

A comparative study of the innovation strategies of family and non-family firms in Italy

Elisa Giacosa, Laura Broccardo, Elisa Truant

Summary: 1. Introduction - 2. Theoretical background - 2.1 Innovation configurations - 2.2 Innovation tendency of family firms - 3. Methodology - 3.1 Sample - 3.2 Research method - 4. Findings - 4.1 FFs and NFFs by comparing the relevance of R&D investments - 4.2 Different configurations of innovation comparing FFs to NFFs - 5. Discussion - 6. Conclusions, implications and limitations – References.

Abstract

Innovation strategy represents one of the most important research topics concerning the family business phenomenon. The purpose of the research is to investigate the relevance of innovation strategy comparing family firms (FFs) and non-family firms (NFFs), with a particular reference to technological innovation. It has been achieved by taking into consideration the relevance of R&D investments in innovation, and the different innovation configurations chosen by FFs and NFFs.

Referring to De Massis, Frattini and Lichtenthaler (2013) and Gudmundson, Hartman and Tower (1999), the approach used is both qualitative and quantitative, as it is based on empirical evidences and information measuring as well.

According to several scholars, FFs find innovative strategies more appealing as opposed to NFFs. FFs are more likely to set out longer term plans for their investments than NFFs. Finally, most of the FFs investigated in the study have chosen a combination of internal and external innovation via strong networks of third parties in R&D.

The implications arising from this research are both theoretical and practical, as this matter is pertinent for both scholars and practitioners. The limitations instead could be overcome by using relevant econometric models to replicate the effect of a series of external and internal variables on the innovative policy.

Keywords: Innovation; family business phenomenon; Management Control System.

1. Introduction

Family firms (FFs) are a worldwide phenomenon (Acquaah, 2013; Contò et al., 2014), and they are considered to be a driving force for the economic fabric of several countries (Culasso et al., 2012 and 2013; IFERA, 2013). For this reason, FFs have attracted attention of many researchers (Astrachan and Shanker, 2003; Claessens et al., 2000; Colli, 2013; Faccio and Lang, 2002; La Porta et al., 1999; Morck and Yeung, 2004; Garcia-Ramos and Garcia-Olalla, 2011).

In Italy, as well as in Europe, the economic environment is characterized by presence of numerous family businesses (Mediobanca, 2013), what have a positive impact on regional competitiveness and its drivers (Viassone, 2009; Vrontis and Viassone, 2013).

In recent years, the competitive context has been affected by structural change mostly due to two forces: globalization and technology (Bresciani et al., 2013a and 2013b). Therefore, the presence of family businesses (AIDAF, 2011; Bresciani and Ferraris, 2012; Ferraris and Grieco, 2014; Mediobanca, 2013) represents a distinctive factor for operating in the international scenario and for innovation strategy.

Innovation strategy represents one of the most important research topics considering the family business phenomenon, as it is one of the means to achieve a company's growth (Bresciani, 2009 and 2010; Cafferata, 1995). Indeed, innovation allows businesses to develop competitive advantages in a long-term period (Cafferata, 2009; Greve, 2009; Porter, 1985; Webb, Ketchen Jr. and Duane Ireland, 2010), supporting survival of a company (Brown and Eisenhardt, 1995; Greenwood and Miller, 2010; Greve, 2007; Thompson, 1965; Carrasco-Hernandez and Jimenez-Jimenez, 2012). This topic is very relevant, as innovation can turn a change into opportunity (Bresciani, Vrontis and Thrassou, 2013a; Drucker, 1985), especially in a globalized context in which the competitiveness of an expanded business environment means that companies offer to clients increasingly differentiated and innovative products.

Current research fits into this topic. Focusing on technological innovation in family businesses (Block, 2009; De Massis, Frattini and Lichtenthaler, 2013; Hoy and Sharma, 2010; Miller and Le Breton-Miller, 2005), the purpose of the research is to investigate the relevance of innovation strategy comparing family firms (FFs) and non-family firms (NFFs). In particular, the above mentioned comparison has been made taking into consideration the relevance of R&D investments with regard to innovation, and the different innovation configurations chosen by FFs and NFFs.

Referring to De Massis, Frattini and Lichtenthaler (2013) and Gudmundson, Hartman and Tower (1999), the approach used is both qualitative, by analyzing the empirical evidence, and quantitative, thanks to the information measuring. In particular, we collected a relevant amount of data, which permit to conduct a statistical analysis and drawing up generalizations (Zimmerman, 2001).

The motivation of the research is coherent in the current context of the reference, which is characterized by economic crisis: indeed, the innovation

strategy could favour an increase in the company's competitiveness, despite the drop in consumption.

Our study contributes to the literature, as it permits to highlight the impact of a series of companies variables on the innovation strategy in FFs and NFFs, operating in some representative industries for Italian economy. In addition, this observation in the last year permits to verify effects of the financial crisis on the innovation strategy, that can be considered to be a mean for increasing the company's competitive advantages.

The research is structured as follows. The second section focuses on the analysis of the literature, with particular reference to different elements of observation and the tendency of family businesses to innovate. The research method is outlined in the third section. The description of the results is presented in the fourth section which is followed by discussion of the results in the fifth section. Finally, the conclusions and implications of the study are set out, along with the limitations of the research.

2. Theoretical background

A majority of literature is focused on innovation strategy in family businesses. In the context of our research, review of literature has been made taking into consideration the relevance of R&D investments with regard to innovation, and the different innovation configurations chosen by FFs and NFFs. Before comparing FFs and NFFs, it was useful to make a general distinction between different innovation configurations, as this distinction has been then used by comparing FF tendency in terms of innovation strategy.

Our literature review has permitted to identify some relevant studies for our investigation, which favour and direct the empirical analysis. Then we referred to De Massis, Frattini and Lichtenthaler (2013) and Gudmundson, Hartman and Tower (1999), as they provide a deep comparison of FFs with NFFs in terms of their innovation strategy, by considering different elements of comparison useful for our research goal.

