

A Typology of Knowledge Transfer Constellations in the Context of Intra-Family Succession

Isabella Hatak, Dietmar Roessl and Matthias Fink, Institute for Small Business Management and Entrepreneurship, Vienna University of Economics and Business

Abstract

In the course of succession there is a high risk that tacit knowledge embedded in the predecessor leaves the organization. Due to their informal organization structures and the associated relevance of tacit knowledge, the knowledge transfer poses a major challenge for family firms. This paper systematizes the management requirements within the succession process of small and medium sized family firms against the background of the knowledge-based view. A typology of transfer constellations based on stock, supply and demand of knowledge is developed which provides the framework for the derivation of coping strategies. The findings from 70 qualitative interviews on the know-how transfer underpin the formulated theses.

Debating Points

- Is successful knowledge transfer within succession a feature of successful family firms or are successful family firms the result of a successful knowledge transfer within succession?
- According to our exploratory study, the overwhelming majority of family firms are continued for the shared purpose of predecessor and successor: a successor who possesses high management knowledge shows a demand for the knowledge of the predecessor, who offers it readily. Is this result realistic? Does it entail risks?
- Which factors lead to the various constellations identified in our exploratory study?

1 Introduction

A firm's specific knowledge, as well as the ability to transfer it, is considered a key strategic asset in the course of generating competitive advantages.¹ Knowledge is viewed as the sum of expertise, skills and abilities applied by individuals in the form of theoretical knowledge and procedures employed² to solve problems³. In the course of succession there is a high risk that tacit knowledge embedded in the predecessor leaves the organization. Thus, a goal-oriented management is needed for preserving the knowledge critical to the mission. Given 4.5 million business successions per year within the European Union⁴ a successful knowledge transfer is of high economic relevance. The typical characteristics of family firms, like their small size⁵, informal organization structures⁶ and a restrictive information policy applied by the main entrepreneur, imply lower pressure and a lower propensity to make knowledge explicit, resulting in higher levels of tacit knowledge. Therefore, the knowledge transfer in the family business succession process poses a major challenge for the management.⁷

This paper aims at identifying the management requirements for the knowledge transfer within the succession process of small and medium sized family firms and at deriving coping strategies. First, the paper systematizes the management requirements within the family business succession process against the background of the knowledge-based view⁸ (chapter 2). The typology of transfer constellations (chapter 3) provides the framework for the formu-

¹ Bierly/Chakrabarti (1996); Spender/Grant (1996).

² Probst/Raub/Romhardt (1999).

³ Leonard/Sensiper (1989)

⁴ EU (2009).

⁵ Fletcher (2005).

⁶ Leenen (2005).

⁷ Huettmann (1997); Ilkensmeier (2001); Kropfberger/Moedritscher (2002).

⁸ Grant (1996).

lation of coping strategies (chapter 4). Subsequently, implications for the knowledge management in intra-family succession processes are derived (chapter 5), and the empirical relevance of the theses formulated is investigated on the basis of the results of 70 qualitative interviews⁹ conducted with predecessors and successors (chapter 6). A brief conclusion is provided at the end of the text (chapter 7).

As no generally accepted definition concerning the term ‘family firm’ exists¹⁰, a literature-based definition needs to be applied. In this paper, a family firm is defined as a firm (1) in which several family members – not necessarily the core family – hold capital shares¹¹ or work in the firm as contributory staff members¹², (2) whose capital majority is held by one or more family members that make strategic decisions¹³, (3) on whose economic development the family depends existentially¹⁴, or (4) which has an important influence on the mind-set and on the lifestyle of the family members involved¹⁵.

2 Challenges of Knowledge Management within Intra-Family Succession

In a generation change, the entrepreneur as the central source of knowledge leaves the firm. This leads to the questions which knowledge the predecessor possesses and how this knowledge is handled within the succession process: Is the firm going to irrecoverably lose the knowledge together with the predecessor, or will such knowledge be transferred to the

⁹ *In this regard, the authors want to thank Alexander Foerster for conducting interviews and a qualitative content analysis.*

¹⁰ *Handler (1989); Chittoor/Das (2007).*

¹¹ *Westhead (1997); Chua/Chrisman/Sharma (1999).*

¹² *Hennerkes (2004).*

¹³ *Schroeer/Freund (1999); Klein (2004).*

¹⁴ *Sharma/Chrisman/Chua (1997); Astrachan/Shanker (2003).*

¹⁵ *Habbershon/Williams (1999).*

successor or to another employee and, thus, tied to another personal information source, or will it be secured within the firm, independently of individual people?

