 2012 at Maene Piano’s (MP).
RESPONDENT 2 (A2)	60+	Yes Generation 2	Owner and former CEO, consultant on the Chris Maene Straight Strung Piano and knowledge transferrer. He still has shares in the company.
RESPONDENT 3 (A3)	30-40	Yes Generation 3	Owner MP and Operations Manager. He has been working at MP for 13 years.

TABLE 1 (CONTINUED)			
NAME	AGE	Family	FUNCTION
RESPONDENT 4 (A4)	30-40	Yes Generation 3	Owner MP and workshop Manager. He has been working at MP for 15 years.
RESPONDENT 5 (A5)	40-50	No	Specialist Chris Maene Straight Strung piano.
RESPONDENT 6 (A6)	20-30	No	Workshop (engineering) worker. He has worked at MP since 2014. He works on CAD to draw the measurements of the pianos.
RESPONDENT 7 (A7)	30-40	No	Sales & Marketing Manager. He has worked at MP for 9 years. He is very passionate about pianos.
RESPONDENT 8 (A8)	25-35	No	Restoration worker. He restores the old pianos in the workshop. He started working here when he finished his degree. He always liked working with wood.

3.2 Data collection

The researcher chose to do in-depth interviews. A number of topics of discussion, (whether or not provided by the researcher) were examined in depth so that personal and emotional aspects are often discussed (Baarda *et al.*, 2013).

The interviews were semi-structured. A few questions were written down and were mostly followed. Appendix A shows the interview structure. Maene Piano's is a Dutch-speaking company. The other two researchers also had Dutch master thesis'. Consequently, the interviews were conducted in Dutch. This way everyone could express themselves optimally. It is therefore important to keep in mind that all the quotes given in this master thesis are translated into English. The interviews were held in March and April 2020. Due to COVID-19, we were unable to meet our interviewees face-to-face. Skype was predominately used for these interviews.

3.3 Data analyses

The interviews were all transcribed within the week the interviews were held. This gave us an opportunity to find the gaps in our research study. Our questions were revised after each interview. This concept is the constant comparison (Boeije, 2002). It is usually used when developing a theory through qualitative data. A clear and attentive mindset from the researcher is needed to stay alert for new relevant developments.

To analyze our data, we used coding because this is a core process in the grounded theory method. We followed three different steps to achieve this. First of all, open coding was used in the exploration phase. This meant reading all of the interviews and searching for categories that were relevant for our research. After exploring all these different categories and coding them, we moved on to axial coding. This was the specification phase (Baarda *et al.*, 2013). According to Strauss and Corbin (1998:96) axial coding is: "a set of procedures whereby data are put back together in new ways after open coding, by making connections between categories".

Lastly, we needed to come up with an actual theory or model. This happened in the reduction phase. More specifically, we used selective coding to come up with a theory. This was a deductive activity. We applied a general model to new empirical material (Baarda *et al.*, 2013).

3.4 Enclosing the literature

The next step in this study will be searching for explanations. The findings from the literature study will be compared with the answers from the interviewees. Searching for similarities and differences to create a fundamental theory is the goal (Eisenhardt, 1989). It is important to mention that the company chosen for our research is unique and represents the biggest piano company in Belgium and even in the Netherlands after they took over Ypma Piano's in 2018 and named it Maene Ypma Piano's.

4. Results

Anonymity was not asked by MP. This company was open about their innovative product and were helpful on every front. It immediately set an open and agreeable atmosphere. We used the abbreviation given in *Table 1* to describe the results.

4.1 Family involvement

First of all, we will begin by describing the involvement of the family in the innovation. The most important factor given by the interviewees was knowledge. The quotes on this factor can be found in *Table 2*. A2 has been accumulating knowledge about pianos his entire life. He started out as restoring all kinds of pianos and later started selling and building big name pianos. In 2002, they

became exclusive importers of Steinway & Sons in Belgium. This is the world's top tier piano. His knowledge of historical pianos (and his collection of historical pianos) aided him in successfully building a modern straight strung piano. Straight strung pianos already existed. However, no one has used this technique in almost 200 years. MP had to compete with modern pianos and thus had to get rid of all the problems that came with a straight strung piano. He shared all of his knowledge with his employees and even started working on digitalizing files so that everyone in his company can access these whenever they need the files. The innovation would have never happened, if not for the extensive knowledge from A2. This makes knowledge the first factor of family involvement. The literature finds that knowledge sharing is an important step for innovating through tradition.

Passion is the second factor of involvement. All the interviewees mentioned that they were passionate about working on the project. It was exciting to work on a new product and they knew it would have a big impact on the piano industry. A1 also mentioned that experience did not guarantee a job position at PM. A potential employee needs to be passionate about working for PM. This was seen throughout the interviews. The passion made sure everyone was committed to the innovation and wanted it to succeed. The family especially wanted to work on and see this project succeed. A commitment was found in the literature to be a positive trait for the managerial team. This corresponds to our findings.

The third factor that ensured family involvement was decision autonomy. Throughout the interview, it was made clear that everyone in the company had a voice. A1

and A7 mentioned they had a horizontal structure in their company. The CEO is on top in their organizational chart and the five managers are all equally in second place. Two out of the five are the owners of MP. All the interviewees made it clear that everyone is approachable in the company. The seven top tier employees make all the decisions. They come together every week and discuss important matters. When it comes to the innovation, most of the decisions were made by A2. This was directly linked to the fact that he had all the knowledge about historical instruments. These days, all the instruments are made the same and are cross-strung. A2 was the only one who knew where to even start on this project. He also came up with the idea. However, A2 made sure to involve all of the workshop workers and asked for advice and input. So, to conclude, in this particular case the company had to work with a lower decision autonomy. However, keep in mind that the company itself has a high level of decision autonomy. Unfortunately, this is inconsistent with the literature found on family firm innovation processes. This is due to the amount of knowledge needed for this particular innovation in the crafting firm.