2.1 Innovation configurations

The literature identifies different types of innovation (Blundell, Griffiths and Van Reenen, 1999; Cerruti, 2008; Cerruti and Apolloni, 2012; Covin and Miles, 1999; Fray et al., 2012; Giacosa, 2011; Giacosa et al., 2015; Tidd and Bessant, 2009) and these configurations are useful to contextualize the context in which our research was conducted:

- a strategic innovation: it reinvents the company's position, increases the gap between costs incurred and benefits to customers, and creates new formulas for competition in terms of customers to be approached, and/or products to offer, and/or the way in which these products have to be offered;
- an administrative and organizational innovation: it seeks new opportunities for improvement, turning changes into real ideas and generating benefits from it. Impacting on all functional areas of a company, it offers an opportunity to optimise effectiveness and efficiency of activities, also in terms of the organizational structure and especially in terms of managerial, organizational, administrative and human resources;
- technological innovation: it creates, designs, produces and introduces new product, technology, system or technique (Cafferata, 1998; De Massis, Frattini and Lichtenthaler, 2013; Freeman, 1976), new processes or modifies existing products or processes, with the aim of increasing the company's performance (Blundell, Griffiths and Van Reenen, 1999; Crossan and Apaydin, 2010; Geroski, Machin and Van Reenen, 1993; Hult, Hurley and Knight, 2004; Porter, 1990), also thanks to the contribution of intangible resources (Ferrando, 1998a, 1998b and 2009; Marchiori, 2009) and IT contributions (Spinelli, 2009; Spinelli et al., 2013).

Current research focuses on the technological innovation. Many scholars have focused on various ways in which innovation strategy is defined:

- a) firstly, the distinction between internal and external innovation: the innovative strategy may be conducted internally, externally, or in a mixed solution (Chesbrough, 2003; Giacosa et al., 2015; Pistrui, 2002; Re et al., 2014; Schilling, 2009):
 - internal innovation: the innovation has been developed within the company by some members of the family or by trusted managers and staff. The role played by the innovation impacts on innovation management: innovation might relate to Research & Development (which is focused only on R&D investments) or to other functions, such as Manufacturing or Marketing (when innovation investments do not have a relevant role);
 - external innovation: the company uses external resources, such as experts within the sector in which the firm operates. They have to consider the particular features of the company: indeed, the innovation's essence must be fully assimilated by the firm in order for it to be successful (Cohen and Levinthal, 1990), identifying its strengths and weaknesses and educating customers to appreciate more innovative products;
 - a mixed solution: innovation might be managed both internally and externally. This combination may combine the benefits of external suggestions by the external experts (Pistrui, 2002) with the knowledge of the company's managers;
- b) secondly, many scholars have focused on the company's tendency to innovate, according to different elements, usually defined as products and processes. Even if the distinction between products and processes is not always clear-cut, it has important theoretical and practical implications for innovation strategy. For this reason, it's useful to analyse the various ways in

which innovation strategy has been defined by the literature. Innovation has been distinguished between products and processes, focusing on different strengths and weaknesses. Product innovation permits a creation of new products and/or an improvement of the intrinsic qualities of existing products. The same reasoning applies to process innovation: introducing a new operating method, or improving an existing method in the production, commercial, administrative and managerial area, or generating a new way of using a production factor in order to increase production efficiency in terms of cost, quality and service (Re et al., 2014).

2.2 Innovation tendency of family firms

Many scholars have focused on the tendency of family businesses to innovate. We can divide the researchers into two categories (Craig and Moores, 2006; Culasso et al., 2013; Ducassy and Prevot, 2010; Gudmundson, Hartman and Tower, 1999), even if this topic could not be assessed in general, but it requires an in-depth analysis for a company analyzed (Hülsbeck et al., 2012; Kraus, Pohjola and Koponen, 2012; Uhlaner, Wright and Huse, 2007):

- researchers who stated that family businesses are less attracted by innovative strategies than non-family businesses;
- researchers who claim that family businesses are more attracted by innovative strategies than non-family businesses.

According to the *first group of researchers*, family businesses are less attracted by innovative strategies than non-family businesses. This is due to risk aversion (Block, 2012; Chen and Hsu, 2009; Naldi et al., 2007) caused by several reasons, such as: different long-term vision (Broekaert, Andries and Debackere, 2014; Chen and Hsu, 2009; Chrisman and Patel, 2012; Miller, Le Breton-Miller and Lester, 2011; Munari, Oriani and Sobrero, 2010; Naldi et al., 2007); concentration of the ownership in a few people (family members or family members and managers) (Romano, Tanewski and Smyrnios, 2000; Schulze et al., 2001); investment of the family assets in the business as major stakeholder (Anderson and Reeb, 2003 and 2004; Rusconi, 2006 and 2009); intention of maintaining control after the generational handover and avoiding debt financing (Le Breton-Miller and Miller, 2006). These factors cause conservative behaviour in regards to innovation, even if it means that the business becomes less inclined to pursue new opportunities as a part of a long-term vision (Kellermanns et al., 2012).

A conservative innovation strategy permits the retention of socio-emotional wealth (Chrisman and Patel, 2012; Cyert and March, 1963; Goel et al., 2012; Stockmans, Lybaert and Voordeckers, 2010): preserving family identity and benevolence, combined with a will to perpetuate family participation in the company, and hampers innovation (Ducassy and Prevot, 2010). As a result family

businesses prefer to invest in physical assets rather than in riskier R&D projects (Anderson, Duru and Reeb, 2012).

Regarding the results, some scholars have stated that family businesses are not behind an innovative output, even if they invest less in R&D than non-family businesses. This level of output obtained may be due to long experience in their sector and the organizational flexibility which is vital for innovation, compensating lower level of investment (Ambrosini and Bowman, 2009; Bonti and Cori, 2006; Broekaert, Andries and Debackere, 2014; Cori, 2013; Craig and Dibrell, 2006; Craig and Moores, 2006; Giorgetti, 2013; Gudmundson, Tower and Hartman, 2003).