2.1 Identification Problem

The first step towards an efficient information supply is the identification of the knowledge required by the business departments. Therefore, it has to be clarified which relevant knowledge the entrepreneur possesses and which additional knowledge is needed for future operations. In order to ensure the flexibility of a firm, dysfunctional knowledge assets that make future businesses difficult have to be identified and strategies for an organized ‘un-learning’ of these knowledge assets need to be developed.

Due to the need for coordinating different information sources (predecessor, successor, employees, and storage media which are independent of individuals in a firm) within the succession process, these tasks become even more complex. In this context we can differentiate between three different kinds of knowledge: knowledge which is tied to (1) the predecessor, (2) other company-internal individuals (e.g. long-time employees), and (3) storage media which are independent of individuals in a firm. Whereas the first and second types are forms of tacit knowledge, the third kind constitutes explicit knowledge. According to Polanyi¹⁶, tacit knowledge is personal knowledge anchored in values, actions and experiences. Explicit knowledge is articulated in the form of e.g. documents or databases.

The conflicts resulting from the overlap of firm and family sphere in family firms imply a restrictive information policy. The dictum of ‘not everybody needs to know everything’

¹⁶ Polanyi (1985); see also Nonaka/Takeuchi (1997).

causes a hoarding of tacit knowledge on the part of the entrepreneur.¹⁷ Furthermore, this parsimony, which is typical for small and medium sized enterprises¹⁸, leads to an avoidance of a resource-intensive storage of explicit knowledge. Therefore, knowledge and skills are not multi-existent in the firm. Due to the long tenure of the main decision-maker, a large amount of tacit knowledge is generated over time, without the necessity to distribute this knowledge within the firm. Deficits in the documentation of knowledge are the consequence. As the predecessor has established a personal network of customers, suppliers and the relevant public¹⁹ and, thus, does not need to share his experiences and expertise with other employees, the existence of the firm depends on his tacit knowledge.²⁰ Hence, as a first step an identification of this knowledge is necessary. In this connection, the fact that the predecessor is not directly aware of his tacit knowledge poses a significant challenge. Moreover, the knowledge which has been accumulated by the predecessor over time has to be evaluated concerning its aptitude for the future, as changes in the basic conditions may have devaluated formerly important knowledge. In order to solve this identification problem, the predecessor has to reflect on his actions and decisions so that he can envision the knowledge which is of importance for the successor, as a precondition for its articulation and, thus, its explicit circulation.

To avoid incommensurability of the successor's knowledge with the predecessor's transferred knowledge and to disclose the successor's knowledge deficits, the successor also has to make himself aware of his tacit knowledge.

¹⁷ *Lansberg (1988); Sonnenfeld/Spence (1989).*

¹⁸ *Roessl (2005).*

¹⁹ *Mugler (1998), 20.*

²⁰ *Lamieri/North (2002).*

2.2 Transfer Problem

The problems associated with the transfer of tacit knowledge arise from the lack of infrastructure for knowledge management in the family firm: The high proportion of tacit knowledge and the inadequate technical infrastructure in small family firms hinder the application of complex knowledge management tools and hence the knowledge transfer. Because of the long tenure of the main decision-maker no routines have been established. Furthermore, personal, trust-based relationships resulting from flat structures and hierarchies promote the use of direct and informal communication channels for changing information and experience.²¹ On the one hand, the informal communication has a positive effect on the socialization of knowledge, but, on the other hand, it exacerbates its externalization.

As the transfer of explicit knowledge is comparatively unproblematic, the knowledge transfer within a generation change in the family firm primarily addresses the problem of maintaining the predecessor's tacit knowledge. For an organization, explicit knowledge is easily available and hence can be used by a variety of persons²², as it can be recorded and transferred by sharing information and communication technologies.

Basically and essentially, the transfer of tacit knowledge – according to the knowledge spiral by Nonaka/Takeuchi²³ – can be carried out in two ways: In the course of socialization the predecessor's tacit knowledge is immediately converted into the successor's tacit knowledge through shared experience. The successor learns through observance, imitation, as well as trial and error. As the knowledge remains not only tacit on the part of the predecessor, but

²¹ *Recklies* (2000).

