

Tacit Knowledge and Skills Transfer in Family Business During Generational Succession

Concetta Lucia Cristofaro¹, Sabrina Bonomi¹ and Rocco Reina²

¹University Ecampus, Novedrate, Italy

²University Magna Graecia, Catanzaro, Italy

concettalucia.cristofaro@uniecampus.it

sabrina.bonomi@uniecampus.it

rreina@unicz.it

Abstract: The succession process remains a critical challenge in family businesses (Ramadani et al., 2015; Ramadani and Hoy, 2015), as this factor is connected to the low survival rate in the long term of the same. One of the reasons for this challenge may concern the successor's ability to adequately acquire the predecessor's silent and explicit knowledge and critical skills to maintain and improve the company's organizational performance. Much research focused on the successor profile (De Massis et al., 2008), highlighting the multiplicity of the skills requested. Recent studies show that the successor must have both hard and soft competence (Beeson, 2009). Hard skills refer to the technical skills related to work, cognitive skills, and traditional and learned skills (Bereiter and Scardamalia, 2006, Laker and Powell, 2011) or those objectively measurable and demonstrable skills, such as the ability to identify business opportunities, to develop a business vision, to create and manage business networks and their work (Bird and Jelinek, 1989; Chandler and Jensen, 1992; Charles-Pauvers et al., 2004, Laviolette, 2006). On the contrary, the transversal intangible and difficult-to-measure skills reflect "skills and traits that concern personality, attitude and behavior" (Moss & Tilly, 2001) as motivation, communication, team spirit, and trust in themselves. Therefore it is essential to find practical tools, given the poor literature on the topic, to transfer silent Knowledge, skill, legitimacy, and credibility, which are of fundamental importance for the members of the new generation family (Le Breton-Miller et al., 2004). On these premises, our work aims to answer the following questions 1. What are the tacit knowledge tools used in knowledge transfer? 2. Which of them are helpful to transfer skills? The methodology of this work involves the administration of a semi-structured interview with family companies who are experiencing the generational transition or have lived it.

Keywords: Tacit Knowledge, Family business, Generational succession, Skills

1. Introduction

Family businesses account for a huge percentage of employment in most capitalist countries (Morck et al., 2000; Shepherd and Zacharakis, 2000). In these types of organizations, the founders seek to ensure continuity of family control through intergenerational succession. Unfortunately, recent literature suggests that only 30% of family businesses survive beyond the first generation and that many intergenerational successions fail soon thereafter.

the second generation (Davis and Harveston, 1998, Handler 1992;). Research suggests that there are many reasons why such successions fail. They include unclear succession plans, incompetent successors, family rivalries and even an erroneous transfer of knowledge (Dyer, 1986; Hugron, 1993; Lansberg, 1999; Pitt 2000).

Within organizations, knowledge is a crucial competitive factor for their success. It is more than just information and data and can be described as a "fluid mix of experiences, values, contextual information and expert insights" (Davenport and Prusak, 1998).

Knowledge manifests itself in the form of intangible (tacit) and tangible (explicit) assets; the former is embodied in human beings while tangible goods are incorporated over time into organizational procedures, routines, processes and documents. Therefore, paying attention to the transfer of knowledge, especially in family businesses, is a critical issue for the survival and growth of the company over time. In fact, in these organizations' knowledge - often - is rooted in the figure of the entrepreneur and therefore during the succession process the very survival of the company could appear threatened. While in the family business system the value of knowledge is clear, it is often difficult to recognize all the different components involved (Takeuchi, 2001), therefore, it is essential that the entrepreneur focuses not only on developing and managing the different aspects of knowledge, but above all on its transfer (Spender, 1996).

The contribution therefore aims to identify and analyze - through an empirical approach - if tacit knowledge is considered a valid support in the transfer of knowledge from the entrepreneur to the successor; how this tacit transfer of knowledge takes place, in particular through what specific tools in the difficult passage of generational change.

In fact, it is a crucial moment in the life of the company because it involves the passage from one generation to the next to a real wealth of know-how and management skills, acquired over years of experience.

2. Theoretical Framework

2.1 The Role of Knowledge in the Process of Generational Succession

One of the great challenges that family business experience during the generational transition is the successor's ability to acquire the knowledge of the predecessor. This knowledge transfer, both tacit and explicit, is essential for maintaining and improving performance family business.