The next factor on family involvement is the agency costs. A firm acquires high agency costs when they monitor and control their employees. A2 mentioned that he had a team he trusted to work on the innovation. He knew their skills were excellent for the

innovation. Moreover, concentrated ownership should be examined. Now, it is a fact that A2 has let go of a lot of control during the last few years and his two sons have taken ownership of the company. Furthermore, they have an external advisor Baron Hugo Vandamme and in 2012 a non-family CEO was appointed, Stefan Vanfleteren. On the innovation project, we found that this company has low agency costs because of the concentrated ownership and high agency cost for not monitoring closely. This means that they have neutral agency costs. According to the literature, family firms have low agency costs because they monitor their employees closely and have concentrated ownership.

The last factor mentioned for the family involvement is the functional organization. The team working on the Chris Maene straight strung piano were all employees who already worked in the company. When it was decided to start their project, employees were assigned to start working on it. This meant that the company had fewer workers for restoration in the workshop. Restoration orders were put on hold. Thus, this company worked with a functional team. This entails that employees were allowed to aid in the innovation process. A2 asked different employees questions and if someone wanted to talk about or work on the project, they were allowed to do this. This is consistent with the literature of family firms.

TABLE 2

FAMILY INVOLVEMENT	Quotes
KNOWLEDGE	"I have an extensive historical collection" (A2) "The knowledge was passed down from my father" (A2)
	"We are actually the first innovation since Steinway crossed the strings at the end of the 19th century." (A7)

TABLE 2
(CONTINUED)

FAMILY INVOLVEMENT	Quotes
PASSION	"That all profits go back to the company and our passion." (A4)
	"This way we can quickly detect who has that passion for music." (A1)
	"That you work physically, with a passion for a product." (A8)
	"People who are very happy to share that passion with anyone who is also interested in it." (A7)
LOW DECISION AUTONOMY	"Then I decided that I wanted to take everything on myself, and then for the whole design of the piano, because I knew that I had the most knowledge and that I have always been most involved in this theme." (A2)
NEUTRAL AGENCY COSTS	A2 about his team for the innovation: I had a great team behind me who had the right skills. A3 about external advisor: You should always be surrounded by people who are smarter than you are.
FUNCTIONAL ORGANISATION	Talking about the initial team: Chris and his son Frederic Maene. Gregoir who was still graduating at the time. In addition, other workshop workers have also been involved in this step. (A1)

4.2 Innovation process

In this section, we will be taking a closer look at the process of the innovation. First of all, we will talk about the reputation of PM and how this innovation came to be. The quotes on the different factors can be found in *Table 3*. Piano's Maene was founded 82 years ago. During this time, they have made a name for themselves. Their reputation is important. This was confirmed by the interviewees. It was also the reason for the innovation. Maestro Daniel Barenboim bought the first piano (and even the second) before it was built. He wanted a straight strung piano and MP was willing and has been wanting to build this piano for a long time. Afterward, Maestro DB used the Chris Maene piano during his concerts and this way they had free publicity. A high aspiration for the firm's reputation and

a desire to promote the family name was found to help in producing successful products in family firms. PM did this very well.

The second factor is risk taking. When we asked the respondents about their risks, two interviewees answered that MP takes calculated risks. A7 and A1 mentioned this. Building a new piano and taking over a big company in another country was risky. Opening a shop in Brussels was mentioned as being a risk by A2. Family firms fall under the risk-averse according to many researches. A4 mentioned that this crafting family firm chose to make risky choices and they have come on top because of these choices. Trust, experience and age have contributed to these choices were mentioned by A2.

We can say that this finding corresponds with our assumption on craft family firms (being risk taking). It does also

contradict other literature on family firms being risk-averse.

The next factor that influences the innovation process is about the formation. MP has a low formation. This means that they were very flexible when it came to the innovation process. Trial and error was common in this process. They made their own soundboard, and they needed a new frame. This implies that they needed to find a way to make the innovation work and sound right and make their own measurements for the frame. A low formation is also found in the literature when it comes to family firms.

The interviewees explained that pianos on themselves cannot be radically changed. This is backed up by the fact that there have been no changes in the standard cross-strung piano since the 19th century. Straight strung pianos already existed as was mentioned above. The technique, however, has not been used in almost 200 years. MP had to adjust the historical piano to modern day standards. It was difficult to figure out what worked and what did not work. Trial and error was mentioned by A2. All the interviewees considered this a radical change of the product. The reason for the radical change was A2's dream of building a straight-strung piano (he had already built a cross-strung piano in his lifetime and wanted to build a straight-strung piano as well). This is already a contradiction in the literature. Family firms generally only incrementally change their products. However, this can be explained in this instance. MP is a company that has two main incomes. First of all, the sales coming in through selling the different pianos they are exclusive importers for (e.g. Steinway & Sons) and other big-name companies (e.g. Yamaha). Secondly, they have their own workshop where they do

repairs. This made sure that they could spend time on a product because they had a workshop to start building and, in the meantime, keep selling in the shops. Most other craft businesses are small and do not have a place for building products. Additionally, the family involvement through passion and knowledge might be drivers of radical innovation change.

The next factor we will be discussing is the approach used for the innovation. MP used a mostly closed approach. This means that they used internal knowledge to succeed in their product making. A2 has a lot of knowledge because he has spent his entire life learning about and restoring pianos. He had a collection of pianos and heavily relied on his knowledge. A1 did mention that they had outside help for a few components on the piano.

"In a piano there is an iron cast frame. We have fully designed that but, we don't have the tools in the company to work with iron cast. Then you have to see which companies you can work with."

