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Il DNA della Loccioni

Un articolo di Paolo Bricco su

Enrico Loccioni

Presidente Gruppo Loccioni

Paolo Bricco, Il modello di Adriano Olivetti nell'impresa dell'ex elettricista, in *Il Sole 24 Ore* , 23 Dicembre , 2009.

Quell'utopia riuscita di un ex elettricista

Adriano Olivetti e Werner von Siemens nel Dna della Loccioni: innovazione e governance allargata

di **Paolo Bricco**

«Avevo cinque anni. Una notte, mentre stava partorendo, una vacca di mio padre morì. Vennero i vicini di cascina. Il giorno dopo, si autotassarono e ci portarono una vitellina». Nulla di che. Un ricordo di una civiltà della mezzadria in cui l'etica del dono si sovrapponeva, fino a risultare indistinguibile, alla razionalità economica. Un mondo in parte sommerso, in parte riemerso dopo una profonda metamorfosi sotto le spoglie di quell'enorme provincia italiana pullulante di piccoli imprenditori sorti dalle stalle e dai pianterreni delle case trasformati in officine, mani e arguzie secolari piegate all'industria. «Avevamo quattro vacche. Ma ogni birroccio veniva spinto da una coppia di animali. La morte della vacca voleva dire fermarne uno, dimezzando l'attività dei campi. Gli altri contadini risolsero il nostro problema. Noi avremmo fatto lo stesso con loro».

SELF MADE MAN

Storia di un imprenditore che non sa una parola d'inglese ma esporta il 45% del fatturato e chiuderà in utile anche il 2009: un pezzo di «terza Italia» che va

Enrico Loccioni è un uomo strano. Inizia quarant'anni fa come elettricista, poco più che adolescente, guidando il suo Ape su e giù per le Marche, lavoro nero e bassi prezzi finali, spirito imprenditoriale e una cultura popolare intimamente contadina, gli ingredienti invisibili di quello che l'economista eretico Giorgio Fuà avrebbe definito «il modellaccio» dello sviluppo italiano. La prima commessa importante la riceve da Francesco Merloni: sistema l'impianto elettrico della sua fabbrica di Fabriano, per 800 lire all'ora, come è scritto sulla fattura datata 30 luglio 1968. Nel 1969, alla fiera campionaria di Milano, incontra gli uomini della Siemens e decide di acquistare da loro e non da altri «perché, invece di parlarmi dei prezzi, mi raccontavano la storia del loro fondatore e del loro gruppo». Nel 1972 lui, che è quanto più lontano dagli intellettuali che nelle parole di Gadda «ahi, ahi, ahi vogliono la coscienza inquieta e lo stipendio della Olivetti», annusa l'utopia e fa il viaggio di nozze con la moglie Graziella a Ivrea: «Anche se non è che alla fine fossi poi così contento, vidi qualche sito industriale e basta».

Oggi la sua azienda, ad Angeli di Rosora (Ancona), si occupa di misurazione e di controllo di qualità, di biomedicale e di green economy. Ci lavorano 290 persone. Non hanno fatto un'ora di Cig. In questa fabbrica-laboratorio, all'imbocco della Valle Esina, non c'è il sindacato. Non che sia vietato. Semplicemente, a nessuno è venuto in mente che possa servire. C'è un imprenditore che esporta il 45% del suo fatturato (50 milioni di euro quest'anno, in linea con il 2008) e non sa una parola d'inglese. Fa alta tecnologia (i macchinari per preparare senza errori umani le dosi di chemio o per diagnosticare le malattie dal semplice respiro) e, di ultime frontiere innovative, capisce poco. Nello scorso esercizio ha realizzato un utile netto di 1,8 milioni. Lo stesso, in un contesto di generale crisi nera, capiterà quest'anno.

Soprattutto, Loccioni è un personaggio anomalo perché, senza alcuna posa intellettuale ma con la semplicità dell'uomo in maglione che ogni giorno alle 11 prende una mela, la sbuccia e la mangia, ti parla di valori e di cultura. La fine del '900 ha portato in Italia alla crisi del modello della grande impresa e alla conseguente definitiva archiviazione di ogni esperienza, con una valenza direttamente o indirettamente sociale: l'utopia della Olivetti (nella versione positivistico-socialista di Camillo e umanistico-industriale di Adriano), il paternalismo della Marzotto, la via social-lombarda della Pirelli e della Falck, l'impresa-istituzione della Fiat.

Loccioni, con il genuino candore dell'autodidatta che ha fatto la terza media, sfoglia i libri su Werner von Siemens («è il nostro modello di sviluppo industriale») e su Adriano Olivetti e il padre Camillo («sono i nostri modelli culturali»). E incrocia i discorsi organizzativi con le sedimentazioni antiche della tradizione rurale marchigiana. «Siemens - dice - organizzò il suo gruppo con 19 aree di business diverse. Noi ne abbiamo otto. Non concentrarsi ma diversificare serve alla riduzione del rischio. In fondo, la mezzadria è durata 400 anni grazie a questo. I mezzadri dividevano la terra in tanti piccoli appezzamenti dedicati ad altrettante colture».

Dunque, in una terra insieme marginale e centrale come le Marche, il caso di Loccioni è emblematico. In qualche misura il paradigma di Fernand Braudel, con la lunga durata e i fiumi carsici che s'inabissano e poi tornano alla luce in maniera sorprendente sotto forme inusuali, è utile per capire come schegge di utopismo concepite nel fordismo novecentesco possano riaffiorare nei discorsi e nei comportamenti di un contadino marchigiano fattosi artigiano e, poi, industriale nei tempi dell'economia della conoscenza. Sono questi i riferimenti che hanno portato la sua impresa a ricevere una lunga serie di premi. Per citarne alcuni riconoscimenti, il Best World Places Italia, l'Imprenditore olivettiano, il Premio Sodalitas e quello d'Impresa e cultura. Una propensione che non si nutre della retorica e della pratica della responsabilità sociale d'impresa, importata negli ultimi quindici anni dalla cultura anglosassone che, non senza fatica e qualche volta con esiti contraddittori (Enron aveva un bilancio sociale di eccelsa qualità formale), cerca di coniugare il mercato, i prodotti, la finanza e il cuore dell'uomo.

I riferimenti di Loccioni, coltivati con una passione a tratti inconsapevole e un afflato candido ma sincero, sono tutti storicizzati e, per esempio, compaiono nelle sua piccola attività editoriale, che ha portato alla pubblicazione dei libri *Un discorso di Adriano Olivetti ai dipendenti* (si tratta di quello tenuto il giorno di Natale del 1955), *La misura di un sogno: l'avventura di Camillo Olivetti*, scritto dal contemporaneista Carlo Lacaita e l'intervista del giornalista Roberto Petrini a Giorgio Fuà, *Uomini e leader*. Questo strano *humus* ha alimentato un modello di business che, al di là della maggiore o minore serenità del posto di lavoro e della soggettiva percezione di sé da parte di chi qui "presta" la sua opera di salariato, per dirla marxianamente, ha prodotto efficienza e utili netti, in un modello industriale che ha condotto al superamento della semplice e brutale materialità delle cose. Olivetti o no. Fuà o meno. Siemens o quant'altro.