In the academic literature the management of knowledge in the succession family business emphasizes the transfer of knowledge between the founder and the next generation is problematic, but essential for a successful transition (Cabrera-Suárez et al., 2021; Handler, 1990). The Knowledge can be defined as the set of skills and competences that family members accumulate during their educational, work and life experiences and which they collectively possess (Martínez et al., 2013)

Knowledge management is used to safeguard the business over time, as it is essential importance during a succession process (Cabrera-Suárez et al., 2021). In particular, knowledge management can prove to be a key success factor in passing the business to the next generation.

Therefore, the issue of knowledge has long been addressed by scholars of organizational disciplines, developing and enriching itself in parallel with what happened in companies with reference to business studies, enriching the flow of implications from IT to Management (De Nito and Reina, 2003). A key aspect to address when talking about knowledge is related to the nature of knowledge and its dimension. As for the dimension, knowledge must be analyzed under two aspects, both ontological and epistemological. The first refers to those who create knowledge by passing from the individual to the organization, it can be said that knowledge is a product of the individuals in an organization because without them it could not create knowledge (Monzani, 2005). From an epistemological point of view, however, the concept of knowledge has always been a place for comparison and interpretation within the scientific community: from the classic distinction between tacit and explicit knowledge (Polanyi, 1966; Nonaka, 1994; Brown and Duguid, 2001).

It is widely accepted that the figure of the founder represents the holder of specific knowledge of the company who needs to pass on the knowledge to another generations (De Massis, Sieger, et al., 2016;).

A highly motivated predecessor is able to facilitate the process of knowledge transfer (Bracci and Vagnoni, 2011; Cabrera-Suárez et al., 2021). However, many predecessors may be influenced by the thought of losing their leadership position and becoming superfluous over time (Lansberg, 1988). This is often referred to as a barrier to the knowledge transfer process and succession process. Knowledge transfer is greatly enhanced when the owner is willing to disclose rather than retain knowledge (Bracci and Vagnoni, 2011).

On the other hand, the characteristics of a successor also significantly influence the process of knowledge transfer in family businesses (Bracci and Vagnoni, 2011; Szulanski, 2004). Successors need to be strongly motivated to gain experience and knowledge from their predecessors (Cabrera-Suárez et al., 2001; Chirico and Saves, 2008). Lack of motivation can lead to an overestimation of the knowledge transfer process (Cabrera-Suárez et al., 2001).

The successors' ability to acquire the knowledge of their predecessors is influenced by their education (Chirico, 2007; Csizmadia et al., 2016). Business knowledge continues to develop through formal education (Barbera et al., 2015;), in fact the successor's performance after joining a family business may be related to the successor's formal education (Pérez-González, 2006).

2.2 Tacit Knowledge in the Generational Succession

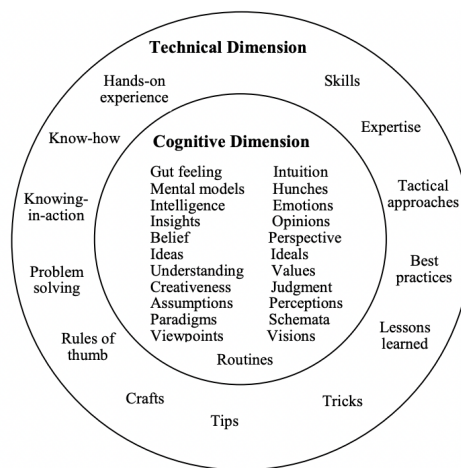
The distinction between tacit and explicit knowledge is the key to understanding organizational knowledge (Nonaka and Takeuchi, 1995; Inkpen and Dinur, 1998). Polanyi (1962) defined tacit knowledge as non-verbalizable, intuitive and non-articulated knowledge. Tacit knowledge is learned through collaborative experience and is difficult to articulate, formalize and communicate (Nonaka and Takeuchi, 1995; Polani, 1966). Tacit knowledge could be held by individuals or held collectively, in shared collaborative experiences and interpretations of events. Individual tacit knowledge can be found in an employee's patterns, skills, habits and abstract knowledge (Lyles and Schwenk, 1992; Starbuck, 1992). Tacit collective knowledge typically resides in top management schemes, organizational consensus on past collaborative experiences, business routines, corporate culture and professional culture (Nelson and the Winter, 1982; Nonaka and Takeuchi, 1995).