A2 also mentioned that he did ask advice from a few of his contacts. However, the vast majority of knowledge for this innovation came from A2. The literature found that a family firm typically uses an open approach. We found that this crafting family firm predominantly used a closed approach.

The last factor we will be discussing when regarding the innovation is a long-term orientation. To get to the innovation stage, the family firm made sure to regularly consider their long-term goals. The employees working in MP are updated on a yearly basis (2 times a year) about all of the goals the company wants to achieve in the next six months. This openness makes sure that all the employees in the company feel like they are on the same

line. The company tries to keep up with changes and understands the importance of setting long term goals. A long-term

orientation was found in the literature to be a success factor in an innovation process.

TABLE 3

FACTORS INNOVATION PROCESS	Quotes
REPUTATION	<p>"I think it is very important that there are still Maenes in the company. This is not only for the workshop, but also for the sale of pianos. It gives people some reassurance. Certainly, also to the staff, it is very important that there are Maenes walking around who try to maintain the horizontal structure." (A3)</p>
	<p>"The reputation is very important. That is why the customer is still very important to us. Sometimes we also have third generation who come to buy pianos." (A1)</p>
RISK TAKING	<p>"It was an important and major risky step to invest in a building and do everything there. By taking that step, we have also become importer of Steinway and Sons. Every company naturally takes risks. Doing business is taking risks. I think we are taking sufficiently <u>calculated risks.</u>" (A1)</p> <p>"I think we are taking risks and that our company has grown so much because we took risks." (A4)</p> <p>"We take calculated risks." (A3)</p>
LOW FORMATION	<p>"Very casual. Now, I think it is all related to the corporate culture." (A1)</p> <p>A2 talking about the company structure: By splitting everything up everything became much simpler, and we see that those groups are much stronger.</p>
RADICAL CHANGE	<p>"Indeed, the model of soundboard that we now make for the straight-stung instruments is completely new and innovative in that area... Because no one else has come up with the idea, or has taken the initiative to go further down that track. And really make a complete modern piano with modern mechanics, modern means, modern techniques. But still on the basic idea from a long time ago." (A8)</p> <p>"We are innovative within a great tradition and that is very innovative with regard to the piano world and the classical music world are pre-eminently rigid worlds, very traditional and conservative." (A7)</p>
	<p>"Because I wanted to make something like this (the straight strung piano) my entire life." (A2)</p>

TABLE 3
(CONTINUED)

FACTORS INNOVATION PROCESS	Quotes
CLOSED APPROACH	<p>“We always try to have a lot of in-house knowledge, also in the retail field. We also do everything in-house with regard to marketing. We do everything ourselves. But very occasionally there are things that you cannot do yourself, and then you have to get inspiration from a trusted partner.” (A1)</p> <p>“Sometimes people ask me how I know so much about pianos. Because I know a lot about the instruments, but also about the way the market works. And I must admit that it has to do with my age and all the experience that I have gained. And in the piano industry it is really a story of “us knows us”.” (A2)</p>
LONG-TERM ORIENTATION	<p>“We draw up strategic plans every 5 years.” (A1)</p>

4.3 Tradition & past knowledge storing

In this last section, we will be discussing the tradition and past knowledge used in the innovation of MP. Knowledge has been mentioned in this master thesis on multiple occasions. In this section, we will explain how the past knowledge was used to come to such a successful innovation. Respondent 2 mentioned that he never had secrets from his employees. He shared all of his knowledge with them so that they could work on restoring and building the pianos. Respondent 8 mentioned that knowledge means nothing if you do not have someone who can interpret it correctly. After some years, the employees created implicit knowledge and did not have to ask their employer how to do some restoration works. Respondent 8 talking about his implicit knowledge:

“That is something that I notice that has gone a lot faster over the years. That I started working on something with just a ‘feeling’ about how it is supposed to be.”

The past knowledge from respondent 2 was crucial in successfully completing the innovation. The knowledge was passed down from his own father and during his life, he kept collecting old pianos. Respondent 2 on starting the innovation process:

“Beforehand, I had also measured a lot of measurements with the historical collection I have, including old concert wings.”

Without his historical collection and passion, the innovation would have been a tedious challenge.

The innovation worked because they combined old techniques with modern technologies. Respondent 2 about their innovation combining old techniques and modern techniques:

“What we have done, is bringing back the old into the new. It's not just about putting the strings straight in the case of a modern piano today. That would not have had the same effect. We re-examined the soundboard, the position of the wood and what influence it has.

The vibrations are 4 times faster in the length of the wood than in the width. This is applied all the time in our instruments. Solid wood was the only wood used. This is not done with other pianos because it is expensive”.

Through trial and error, they learned which old techniques were usable and which ones they had to modernize to keep up with modern standards. Interviewee 2 has started writing down all of his knowledge in digitalized files so that everyone in the company can check if they are unsure about something in the process. He did this because there were still some employees who asked him questions that were specific and should have been known. For example: which drill to use when making the holes for the piano bridge.

All of these factors assured that the tradition from MP combined with innovation was a success. They made sure that the past knowledge was correctly used, shared and was easily accessible to anyone in the company. Furthermore, innovative techniques were used to make sure that the piano was a premium product. Respondent 7:

“And to radiate premium, craftsmanship is very important, because you also remain accessible.”

The findings from this craft family firm conform to the literature on innovation through tradition and prove that this strategy is indeed successful.

5. Discussion

Multiple studies have been done on innovation in family businesses. However, craft family firms have not been researched, to the best of my knowledge. This is the reason why this study has been conducted.