Comunque sia, è sicuro che qui all'imbocco della Valle Esina, a poche centinaia di metri dalla mulattiera che per tutto il secolo scorso sarebbe probabilmente rimasta l'unica via di collegamento al resto del mondo se Aristide Merloni non avesse fondato la Ariston trenta chilometri più a monte, non c'è la classica lamiera del piccolo e del medio imprenditore della Terza Italia. Trovi, invece, attività di servizio e immaterialità. La Leaf House, la prima casa a emissioni zero, e la nuova sede del gruppo progettata dal bioarchitetto tedesco Thomas Herzog, ultimi approdi di una evoluzione industriale che, partendo da un Ape e da una cassetta per gli attrezzi e passando attraverso l'impiantistica industriale, la misura del controllo di qualità e la ricerca, ha condotto alla centralità del business dell'energia.

Intanto, Loccioni pianta 400 alberi e mette in rete le piccole fattorie marchigiane, usandole per ospitare i clienti e i fornitori stranieri. Inoltre, in questo particolare impasto di valori dichiarati e professati, di libri squadernati e di pasti in azienda consumati a chilometro zero (con gli ingredienti comperati direttamente dai contadini), c'è una venatura d'imprenditorialità "neo-terzaitaliana".

Loccioni ha favorito il distacco dei suoi dipendenti che desideravano mettersi in proprio. In tutto sono una ottantina. Hanno creato circa 400 occupati. «L'imprenditore è un uomo libero. Perché dovrei trattenerli? Che vadano», dice Loccioni. Il quale, con la sua ansia tranquilla di fare stare grandi discorsi dentro la sua piccola fabbrica, aggiunge: «L'utopia e la buona impresa? Secondo me non sono cose distinte. Anzi, è più facile che questi embrioni crescano avvinghiati insieme dentro le piccole strutture, rispetto alle grandi. Non so. Boh. Lei cosa ne pensa?», ti chiede Loccioni.

Apprendistato sul campo. Enrico Loccioni (60 anni): da artigiano a imprenditore della green economy

I PROFILI

La realtà industriale
Il gruppo Loccioni, che ha 290 addetti e opera nei sistemi di qualità, sta sempre più orientando la sua attività verso la green economy e il biomedicale. Esporta il 45% del suo fatturato, che quest'anno dovrebbe essere pari a 50 milioni di euro, in linea con il 2008. L'utile netto dovrebbe aggirarsi intorno a 1,8 milioni. Il suo modello organizzativo è fondato su otto divisioni differenti, che consentono di diversificare e di ridurre il rischio d'impresa. Questa azienda ha generato una rete di altre imprese, fondate da ex dipendenti che hanno scelto di mettersi in proprio: oggi sono una ottantina e danno lavoro a 400 addetti.

La connotazione culturale
Il gruppo Loccioni, per le politiche svolte a favore dei dipendenti e dell'ambiente, ha ottenuto una lunga serie di premi. Per citare alcuni riconoscimenti, il Best World Places Italia, l'Imprenditore olivettiano, il Premio Sodalitas e quello d'Impresa e cultura. Fra le attività svolte, c'è anche la pubblicazione di testi quali *Un discorso di Adriano Olivetti ai dipendenti* (si tratta di quello tenuto il giorno di Natale del 1955), *La misura di un sogno: l'avventura di Camillo Olivetti*, scritto dal contemporaneista Carlo Lacaita e l'intervista del giornalista Roberto Petrini all'economista Giorgio Fuà, fondatore dell'Istao, *Uomini e leader*.

Decima puntata
Le precedenti puntate sono state dedicate al credito e alle imprese (24 novembre); alla creatività con la quale le piccole aziende riescono a vincere la crisi e a essere competitive (25 novembre); alle strategie delle medie imprese che vanno alla conquista dei mercati esteri nonostante le difficoltà (27 novembre); ai grandi gruppi industriali il cui declino mette le medie e piccole aziende al centro del sistema produttivo italiano (28 novembre); all'arte del restauro come business (1 dicembre); alle vendite online (3 dicembre); a crisi pubblica e felicità privata (4 dicembre); alla produzione nei mercati dell'Est Europa (5 dicembre); ai rapporti tra banche e politica (10 dicembre).

TESTIMONI E MAESTRI

Adriano Olivetti (1901-1060)
Presidente della Olivetti

L'industria, l'umanesimo e la politica
È l'utopista industriale per eccellenza. Capace di puntare sull'innovazione organizzativa e di creare prodotti di grande redditività, come la Divisumma. Fra il 1945 e il 1960 organizzò l'azienda fondata dal padre, Camillo, secondo criteri legati al coinvolgimento diretto e alla promozione culturale e sociale dei dipendenti. Con il movimento politico Comunità, non ebbe fortuna alle elezioni del 1958.

Werner von Siemens (1816-1892)
Fondatore della Siemens

La tecnologia, l'organizzazione, il capitale
Nell'impresa fondata da von Siemens - che ha permesso fin dall'800 all'economia occidentale di compiere alcuni dei principali salti tecnologici (per esempio nella elettrotecnica e nelle trasmissioni via telegrafo) - il modello renano fondato sulla multispecializzazione, nel corso dei decenni, ha fatto il paio con la cogestione e il controllo azionario tramite le fondazioni.

Enrico Mattei (1906-1962)
Fondatore dell'Eni

La geopolitica e il dilemma dell'etica
Enrico Mattei, marchigiano di origine, è stato fra i principali protagonisti del capitalismo italiano. In Eni ha creato meccanismi di promozione sociale e culturale che hanno reso il gruppo uno dei principali veicoli di formazione delle nuove élite italiane. Allo stesso tempo, ha avuto un rapporto molto "libero" con la politica, che ha pesantemente condizionato, facendo leva anche sulla sua "forza" finanziaria.