²² *Nonaka/Takeuchi* (1997); *North* (2001).

²³ *Nonaka/Takeuchi* (1997), 75.

also on the part of the successor, the effectiveness of the knowledge transfer can only be evaluated on the basis of the successor's subsequent actions. Moreover, the knowledge transfer by means of socialization is time-consuming. In the course of externalization the predecessor's tacit knowledge is made explicit and, thus, becomes transferable through direct communication. A prerequisite for a successful externalization is that the predecessor is able to translate his tacit knowledge into a suitable coding (language, figures, etc.).

The problems associated with the transfer of tacit knowledge in small family firms result primarily from the interlocking of the systems 'family' and 'firm', because the predecessor's knowledge of not only the system 'firm', but also the system 'family', has a specific importance, which originates from the intrinsic logic of the systems.²⁴ The transfer of exclusive knowledge induces a shift of power and can have extensive consequences on the overlapping systems of family and firm:

If the predecessor refuses to transfer his knowledge, he can ensure his influence within the firm and his 'patriarchal position' within the family: (1) As the continuation of the firm and its continuation by members of the family organization constitute the main goals of the family firm, role conflicts can occur. As an entrepreneur interested in a successful continuation, the predecessor can evaluate a family member as being unqualified for becoming his successor; and in his position as member of the family organization he can still prefer this family member as successor.²⁵ Normally the predecessor has to transfer his knowledge, but facing the successor's lack of qualifications he fears for the firms' future and conceals his knowledge in order to maintain his influence and to delay the succession. (2) If the predecessor has a very strong relationship to 'the work of his lifetime', he can try to force knowledge

²⁴ *Kailer* (2002).

²⁵ *Risak* (1999).

on the successor so that the latter continues business operations in the spirit of the predecessor.

The successor can also hinder the knowledge transfer: The knowledge transfer is made difficult if the predecessor and the successor are not willing to communicate due to family conflicts or if the successor does not perceive the predecessor as a relevant information source due to his education and socialization.²⁶ Because of the typical lack of transparency concerning the firm's management, the successor is often not appreciative of the previous firm's management and of the relevance of tacit knowledge.²⁷

3 Problem Constellations

These characterizations can be condensed into the following factors, whose combination results in several problem constellations: (1) predecessor's stock of relevant tacit knowledge (he possesses relevant management knowledge), (2) predecessor's knowledge awareness (he is aware of the relevance of his tacit knowledge), (3) predecessor's willingness to transfer his knowledge, (4) successor's need for knowledge (knowledge deficit), (5) successor's demand awareness (he is aware of his knowledge deficit), and (6) successor's willingness to demand knowledge (he is willing to demand knowledge from the predecessor). Based on these factors a typology of knowledge transfer constellations within the succession process can be developed (Fig. 1):

²⁶ Szulanski (1996).

²⁷ Cabrera-Suárez/De Saá-Pérez/García-Almeida (2001).

								Predecessor...	
								possesses relevant management knowledge	
						yes		no	
						is aware of the relevance of this knowledge			
						yes		no	
						is willing to transfer the knowledge to the successor			
						yes		no	
						bilateral, active KT		demanded, but not supplied KT	
						no			
						offered, but not accepted KT			
						yes			
						is willing to demand knowledge from the predecessor			
						yes			
						is aware of these deficits			
						yes			
						has deficits regarding knowledge management			
						no			
						Successor...			

Figure 1: Knowledge transfer (KT) under consideration of knowledge demand/transfer willingness constellations

(1) Bilateral, active knowledge transfer: Both parties are interested in the transfer of tacit knowledge and, thus, practice it actively. In this regard, tacit knowledge can either be transferred through externalization – parts of tacit knowledge will get regularly lost in doing so - or through time-consuming socialization. Because of the common willingness to transfer the knowledge, the time required will be invested.

(2) Offered, but not accepted knowledge transfer: The predecessor wants to share his knowledge, but is confronted with rejection on the part of the successor. As the entrepreneur wants the business operations to be continued in accordance with his basic principles, he has the intention to ‘implant’ his knowledge in the successor. However, if the successor wants to

modify the enterprise, interpersonal conflicts emerge and - if the successor has little knowledge on his own - leadership problems arise due to the resulting knowledge gap.