Family firms are often path depended, conservative and less innovative according to Gomez-Mejia *et al.* (2007). Patel & Chrisman

(2014) found contradicting evidence on the innovation part. Now that we have researched a craft family firm, we are inclined to side with Patel and Chrisman. MP has been an innovative company in its sector. There was even said that they are already working on another project. This project was not discussed. If this company had stayed conservative and path depended, they would have never become the biggest piano company in Belgium and the Netherlands. For companies to keep up with the ever-changing world, they will have to think outside the box.

Research by Gomez-Mejia *et al.* (2001) and Cassia *et al.* (2011;2012) indicates that family firms should have certain attributes to be successful and unsuccessful in an innovation process. MP is a company that ticked off all the boxes. They made sure to amplify all the positives and minimized all the negatives. Firstly, the three factors (passion, knowledge and neutral agency costs) will be examined in regard to family involvement in innovation. Hereafter, the two factors (reputation and long-term goals) given in the innovation process will be looked at.

Through their shared passion for pianos and music, they became a strong business. The knowledge from the former CEO made sure that they had a strong background on the innovation and more importantly, that they came out with a legitimate and reliable product in the eyes of the public (theory from Hargadon & Douglas, 2001; Nerkar, 2003). Having neutral agency costs guaranteed fresh perspectives and ‘peace of mind’ in the company. On the other hand, employing the right employees made sure that there was less conflict. The employees who could not handle changes (innovation and business culture) left the company so that the most well-fitted employees worked for MP.

Mistakes happen when companies only rely on theories and do not take into consideration that some products have to be made by trial and error.

Their reputation made sure that they had the funds and clientele for the product. Lastly, the long-term orientation made sure that they were on top of innovation and knew when to make these changes.

Overall, this company made the right decisions when it comes to these five factors.

The study from De Massis *et al.* (2015) showed us the different key factors in the innovation process of family firms. Our study has shown a few differences. Generally, family firms rely on external information (open approach). However, Nieto *et al.* (2015) found contradicting conclusions when it came to innovation. According to our findings, MP heavily relied on the passed down knowledge from A2. Thus, craft family firms are more internally focused and our findings are in line with Nieto *et al.*'s findings of the approach.

The second difference is that our company made radical changes in their product instead of incremental changes. As was explained, the piano business has not changed in the last 200 years. The cross-strung piano has been used for this period in all pianos. MP was presented with an opportunity to chase their dream and work together with a great composer. They developed a new soundboard, had to figure out how to get rid of the problems a straight-strung piano had and furthermore, figure out how to make a frame for a straight-strung piano. The piano business has seen a radical change in their instrument for the first time in two centuries. Koenig *et al.* mentioned that family firms are quicker to implement these changes and we see that this family firm was indeed quicker to innovate in the entire piano

business. They were able to radically change their product because of the workshop and workshop workers. Moreover, the sales department could still keep going during the innovation process, this made the change possible. MP had the opportunity, stability, passion and knowledge to make these changes on the piano. An important link can be found in this section. The important family involvement drivers (knowledge and passion) could be directly linked to radical change. It was proven by Strese, Keller, Flatten & Brettel (2018) that passion is a driver for radical change. Knowledge was an important factor when innovating in incremental or radical change according to Braganza (2002). This means that these theories could apply in our case as well.

The last difference to family businesses is the risk taking. De Massis *et al.*'s (2015) study found that family firms are risk-averse. However, Memili *et al.* (2010) found that CEOs are willing to make more risky decisions when the family's expectations for performance are high. Moreover, Lee *et al.* (2018) and Poletti-Hughesa & Williams (2019) discovered that more family ownership made firms more risk taking and that family-owned businesses are bigger venture risk takers. Our study found that the business was risk taking. However, it must be mentioned that they made calculated risks. Calculated risks lean towards risk taking instead of risk-averse companies. A study done by March and Shapira (1987) found that managers portray themselves as judicious risk takers and are willing to take calculated risks to achieve their goals. This is in line with our discovery on a risk taking company.

To conclude, our study found that three out of the six factors in the key factor scheme of De Massis *et al.* (2015) were found

to be different. Risk taking, radical change and a closed approach.

We had assumed that a craft family firm might be more committed and this was right. Van Driel *et al.* (1997) proved that commitment in the craft sector leads to better innovations. A2 trusted his workers to aid him in building the innovative piano. He knew all of his employees were committed to making this innovation project work. This made the commitment to the project and the passion to work on the piano grow.

Lastly, we will be discussing the theory De Massis *et al.* (2016) gave for innovation through tradition. Internalization was the first key capability. MP succeeded in this one. They made sure that the knowledge was shared and understood in the company. A2 did this through teaching his restorers all he knew about historical pianos. A8 had also mentioned that knowledge can be found by anyone. However, you need someone who can interpret the knowledge. A2 shared his codified and implicit knowledge.

The second key capability was reinterpretation. There were two phases in this key. First of all, they had to combine past techniques and new technology (Helfat and Peteraf, 2003). MP did this as well. They used old techniques from 200 years ago and combined them with modern techniques. These old techniques were expensive and labor-intensive. This made sure they had a premium product. Secondly, past knowledge should be able to be explored and retrieved (Messeni Petruzzelli & Albino, 2012). A2 made digitalized files so that all his employees were able to access the knowledge.

The third and last key capability was the possibility to generate two different types of product innovation approaches by integrating codified or implicit forms of past

knowledge with new technologies: functionality innovation or innovation of meaning (Veryzer, 1998). MP succeeded in this phase as well. They made sure that their innovation had meaning in the industry for the employees, clients and all other shareholders. The innovation was well-received as a premium product.

The last part we want to discuss is the meaning-innovation and ITT. Micheli *et al.* (2012) had found that it was important to incorporate emotion or symbolic meaning in your product. MP has succeeded in creating a meaningful product. Emotional value is created through the old straight strung technique and by the music it produces. It will be a symbolic product for many generations to come due to the integration of the old and new.