Nuovi paradigmi oltre la grande industria

Un articolo scientifico sulla Loccioni

Elena Casprini , (Scuola Superiore Sant'Anna, Pisa, Italy); Alfredo De Massis , (Free University of Bolzano, Bolzano, Italy and Lancaster University, Lancaster, UK); Alberto Di Minin , (Scuola Superiore Sant'Anna, Pisa, Italy); Federico Frattini , (Politecnico di Milano, Milano, Italy): Andrea Piccaluga , (Scuola Superiore Sant'Anna, Pisa, Italy) **"How family firms execute open innovation strategies: the Loccioni case"** , in *Journal of Knowledge management*, vol , 21, n° 6

(estratto)

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Summary
Family firms are characterized by an "ability-willingness paradox" (De Massis *et al.*, 2015a, 2015b), whereby their willingness to engage in innovation activities is lower than in nonfamily firms despite their greater ability to do so (Chrisman *et al.*, 2015). This "ability-willingness paradox" in family firm innovation captures and synthesizes a number of conceptual and empirical arguments that have been used to portray, on the one hand, the unique resources of family firms that may lead to superior competitive advantage in innovation (Carney, 2005; Sirmon and Hitt, 2003) and, on the other hand, the reasons that family firms are less willing to innovate (such as risk aversion, non-economic goals and difficulty in sharing control with nonfamily members). Following these insights, scholars have started to unearth why some family firms – such as Alessi, Electrolux, Ferrero, Salewa, and many others – are able to resolve this paradox and excel in innovation (De Massis *et al.*, 2015a, 2015b).
The paper contributes to this debate by focusing on a particular aspect that may explain differences in how family firms execute an innovation strategy. In particular, the focus is on how family firms manage knowledge flows in executing an Open Innovation strategy, overcoming barriers
to the acquisition and transfer of knowledge via the development of idiosyncratic capabilities.
Although OI has attracted much interest in the past decade among innovation scholars (Dahlander and Gann, 2010; Huizingh, 2011), surprisingly little effort has been made to understand *how* family firms execute OI and, in particular, *how* they manage internal and external knowledge in this execution phase. Some fragmented contributions focus on specific aspects, such as external technology acquisition (Kotlar *et al.*, 2013) and search breadth in innovation (Classen *et al.*, 2012). These studies suggest that family firms tend to prefer using internal knowledge, thus adopting a more closed approach to innovation, unless specific knowledge management practices are adopted, such as the presence of intellectual property (IP) mechanisms (Kotlar *et al.*, 2013). However, how family firms use internal and external knowledge in executing an OI strategy would seem to be an under-researched topic (Urbinati *et al.*, 2017).
The focus on the execution of an OI strategy is particularly important if considering that existing research typically assumes that once a strategic decision is taken, execution will follow (Beer and Eisenstat, 2000; Crittenden and Crittenden, 2008). This is, however, not always the case, and little is known about how family firm decisions are made and the processes by which these decisions are implemented (Chrisman *et al.*, 2016). In particular, the execution of innovation decisions in family firms has not received as much attention in

scholarly inquiry, even if this issue may be very important to understand the heterogeneity of innovation performance in family firms (Chua *et al.*, 2012). The limited understanding of how family firms execute their innovation strategies is thus an important gap in knowledge, especially in relation to OI.

In an attempt to fill this gap in understanding the execution of OI in family firms, this paper presents and discusses an exploratory case study (De Massis and Kotlar, 2014; Yin, 2003). The case study examines how a family firm that executes an OI strategy has overcome the barriers to acquiring and transferring internal and external knowledge flows.

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4.1 Setting the scene: Loccioni

Established in 1968, Loccioni is a family firm that is world-renowned as a high-tech solution provider of tailored quality-testing systems in several sectors from health care to energy. Today the company has almost 400 employees (50 per cent with a university degree, 7 per cent with a PhD), an annual turnover of €70m and three international branches in China, Germany and the USA.

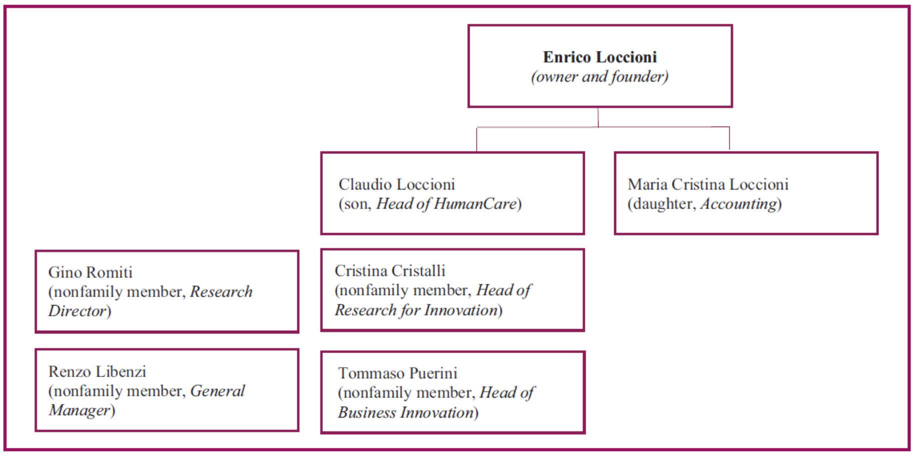
Loccioni's strategy has always focused on three main pillars: strong attention to people, central role of the territory and the importance of co-developing processes with customers. Since its founding, Enrico Loccioni, founder and current owner, has used an entrepreneurial model based on knowledge development and people's professional growth, recognizing the territory and its actors as the main engine of the firm's development, creativity and competitiveness. The international branches were established in recent years to remain closer to their end customers.

The family firm's mission is to "integrate ideas, people and technologies to transform data into values". To pursue its mission, Loccioni has organized itself around five main BU, namely, Industry, Energy, Environment, Mobility and Human Care, each with its own R&D, and two emerging units, Train and Transport and Electronics. All the BUs have measurement as their general core competence, but each has a specific set of capabilities in a specific field. Moreover, a cross-functional unit, SUMMA, created in 1992, aims to build transversal competencies in different fields. Specifically, six functions can be distinguished in SUMMA (People, Marketing, Production, Logistics, Administration and Research for Innovation [RforI]). RforI consists of a group of 15 researchers tasked with exploring new technical fields and participating in European projects. Since 2014, the company also has a business innovation function, currently consisting of six people, created with the vision to develop new businesses. The firm invests 5 per cent of revenues in R&D.

All family members are employed in the firm, but non-family members also serve on the top management team (TMT). In particular, the TMT consists of Enrico Loccioni, founder and owner, his son Claudio Loccioni, engineer, who joined the family firm in 2004 and created he Human Care division, Gino Romiti and Renzo Libenzi who are, respectively, Innovation Director and General Manager of SUMMA, Cristina Cristalli, bioengineer, who has worked at Loccioni since 1998 and is head of RforI, Tommaso Puerini, engineer, who entered Loccioni as a project manager in 2003, then became a key account manager between

2005 and 2008, and today is head of Business Innovation.