(3) Demanded, but not supplied knowledge transfer: The knowledge demand of the successor meets a predecessor, who is not willing to disclose his knowledge. By holding back information, the predecessor can maintain his substantial position in the firm. Due to the missing information source in form of the predecessor, the successor has only his own knowledge at hand and/or after the succession, the explicit firm-internal knowledge.

(4) No knowledge transfer: None of the parties involved are interested in the knowledge transfer. Such situations arise from a predecessor who is obsessed with power and a successor who is convinced of his own knowledge, from an atmosphere that inhibits free exchange of ideas, etc.

4 Coping Strategies

The following analysis is structured according to the knowledge spiral by Nonaka/Takeuchi (1997): On the one hand, the predecessor's tacit knowledge can be converted into the successor's tacit knowledge by means of an interpersonal knowledge transfer. On the other hand, tacit knowledge can, after externalization, be converted into organizational knowledge.

4.1 Constellations promoting Interpersonal Knowledge Transfer

As a bilateral active knowledge transfer is crucial for a successful continuation, factors that promote the interpersonal knowledge transfer need to be identified. These factors include (1)

internal social capital, encouraging the ability to supply and to demand knowledge, (2) commitment to change, which in turn promotes the willingness to supply and to demand knowledge, (3) the quality of the relationship between successor and predecessor, which can hinder the knowledge transfer considerably²⁸, and (4) their reciprocal connectivity.

As bilateral knowledge transfer emerges from repeated interactions and is intensified through ‘close-knit-groups’, whose members identify themselves with a larger collective²⁹, the knowledge transfer is favored in family firms: If the family-internal relations are backed with social capital (e.g. reciprocal trust), stable relations can be built in the long run³⁰, promoting the transfer of tacit knowledge.³¹ Interdependence and repeated interaction foster social capital.³² Thus, the density of communication within the family has to be increased, as the development of shared beliefs based on consensus leads to renewed collective actions.³³ Another factor that affects the generation of social capital and therefore facilitates the knowledge transfer is delineation: As strong communities, family firms distinguish insiders from outsiders on the basis of kinship and thus enhance the creation of clear boundaries through the emergence of shared norms.³⁴ The resulting common system of meanings strengthens social capital³⁵, which in turn promotes an active knowledge transfer.

The willingness to transfer knowledge is determined by commitment to change.³⁶ Commitment to change increases cooperative behavior and facilitates the flexible use of individual

²⁸ *Chirico/Salvato* (2008).

²⁹ *Kogut/Zander* (1992).

³⁰ *Nahapiet/Goshal* (1998).

³¹ *Sirmon/Hitt* (2003).

³² *Chirico/Salvato* (2008).

³³ *Sorenson* (1999).

³⁴ *Etzioni* (1996); *Arregle/Hitt/Sirmon/Very* (2007).

³⁵ *Tagiuri/Davis* (1996); *Chirico/Salvato* (2008).

³⁶ *Randall/Fedor/Longenecker* (1990); *Chirico/Salvato* (2008).

potentials.³⁷ This commitment results from the satisfaction individuals experience by feeling that they are contributing to the success of their own business and to its continuity over time. However, in family firms “feelings and emotions related to change are likely to be deeper and more intense”³⁸, which leads to a resistance to change.³⁹ Thus, predecessor and successor need to understand change as a chance in order to promote an efficient knowledge transfer.

“[T]he lack of formalized systems and structures to deal with conflict [...] and the commingling of business and family roles”⁴⁰ increase the conflict potential in family firms. Relationship conflicts resulting from interpersonal emotional incompatibilities among actors within a group⁴¹ primarily hamper the knowledge transfer in family firms⁴². For instance, Jehn⁴³ empirically observed that conflicts have greater negative consequences in highly closed and interdependent communities than in other groups. In family firms, repeated interactions between predecessors and successors do not only foster social capital, but also relationship conflicts in the business and family context of business as well as family, which, as “feelings leading to suspicion and resentment”⁴⁴, hinder an active knowledge transfer.⁴⁵

The alternating connectivity increases if predecessor and successor share a common system of meanings in which “participants share their contexts and create new meaning through interactions”⁴⁶ (=’Ba’⁴⁷). Thus, if the knowledge content is interpersonally adaptive, the

³⁷ *Herscovitch/Meyer* (2002); *Sharma/Manikutty* (2005).