6. Recommendations and limitations

This master thesis gives us the change to give advice on innovation in craft family firms.

1. More companies should consider taking risks to further their businesses.
2. Companies should consider change as a positive and not a negative. In their products, but also in their work culture.
3. Craft family firms should consider tradition and past knowledge when innovating.
 - a. Craft family businesses are indeed able to integrate tradition with modern technology to innovate.
4. Exploration and retrieval of knowledge in the company are positive.

More research should be done on crafting family firms to better understand innovation

in this field. Crafting businesses are widespread. This means that every sector should be considered when studying this field. It would also be interesting to compare a successful craft family firm with an unsuccessful craft family firm. More specifically, why are some companies able to integrate tradition with new technologies when others are not? Do the findings compare to other successful companies?

Another question that should be researched more closely, is the openness of knowledge sharing. Why does this company share its knowledge? Is the company not worried about protecting their new technologies and past knowledge? Which factors contribute to the openness?

There are two major limitations in this study. First of all, as mentioned above, this research was done in the music industry. Other industries might not give the same results. Secondly, this company was the head runner in its industry. It is very important to keep in mind that MP is a company that went beyond the expectations and created a product no one in his industry has thought about. Thus, all of the results of this study should be seen as a guideline for other craft family businesses. This is not the norm.

7. Conclusion

This master thesis started out wanting answers to three questions and one sub question.

- I. How are families involved in innovations in craft family firms?
- II. How are the innovations conducted or organized?
- III. How do craft family firms use tradition to innovate?
 - a) How do craft family firms store or codify past knowledge?

We have managed to find answers to all of these questions. First of all, through passion, knowledge, low decision autonomy, neutral agency costs and functional organization MP has successfully involved the family in innovations in craft family firms. Secondly, MP conducted a well-performing strategy to implement their innovation. They made sure they had a good reputation; they took risks and furthered their competitive position. They had a low formation, made radical changes that were driven by passion and knowledge. They used a closed approach and they had long-term goals. Thirdly, MP used tradition and past knowledge successfully. They made sure to incorporate the old techniques effectively. They stored the past knowledge in digitalized files and in historical collections passed on from former generations.

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9. Appendix A: Interview Guide

A.1 Interview introduction

We are three students at the Hasselt University. We are conducting a research on the innovation of crafting family firms. Your company is a well-known innovative crafting family firm in Belgium. It is an honor to be able to interview your company. Thank you for your collaboration and time. We would like to ask you if it is alright to record this interview.

A.1.1 Interview questions

The following questions were made from three different master thesis'. Therefore, not all of these questions were used for this master thesis. For full disclosure, all the questions will be listed on the next page.

<p>Introductie</p> <ul style="list-style-type: none"> • Kan u uzelf even voorstellen? <ul style="list-style-type: none"> ○ Wat is uw rol in het bedrijf? ○ Hoelang werkt u al in het bedrijf? ○ Hoe bent u in het bedrijf terecht gekomen? • Kan u beknopt de geschiedenis van het bedrijf schetsen? <ul style="list-style-type: none"> ○ Hoeveel medewerkers/omzet/filialen/...heeft het bedrijf? ○ Hoe zijn jullie medewerkers verdeeld? <ul style="list-style-type: none"> ▪ Man/vrouw ▪ Bediende/arbeiders/ambachtslieden • Ambacht <ul style="list-style-type: none"> ○ Wat verstaat u onder ambacht? ○ Kan u de ambachtelijke sector in Vlaanderen schetsen? 	<p>Introduction</p> <ul style="list-style-type: none"> • Can you introduce yourself? <ul style="list-style-type: none"> ○ Which role do you have? ○ How long have you worked here? ○ How did you end up working for this company? • Can you briefly outline the history of the company? <ul style="list-style-type: none"> ○ How many employees, revenue, affiliates? ○ Division of employees? <ul style="list-style-type: none"> Man/woman Clerk, workman • Craft <ul style="list-style-type: none"> ○ How do you define craft? ○ Can you sketch the craft sector in Flanders?
<p>Bedrijfsstructuur en bedrijfscultuur</p> <ul style="list-style-type: none"> • Wat zijn jullie kernsterktes/corebusiness? Wat maakt jullie uniek? • Wat zijn de doelstellingen van uw bedrijf? <ul style="list-style-type: none"> ○ In welke maten zijn de doelstellingen bekend voor iedereen in het bedrijf? • Wat zijn de overheersende waarde (familiale?) en normen in uw bedrijf? <ul style="list-style-type: none"> ○ Welke elementen worden als heilig beschouwd? • Hoe is de werkcultuur, formeel-informeel, van jullie bedrijf ten opzichte van... <ul style="list-style-type: none"> ○ Klederdracht ○ Communicatie ○ Hiërarchie ○ Relaties binnen het bedrijf? • Wat is de hiërarchie binnen het bedrijf <u>tijdens het beslissingsproces</u>? • In welke mate neemt jullie bedrijf risico's? <ul style="list-style-type: none"> ○ Wat is een risicovolle beslissing volgens u? ○ Hoe wordt dit beslist? (Medebeslissingsrecht? Familie of WN's?) ○ Door wie? • Waren de werknemers genoeg betrokken, communiceerden jullie het goed in het bedrijf? • Welk belang speelt reputatie (familienaam) in jullie bedrijf? 	<p>Company structure and culture</p> <ul style="list-style-type: none"> • What are your core strengths / core business? What makes you unique? • What are the objectives of your company? <ul style="list-style-type: none"> ○ In what capacities are the objectives known to everyone in the company? • What are the predominant values (family?) And standards in your company? <ul style="list-style-type: none"> ○ Which elements are considered sacred?) • What is the working culture, formal-informal, of your company compared to ...? <ul style="list-style-type: none"> ○ National costumes ○ Communication ○ Hierarchy ○ Relations within the company? • What is the hierarchy within the company during the decision-making process? • To what extent does your company take risks? <ul style="list-style-type: none"> ○ What do you think is a risky decision? ○ How is this decided? (Co-decision right? Family or workers?) ○ By whom? • Were the employees sufficiently involved, did you communicate well in the company? • What importance does reputation (family name) play in your company?