Concluding, it emerges that not all family businesses are highly entrepreneurial: when they are focused on non-economic benefits for the family (Astrachan and Jaskiewicz, 2008; Gomez-Mejia et al., 2007; Zellweger and Astrachan, 2008), they tend to preserve family balance rather concentrating on benefit to the company; nepotism may be a weakness (Bertrand et al., 2008; Perez-Gonzalez, 2006), if it promotes non-capable family members.

According to the *second group of researchers*, innovation strategy has been considered as a critical leadership imperative (Dana and Smyrnios, 2010; Poza, 2007), which could future-proof family businesses (Bergfeld and Weber, 2011), develop and integrate new knowledge and skills of the human capital (Caselli, 1990; Sbrana and Torre, 1996; Torre, 2005), and increase performance level (Allison, McKenny and Short, 2014; Cantino, 2007; Cantino et al., 2015; Habbershon and Williams, 1999; Levinthal and March, 1981; Levinthal and March, 1993; Miller and Le-Breton Miller, 2006; Sirmon and Hitt, 2003; Spriggs et al., 2013; Uotila et al., 2009; Veider, 2014). A vision for a long-term period (Cassia, De Massis and Pizzurno, 2012; Chua, Chrisman and Bergiel, 2009; Sirmon and Hitt, 2003; Uotila et al., 2009; Zellweger, 2007; Zellweger, Nason and Nordqvist, 2012) influences the innovation strategy, as technological innovation favours the achievement or maintenance of the competitive advantage (Bertoli, 2004; Donna, 1992; Galunic and Rodan, 1998; Geroski, Machin and Van Reenen, 1993; Menguc and Auh, 2006) and growth in a long period (Astrachan, 2010; Cefis and Marsili, 2005; Zahra, Hayton and Salvato, 2004; Zahra, 2005; Zahra et al., 2008). Therefore, innovation is considered as a mean to ensure trans-generational control (Chrisman and Patel, 2012; Gomez-Mejia et al., 2007).

This propensity to innovate is also influenced by a series of variables, such as a stronger commitment by the family members to the company business, a flexible organizational structure and decision-making process (Aldrich and Cliff, 2003; Aronoff, 1998; Caselli, 1966; Craig and Moores, 2006) and the familiness factor (Arregle et al., 2007; Carnes and Ireland, 2013; Dyer Jr., 2006; Ferrando, 1981; Llach and Nordqvist, 2010; Nordqvist and Merlin, 2010). These typical qualities for a family business increase the willingness to innovate when compared to non-family businesses (Habbershon and Williams, 1999; Gudmundson, Tower and Hartman, 2003; Westhead, 1997). Another study (De Massis et al., 2015) confirms the influence of family variable on innovation underlining that family businesses differ from non-family ones as it regards product innovation strategies and organization of the innovation process.

In addition, we analysed the *connections between research and development (R&D) activities and innovativeness in family businesses*. In these terms, the literature considered R&D activities as a primary source of innovation, due to their relevance in creating new products and processes or in improving existing ones (Ahuja and Lampert, 2001; Bresciani, Vrontis and Thrassou, 2015; Bresciani and Ferraris, 2014; Hargadon and Sutton, 1997; Re et al., 2014). When family firms choose R&D investments, they obtain several benefits in the long term (Zahra, Hayton and Salvato, 2004), even if their effects require time to occur:

- in terms of internal innovative strategy, they strongly contribute to technological innovation and, consequently, to producing better conditions for good performance (Block, 2012; Bresciani, Vrontis and Thrassou, 2014 and 2015; Enkel, Gassmann and Chesbrough, 2009; Giacosa, 2011). Indeed, thanks to the constant generation of new ideas in terms of both products and processes, the company benefits from a continuous stream of new features;
- also with regards to external innovative strategy, these investments are relevant, as the inputs from external parties permit the new ideas and new collections to be introduced, increasing customer loyalty and attracting new consumers (Broekaert, Andries and Debackere, 2014; Pakes and Griliches, 1980; Rosenberg, 1990; Rothaermel and Hess, 2007; Spithoven, Frantzen and Clarysse, 2010).

Lastly, we analyzed the impact of *networks between the company and external parties on the R&D investments*. It emerges that the creation of networks between the company and external parties, such as clients, suppliers, other companies, and universities and research centres could increase the innovation benefits (Ahuja and Lampert, 2001; Hargadon and Sutton, 1997). These networks amplify innovation benefits, as tacit or formal collaboration with external parties permits the exchange and comparison of information, resources, attitudes and capabilities beyond the company's boundaries (Ghoshal and Bartlett, 1990; Garzella, 2000; Lorange and Roos, 1993). Consequently, creating networks may be considered as a source of development and competitiveness for the company, thanks to combination of different resources, skills and attitudes (Colombo et al., 2012; Flatten, Greve and Brettel, 2011; Gulati and Martin, 1999; Human and Provan, 1997; Gulati, Nitin and Akbar, 2000; Giacosa, 2012; Nieto and Santamaría, 2010; Walker, Kogut and Shan, 1997). These networks favour higher benefits from innovation investments, such as increasing of a brand perception (Appel, 2001; Bertoli, 2002 and 2007; Keller, 2003; Thrassou and Vrontis, 2008, 2009, 2010; Vrontis, 1998; Vrontis and Paliwoda, 2008; Vrontis and Papsolomou, 2007; Vrontis and Thrassou, 2007, 2011; Vrontis, Thrassou and Czinkota, 2011; Vrontis, Thrassou and Pavlides, 2011; Westling, 2001).

An interesting research (Poskela, Martinsuno, 2009) develops a framework for management control in the front end of innovation and tests hypotheses on the relationship between them. This study underlines the role of technology and market uncertainty as potential moderators of this relationship. In particular it reports a correlation between technology uncertainty and the relationship between process and outcome-based control and strategic renewal.

In addition, a study conducted by Bisbe and Otley (2004) showed that the impact of innovation on performance is moderated by the style of use of Management Control System, indicating that the explanatory power of a model that regresses performance on innovation is significantly enhanced by the inclusion of this moderating effect.