Figure 1 The Loccioni family tree and the TMT



4.2 Open innovation in Loccioni

This section begins by describing the role of the founder, Enrico Loccioni. The founder and his family have been crucial in shaping and infusing the values of the firm and setting the long-term

direction. The family has always paid particular attention to change and innovation. Since Enrico Loccioni founded the firm, the firm has grown spurred by four main values: energy, imagination, responsibility and tradinnovation. These values are strongly and consistently promoted in the founder’s and managers’ speeches, in memos, websites and press releases. Energy refers to the passion and motivation at the base of any “knowledge company” (another label often used by Loccioni to define itself). Imagination refers to the ability to look forward: according to Enrico Loccioni, this requires looking beyond what is currently being seen to create the future (as an example, see the video on The 2KM of Future[1]). Responsibility is about acting based on the awareness that everything that is done now has a consequence on the future. Finally, tradinnovation stresses the importance of linking tradition in terms of the rural culture and experiences that characterize each local context to innovation. The Loccioni website (www.loccioni.com) states:

We are an open company; open to young people and to long experienced ones, to customers, suppliers, competitors, to the scientific and public community. Openness nourishes the continuous longing for depth, new knowledge, will to change, innovation. Openness enhances the creation of new businesses, the development of new technologies, facilitating relations andthe creation of international excellence networks, with whom to design future markets and technology applications.

Loccioni’s OI capacity can be understood in terms of number of new ventures created (80 spinoffs), patents owned (in 2015, 24 patent families) and an impressive number of collaborations with 21 universities, 7 research and technological centers as well as educational institutions and retired collaborators.

The following section analyses how the family firm has overcome some of the critical barriers to knowledge acquisition and transfer in executing its OI strategy. The analysis reveals that the family firm faced specific barriers to managing knowledge flows and leveraged its idiosyncratic characteristics (linked to the concepts of non-economic goals and social capital) to develop two distinctive capabilities that allowed overcoming these barriers. Figures 2 and 3 report the data structure, whereas some representative quotations from the case are presented in Appendix 2.

4.3 Barriers to knowledge management in the implementation of open innovation

The barriers to the management of knowledge flows that Loccioni faced in executing its OI strategy are described next. Loccioni has dedicated substantial attention to all aspects linked to the implementation of OI. The firm is extremely sophisticated in its choice of knowledge sources and partners and is very demanding in terms of knowledge transfer beyond the firm's boundaries. Starting from the data structure reported in Figure 2, the authors examine in detail the barriers to knowledge acquisition and integration that emerged from the case.

4.3.1 Barriers to knowledge acquisition: the inventor syndrome. With regard to the main barriers to knowledge acquisition, previous research has stressed the relevance of two barriers: the NIH syndrome and the difficulty in valuing and assimilating external knowledge. Instead, the evidence in this study suggests that a greater barrier to external knowledge acquisition for Loccioni is the so-called "inventor syndrome". The "inventor syndrome" refers to the overcapacity to internally develop new ideas and acquire external ideas, paired with the difficulty in selecting which ideas should be pursued. According to the interviews, Loccioni's employees have a widespread attitude to come up with new ideas deriving from the fact that the family has always invested in individual creativity, organizing several training programs and seminars. For example, the family firm organizes 7,000 h of training per year. These investments have fostered an organizational climate that supports individual creativity. However, during the interviews, both the TMT and employees recognized the need to select the knowledge to acquire and the ideas/problems to focus on. As one of the interviewees stated:

We need to be economically sustainable, we need to create value. [. . .] We need to understand if there is business beyond.

Consequently, according to Enrico Loccioni, it is important to focus on those ideas that are valuable for the firm. An example is the experience of one interviewee who mentioned several projects pursued with local high schools. In this case, the firm leaves the schools as much freedom as possible in developing their ideas and projects and then selects what is actually important for the future of the family firm.

It is the number that counts. Among the huge quantity of ideas and projects that arrive at our firm, there is always something that creates value.

4.3.2 Barriers to knowledge transfer: lack of intra-firm formalization, partners' selection and inter-firm knowledge transfer mechanisms. Loccioni has faced challenges with respect to knowledge transfer on two levels: within the firm's boundaries and beyond the firm's boundaries. As regards knowledge transfer within the firm's boundaries (i.e. intra-firm), the qualitative account revealed one main difficulty, i.e. a lack of intra-firm formalization in transferring knowledge. The firm has faced challenges in establishing formal knowledge transfer rules and procedures within its boundaries, in particular, difficulties in monitoring and communicating competences among employees. As the informants noted during the interviews, in the past, when the firm was still an SME, the lack of rules and procedures was not a problem, as the family firm was small enough and every employee knew what everyone else was doing. However, the same informants recognize that as the firm's size increased, the same rules and procedures gradually became a constraint. The interviews reveal that the main barrier to knowledge sharing has been the lack of formal communication channels to inform each about the activities and competences of others. Management is extremely aware of the relevance of formal knowledge sharing channels. The interviews also suggest that there are high expectations of the development of formalization channels, such as those that RforI[2] plans to achieve. As one of the nonfamily managers said:

Even the peacocks that are in our garden need to know what Research for Innovation (RforI) is doing [. . .] Otherwise, I risk losing opportunities when I go to the client".

The lack of intra-firm formalization of knowledge transfer mechanisms is seen as particularly crucial for RforI, which has always been involved in EU projects. When these projects are concluded, in the absence of a proactive exploitation strategy, the results of such projects risk remaining on the shelves. During the interviews, the managers indicated that in the past, the firm has missed exploitation opportunities, and one of the informants acknowledged that more could be done in terms of cross-fertilizing the technologies developed. On the other side, transferring knowledge beyond the firm's boundaries (i.e. inter-firm) is particularly challenging. First, Loccioni is highly demanding in selecting partners, looking for those that not only share the same language and values, but are also culturally aligned. As Cristina Cristalli noted:

It is difficult to find the right person to collaborate with. Not a lot of people appreciate open innovation.

Moreover, according to the informants, local universities are not always able to provide an appropriate learning program. This forces the firm to look for distant partners. As one of the top managers stated, it is not always easy to align interests with local university partners:

The firm is growing at a very fast pace, it is diversifying its areas of expertise and often the Marche region alone does not provide an adequate learning offering. The firm is then forced to look for talents across its regional boundaries.

Second, there is a lack of formal knowledge transfer mechanisms beyond the firm's boundaries. Specifically, there is scarce use of formal IP protection, and the firm does not license out its technologies. Claudio Loccioni recurrently stated that the family firm does not like to use licensing-out as an approach to outbound OI. Traditionally, the IP management strategy in Loccioni is driven exclusively by the family's desire to maintain control over its technological trajectories. In OI terms, the fear of losing control over the technology trajectory is known as the "not-sold-here" syndrome (Lichtenthaler *et al.*, 2010). The firm is the assignee of 24 patents families that protect technologies considered critical for the future of the business and does not seek formal IP protection for technologies that are not deemed essential. This attitude toward patenting partly explains why the firm does not license out its technologies.