Spender (1996) suggested that tacit knowledge might best be understood as knowledge that has not yet been turned into practice. It is knowledge that has been made into habit, and it is highly context specific and has a personal quality (Nonaka, 1994).

On the contrary, explicit knowledge is encoded and transferable in formal and systematic methods, such as in rules and procedures (Nonaka and Takeuchi, 1995). Individual explicit knowledge consists of knowledge and skills that can be easily taught or transcribed, while collective explicit knowledge resides in standard operating procedures, documentation, information systems and rules (Brown and Duguid, 1991; Starbuck, 1992).

As Inkpen and Dinur (1998) have pointed out, the distinction between explicit and tacit knowledge must not be seen as a dichotomy but as a spectrum with the two types of knowledge as the poles at either end.

Nonaka and Takeuchi (1995) identified two elements of tacit knowledge: cognitive and technical. Figure 1 shows the potential distribution of examples of tacit knowledge within the two dimensions of Nonaka and Takeuchi.



Source: Nonaka and Takeuchi 1995

Figure 1: Potential Distribution of Tacit Knowledge

The cognitive impression includes beliefs, ideas, paradigms, values, intuition and mental models. The technical dimension is more related to "know-how", trades and "informal skills" which are commonly accepted definitions of tacit knowledge (Nonaka, 1994).

3. Case Study

3.1 Methodology

To deepen investigate our topics, we used here a qualitative method for the analysis. In particular, we thought that the case study (Yin and Pinnelli, 2005) was the most appropriate methodology to answer our research questions. This method, in fact, seemed us suitable to correctly answer an "if" and "how" question in a specific context (Edmondson and McManus, 2007) (in particular: if tacit knowledge is considered a valid support in knowledge transfer from entrepreneur to the successor/s; how this tacit knowledge transfer is made, more specifically through which specific tools). Therefore, we could understand peculiarity of each organizational setting (Stake, 2005).

The scientific research on support of tacit knowledge transfer during a generational succession in Italian family business is still in a pioneering phase (Bryman and Bell, 2011).

We chose a multiple case study, because it seems offer more advantages than the case study: the single data collected seem more reliable and greater rigor in the study of the observed phenomenon.

The cases analyzed were three: one small manufacturing enterprise in the northwest Italy and two commercial enterprises in the northeast Italy, one very small and one medium size. These cases were considered particularly significant because they were representative of different generational succession situations in family business, both for the different types of businesses (manufatural and commercial; tiny, small, and medium enterprises), and the variety of geographic collocation (in Italy it is particularly significative). The three cases were also chosen because, despite the small size, shows also several combinations of generational successions: one from father

to three sons, one from father to daughter, one from mother to son. Moreover, one hadn't any plan for the generational handover, and two had; one of this was helped by an external support and the other wasn't.

The data were collected through eight semi-structured interviews, recorded and transcribed, conducted with three older entrepreneurs (two fathers and one mother) and five younger (four male and one female). The interviews on average lasted about 40 minutes and the dataset retained a certain degree of flexibility, along with our research questions, which were often updated according to ongoing feedback and unexpected events (Leonard-Barton, 1998). The survey is made up of 9 questions, of which six are open, and three are multiple choices.

The researchers then processed the results. Through a group of work and discussion, we selected the most interesting and relevant contents from the incoming materials and, when necessary, transcribed these contents with a word processor to build a homogeneous archive for the analysis.

3.2 Cases Description

CL is a small mechanical enterprise situated in northwest Italy. It was founded in the seventies and divided into two different businesses in the eighties. Considering the first foundation, this is the second generational transition; if we contemplate the current activity, it is the first. This delicate phase was planned two years ago, with the help of an external consultant, and it is still ongoing.

A.A. is a tiny commercial enterprise, in the furniture field, situated in northeast Italy; it was founded in 1966; at the beginning, it was carpentry that was enlarged in the seventies and transformed into a commercial company. Today it is a shop of about 5000 square meters, with only six employees, and it is experiencing the third generational transition. The change process has been planned about ten years ago and the mentoring is still in progress.

AB is a medium enterprise for the luxury furniture and design sector, founded in the eighties in northeast Italy. In ten years, it became a group of six shops and one tailor-made production, with fifty employees, and experienced the first generational step, without planning, concluded few years ago.