3. Methodology

3.1 Sample

The original sample was composed of 3,900 companies, from different economic sectors in the Piedmont region of north-western Italy. The companies considered belong to different economic sectors, such as agriculture and farm animals, craftsmanship, manufacturing, services and trading. The size of the sample was achieved thanks to the collaboration of the Turin Chamber of Commerce (2014).

The companies had to be active (they were not in closure or in settlement procedures), and have their legal head office in Piedmont (North-West of Italy), with revenues between 2 and 250 million. Classifying the companies as SMEs, we decided to adopt the criterion of the revenues as the most relevant one, because it has been verified the reliability of data provided by respondents on a sample basis, considering both AIDA database and Chamber of Commerce of Turin database. Other standards suggested by European classification were not verifiable with available tools.

Starting from the original sample, 1.800 companies have been successively chosen by using a random and casual process applied by the software. A questionnaire has been sent to that companies. It took about three months to compile the results. Using the same software, 18% (309) of the companies returned the completed questionnaire, making our final sample.

The final sample is characterized by the following characteristics.

Firstly, we asked the companies to indicate if they belong to the FFs group rather than to NFFs one. For this reason, we used a mix criterion (Chua, Chrisman and Sharma, 1999) - explicated in the guide of the questionnaire – which permits to achieve the benefits of a mixed classification. In particular, the mix criterion takes into consideration:

- a control participation in the capital by the family/families;
- the presence in the Board of at least one family member;
- the CEO perception about the business.

In particular, a company is classified as a FF if: i) the family owns at least 50% of the shares, and the company is family-run; or ii) the family owns at least 50% of the shares, the company is not family-run, but nevertheless the CEO perceives

it as a family firm; or iii) the family owns less than 50% of the shares and the others are owned by a venture capital or investment company. The company is family-run and the CEO perceives it as a family firm.

Only 276 companies answered to that question, indicating their belonging to the FFs/NFFs group. Therefore, our analysis of findings has been carried out only on these 276 firms. Subsequently, we focused on the FFs group compared to NFFs with the purpose of our investigation.

From 276 companies that responded to the question, 132 (47,8%) declared to be a FF, while 144 (52,2%) declared to be a NFF (Table 1).

Table 1 - The final sample: FFs versus NFFs

FFs versus NFFs		
Answer Options	Response Percent	Response Count
FF	47.8%	132
NFF	52.2%	144
Total	100%	276

Source: personal elaboration

Looking at revenues, the sampling frame results as follow (Table 2).

Table 2 - Class of revenues

Class of Revenues			
Answer Options	Total sample	Response Percent in FFs	Response Percent in NFFs
2-5 mln €	6.3%	4.5%	8.2%
5-10 mln €	36.8%	42.9%	32.8%
10-20 mln €	29.6%	23.2%	35.2%
20-50 mln €	19.0%	21.4%	15.6%
50-100 mln €	5.1%	5.4%	4.9%
100-<or=250 mln €	3.2%	2.7%	3.3%

Source: personal elaboration

The highest percentage of frequency per class of revenues (2013 fiscal year) is between 5 and 10 mln € (66.4%). Above 20 mln €, percentages gradually decrease, and just 3% of companies exceed 100 mln €. Considering FFs, the highest percentage of frequency per class of revenues is between 5 and 10 mln € (42.9%), while the class of 10-20 mln € is more relevant for NFFs (35.2%).

Regarding employees, the sampling frame presents as follow (Table 3).

Table 3 - The number of employees

Number of employees			
Answer Options	Total sample	Response % in FFs	Response % in NFFs
Less than 10	8.8%	9.3%	8.5%
10-49	48.5%	48.0%	49.0%
50-249	34.6%	35.7%	33.5%
More than 249	8.1%	7.0%	9.0%

Source: personal elaboration

Half of the companies taken into consideration employ between 10 and 49 people (48.5%). This tendency is also valid for both FFs (48.0%) and for NFFs (49.0%). Over a third of companies (34.6%) have between 50 and 249 employees. Just 8.1% of respondent companies have more than 249 employees.

1.2 Research method

We said that the purpose of our research is to investigate the relevance of innovation strategy, comparing family firms (FFs) and non-family firms (NFFs). In particular, the above comparison has been made taking into consideration the relevance of R&D investments with regard to innovation, and different innovation configurations chosen by FFs and NFFs.

In line with our research goal, the following question has been developed:

RQ: What are the main differences between the FFs and NFFs innovation strategy?

In the context of a deductive and inductive approach (mixed approach), we combined the insights of the literature review and the findings observed with a survey made by questionnaire. In particular, the research methodology has been structured in two phases:

- in the first phase, our literature review was focused on the relevance of innovation strategy comparing family firms (FFs) and non-family firms (NFFs). According to our research goal, we took into consideration the relevance of R&D investments with regard to innovation, and different innovation configurations chosen by FFs and NFFs. Before comparing FFs and NFFs, it was useful to make a general distinction between different innovation configurations, as this distinction has been then used by comparing family firms tendency in terms of innovation strategy. Our literature review permitted to identify some relevant studies for our investigation; subsequently, we have specifically referred to De Massis, Frattini and Lichtenthaler (2013) and

Gudmundson, Hartman and Tower (1999), as they compare in depth FFs with NFFs in terms of their innovation strategy, by considering different elements of comparison so useful for our research goal;

- in the second phase, an empirical analysis has been carried out. As the family businesses phenomenon is widespread in Italy, as well as in Europe, to create our sample the Italian context has been considered. The data, both quantitative and qualitative, were collected thanks to an on-line questionnaire, handled by a particular software called Survey Monkey and analyzed using statistical tools (mean, standard deviation and Pearson correlation ratio). We first distributed questionnaires to randomly selected companies in Piedmont, in north-western Italy. The questionnaire has been created in June 2014 and has been sent to the companies in the months of July, August and September 2014. The approach used is both qualitative, by analyzing the empirical evidence, and quantitative, thanks to the information measuring. In this way, a significant amount of data was collected, permitting statistical analysis and drawing up generalizations (Zimmerman, 2001). The questionnaire was composed of quantitative and qualitative data; in particular, it was divided in two parts:
 - the first part was focused on general companies information (corporate name, number of employees, revenue, economic sector, legal form, year of foundation, and the distinction between FFs and NFFs);
 - the second part was focused on research and development investments (% in R&D investments, employees involved in R&D projects, aims and scope of R&D projects). Thanks to the questionnaire, companies have been classified into different sectors and between FF group or the NFF group. It allowed us to focus on the FF and NFF groups in order to analyse their R&D activities.