³⁸ *Dyer* (1994), 125.

³⁹ *Roessl* (2005).

⁴⁰ *Harvey/Evans* (1994), 345.

⁴¹ *Jehn* (1995).

⁴² *Eddleston/Kellermanns* (2007).

⁴³ *Jehn* (1995).

⁴⁴ *Kellermanns/Eddleston* (2004), 213.

⁴⁵ *Zahra/Sapienza/Davidsson* (2006); *Chirico/Salvato* (2008).

⁴⁶ *Nonaka/Toyama* (2003), 7.

transfer of tacit knowledge will be more effective. The relevance of ‘Ba’ within the knowledge transfer in family firms originates from the tacit knowledge being specific to context – the transfer of tacit knowledge is hence promoted if the actors share their experiences in a shared context. The efficiency of the knowledge transfer increases depending on the fit of values which constitute ‘Ba’, the contents which need to be transferred and the transfer methods applied.⁴⁸ If the ‘Ba’ of a family values rationality and attachment to regulations, the knowledge transfer will focus on the methodical knowledge of the predecessor. If the family has created a ‘Ba’ in which there is a tradition of sharing and loyalty, then the transfer should focus on tacit knowledge, which is often embedded in stories (storytelling). Owing to his/her loyalty, the successor accepts the antecedent knowledge, so that an early involvement of the successor in the firm – also in the form of action-trainings, in which situations that refer to working life and action are practiced – makes sense.⁴⁹

4.2 From Intrapersonal Knowledge to Organizational Knowledge

In situations in which knowledge is offered but not accepted, the direct transfer of tacit knowledge is blocked. Therefore, the knowledge of the predecessor has to be secured in the firm, detached from its person. Otherwise “the organization’s hard-won and expensively acquired knowledge”⁵⁰ acquired by the predecessor leaves the organization. In this case, the successor would have to relearn the lost knowledge. If the loss of the predecessor’s tacit knowledge is associated with substantial negative consequences, the intrapersonal knowledge either needs to be tied as tacit knowledge to other individuals in the firm (loyal employees of many years) or is to be saved as organizational knowledge following its exter-

⁴⁷ *Nonaka/Toyama* (2003), 7.

⁴⁸ *Braennback/Carsrud/Schulte* (2008).

⁴⁹ *Matthews/Moore/Fialko* (1999).

⁵⁰ *Kransdorff/Williams* (2000), 109.

nalization. To enable a transfer of tacit knowledge through direct communication, the predecessor needs to be aware of his tacit knowledge so that he can then decode it. The externalization can be done via debriefing methods (Experimental Learning Histories⁵¹, Learning Audits⁵²):

When applying these methods, first, a loyal employee has to be chosen as debriefer and to be provided with specific guidance on areas of importance to be covered in the debriefing. Prior to the actual debriefing, the predecessor has to compile monthly reports, helping the debriefer to categorize and group the questions that will be asked in the debriefing. The transcripts of the debriefings (interviews) are finally sectionalized on the basis of the categories used, edited to ensure clarity, continuity and readability, and indexed for key words to provide accessibility.⁵³ To avoid the problem of “defensive reasoning” (Argyris 1999, p.100) - when individuals screen out criticism and put the ‘blame’ on anyone and everyone but themselves – debriefing should be undertaken at regular intervals. The knowledge generated in this way is saved in the firm so that tacit knowledge has been transformed into organizational knowledge: “As a succession planning tool, it has considerable value for the new entrant and the company. It is an extremely effective way to quickly familiarize one’s successor with all the subtle aspects of [...] a new job.”⁵⁴ Thus, these debriefing programmes act as a make-shift instrument for securing the originally tacit knowledge of the predecessor – independent of the parties’ ability and willingness to transfer knowledge – within the firm.

As an alternative to knowledge transfer within the phase of succession, the problem can be mitigated at an earlier stage if the predecessor makes his knowledge explicit ex ante, by continuously saving parts of his expertise independently of individual persons (databases, check lists, etc.).

⁵¹ *Kleiner/Roth* (1997).

⁵² *Kransdorff/Williams* (2000).

⁵³ *Kransdorff/Williams* (2000).

⁵⁴ *Kransdorff* (2006), 141.