4. Analysis and Results

As regards the first question of our research, we asked all the interviewees if, in their opinion, the knowledge transfer in the generational transition was important. In particular, according to Davenport e Prusak (1998) and Nonaka and Takeuchi (1995) we asked them to specify which component of knowledge (tacit or explicit) they considered a primary support for the generational change.

All the interviewees, both senior and junior, answered affirmatively and indicated tacit knowledge as the main support. The generational change was considered by all, albeit with slightly different words, a delicate moment for the life of the company, which, for this reason, requires a lot of attention and care. They added that a good protection is precisely the transfer of experiences, intuitions, relationships, and so on, that cannot be explicitly learned neither passed on.

To investigate the second proposal, five tools of tacit knowledge were suggested, and more precisely: intuition (Nonaka & Takeuchi 1995; Virtainlahti 2006), personal business sense, observation (Senker, 1995; Mohajan, 2016)), mentoring, and participation (Mohajan, 2016). We asked each respondent if they were considered important and why. In the end, a free field called "other" was also left to allow everyone freely insert further tools of tacit knowledge deemed necessary.

- Intuition: four people answered "no" (all sons, one of whom, however, said that "if present, it helps speed up the transfer of knowledge") and four "yes" (all the three senior entrepreneurs and the daughter; this latter considered appropriate to specify that "it is very useful because it speeds up the knowledge transfer")
- Personal business sense: six interviewed people answered "yes", and two said "no". A senior entrepreneur and one junior, both explained that "you can learn and develop it through technique and method even in a second time".
- Observation: seven people answered "yes"; only one said "no" (a son, who specified "it is not necessary but, when it is present, can be helpful"). A curious detail is that the two females, senior and junior, both thought it proper to specify, respectively, that "with the term "observation", I don't just mean "gaze", but I think to the use of all senses" and "I consider it a necessary tool, but I mean an empathic observation, not only with the eyes but with all senses, and with the hearth".

- Mentoring: four people answered that it is really supportive, but one of them specified "I mean external mentor, because my father is not able to do it well"; the two women and one entrepreneur specified that "it is an important tool, that helps and simplifies the tacit knowledge transfer and it must be a reciprocal mentoring; we must support each other by teaching and learning in a mutual educational process". Four people, three junior and one senior, answered that mentoring is not a necessary tool.
- Participation: almost all interviewed people replied that it is a fundamental tool ("without participation, it is useless to think of a knowledge transfer or even a generational change"). The only one who answered "it is not important", was one of the senior entrepreneurs. However, the other, even if he answered "yes", pointed out that "mine answer is " yes "only if the successors are ready; otherwise, they should not participate because they only do damage".

Only five people have inserted other tools in the free space, namely "trust, we-thinking, humility, empathy, listening, cooperation, competencies". Two juniors underlined the importance of regular meetings and feedback.

TOOL FOR TACIT KNOWLEDGE TRANSFER	Senior entrepreneur (M)	Senior entrepreneur (F)	Senior entrepreneur (M)	Junior entrepreneur (M)	Junior entrepreneur (M)	Junior entrepreneur (M)	Junior entrepreneur (F)	Junior entrepreneur (M)
Intuition	YES	YES	YES	NO	NO	NO	YES	NO*
Personal sense of business	YES	YES	NO	YES	YES	YES	NO	YES
Observation	YES	YES	NO	YES	YES	YES	YES	YES
Mentoring	NO	YES	YES	YES	NO	NO	YES	NO
Participation	YES*	YES	YES	YES	YES	YES	YES	NO
Other	Competencies	Trust, Humility, we-thinking	empathy	I don't know	I don't know	I don't know	Trust, cooperation, regular feedback and meetings	Listening, regular feedback and meeting

Source: Our elaboration from the interviews

Figure 2: Tol for Tacit Knowledge Transfer

5. Limits

The present on field analysis contributes to verify how tacit knowledge is considered a valid support in knowledge transfer process during generational succession. The interviews done show that differently are valued the tools able to transfer tacit knowledge among generations. The contribution represents a first step regarding the aim to deep how knowledge and what kind of is relevant in Family business in the generational transition. So the small number of firms involved represent a first limit to overcome; perhaps the different typologies of firms contacted have permitted to underline the importance of topic analyzed, but on the other hands can have created distortion in real comprehension of tacit knowledge transfer tools.

Next step will regard to rise the number of firms involved in the study, maybe through a selection of a specific industrial sector in order to reduce the interpretative ambiguity and then to select the Family business in different Italian regions.