Innovatie "the Straight Strung Grand Piano"	Innovation "the Straight Strung Grand Piano"
<p>Innovatieproces</p> <ul style="list-style-type: none"> • Van wie kwam het idee om een nieuw type pianovleugel te ontwikkelen? <ul style="list-style-type: none"> ○ Wie gaf de aanzet dit idee verder uit te werken? ○ Werd hier lang over vergaderd? ○ Hoe en waar is het idee van de nieuwe piano ontstaan? • Wie nam de beslissingen i.v.m. dit project? • Beschrijf de bereidheid tot verandering binnen jullie bedrijf? <ul style="list-style-type: none"> ○ Hoe reageren de werknemers op verandering? ○ Ervaart u dat de medewerkers zich risico-avers opstellen tegenover veranderingen? • Hoe zou u het proces beschrijven in mate van verandering? <ul style="list-style-type: none"> ○ Hebben jullie eerder kleine of grote veranderingen gemaakt? Zijn jullie begonnen met kleine veranderingen of direct een complete verandering (grote sprong) gemaakt? ○ Hebben jullie al eerder zo een proces meegemaakt (grote of kleine verandering?)? ○ Maken jullie nog steeds veranderingen aan het product? • Wat was de eerste stap binnen het ontwikkelingsproces? <ul style="list-style-type: none"> ○ Hoe verliep deze fase? ○ Wie nam hieraan deel? (Externen?) <ul style="list-style-type: none"> ▪ Mensen uit verschillende afdelingen? ▪ Externen? ▪ Hoe werd de dagelijkse werking voortgezet? ▪ Wat was ieders rol? ○ Hoe werd dit aangepakt? Wat waren de valkuilen binnen de eerste fase? Wat zorgde ervoor dat deze fase goed verliep? • Hoe ging het proces verder? <ul style="list-style-type: none"> ○ Wie nam hieraan deel? <ul style="list-style-type: none"> ▪ Namen de vakmannen deel aan dit proces? ▪ Hoe werd de dagelijkse werking voortgezet? ▪ Was er een impact op de huidige resultaten van dat moment? ○ Hoe verliep de communicatie met het management? <ul style="list-style-type: none"> ▪ Wie communiceert er? 	<p>Innovation process</p> <ul style="list-style-type: none"> • Who came up with the idea to develop a new type of piano grand? <ul style="list-style-type: none"> ○ Who initiated the further development of this idea? ○ Was this discussed for a long time? ○ How and where did the idea of the new piano come about? • Who made the decisions regarding this project? • Describe the willingness to change within your company? <ul style="list-style-type: none"> ○ How do employees respond to change? ○ Do you experience that employees are risk-averse to changes? • How would you describe the process in terms of change? <ul style="list-style-type: none"> ○ Have you made any small or big changes before? Have you started with small changes or immediately made a complete change (big jump)? ○ Have you experienced such a process before (major or minor change?)? ○ Do you still make changes to the product? • What was the first step in the development process? <ul style="list-style-type: none"> ○ How did this phase go? ○ Who participated in this? (externals?) <ul style="list-style-type: none"> People from different departments? External parties? How was daily operation continued? What was everyone's role? ○ How was this addressed? What were the first-stage pitfalls? What ensured that this phase went well? • How did the process continue? <ul style="list-style-type: none"> ○ Who participated in this? Did the craftsmen participate in this process? <ul style="list-style-type: none"> How was daily operation continued? Was there an impact on the current results at that time? ○ How did communication with