In situations in which knowledge is demanded but not supplied, the successor needs to receive the predecessor's knowledge despite the latter's resistance: On the one hand, he can instruct a knowledge broker to collect and document knowledge and he can use other family members as knowledge sources (oral debriefing). On the other hand, he can exert his influence within the family network in such a way that it enables the setting up of a knowledge-management infrastructure in time.

In situations characterized by a bilateral resistance to knowledge transfer, only other family members can grasp the nettle of securing the predecessor's tacit knowledge independent of other people within the firm.

5 Implications for the Knowledge Management within the Intra-Family Succession Process

By linking these considerations with the existent management knowledge concerning succession, as a next step, eight constellations/theses regarding the knowledge transfer (KT) and the subsequent company development can be formulated (Fig. 2).

		predecessor		KT supplied	KT not supplied
		successor			
no own management knowledge	KT demanded	willing to learn from predecessor	<i>Constellation 1</i> harmonious road to continuation (without criticism) in the spirit of the predecessor	<i>Constellation 2</i> contentious road to continuation of operation without knowledge possession (only a small share of the predecessor's tacit knowledge, which is made explicit through other people, is available)	
	KT not accepted	not willing to learn from predecessor	<i>Constellation 3</i> contentious road to continuation of operation without knowledge possession (only the explicable share of the predecessor's knowledge is available)	<i>Constellation 4</i> harmonious road to continuation of operation without knowledge possession	
own management knowledge	KT demanded	willing to learn from predecessor	<i>Constellation 5</i> harmonious road to continuation of operation in the spirit of both parties (by joint reflection of conventionalized knowledge)	<i>Constellation 6</i> road to continuation in the spirit of the successor (forced break-up with conventionalized knowledge)	
	KT not accepted	not willing to learn from predecessor	<i>Constellation 7</i> contentious road to continuation of operation in the spirit of the successor (break-up with conventionalized knowledge)	<i>Constellation 8</i> no knowledge transfer, harmonious road to continuation in the spirit of the successor (break-up with conventionalized knowledge)	

Figure 2: Consequences of stock, supply and demand of knowledge

(1) Continuation in the spirit of the predecessor (Constellation 1): If the successor lacks his own relevant knowledge for reflecting the conventionalized knowledge of the predecessor, an unfiltered knowledge transfer takes place in such a way that the successor – faced more or less only with the predecessor's knowledge – can continue operations only in the spirit of the predecessor. The strong commitment of the successor to conventionalized knowledge and thinking can hinder the prospective flexibility of the firm.

(2) Continuation in the absence of knowledge (Constellations 2, 3 und 4): These constellations are characterized by a restricted knowledge transfer to the successor, who additionally lacks the required management knowledge. If the tacit knowledge embedded in the prede-

cessor was of existential relevance, the prospective development of the firm is threatened, provided that the predecessor in constellation 3 was not able to embed his knowledge in the firm (independently of the successor).

(3) Continuation in the spirit of both parties (Constellation 5): This is the ideal case. A successor with a high level of management knowledge demands the knowledge of the predecessor, which the latter supplies willingly. Due to the existent management knowledge, the successor does not accept the transferred knowledge without criticism. In fact, a reflective process of knowledge extension takes place, leading to a continuation of operation which can indeed recruit on 'old' knowledge, but does not depend on it.

(4) Continuation in the spirit of the successor (Constellations 6, 7 und 8): Within these constellations no old knowledge is transferred due to various reasons, but the successor possesses his own management knowledge as to the continuation of operation. Therefore, the prospective development of the firm will only marginally be influenced by the predecessor's thinking. Although these constellations are differently anchored and are characterized by distinct areas of conflict, they have in common that the predecessor's knowledge is irreplaceably lost and can no longer be accessed by the firm after succession. The knowledge base of the successor then consists only of his own and the organizational knowledge.

6 Empirical Relevance

In order to examine the empirical relevance of the constellations identified, 70 guided interviews were held with predecessors and successors in 35 Austrian family firms which were in the process of succession. 49% of these SME fall into the category of "trade and craft", 23%

into the category of “commerce”, 17% belong to the group of “information and consulting”, and 11% to the “manufacturing industry”. The 70 interviews were held in the period between October 2010 and January 2011 and had a duration of between 30 and 60 minutes per interview partner.