During our analysis the following elements have been considered:

- Investments in R&D over the last 5 years;
- What percentage of the income was spent on R&D;
- The relationships between the company and external research institutions and/or universities;
- Who performs the R&D activities in the company;
- The reasons for internal R&D activity;
- Who handles internal innovation;
- The reasons for external R&D activity;
- The adoption of Management Control System.

Questionnaires have been analysed autonomously by three authors and then results have been compared (Atkins and Shaffir, 1998; Jönsson and Lukka, 2005).

An empirical analysis was carried out using the data arising from the questionnaire. In particular, some simple statistical formula (mean and standard deviation) and a Pearson correlation were used. According to the Pearson correlation, we first investigated the presence of a relevant differences between FFs and NFFs, calculating the correlation between the R&D investments and the

total revenue. In particular, the total revenue represented our independent variable, while the propensity to invest in R&D was our dependent variable.

Secondly, we investigated if adoption of Management Control System could impact on the propensity to invest in R&D; in accordance to our investigation purpose, the adoption of Management Control System represents our independent variable, while the propensity to invest in R&D is our dependent variable. In addition, in order to assess the differences between FFs and NFFs, we correlated R&D investments and the recourse of external research institutions; in accordance to our investigation purpose, the recourse of external research institutions represents our independent variable, while the propensity to invest in R&D is our dependent variable. Considering the Pearson ratio (ρ), it's important to underline that:

- if $\rho > 0$ there is a direct correlation;
- if $\rho = 0$ there is no correlation;
- if $\rho < 0$ there is an indirect correlation;
- if $0 < \rho < 0,3$ the correlation is weak;
- if $0,3 < \rho < 0,7$ the correlation is moderate;
- if $\rho > 0,7$ the correlation is strong.

Furthermore, the t-statistic and p-value were used to determine whether or not the correlation is significant. We stated that if the p-value is higher than 5% (1% or 10%), the correlation between the variables is not significant to a level of 5% (1% or 10%) and vice versa.

4. Findings

First, we compared the relevance of R&D investments with regard to innovation. Second, we compared different configurations of innovation.

4.1 FFs and NFFs by comparing the relevance of R&D investments with regard to innovation

We verified the relevance of R&D investments with regard to innovation in our sample, comparing FFs to NFFs. First, the FFs and NFFs have been compared in terms of their R&D activities in the last 5 years (Table 4).

Table 4 - R&D investments in the last 5 years

	FFs		NFFs	
	<i>Response %</i>	<i>Response Count</i>	<i>Response %</i>	<i>Response Count</i>
Yes	66.0%	62	56.6%	64
No	34.0%	32	43.4%	49
<i>Answered questions</i>	94		113	
<i>Skipped questions</i>	38		31	

Source: personal elaboration

The survey conducted shows that FFs are more likely to invest in R&D: 66% of them has made R&D investments during the last 5 years, in comparison to 56.6% of NFFs.

Secondly, we compared the percentage of the R&D investments on the total revenue, comparing FFs and NFFs (Table 5).

Table 5 - The percentage of the R&D investments on the total revenue

	FFs		NFFs	
	<i>Response %</i>	<i>Response Count</i>	<i>Response %</i>	<i>Response Count</i>
0-2%	47.9%	34	54.5%	42
2-5%	32.4%	23	28.6%	22
5-10%	18.3%	13	14.3%	11
10-20%	0.0%	0	1.3%	1
20-50%	1.4%	1	1.3%	1
50 %	0.0%	0	0.0%	0
<i>Answered questions</i>	71		77	
<i>Skipped questions</i>	61		67	

Source: personal elaboration

From the table presented above it emerges that NFFs are less likely to adopt innovative strategies than FFs: 32.4% of FFs have invested in R&D at the level of 2–5% of total revenue, in comparison to 28.6% of NFFs. 18.3% of FFs invested 5–10% of the total revenue, while for NFFs this percentage was equal to 14.3%. Finally, 1.4% of FFs invested 20–50% of the total revenue, against 1.3% of NFFs.

To better investigate the presence of significant differences between FFs and NFFs, the correlation between the R&D investments and the total revenue was calculated (Table 6).

Table 6 - Correlation between the R&D investments and the total revenue

	Total sample
<i>Pearson – Correlation between (i) the R&D investment and (ii) the total revenue</i>	0.09048312
<i>Test t on correlation</i>	1,35372e
<i>P-value</i>	0.1772

Source: personal elaboration

The correlation coefficient is equal to 0.09048312 (p-value = 0.1772): it means that there are no strong differences between FFs and NFFs when considering the investment in R&D on revenues.

Subsequently, it was interesting to analyse the propensity to invest in R&D, if the company adopts a Management Control System. Consequently, we correlated the presence of Management Control System and R&D investment, obtaining the following results (Table 7).

Table 7 - Correlation between the presence of Management Control System and R&D investment

	Total sample	FFs	NFFs
<i>Pearson – Correlation between (i) the presence of Management Control System and (ii) R&D investment</i>	- 0.20962289	0.26920922	0.17535038
<i>Test t on correlation</i>	3.09934	2.73881	1.87651
<i>P-value</i>	0.0022	0.0074	0.0632

Source: personal elaboration

Firstly, without distinguishing FFs and NFFs, the research shows a direct correlation between the presence of Management Control System and R&D investment. It is a weak correlation, but it demonstrates that, if a Management Control System is implemented, the companies are more inclined to invest in R&D. The correlation is significant to a level of 1% as the p-value is lower than 1%.