4.4 Capabilities in Loccioni

The case study also reveals two firm-level capabilities that Loccioni has developed over time, here labelled "imprinting" and "fraternization". The development of these two capabilities is strictly related to Loccioni's nature as a family firm. Starting from the data structure reported in Figure 3, the next section describes these capabilities in detail.

4.4.1 Imprinting. The first capability that emerged from the evidence is labelled "imprinting" and refers to the family firm's capability to bringing the founding family's values and approach to knowledge search and innovation culturally close to employees. Imprinting allows the family approach to be fully understood and reduces the risk of low integration of knowledge flows due to rejection or lack of understanding of family values, cultural gaps and ineffective information transfer from the family to the business circle. Emerging from the data is that this search and innovation approach is driven by Enrico Loccioni and his family's non-economic goals; seeking profits and increasing the financial wealth of the family has never been their main goal. Rather, the firm's founder wanted to foster an environment with people who share and pursue his family values. As Enrico Loccioni stated:

The reason for doing business is to build something that lasts over time. We want to leave [the world] to the new generations better than we have found it.

These family values are infused into every aspect of the family firm and conveyed to every member. As one young interviewee who spent her internship at Loccioni noted:

During my first day, I received a lot of books about Loccioni. Moreover, a young lady from the "People" department introduced me to the family values and showed me all the facilities and the stories behind them. Since the first day, I could perceive the great importance Loccioni gives to the family firm's cultural and emotional aspects.

In terms of external knowledge acquisition, Enrico Loccioni's imprinting is evident in the

firm's knowledge search process whereby he transfers to his employees a "method" toward innovation. This method consists of three elements. First, the company must look for customers that are number one on the market; it is no coincidence that the firm's customers include multinationals such as Samsung and Bosch. Second, people should pay attention to local resources as a source of innovation. Third, each individual should consider the firm as a social good. The firm is in fact responsible for local development and has a role in society. This is in line with the fact that according to Enrico Loccioni, money and personal profit should not be the drivers of the firm's activities. As one of the interviewees noted, the company wants to make "profit" but in its Latin meaning:
The word profit comes from the Latin verb pro-facere that means "in order to continue to do". Consequently, for us, profit means creating wealth for future generations, and we reinvest this wealth in the firm in such a way that the firm continues to pursue its activities. This profit is reinvested in the territory in order to make the world better.
According to the informants, the family has the role of "warrantor" in transmitting these values. Enrico Loccioni and his family are always involved in the firm and committed to all critical issues. This is evident when considering that the family makes strategic longer-term decisions, thus maintaining control over the firm's technological trajectory. These decisions are taken with the help of the TMT. Put differently, the "not-sold-here" syndrome prevails for all technologies that are considered "distinctive" (Di Minin *et al.*, 2010; Prahalad and Hamel, 1990). Moreover, the family is always present within the firm and remains committed to solving critical issues when they arise. The family does not act as a "coercive" problem solver but rather an "inspiring" problem-solver. One of the informants noted that employees make decisions not because a family member says they must (coercively) do something but because the family member serves as the trigger for a new, deeper and more conscious decision-making process.
The family presence within the firm facilitates the dissemination of the founders' values. The family is the guarantee of the transmission of values. Tommaso Puerini, Head of Business Innovation, clarifies:
The family guarantees the method, the approach, the culture. Within the next 50 years, clients will change, technologies will change, competences will change. However, our approach, our culture, our values and the Loccioni "method" toward innovation must not change.
4.4.2 Fraternization. Our case evidence reveals a second capability that Loccioni has developed labelled "fraternization". This refers to the firm's capability to develop stable and long-term relationships with employees and outside partners by devoting continuous attention to capitalizing on existing relationships and building trust in social interactions, both within and beyond the firm. While the imprinting capability derives from the non-economic goals that drive and inspire family firm behavior, fraternization results from the distinctive traits of the family's and the family firm's social capital.
Loccioni has built this capability through three main processes. First, the firm has incentivized the diffusion of past experiences through developing innovation stories. Communicating past experiences eases the information flow by supporting the creation of innovation memories. Loccioni's managers strongly believe that storytelling not only creates a memory of innovation but also is a tool to connect individuals. Although the family is not the main character of these stories, which all center around innovation, family members play a pivotal role in disseminating these. More precisely, at the core of the stories are the experiences of individuals with innovation. Innovation is not only about new products, new business models or materials but also about the organization, narrating what has worked and what has not. As an example, one of the employees noted:
When I arrived, I noticed that the firm cares a lot about stories. Often people have told me to talkwith one person rather than another since he/she has had direct experience and this could helpme. Past episodes bring us what the family firm has done in the past and suggest the main

pillars we should care about.Reinforcing this statement, the founder observed that it is important to have an “archive ofexperiences”:

Innovation without an archive is not innovation. A percentage of the things that we are doing have already been done. But we need to be curious. Consequently, the archive represents the basis for searching things that have been done in the past, in different contexts. The principles are always the same.

Recently, the firm introduced what they call “pillole serali” [evening pills]. On average once a week for 30-45 minutes, employees are invited to listen to colleagues who share their experiences and knowledge about a specific topic, which may be technology-, corporateor market-related.

Second, a key mechanism in developing internal relationships is delegation. To better coordinate the various activities of the firm, Enrico Loccioni and his family use delegation mechanisms (e.g. through empowering practices) for both family and nonfamily members. For example, all BUs have a nonfamily manager (with the exception of Healthcare run by Claudio Loccioni). Delegation allows the firm more flexible and faster decision-making and is linked to autonomy and responsibility. A key nonfamily informant noted:

Everyone is free to choose and say what he/she thinks, but simultaneously we have a lot of responsibilities.

Consequently, each individual has autonomy and takes responsibility for what he/she is doing. As one of the family members noted:Individuals must be left free to pursue what they think is the best option to pursue.In this context, the family has the role of “controller” but without being invasive. Moreover,delegation mainly concerns operational decisions. Strategic decisions, as emphasized bythe control mechanisms, are taken by the family and the TMT, particularly with regard tovery long-term strategic decisions.

There is governance that lasts a life! There is a “continuity” of approach. This is the biggest guarantee of a family firm. As an example we can cite the Flumen project. The family has decided to secure the Esino river. This river, statistically, floods every 100-150 years, the ROI willbe seen in the next 100-150 years. I cannot image any manager making such kind of investment, except the family.

Third, Enrico Loccioni has established long term relationships with several partners. First, Loccioni supports entrepreneurial activities within the firm. Enrico Loccioni has, for example, supported over 80 startup firms founded by employees. For the family firm, these spinoffs are a means of transferring the family firm’s culture beyond its boundaries. As emerged during the interviews, these firms share the family’s values and led to developing trustful relationships between Loccioni and external partners. Loccioni has developed over time a network of past customers and stakeholders and pays significant attention to maintaining this network alive and treating each member of the network as if they were part of the family. There is significant attention to the development of local connections driven by the founding family’s attachment to the territory. Enrico Loccioni is aware of the family firm’s role as connector (broker) in the network of excellence. As Enrico Loccioni noted:

We need to work with the best, with number one companies, first in the territory [. . .] and thenin the world [. . .] But we make them feel part of the family.