The audio transcriptions of the interviews recorded on sound storage media were analysed in the form of a qualitative content analysis according to Mayring (2010). This offered a methodically guided procedure of distilling those areas and aspects of intra-family succession which relate to the transfer of knowledge between the successor and the predecessor. In order to limit perceptive distortions, the interpretation was carried out at two levels: at the first level, by the interviewers, and at the second level, by knowledgeable non-interviewers (interpretation of the interpretations). Discrepancies in interpretation were resolved in feedback loops.

Figure 3 illustrates the results of the systematic analysis. The figure shows that the majority of cases can be assigned to the constellation of “bilateral, active knowledge transfer”: in 26 cases, the predecessor possesses relevant management knowledge, is aware of its importance and willing to transfer this knowledge to the successor, who in turn is aware of deficits in his or her management knowledge and consequently demands the predecessor’s knowledge. Whereas four of the cases investigated are to be assigned to the constellation of “offered, but not accepted knowledge transfer”, there is one case in which the successor demands knowledge in vain. In one other case there is no knowledge transfer, although the successor perceives deficits in his knowledge. In three cases, predecessor and successor concur in their view that no knowledge transfer is necessary as the successor has no deficits regarding his/her management knowledge.

		Predecessor...	
		possesses relevant management knowledge	
		yes (n=32)	no
		is aware of the relevance of this knowledge	
		yes (n=32)	no
		is willing to transfer the knowledge to the successor	
		yes (n=30)	no (n=2)
		is willing to demand knowledge from the predecessor	
yes (n=32)		yes (n=27)	bilateral, active KT (n=26) demanded, but not supplied KT (n=1)
		no (n=5)	offered, but not accepted KT (n=4) no KT (n=1)
no			
is aware of these deficits			
yes (n=32)			
no			
has deficits regarding management knowledge			
yes (n=32)			
no			
Successor...			

Figure 3: The constellations of knowledge transfer in the light of the empirical findings

If the category “own management knowledge/no own management knowledge” of the successor is added to the analysing grid, the 35 cases can be assigned to the constellations identified in figure 2 in the following way:

Approximately two thirds of the cases can be assigned to constellation 5 (“continuation in the spirit of both parties”): A successor shows demand for the predecessor’s knowledge, which the latter willingly provides. Owing to his management competence, the successor does not accept the knowledge transferred without criticism, but adds to his existing knowledge in a process of reflection and continues the operation of the firm in a way which can resort to the old knowledge, but is not dependent on it.

As one predecessor puts it, “My daughter is so clever and already so experienced that she can easily take over. She also knows about everything, as we have worked

and discussed a lot with each other. I am trying to [...] give to her everything she needs. And she accepts it eagerly, that makes me so happy.” The successor, “I have [...] completed the tool making apprenticeship [...] and know my stuff fairly well. Dad is [...] bursting with knowledge. I want to make this my own by observing and asking. But I’ll do a few things differently, dad is simply too lenient [...].”

Approximately one tenth of the cases corresponds to constellation 1, “continuation in the spirit of the predecessor“ (the successor lacks the knowledge which would enable him/her to reflect on the transferred knowledge so that knowledge is transferred without criticism and the successor – who is almost exclusively equipped with the predecessor’s knowledge - can continue operations in the spirit of the predecessor):

As one predecessor puts it, “One has to transfer knowledge by talking about everything with each other and by providing a living example so that my daughter learns everything in the course of time.“ The successor, “The succession will be [...] a process over a period of three years, when I will learn everything [...] I can always ask mum!”

Two cases need to be characterized as “continuation of operations without the possession of knowledge“ (constellations 3 and 4). In these cases, the knowledge transfer to the successor is severely limited. Moreover, the successor lacks the necessary management knowledge:

As one predecessor puts it, “[...] I want to transfer knowledge mainly by talking to, and working with, each other [...]. One has to overcome differences.” The successor, “No, I have completed no education or courses. No, I am not acquiring my father’s knowledge, I don’t have time for that.”

One fifth of the cases corresponds to constellations 6, 7, and 8 (“continuation in the spirit of the successor”). One case mirrors constellation 6, in which a competent successor is willing to learn from the predecessor, who does not initiate any knowledge transfer, however:

As one predecessor puts it, “My daughter has worked with me for many years. [...] I could not prepare her specifically for succession because I have suffered a stroke.” The successor, “[...] have done all the administrative things. I have tried to acquire the experience and the vast knowledge of my father as much as possible under the circumstances – but frequently this was impossible, and so I have had to look for my own way!”