Distinguishing the companies using the family variable, it emerges a direct correlation between the presence of Management Control System and R&D investment, in both FFs and NFFs. The correlation is significant for NFFs at a significant level of 10%, while the correlation is relevant for FFs at a significant level of 1%.

The difference between these two groups is that in NFFs the correlation is weak, while in FFs the correlation between the presence of Management Control System and R&D investment is moderate.

4.2 Different configurations of innovation comparing FFs to NFFs

Different configurations of innovation have been observed according to a widespread distinction in the literature in terms of internal, external and mixed solution innovation. These different compositions have been analysed in our sample.

Table 8 - Who performs the R&D activities in the company

	FFs		NFFs	
	Response %	Response Count	Response %	Response Count
<i>Internal innovation</i>	40.6%	26	61.6%	45
<i>External innovation</i>	7.8%	5	5.5%	4
<i>Both</i>	51.6%	33	32.9%	24
<i>Answered questions</i>	64		73	
<i>Skipped questions</i>	68		71	

Source: personal elaboration

Our survey shows that FFs tend to prefer a mixed solution (51.6%). Internal innovation is preferred by 40.6% companies while external innovation by only 7.8%. Internal innovation is preferred also by NFFs - 61.6% of the respondents have chosen this option; external innovation has been chosen by 5.5% and the mixed solution is preferred 32.9% of the companies.

Referring to RQ, then we have examined why companies choose different configurations of innovation strategy, that is internal configuration or external configuration.

The reasons for internal innovation strategy are presented below (Table 9).

Table 9 - The internal innovation strategy's reasons

	FFs		NFFs	
	Response %	Response Count	Response %	Response Count
<i>High competences</i>	50,0%	11	56,7%	17
<i>High effectiveness</i>	13,6%	3	20,0%	6
<i>High reliability</i>	9,1%	2	0,0%	0
<i>Strategic reason</i>	22,7%	5	13,3%	4
<i>Small dimension</i>	4,5%	1	10,0%	3
<i>Answered questions</i>	22		30	
<i>Skipped questions</i>	110		114	

Source: personal elaboration

In particular, FFs choose internal innovation for a number of reasons. Firstly, innovative actions need high levels of competence (50%), effectiveness (13.6%) and reliability (9.1%): a great deal of control with regard to the process of product development, and a perception of actions and results. Generally, FFs display great organizational flexibility and it makes them more inclined to innovate, in turn generating more chances for internal innovation and more opportunities to make use of the decision-making strategy (Damanpour, 1991; Mintzberg, 1979; Wolfe, 1994). Strategic reasons are also cited as a reason for companies to prefer internal innovation (22.7%). Finally, a small-sized family firm may prefer internal innovation for cost-saving reasons, for example if a company belongs to a particular economic sector, using external consultants may be considered too expensive.

The following step was to verify who handles internal innovation (Table 10).

Table 10 - Who handles the internal innovation

	FFs		NFFs	
	Response %	Response Count	Response %	Response Count
<i>Entrepreneur</i>	50.0%	30	28.1%	18
<i>R&D area</i>	61.7%	37	62.5%	40
<i>Marketing area</i>	10.0%	6	9.4	6
<i>Management control area</i>	3.3%	2	7.8%	5
<i>Other</i>	16.7%	10	15.6%	10
<i>Answered questions</i>	60		64	
<i>Skipped questions</i>	72		80	

Source: personal elaboration

With reference to FFs, it emerges that the R&D area is responsible for internal innovation activity (61.7%), but also that the entrepreneur has an active role (50%). The marketing area handles this activity in fewer cases (10%), followed by the management control area (3.3%). Other entities are responsible for the R&D activity in 16.7% of the cases.

At the same time, in NFFs the R&D area handles internal innovation activity in the majority of the cases (62.5%), while the entrepreneur is responsible only in 28.1% of the cases. The marketing area handles this activity in fewer cases (9.4%), followed by the management control area (7.8%). Other functions of the company are responsible for the R&D activity in 15.6% of the cases.

Consequently, the reasons for choosing external innovation were analysed and they are presented in the table below (Table 11).

Table 11 - The reasons for an external R&D activity

	FFs		NFFs	
	Response %	Response Count	Response %	Response Count
<i>High competences</i>	71.4%	5	0.0%	0
<i>Introduction of new competences</i>	14.3%	1	0.0%	0
<i>A continuous investment is not possible</i>	14.3%	1	33.3%	1
<i>A specific company of the group is dedicated</i>	0.0%		33.3%	1
<i>Effectiveness</i>	0.0%		33.3%	1
<i>Answered questions</i>	7		3	
<i>Skipped questions</i>	125		141	

Source: personal elaboration

From analysis conducted it emerges that companies often choose external innovation because of the higher competences of the external parties (71.4%). It is also because of introducing new competencies (14.3%). The use of external solutions is preferred also when it is not possible to continue to invest internally.

In developing the external innovation strategy, were then considered the relationships between external parties which are not companies, such as research institutions and/or universities (Table 12).

Table 12 - The relationships between the typologies of company (FFs and NFFs) and external research institutions and/or universities

	FFs		NFFs	
	Response %	Response Count	Response %	Response Count
Yes	37.4%	34	33.0%	36
No	62.6%	57	67.0%	73
<i>Answered questions</i>	91		109	
<i>Skipped questions</i>	41		35	

Source: personal elaboration

From the table it emerges a difference between FFs and NFFs, as FFs present a higher recourse to external research institutions and/or universities than NFFs.

Therefore, we correlated the R&D investments and the recourse to external research institutions and/or universities.

Table 13 -The correlation between the R&D investment and external research institutions and/or universities

	Total sample	FFs	NFFs
<i>Pearson – Correlation between (i) university and (ii) R&D investment</i>	0.41551863	0.51981593	0.32069668
<i>Test t on correlation</i>	6.46044	5.83639	3.48589
<i>P-value</i>	0.0000	0.0000	0.0007

Source: personal elaboration

It emerges a strong correlation between R&D investments and the recourse to Universities, which is stronger for FFs than for NFFs.