As one of the nonfamily interviewees observed:I would like to tell you about my first meeting with Enrico Loccioni. He asked me why I was thereand why I decided to go there, my story and background. Finally, he told me that everything thatis carried out within the firm aims at improving the wellbeing of people and the environment. Thisrequires effort and a very accurate selection of partners, but allows Loccioni to start long term collaborations and achieve sustainable and non-economic growth.

4.5 How do the family firm capabilities help overcome knowledge management barriers?

To help make sense of the various concepts and their relationships in the data, the authors constructed Figure 4, which summarizes the findings and illustrates how these two distinctive capabilities of family firms prove useful to overcoming knowledge management

barriers in executing an OI strategy. As Figure 4 illustrates, imprinting is particularly crucial to overcoming barriers in the acquisition of knowledge, whereas fraternization is especially helpful in overcoming barriers in the transfer of knowledge.
The imprinting capability helps surmount the inventor syndrome, which refers to the overcapacity in developing new ideas internally, acquiring ideas externally, and the difficulty in selecting which ideas to pursue. This imprinting capability helps managers and employees conquer knowledge acquisition barriers via two main mechanisms.
First, family values help filter ideas. The interviews highlight that all Loccioni employees are familiar with the founder's and his family's core values, whereas the managers share these same values. The interviewees noted that the family values of energy, imagination, responsibility and tradinnovation are deeply embedded in their minds. The founder and the TMT continuously disclose these values, also in press releases and other forms of corporate communication. As one of the nonfamily interviewees pointed out:
One reason why managers share the same family values relies on the fact that they have actively participated in the creation and diffusion of the values.
Managers know how to distinguish the ideas that are in line with the family firm's values from those that are not. In particular, tradinnovation acts as a filter of ideas and has a central role in guiding Loccioni's selection processes and which projects to focus on. A recent example is Bosch. As one of the interviewees stated:
Yesterday, we began a project with Bosch. We had alternatives available. But we have chosen Bosch. Bosch is a customer that completely represents what we mean by tradinnovation: it exists since 130 years, has a huge corporate culture, still embeds the entrepreneurial soul with respect to both technological values and the corporate environment. [. . .] Tradinnovation has led us to work with this customer. Tradition and innovation are two aspects that together ensure continuity for us.
By following the family firm's imprinting, managers are led by two drivers when searching for and selecting ideas. First, they tend to adopt a local search process, i.e. preferring local sources of knowledge when such knowledge is locally available. An example is the LEAF Community, a project that Loccioni has developed since 2008. For this project, the family firm relies on local partners and sources of knowledge and then involves other big players sharing the firm's attention to quality and respect for the environment. LEAF House is one of the building blocks of this project. This is a smart-house linking domotics with traditional, local building regulations (e.g. energy efficiency and waste minimization) and principles (i.e. energy and water autonomy). The informants noted that in developing LEAF House they looked for trustful partners who could espouse the value of creating something with no impact on the environment as well as offering the most comfortable solutions for end customers. Moreover, managers evaluate whether the ideas are valuable (in the long term) for the family firm by asking: Does this idea allow the family firm to develop? Is the pursuit of this idea in line with the family's values and Loccioni's mission? Loccioni aims to develop competences and technologies that can provide social benefits to the territory. As one of the interviewees stated:
The idea is to develop technology here, with small companies that help us. We prefer to be proactive rather than reactive, to create a local filière, to stimulate it. We do not want to becomea production site, but to remain a knowledge-based company that socially contributes to thedevelopment of its territory.
In another informant's words:
Values do not provide a solution. But values help in finding the solution. The family does not takeoperative decisions, but gives you the tools to make decisions.
Second, longer-term decisions on which ideas should be pursued are taken by the TMT. In particular, the family and the TMT, which is dominated by family members, are committed to selecting the technologies and projects to pursue in the long run. In other words, while short-term decisions are taken at the single BU level, strategic longer-term decisions are

always taken by TMT and consequently the family members. However, this does not prevent employees from sharing their ideas with the TMT and the family. Rather, they know that their ideas will be evaluated by the most experienced people in the firm in light of the family's values. As the TMT choses the future scope of business activities, the ideas chosen are in line with the family firm's longer-term, non-economic goals. Consequently, the family "controls" and intervenes (with the TMT) on strategic longer-term decisions while granting high autonomy for shorter-term decisions.

With regard to knowledge transfer, the family firm relies on its fraternization capability. Concerning the focus on knowledge transfer within the firm's boundaries, several managers stated that the founder and the family incentivize sharing experiences through elaborating innovation stories. These stories help transfer knowledge within the firm, allowing people to share experiences, values, perspectives and outcomes, as well as helping to monitor and communicate past projects and competences among employees. Moreover, these stories have increased the sense of identity and attachment to the firm. To a certain extent, the diffusion of such stories has allowed individuals within the organization to reduce reliance on informal meetings as the main opportunity for internal knowledge sharing. All employees communicate and promote what they have done. As one of the nonfamily managers noted:

The social capital, the trustful relationships of Loccioni are important for the creation of new businesses. Indeed, it can happen that useful contacts for that specific new business are already in the firm thanks to another older business unit. The fact that Loccioni is active in different fields and sectors facilitates the growth and consolidation of such a big network [. . .] We all feel part of a big family.

Second, the delegation mechanisms facilitate the transfer of knowledge both within and outside the firm. The interplay between imprinting and delegation allows managers to make decisions autonomously that are in line with the values imprinted by the founding family. Thanks to delegation, managers are able to make timely decisions on how to transfer projects within the firm's boundaries. Delegation and the ensuing empowering mechanisms are essential for operational decisions. Moreover, empowered managers can directly deal with external partners without requiring the family's approval. Delegation also enhances the sense of attachment to the family firm, thus nurturing a strong sense of trust.

Third, the development of a trustworthy ecosystem of partners facilitates knowledge exchange. First, incentivizing entrepreneurial activities (i.e. starting up new businesses) ensures that knowledge is better exploited. According to many informants, Loccioni has been able to orchestrate the resources of the territory, creating an ecosystem consisting of spin-offs and a network of local and distant partners that share the family's values. Enrico Loccioni stated that one of his main goals is to spur the entrepreneurial activities of his employees (what he calls "family intrapreneurship"). As an illustrative example, an interviewee mentioned that a few years ago, Loccioni developed a technology to evaluate the structural integrity of GPL tanks. At a certain point, the firm decided that this market was not crucial to the development of core competences and decided to abandon the business. However, due to their individual passion and entrepreneurial spirit, two of Loccioni's employees decided to create their own company based on this technology. Today, this company has over 50 employees and is a growing business. Loccioni not only supported this spinoff but also is particularly proud of it, and this company has now become a trustful partner.