<ul style="list-style-type: none"> ○ Hoe zeker waren jullie in deze fase over toekomstig succes van het project? ○ Merkt u dat delen van het innovatieproces/de communicatie/... soms onbewust gebeurde? (TK) • Werd er een prototype ontwikkeld? <ul style="list-style-type: none"> ○ Wie ontwikkelde dit? ○ Wie beoordeelde dit prototype? ○ Werd het prototype herwerkt? • Wat was de laatste fase van het proces? • Door welke factoren is het innovatieproces succesvol verlopen? • Wat maakt dat een product succesvol gaat worden (Wat zijn de kenmerken van succesvolle producten?)? Kan u dat proberen te beschrijven? <ul style="list-style-type: none"> ○ Hoe brengt u uw mening over, aangezien ambachtelijke handarbeid geen exacte wetenschap is? ○ Hoe kan u dit "gevoel" doorgeven aan de volgende generatie? • Hebben jullie ook onsuccesvolle producten gemaakt? Wat ging er toen mis? • Kregen de mensen die deelnamen aan dit project een extra verloning/beloning? <ul style="list-style-type: none"> ○ Waarom wel/niet? • Hoe werd er over de innovatie gecommuniceerd naar klanten? <ul style="list-style-type: none"> ○ Waar lag de nadruk op? ○ Werd er anders gecommuniceerd over het oude gamma? • Sloeg de innovatie direct aan? • Hoe zorgen jullie dat er continuïteit is binnen het bedrijf tijdens dit proces? • Wanneer werd het nieuwe product geëvalueerd? <ul style="list-style-type: none"> ○ Op basis van welke criteria? • Werden er nog aanpassingen uitgevoerd aan het product in een later stadium? • Op de website van Chris Maene staat dat de Straight Strung Grand Piano "the missing link" invult tussen enerzijds de historische aspecten van het pianospelen en bouwen, en anderzijds de hedendaagse noden van pianisten en concertzalen. Kan u ons uitleggen wat u bedoelt met deze missing link? 	<p>management go?</p> <p>Who communicates?</p> <ul style="list-style-type: none"> ○ How certain were you in this phase about future project success? ○ Do you notice that parts of the innovation process / communication / ... sometimes happened unconsciously? <ul style="list-style-type: none"> • Was a prototype developed? <ul style="list-style-type: none"> ○ Who developed this? ○ Who assessed this prototype? ○ Was the prototype reworked? • What was the final stage of the process? • By what factors has the innovation process been successful? • What makes a product successful (What are the characteristics of successful products?)? Can you try to describe that? <ul style="list-style-type: none"> ○ How do you express your opinion, since handicraft is not an exact science? ○ How can you pass on this "feeling" to the next generation? • Have you also made unsuccessful products? What went wrong then? • Did the people who participated in this project receive an extra reward / reward? <ul style="list-style-type: none"> ○ Why / not? • How was the innovation communicated to customers? <ul style="list-style-type: none"> ○ What was the emphasis on? ○ Was communication about the old range different? • Did the innovation catch on immediately? • How do you ensure that there is continuity within the company during this process? • When was the new product evaluated? <ul style="list-style-type: none"> ○ Based on which criteria? • Were adjustments made to the product at a later stage? • Chris Maene's website states that the Straight Strung Grand Piano fills in "the missing link" between the historical aspects of playing and building piano on the one hand, and the contemporary needs of pioneers and concert halls on the other. Can you explain what you mean by this missing link?
<p>Kennis vanuit het ambacht</p> <ul style="list-style-type: none"> • Welke oude ambachtelijke technieken en materialen worden gebruikt? 	<p>Knowledge from the craft</p> <ul style="list-style-type: none"> • Which old craft techniques and materials are used? • Which existing elements (from the past / from the craft) were included?

<ul style="list-style-type: none"> • Welke bestaande elementen (uit het verleden/uit het ambacht) werden meegenomen? <ul style="list-style-type: none"> ○ Gaat dit dan over materialistische elementen (zoals materialen, productieprocessen) of gaat dit over immaterialistische elementen (zoals waardes en normen) ○ Brengt u traditionele technieken/materialen terug naar het heden? (Revival) • Hoe schat u de meerwaarde van jullie jarenlange traditie (ambachtvakmanschap) in ten opzichte van de nieuwe ontwikkelde manier (kennis) uit het bouwen van de nieuwe piano... (voordelen van kennis uit het verleden) • Welke kenniscomponenten werden gehercombineerd? <ul style="list-style-type: none"> ○ Hoe wordt oude kennis Gehercombineerd met nieuwe Technologische kennis? Of worden traditionele producten/processen/ kennis gescheiden van nieuwe technologische kennis? ○ Wat was de rol van de bestaande technologie van het moment? ○ Welke elementen werden behouden tijdens het innovatieproces en welke vernieuwd? Zijn hier spanning mee verbonden? <ul style="list-style-type: none"> ▪ Worden nieuwe en traditionele producten gescheiden? • Herinterpreteert het familiebedrijf traditionele producten zodat ze voldoen aan de huidige behoeften en condities? Gaat men traditionele producten verbeteren door het gebruik van nieuwe technologieën? • Hoe verzamelen jullie informatie over de producten in een innovatieproces? Van waar halen jullie de informatie eerder? (Binnen het bedrijf of buiten het bedrijf?) • Hoe zorgen jullie ervoor dat de kennis voor iedereen toegankelijk is in het bedrijf en bovendien hoe bewaren jullie deze kennis? CK • Hoe weet u dat u een geschikte ambachtsman in dienst neemt? 	<ul style="list-style-type: none"> ○ Is this then about materialistic elements (such as materials, production processes) or is it about immaterialist elements (such as values and norms) ○ Do you bring traditional techniques / materials back to the present? (Revival) • How do you estimate the added value of your years of tradition (craftsmanship) compared to the newly developed way (knowledge) from building the new piano... (advantages of knowledge from the past)? • Which knowledge components were combined? <ul style="list-style-type: none"> ○ How is old knowledge combined with new technological knowledge? Or are traditional products / processes / knowledge separated from new technological knowledge? ○ What was the role of the existing technology at the time? ○ Which elements were preserved during the innovation process of the new piano, and which were renewed? Are there tensions associated with this? <ul style="list-style-type: none"> Are new and traditional products kept or will remain separate? (segregation) • Does the family business reinterpret traditional products to meet current needs and conditions? Will traditional products be improved by using new technologies? (integration) • How do you collect information about the products in an innovation process? Where do you get the information from earlier? (Inside or outside of the company?) • How do you ensure that the knowledge is accessible to everyone in the company and how do you keep this knowledge? • How do you know that you are hiring a suitable craftsman?
<p>Traditie (kennis vanuit de familie)</p> <ul style="list-style-type: none"> • Welke rol speelt de familie in jullie bedrijf? <ul style="list-style-type: none"> ○ Hoe voelt u zich erbij om deel uit te maken van de familie? • Hoe belangrijk is traditie voor jullie? <ul style="list-style-type: none"> ○ Welke basisveronderstellingen en overtuigingen heersen er in het familiebedrijf? 	<p>Tradition (knowledge from the family)</p> <ul style="list-style-type: none"> • What role does the family play in your company? <ul style="list-style-type: none"> ○ How do you feel about being part of the family? • How important is tradition to you? <ul style="list-style-type: none"> ○ What basic assumptions and beliefs are there in the family business? ○ When did these beliefs arise?