5. Discussion

A discussion of the above findings has been made according to the order proposed.

As the literature stated the relevance of R&D investments with regard to innovation, we verified this assumption in our sample, by comparison FFs with NFFs. Innovation is vital for FFs (Dana and Smyrnios, 2010; Poza, 2007), as it is essentially working towards minimizing the effects of potentially negative future

events by favouring new knowledge and competency development (Allison, McKenny and Short, 2014; Bergfeld and Weber, 2011; Habbershon and Williams, 1999; Levinthal and March, 1981; Levinthal and March, 1993; Miller and LeBreton Miller, 2006).

Secondly, we made a comparison of FFs and NFFs in terms of the percentage of the R&D investments on the total revenue. From analysis conducted it emerges that FFs show long-term vision in their investment strategy (Cassia, De Massis and Pizzurno, 2012; Chua, Chrisman and Bergiel, 2009; Sirmon and Hitt, 2003; Uotila et al., 2009; Zellweger, 2007; Zellweger, Nason and Nordqvist, 2012), as one key way to achieve or maintain a competitive edge in the long-term is through technological innovation (Astrachan, 2010; Zahra, Hayton and Salvato, 2004; Zahra, 2005; Zahra et al., 2008).

Thirdly, it was interesting to analyse the propensity to invest in R&D, if the company adopts a Management Control System. This evidence underlines how the propensity to invest in R&D correlates to the presence of a Management Control System, which increases in family companies. This propensity is justified by the fact that the companies, being more aware of the effectiveness of their investment, try to invest in profitable activities. This finding is also supported by Bisbe and Otey (2004). Using a correlation, they were able to affirm that it is plausible that an interactive use of control systems may favour innovation in low innovating firms through the provision of guidance for search, triggering and stimulus of initiatives, and provision of legitimacy to autonomous initiatives. The findings are supported by the Pearson correlation that has been calculated between the propensity to invest in R&D and the presence of a Management Control System: there is a moderate correlation between these variables for FFs at a significant level of 1% , while the correlation is weak for NFFs at a level of 10%.

As the literature stated different configurations of innovation, we compared FFs with NFFs by distinguishing internal, external innovation and a mixed solution of innovation (Chesbrough, 2003; Pistrui, 2002; Re et al., 2014; Schilling, 2009). In particular, and referring to the research question, it is important to observe why companies choose different innovation strategy configurations in terms of:

- internal configuration;
- external configuration;
- mixed configuration.

About internal configuration, it emerges that opting for internal innovation highlights the importance of gaining involvement from employees across many departments within a business and stimulating them: each member of staff is included and engaged in the innovation strategy, resulting in products of an extensive and varied creativity (Bresciani, Vrontis and Thrassou, 2012). This approach also complements the handover between generations, thanks to the way the brand value is viewed by members of the family (Abdellatif, Amann and Jausaud, 2010; Webb, Ketchen and Ireland, 2010), due to the customer perception of that brand (Appel, 2001; Keller, 2003; Thrassou and Vrontis, 2008; Thrassou and Vrontis, 2009; Thrassou and Vrontis, 2010; Vrontis and Thrassou, 2007; Vrontis and Thrassou, 2011; Westling, 2001).

When observing who handles internal innovation, and focusing on the FFs, the role of the founder or of a family member is paramount: acting as a captain of the company, he generally has a great influence on the innovation management, greater than in case of non-family members. In small family firms, the innovation activity may start from the founder's ideas or from his close collaborators, as they know the features and competitive advantages of the company: therefore, the creativity comes from a group in which the family members have an important role, and from which the innovation can be partly delegated (Cabrera-Suárez, De Saá-Pérez and García-Almeida, 2001; Sirmon and Hitt, 2003).

About external configuration, it emerges that FFs in the sample do not prefer external solutions. Indeed, family firms want to retain ownership and control of the business and its innovation strategy, and to evade any conflicts of interest (Gomez-Mejia, Makri and Larraza-Kintana, 2010; Kim and Lee, 2008). Even when parties outside the firm are experts in the core workings of the business (Birkinshaw, Hamel and Mol, 2008; Chesbrough, 2003; Cohen and Levinthal, 1990; Hagedoorn and Duysters, 2002; Huston and Sakkab, 2006), FFs prefer not to go down this route. Reasons for this include: safeguarding the brand, avoiding the possibility that the external parties' values and characteristics may not be aligned with those of the company; and avoiding the risk that they may not be easily integrated within the firm's organizational structure (Teece, Pisano and Shuen, 1997). This is a good solution only if the external parties can help the company to reinvent products and processes well (Salvato, Chirico and Sharma, 2010), stimulating new innovation elements and increasing the company's competitive advantage. By observing the correlation between the company's typology (FFs or NFFs) and external research institutions and/or universities the correlation is strong for both FFs and NFFs (stronger for FFs than for NFFs).

About a mixed configuration between internal and external innovation, the majority of FFs prefer this solution. In our sample, the majority of FFs prefer a mix of internal and external innovation. The mixed approach enables the business to utilise internal resources and attitudes with the help of external experts. In doing so, family values and traditions are upheld, while the addition of the external experts' input can increase the possibility of greater innovation. The involvement of the family members maintains the traditional values without continuous innovation that could reduce the value of the brand.

Successful affiliations between firms and third party research facilities and/or universities can help in the mixed solution approach, and are more common among FFs than among NFFs. Through these strong relationships, FFs aim to gain advantage from consulting the third parties. New concepts and new or adapted products and processes can result from these relationships, increasing loyalty from existing customers and attracting new ones (Broekaert, Andries and Debackere, 2014; Rothaermel and Hess, 2007; Spithoven, Frantzen and Clarysse, 2010).