Thus, the firm's reliance on its strong social capital has facilitated the development of a trustworthy network of partners. The selection of partners is crucial for managers, as Cristina Cristalli noted:

The firm can count on several long-term relationships developed over time and pays considerable attention to fostering networks of past employees, customers and partners. Some of the interviewed managers stressed the importance of the network of projects such

as SilverZone (network of retired partners who share their knowledge and experience), the Nexus project (network of local enterprises), the BlueZone and U-Net projects (two projects intended to involve high school students and universities, respectively). Knowledge transfer is easier and quicker within the networks that the firm has nurtured over time, where every member feels part of the "family": all parties share the same language and values. As Claudio Loccioni noted, knowledge transfer occurs through traditional mechanisms based on a handshake and experience, *"we trust each other and do not need to sign contracts*".
Supporting the creation of spinoffs is an assurance for the founding family that these new ventures will be inspired and driven by values and goals that are similar to the family's. As Claudio Loccioni stated:
It is a sort of certification of experience. Whether that person will continue to work with us or not,he will probably set up a lab that will be similar to our labs, he will probably look for similar suppliers and in any case his behavior will be inspired by our family values.
This is a particular aspect of Loccioni: individuals with the ambition to start their own business have an extraordinary tutor – the family founder – and the family as a whole is willing to share its experiences, whereas the firm assures its support in the spinoff's early years.
Moreover, managers recognize that knowledge may be transferred in different ways than formal IP protection. In particular, Loccioni pursues an open service innovation strategy and co-development with its customers. This allows the firm to rely more on trust rather than on formal IP implementation. For example, Lab@AOR is a public–private partnership for innovation in healthcare between Ancona University Hospital and the HealthCare BU with the aim of innovating technologies, processes, buildings and empowering people. Since 2007 (when the project was launched), the aim of Lab@AOR is to develop a comprehensive approach to innovation in healthcare. In this context, the firm has relied on trust and long-term relationships with local partners rather than on the formalization of a strict IP regime. Another example is the KITE Lab (knowledge-intensive testing environment). The KITE Lab has been created by Loccioni in 2016 to conduct test campaigns (including component characterization, advanced benchmarking of products and challenging measurements for product development) and develop innovation *with* and *for* its clients.

5. Discussion and conclusion

The Loccioni case study offers some insights into the family firm's distinctive capabilities that allowed it to overcome the barriers to knowledge acquisition and transfer in executing an OI strategy. These distinctive capabilities, labelled imprinting and fraternization, are theoretically rooted in two distinctive family firm traits, namely, the existence of non-economic goals (Gómez-Mejía *et al.*, 2007; Kammerlander and Ganter, 2015; Kotlar and De Massis, 2013; Miller *et al.*, 2015) and their unique social capital (Arregle *et al.*, 2007; Pearson *et al.*, 2008; Yli-Renko *et al.*, 2001).
The study illustrates how the family firm's imprinting helps overcome the inventor syndrome, which emerges as a distinctive barrier to knowledge acquisition in family firms. This barrier relates to innovation processes overall, regardless of their open or closed nature. However, this syndrome is particularly exacerbated in those firms embracing OI because they will likely face the complexity of managing both internal and external knowledge flows. The case evidence reveals that the imprinting capability is linked to the concept of socioemotional wealth (Miller *et al.*, 2015; Gómez-Mejía *et al.*, 2007). Miller *et al.* (2015) note that several non-economic goals drive a controlling family's behavior, such as considerations of community contribution, family reputation, social status, nurturing parochial family desires and creating an evergreen organization for the new generation. Here, the non-economic goals are linked to preserving and improving the territory, innovating in respect of tradition and creating an evergreen organization characterized by a strong identity shaped by the controlling family. In particular, Enrico Loccioni aims for a positive impact on the surrounding territory and innovating responsibly. In so doing, the firm

recognizes traditions and local resources as sources of knowledge as well as the importance of external stakeholders.
The term "imprinting" refers to the "conditions at the time of an organization's founding" (Boeker, 1989, p. 492). According to strategic management literature, the conditions at the time of foundation affect the way firms react, changing their strategic choices or remaining inert and preserving their strategy when facing environmental changes (Boeker, 1989). The founder's vision and values (Garcìa-Alvarez and Lòpez-Sintas, 2001) are imprinted in and adopted by the second generation. This assures a sense of "stable" change and long-term strategic criteria (Hsu and Chang, 2011). The founder's values help identify the knowledge to acquire, the problems to solve, the ideas to focus on. The case illustrates that imprinting, i.e. the capability to bring the founding family's values and approach to knowledge search and innovation culturally close to employees, is driven by the controlling family's non-economic goals, and these distinctive goals direct the firm's behavior in filtering ideas, selecting longer-term ideas and shaping the search process, thus helping the firm overcome the "inventor syndrome".
A second key finding derives from fraternization, i.e. the capability to develop stable and long-term relationships with employees and outside partners, by devoting continuous attention to capitalizing on existing relationships and building trust in social interactions. The term fraternization derives from the Latin word *frater* (i.e. brother) and refers to turning someone who does not belong to the family into a brother, implying a family-like association with nonfamily members. This capability is enacted by the family firm's unique bundle of social capital. Family firms provide a unique context to create strong social capital constituted by the firms' network ties, shared vision and language, trust, norms, obligations and identification. These resources lead to easier information access and greater associability (Pearson *et al.*, 2008). Social capital increases trust and consequently facilitates knowledge transfer mechanisms, both within and between the firm's boundaries. Social capital is recognized as an important resource for family firms (Pearson *et al.*, 2008; Sirmon and Hitt, 2003).
This case study illustrates three ways to facilitate knowledge transfer. First, exchanging internal knowledge and experiences (via shared stories); in this respect, the findings add to Kammerlander *et al.'s* (2015) study on how founder or family stories affect innovation in family firms.
Second, knowledge transfer is facilitated by delegation mechanisms rendering the firm more flexible and quicker in dealing with the dynamic markets it competes in. Moreover, the co-existence of family members over two generations and (non)family members in the TMT enables the firm to simultaneously maintain strong family values and a professionalized management team capable of mobilizing and coordinating the firm's internal and external resources.
Third, the firm has carefully created a trustful network with external partners and relies on unconventional and informal knowledge transfer mechanisms. This allows the firm to create an environment characterized by trust and long-term relationships where every member of the network feels part of the family. Social capital is a crucial resource for knowledge management (Yli-Renko *et al.*, 2001) and facilitates sharing and using tacit knowledge (Holste and Fields, 2010). The firm highly relies on its own tacit knowledge (Nonaka, 1994) and on the strong relationships it has formed over the years with past collaborators and partners. Trust and longer-term relationships help the firm select partners that are in line with the family's vision and values and create a common language among them. The network of partners is already familiar with Loccioni's culture and *modus operandi*.
Moreover, the case suggests that a family firm can transfer knowledge in less conventional ways. Family firms are developing new forms of appropriation and knowledge transfer. In this case, deploying competitive advantages in unique forms such as supporting spin-offs, family-stimulated entrepreneurial initiatives and relying on co-development with partners

rather than licensing out. This family firm has been able to create a new diffused model of knowledge transfer that does not reside in traditional knowledge protection mechanisms but in new business models that span the firm's boundaries and enable the creation of ecosystems led by the family firm.