The following statements warrant assignment to constellation 7, in which a competent successor is unwilling to accept knowledge offered by the predecessor:

As one predecessor puts it, “[...] one can say that he certainly has obtained 40% of his knowledge in school and education. But the rest he has definitely gathered by observing me.” The successor, “[...] have no knowledge deficits. In most areas [...] I know more than my father.”

As one predecessor puts it, “She works in other firms [...]. But my knowledge is very relevant [...]. So that my [...] knowledge is not lost, I pass it on to colleagues.” The successor, “[...] granted, he certainly has relevant knowledge, but everyone has to acquire knowledge by himself and make their own experiences.”

The transfer of knowledge to other individuals within the firm addressed in the above example illustrates one possible course of action when the successor refuses the knowledge transfer offered by the predecessor.

The following case constitutes one example of constellation 8 (successor possesses management knowledge of his/her own and there is no need to learn from the predecessor):

As one predecessor puts it, “[...] she has always known everything. I did not have to pass any knowledge on to her.” The successor, “Following my studies of business administration, I have worked in a business consulting firm. In SMEs you have to be able to do everything. [...] Then I took over the firm and started out with my own knowledge, gathered experiences and took my own decisions.”

7 Conclusion

In a generation change, the entrepreneur as central source of knowledge leaves the firm. The question arises which knowledge the predecessor possesses and how this knowledge is managed in the succession process: Is the knowledge transferred to the successor or to other employees in the course of succession and hence again tied to central sources of knowledge, is it stored in the firm independently of individual persons, or is it withdrawn from the firm? Consequently, in the course of succession, there is the risk that tacit knowledge embedded in the departing entrepreneur is lost to the firm. Owing to the informal organization structures and the resulting high relevance of tacit knowledge, knowledge transfer in smaller enterprises is associated with particular challenges.

The problems associated with the transfer of tacit knowledge in the small family enterprise primarily result from the interdependence of the systems “family” and “firm”, as in either of the systems the knowledge of the predecessor has a specific relevance that results from the logic of the respective system. The transfer of exclusive knowledge leads to shifts in power and can have far-reaching consequences in the context of the systems of family and firm overlapping.

On the one hand, interpersonal knowledge transfer can serve to transform the tacit knowledge embedded in the predecessor immediately into tacit knowledge embedded in the successor or – where this is fraught with conflict – tacit knowledge embedded in other employees. On the other hand, it can be transformed into organizational knowledge by means of externalization. To avoid incommensurability of the successor's knowledge with the predecessor's transferred knowledge and to disclose the successor's knowledge deficits, the successor also has to make himself aware of his tacit knowledge. As an alternative to knowledge transfer within the phase of succession, the problem can be mitigated at an earlier stage if the predecessor makes his knowledge explicit *ex ante*, by continuously saving parts of his expertise independently of individual persons (databases, check lists, etc.).

In situations in which knowledge is demanded, but not supplied, or where it cannot be supplied as the entrepreneur leaves the firm suddenly, the successor must attempt to acquire knowledge, occasionally in the face of resistance on the part of the predecessor: On the one hand, he can instruct a knowledge broker to collect and document knowledge and he can use other family members as knowledge sources (oral debriefing). On the other hand, where appropriate, he can exert his influence within the family network in such a way that a knowledge-management infrastructure can be expanded in time. In situations characterized by a bilateral resistance to knowledge transfer, only other family members can take the initiative of anchoring the predecessor's knowledge within the firm independently of individual persons.

The results obtained from 70 interviews on knowledge transfer conducted with predecessors and successors corroborate the empirical relevance of the theses formulated. Summing up the empirical findings, it can be stated that the overwhelming majority of family firms examined are continued for the shared purpose of predecessor and successor: a successor who

possesses high management knowledge shows a demand for the knowledge of the predecessor, who offers it readily. Owing to his own management knowledge, the successor does not uncritically accept the knowledge transferred. Rather, a process of reflection serves to add to already existing knowledge and eventually leads to continuation of the enterprise in a way which offers recourse to the old knowledge, but is not dependent on it. Reasons for this positive state of affairs can primarily be identified in the characteristics of successful family enterprises. These include the social capital within the family and the quality of the relationship between predecessor and successor associated with it, which determines the parties' mutual connectivity.

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