References

- Arzubiaga, U., De Massis, A., Kammerlander, N., & Hoy, F. (2022). Knowledge management in family firms: opening the black box and suggestions for future research. *Journal of Knowledge Management*, 26(2), 269-290.
- Barbera, F., Bernhard, F., Nacht, J. and McCann, G. (2015), "The relevance of a whole-person learning approach to family business education: concepts, evidence, and implications", *The Academy of Management Learning and Education*, Vol. 14 No. 3, pp. 322-346
- Botti, A., in Ferrari F., (2006). *Il passaggio generazionale delle PMI. La gestione della trasmissione d'impresa tra rischi e opportunità*. Franco Angeli Editore
- Bracci, E. and Vagnoni, E. (2011), "Understanding small family business succession in a knowledge management perspective", *IUP Journal of Knowledge Management*, Vol. 9 No. 1, pp. 7-36.
- Brown, J.S. and Duguid, P. (1991), "Organizational learning and communities-of-practice: toward a unified view of working, learning, and innovation", *Organization Science*, Vol. 2, pp. 40-57.
- Bryman, A. and Bell, E. (2011), 'Business Research Methods', 3rd ed., Oxford University Press, Oxford.
- Cabrera-Suàarez, K., De Saa-Perez, P. and Garcia-Almeida, D. (2001), "The succession process from a resource-and knowledge-based view of the family firm", *Family Business Review*, Vol. 14 No. 1, pp. 37-46.

- Camuffo, A. (1996). Competenze: la gestione delle risorse umane tra conoscenza individuale e conoscenza organizzativa. *Economia e Management*, 2.
- Canadian disease? In: Morck, R.K. (Ed.), *Concentrated Corporate Ownership*, 319–371.
- Chirico, F. (2007), "The accumulation process of knowledge in family business", *Electronic Journal of Family Business Studies*, Vol. 1 No. 1, pp. 62-90.
- Csizmadia, P., Mako, C. and Heidrich, B. (2016), "Managing succession and knowledge transfer in family businesses: lessons from a comparative research", *Vezetestudomány/Budapest Management Review*, Vol. 47 No. 11, pp. 59-69.
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business Press.
- Davis, P.S., Harveston, P.D., 1998. The influence of family on the family business succession process: a multigenerational
- De Massis, A., Sieger, P., Chua, J. H., & Vismara, S. (2016). Incumbents' attitude toward intrafamily succession: An investigation of its antecedents. *Family business review*, 29(3), 278-300.
- De Nito, E. and Reina, R. (2003). L'approccio social-construction al knowledge management: dalla gestione alla creazione della conoscenza. 26th AIDEA Conference.
- decision making. *Entrep. Theory Pract.* 24 (4), 25–39.
- Duarte Alonso, A., & Kok, S. (2021). Knowledge and the family firm through generations: a knowledge-based approach in various geographic contexts. *Knowledge Management Research & Practice*, 19(2), 239-252.
- Dyer Jr., W.G., 1986. Cultural Change in Family business: Anticipating and Managing Business and Family
- Edmondson, A. C., and McManus, S. E. (2007). 'Methodological fit in management field research'. *Academy of management review*, 32(4), 1246-1264.
- Handler, W., 1992. Succession experience of the next generation. *Fam. Bus. Rev.* 5 (3), 283–307.
- Handler, W.C. (1994), "Succession in family business: a review of the research", *Family Business Review*, Vol. 7 No. 2, pp. 133-157.
- Hugron, P., 1993. *L'Entreprise familiale*, Institute for Research on Public Policy, Presses HEC.
- Inkpen, A.C. and Dinur, A. (1998), "Knowledge management processes and international joint venture", *Organization Science*, Vol. 9 No. 4, pp. 454-68.
- Kets de Vries, M.F.R. (1993). The dynamics of family controlled firms: the good and the bad news. *Organizational Dynamics*, 21, Winter
- Lansberg, I. (1988), "The succession conspiracy", *Family Business Review*, Vol. 1 No. 2, pp. 119-143.
- Lansberg, I., 1999. *Succeeding Generations*. Harvard, Boston.
- LeCounte, J. F. (2022). Founder-CEOs: Succession planning for the success, growth, and legacy of family firms. *Journal of Small Business Management*, 60(3), 616-633.
- Leonard-Barton, D. Synergistic Design for Case Studies: Longitudinal Single-Site and Replicated Multiple-Site. *Proceedings of the National Science Foundation Conference on Longitudinal Research Methods in Organizations*, Austin, USA, 1998.
- Lyles, M.A. and Schwenk, C. (1992), "Top management, strategy and organizational knowledge structure", *Journal of Management Studies*, Vol. 29 No. 2, pp. 155-74.
- Martinez, A.B., Galvan, R.S. and Palacios, T.B. (2013), "Study of factors influencing knowledge transfer in family business", *Intangible Capital*, Vol. 9 No. 4, pp. 1216-1238.
- Mohajan, H. (2016). Sharing of tacit knowledge in organizations: a review.
- Monzani, L. (2005). Knowledge management or knowledge creation? La sfida della risorsa conoscenza. *Persone e Conoscenza*, 30.
- Morck, R.K., Stangeland, D.A., Yeung, B., 2000. *Inherited wealth, corporate control, and economic growth: the*
- Nelson, R.R. and Winter, S. 1982, *An Evolutionary Theory of Economic Change*, Harvard University Press, Cambridge, MA.
- Nonaka, I. (1994), "A dynamic theory of organizational knowledge creation", *Organizational Science*, Vol. 5 No. 1, pp. 14-37.
- Nonaka, I. and Takeuchi, H. 1995, *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, Oxford.
- Perez-Gonzalez, F. (2006), "Inherited control and firm performance", *The American Economic Review*, Vol. 96 No. 5, pp. 1559-1588.
- perspective. *Entrep. Theory Pract.* 22/3, 31–49.
- Pitts, G., 2000. *In the Blood*. Doubleday, Toronto.
- Polanyi, M. 1966), *The Tacit Dimension*, Anchor Books, New York, NY.
- Polanyi, M. (1962), *Personal Knowledge: Toward a Post-Critical Philosophy*, University of Chicago Press, Chicago, IL.
- Rubenstein-Montano B., Liebowitz J., Buchwalter J., McCaw D., Newman B., Rebeck K. (2012), "Behavioral intention formation in knowledge sharing: examining the roles of KMS quality, KMS self-efficacy, and organizational climate", *Knowledge – based System*, 31, 106-118.
- Senker, J. (1995). Tacit knowledge and models of innovation. *Industrial and corporate change*, 4(2), 425-447.
- Shepherd, D.A., Zacharakis, A., 2000. Structuring family business succession: an analysis of the future leader's
- Spender J.C. (1996), "Making knowledge the basis of a dynamic theory of the firm", *Strategic Management Journal*, 17:45-62.