In family firms, knowledge management requires a balance between the need to maintain control over technologies and exploit external and internally unused technologies. The first is guaranteed by the controlling role exercised by the family, whereas the second is enabled by delegation mechanisms. In particular, the imprinting (particularly the warranting the transmission of family values mechanism) and fraternization (particularly the delegation to nonfamily members mechanism) capabilities would seem to balance each other. On the one hand, the imprinting capability allows the family to maintain control and shape the firm's exploration processes. The family is present and provides guidance to overcome the inventor syndrome. On the other hand, the family's relational capability allows the firm to share knowledge within the firm's boundaries, makes timely decisions through delegation mechanisms and exploits knowledge through recourse to a trustworthy network of partners. Consequently, this case study illustrates the successful trade-off between maintaining core knowledge and exploiting it to take advantage of OI. This may shed light on the ability-willingness paradox, whereby family firms pursue non-economic goals (willingness) and simultaneously use delegation (ability) in implementing an OI strategy.

This paper integrates two research streams, i.e. OI and family firms, illustrating and exploring how a family firm may leverage its distinctive traits in acquiring and transferring knowledge during the execution of an OI strategy (Grant, 1996; Teece, 2007; Easterby-Smith and Prieto, 2008). This study extends previous research in a number of ways. First, it provides empirical evidence on the challenges entailed in executing an OI strategy in a family firm. By focusing on the execution phase, the paper attempts to bridge a gap in innovation research and particularly research on innovation in family firms, which stresses that an OI strategy is likely to improve firm performance, but underemphasizes how the execution of such a strategy can make the difference between success and failure. Second, the empirical evidence points to the existence of a barrier to knowledge acquisition in the family firm, i.e. the inventor syndrome, which existing OI research has thus far not explored (Lichtenthaler and Ernst, 2006; Verbano *et al.*, 2015; Salter *et al.*, 2014). Overcreativity represents a problem in closed innovation contexts and is exacerbated in open contexts. As Verganti (2016 and 2017) notes, managers need to capture the most promising opportunities in the overabundance of ideas. The case study illustrates that this barrier is particularly important in family firms and represents an important contribution to research on innovation and particularly family firm innovation. Third, the study highlights the existence of two distinctive capabilities in family firms that are helpful in overcoming barriers to knowledge acquisition and transfer, labelled imprinting and fraternization. The qualitative analysis suggests that these should be conceived as a particular subset of firm-level capabilities enacted by the distinctive resources and traits of family firms. As such, the exploratory evidence adds to the body of literature on the power or ability of family firms and the implications on innovation (De Massis *et al.*, 2015a, 2015b) by exploring the organizational mechanisms that may help overcome the well-known "innovation paradox" in family firms. Fourth, the qualitative account illustrates how family firms execute OI strategies, thus advancing understanding of how the distinctive features of a governance archetype may affect innovation, and more precisely, strategy execution (Chrisman *et al.*, 2015). Fifth, the study contributes to the growing body of research on the organizational implications of OI (Bianchi *et al.*, 2016) by focusing on the organizational mechanisms linked to knowledge transfer in OI processes that affect the successful implementation of an OI strategy.

As with all studies, this one suffers from some limitations which also provide opportunities for future research. First, owing to the nature of the research design, the findings cannot be statistically generalized without further empirical studies on the execution of OI strategies in family firms. The insights derive from evidence found in an illustrative and exploratory case study. Future research is needed to examine the boundary conditions of such insights. The paper suffers from the typical limitation of single case study research (Gibbert *et al.*, 2008). As previous research shows, subjectivity due to the researchers' interpretation leads to three main problems of accuracy and face validity, discriminant validity and consistency (Grant and Verona, 2015). Moreover, due to the heterogeneity of family firms (Chua *et al.*, 2012), future research could adopt a multiple case study design (Eisenhardt and Graebner, 2007) involving different types of family firms. Second, the study focuses on family firm-level capabilities, without considering individual family-related capabilities. In particular, future research might investigate how incoming new generations influence knowledge management flows. Last, the barriers identified are not exclusively family firm-related barriers, but they may also characterize nonfamily firms and future research should investigate how similar barriers are overcome in such firms.

The paper also offers some valuable managerial implications for family firm owners and managers. In particular, the study suggests that delegation helps family firms not only in reacting faster to technological change but also in increasing their social capital and building relational trust. Delegation to nonfamily members is unusual in family firms, where owners tend to centralize authority rather than ceding power to nonfamily members (Carney, 2005). Family firm managers are hence encouraged to delegate more power to nonfamily members when their goals are in line with the controlling family's goals and intentions. Moreover, the case study analysis introduces an interesting example of a family firm that is impacting its institutional context (Wright *et al.*, 2014), thus creating an ecosystem of actors who not only share knowledge but also are influenced by the innovation method pursued by the family firm. This is particularly important in highly dynamic environments, where the capability of acquiring and transferring knowledge among partners may fasten the innovation process. The Loccioni case should hopefully clarify the relevance of this institutional perspective for innovation managers. Third, the paper points to the importance for family firms to clearly identify and diffuse their values, both within and beyond their organizational boundaries. Family firms with clearly defined values and able to share a common approach to innovation are likely to face smaller coordination problems and lower approval costs (e.g. costs incurred in the approval required for activating new partnerships) – two of the key factors that extant research has identified as critical for successfully implementing OI (Salter *et al.*, 2014). Accordingly, owners are advised to purposefully infuse and nurture their values within the organization over time. Finally, owners and managers should be aware that knowledge might be diffused in unconventional ways, and new are the paths through which an organization can profit from it. Traditionally, formal IP protection has been considered as the preferred way to maintain control over technological trajectories. However, as the case study suggests, co-development and open service innovation might represent valuable alternatives to create, share and profit from new knowledge.

Implementing OI is extremely demanding, and there is no easy way or fast track to it. However, the two distinctive capabilities emerged from this case study seem to "support the diffusion, sharing and transfer of knowledge within the firm and with the external environment" (Chiaroni *et al.*, 2010, p. 266), which are at the core of OI, showing that OI is possible even in the context of family firms.

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