<ul style="list-style-type: none"> ○ Wanneer zijn deze overtuigingen ontstaan? • Identificeren de werknemers/CEO's zich met de geschiedenis van het familiebedrijf, alsof het een deel van hun is? • Laat het verleden een positieve of eerder een negatieve indruk na op het bedrijf/de werknemers? • Zijn er familiegeheimen die uniek zijn voor uw bedrijf, waar andere concurrenten niet van kunnen genieten? • Hoe zou u antwoorden op de vraag "wie zijn we als een organisatie?" <ul style="list-style-type: none"> ○ Hoe kijkt de buitenwereld naar het bedrijf (stakeholders?) ○ Wat is het motto van het bedrijf? • Wat zijn uw motieven om te innoveren? <ul style="list-style-type: none"> ○ <i>Houdt u daarbij rekening met het verleden, de familietraditie of de reputatie (conserveren), OF houden innovaties verband met de beloningen en geduld op lange termijn OF worden innovaties geassocieerd met een zekere druk om het familiebedrijf uit te voeren en voort te zetten en een stempel te drukken op de volgende generatie.</i> • Hoe ervaart u/de werknemers productinnovatie? <ul style="list-style-type: none"> ○ Hoe gaat u hiermee om? • Hoe draagt de manier van omgaan met elkaar bij tot productinnovatie? • Hoe heeft u geleerd om de traditie vanuit het ambacht/het familiebedrijf te verwerken in de nieuwe piano? (TK) • Welke elementen van het familiebedrijf/het ambacht/de familiale traditie komen terug in de nieuwe piano? • Wordt er nog altijd gewerkt zoals de eerste generatie het voor ogen had? (Preservation) <ul style="list-style-type: none"> ○ Zijn de waarden en overtuigingen van de vorige generaties behouden gebleven en wordt deze 'erfenis' nog steeds beschermd? ○ Wordt traditie gebruikt als een bron voor de huidige producten? → traditionele essentie van de eerste generatie blijft behouden ○ Hoe gaat de oudere generatie om met nieuwe kennis aangebracht door de nieuwe generatie? • Merkt u dat de manier van denken in het bedrijf, het innovatieproces beïnvloedt? • Door met elkaar om te gaan, wordt er onbewust kennis gedeeld. Hoe denk u dat de (impliciete) kennis wordt overgedragen? (TK) 	<ul style="list-style-type: none"> • Do employees / CEOs identify with the history of the family business as if it were part of them? • Does the past leave a positive or rather negative impression on the company / employees? • Are there any family secrets unique to your company that other competitors cannot enjoy? • How would you answer the question "who are we as an organization?" <ul style="list-style-type: none"> ○ How does the outside world view the company (stakeholders?) ○ What is the company's motto? • What are your motives for innovation? <ul style="list-style-type: none"> ○ Take into account the past, family tradition or reputation (preservation), OR are innovations related to long-term rewards and patience OR are innovations associated with a certain amount of pressure to run and continue the family business and stamp on the next generation. • How do you / the employees experience product innovation? <ul style="list-style-type: none"> ○ How do you deal with this? • How does the way of dealing with each other contribute to product innovation? • How did you learn to incorporate the tradition from the craft / family business into the new piano? (TK) • Which elements of the family business / craft / family tradition are reflected in the new piano? • Are people still working as intended by the first generation? (Preservation) <ul style="list-style-type: none"> ○ Have the values and beliefs of the previous generations been preserved and is this 'legacy' still protected? ○ Is tradition used as a source for current products? → traditional essence of the first generation is retained ○ How does the older generation deal with new knowledge brought in by the new generation? • Do you notice that the way of thinking in the company influences the innovation process? • By interacting, knowledge is unconsciously shared. How do you think the (implicit) knowledge is transferred? (TK) <ul style="list-style-type: none"> ○ Craft is in the fingers, but how do you try to transfer this craft to others?
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<ul style="list-style-type: none"> ○ Ambacht zit in de vingers, maar hoe proberen jullie deze ambacht toch over te brengen op anderen? ○ Worden ervaringen gedeeld? Zo ja hoe? ○ Zijn er opleidingen? ○ Zijn er documenten ter beschikking waarin nieuwe werknemers de identiteit/waarde en normen/innovatieprocessen... kunnen terugvinden? ○ Hoe brengen werknemers expliciete kennis binnen in het bedrijf? <ul style="list-style-type: none"> ▪ Via opleidingen? ▪ Via ervaringen bij andere soortgelijke bedrijven? ○ Wordt er aan "trial and error" gedaan tijdens productinnovatie? ○ Hoe beïnvloedt deze onbewuste kennis uw concurrentievermogen? (TK) • Hoe wordt kennis doorgegeven naar volgende generatie(s)? • Heeft u de indruk dat uw bedrijf minder moet investeren in innovatie omdat er een impliciete kennis heerst in het bedrijf? Dus dat het familiebedrijf minder beroep moet doen op externe kennisbronnen en dergelijke? (TK) • Draag het bedrijf de traditie uit naar de buitenwereld? Wordt deze traditie benadrukt? 	<ul style="list-style-type: none"> ○ Are experiences shared? If so how? ○ Are there any training courses? ○ Are documents available in which new employees can find the identity / value and standards / innovation processes...? ○ How do employees bring explicit knowledge into the company? <ul style="list-style-type: none"> Through training? Through experiences with other similar companies? ○ Is trial and error done during product innovation? ○ How does this unconscious knowledge affect your competitiveness? (TK) • How is knowledge passed on to the next generation (s)? • Do you have the impression that your company should invest less in innovation because there is implicit knowledge in the company? So that the family business should make less use of external knowledge and the like? (TK) • Does the company carry on the tradition to the outside world? Is this tradition emphasized?
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