- Spender, J.C. (1996), "Competitive advantage from tacit knowledge? Unpacking the concept and its strategic implications", in Moingeon, B. and Edmondson, A. (Eds), *Organizational Learning and Competitive Advantage*, Sage, London.
- Stake, R. (2005), 'Qualitative Case Studies', in *The Sage Handbook of Qualitative Research*, (eds) N. K. Denzin e Y. S. Lincoln, Sage, Thousand Oaks, Londra e New Delhi.
- Starbuck, W.H. (1992), "Learning by knowledge-intensive firms", *The Journal of Management Studies*, Vol. 29 No. 6, pp. 713-40.
- Su, E., & Daspit, J. (2022). Knowledge management in family firms: a systematic review, integrated insights and future research opportunities. *Journal of Knowledge Management*, 26(2), 291-325.
- Szulanski, G., Cappetta, R. and Jensen, R.J. (2004), "When and how trustworthiness matters: knowledge transfer and the moderating effect of causal ambiguity", *Organization Science*, Vol. 15 No. 5, pp. 600-613.
- Takeuchi H. (2001), "Towards a universal management concept of knowledge", in Nonaka I. and Teece D.J. (Eds), *Managing Industrial Knowledge. Creation, Transfer and Utilization*, Sage, London.
- Transitions. Jossey-Bass, San Francisco.
- Vallone C. (2009), "Il passaggio generazionale nel Family Business e i fattori di successo per la continuità aziendale", Giuffrè Editore, Milano.
- Ventura, M., Vesperi, W., Melina, A. M., & Reina, R. (2020). Resilience in family firms: a theoretical overview and proposed theory. *International Journal of Management and Enterprise Development*, 19(2), 164-186.
- Yin, R. K., and Pinnelli, S. (2005). 'Lo studio di caso nella ricerca scientifica: progetto e metodi', Armando ed. pp.44-45.