Using a combination of different resources, skills and attitudes, one avenue the company could pursue to source development ideas and gain a competitive edge is through the formation of networks between the firm and third parties (e.g. research facilities and further education institutions) (Colombo et al., 2012;

Flatten, Greve and Brettel, 2011; Giacosa, 2012; Nieto and Santamaría, 2010). Networks encourage and augment innovation in FFs, resulting in a broadening of opportunities for the firm, in terms of brand appeal, corporate brand identity and competitive advantage.

6. Conclusions, implications and limitations

Innovation has an impact on know-how and resources available to a family firm and has a positive effect on the success of innovation efforts. For these reasons, innovation is a key way of obtaining and increasing a company's competitive advantage.

FFs' innovation tendencies have been analyzed by many scholars, with the aim of linking an inclination to be entrepreneurial with innovativeness. In one group of studies, it was stated that innovation strategies are less appealing to FFs than in case of NFFs. The studies said that, given how investment in innovation is more risky and unpredictable, FFs are less likely to consider it as they tend to be more risk averse. In a second group of studies, it was stated that FFs are *more* likely to pursue innovation than NFFs, as they have a stronger long-term view.

For small FFs with limited resources, a combination of internal and external innovation may generate stronger, more profitable relationships and improve the sharing of knowledge, company values and innovative concepts between company personnel and third parties.

Consequently, there are several sources of innovation: firstly, the entrepreneur, the other family members and each employee. It means that the human capital in FFs – that is a major positive or negative factor of family firm because of the involvement of the family members in the company activity – is a relevant factor that impacts also on the innovation benefits. In particular, the knowledge, skills and abilities of family members improve the entrepreneurship of the company. The force of the human capital could combine with the potential of external parties, increasing flexibility in daily assignments and sharing information and knowledge.

If the FF is able to adapt to external change, or to anticipate it, it may obtain advantage from an innovation strategy. However, a passive approach towards external change may negatively impact on the competitive advantage, causing the loss of brand allure.

Only an innovative approach can respond to internal and external stimuli, creating new opportunities in new products and processes.

In this paper, we have shown that FFs find innovative strategies more appealing than NFFs, as several scholars have stated. One notable difference between FFs and NFFs is their appetite and enthusiasm for innovation strategy and this is due to a combination of factors, such as their line of business and

level of organizational adaptability, especially if the FF is a small or medium-sized enterprise. Where family members are involved this has an effect on the firm's innovativeness, and impacts on the decision-making process, both in terms of the company's management and creativity.

FFs are more likely to have set out longer term plans for their investments than NFFs, so, for them, innovation is a key component in their competition strategy as a way of ensuring their brand's resilience and value in the future. Because FFs are often specialists, the firm needs a strong approach and skills, especially with regard to innovation, without which it will not improve or grow.

Finally, most of the FFs in the study choose a combination of internal and external innovation via strong networks of third parties in R&D.

It allows FFs to blend company resources and attitudes with the help of external experts: it allows them to retain an attachment to family values and traditions, while still benefitting from the skills of third parties, and increases the chances of a greater amount of innovation. If the relationship between the FF and third parties is based on trust, it allows the firm access to invaluable resources owned by those parties, which boosts the chances of the company's survival.

This study shows a direct correlation between the presence of Management Control System and R&D investment, that creates innovation, both in FFs and NFFs, also if in FFs is moderate at a significant level of 1%, while it is weak for NFFs at a level of 10%. In line with the findings of Bisbe and Otley (2004), an interactive use of control systems may favor innovation in low innovating firms. On the contrary, an interactive use of control systems appears to reduce innovation in high-innovating firms, plausibly through the filtering out of initiatives, that results from the sharing and exposure of ideas. This is an interesting aspect that could be investigated in the next researches. In addition, this study shows a direct correlation also between R&D investment and external research institutions and/or universities which is stronger for FFs.

The implications arising from this study are both theoretical and practical, as it indicates a possible perspective of innovation to manage competitiveness. This is particularly true during a period that has been defined by economic crisis, as it identifies innovation strategy as being imperative to FFs' successful competitiveness:

- the theoretical implications of our study are tied to the applicability of innovation investments for FFs versus NFFs: the paper can be considered as a development in research studies about the innovation strategy of FFs and NFFs, also contributing to extend the literature concerning the drivers of the innovation strategy. Considering some representative industries for Italian economy, this paper confirms what several scholars have stated, which is that FFs find innovative strategy more appealing than NFFs. In particular, it contributes to the literature discussing the part innovation plays in FFs business strategy. In addition, this observation in the last year permits to verify the effects of the financial crisis on the innovation strategy, which could be considered a means for increasing the company's competitive advantages;

- the practical implications are applicable to FFs' activities. The study confirms that innovation efforts are relevant to a company's products and processes along the production and distribution chain, which could affect the firm's competitive edge. It is useful for the family, company management and external consultants, in order to grasp the impact on investment in innovation. It will also help them in their decision-making process, and in adapting theoretical best practice in the field of innovation management to the family firm's unique circumstances.

With a view to identifying the limitations of the research, it can be stated as follows:

- with reference to the sample: one limitation of the paper is represented by the presence of companies belonging to different sectors and to different generational stages. It could be useful to distinguish among them, to individualize typical trends that could impact on the meaningfulness of the findings. In addition, of particular interest would be to further divide the sample by company size, examining small-sized and medium-sized FFs and NFFs as separate categories. Future researches could analyze this distinction;
- with reference to the method used: first, the limitations of this study are linked to the way of statistical data classification. This limitation could be overcome by using relevant econometric models to replicate the effect of a series of external and internal variables on the innovative strategy. In future researches, we could identify proper statistical tests for supporting the relevance of the sample and the robustness of the conclusions. Second, the model used does not include qualitative variables, which could help to explain in better way the analyzed phenomenon. For instance, we could consider the level of satisfaction of customers into the product range realized thanks to R&D activities, as well as the uniqueness of the product range and a degree of its personalization. Third, the findings may have been influenced by the collection data method, even if the questionnaire had annexes to provide explanations about the terminology and the contents of our investigation. Some respondents could have chosen to not answer as they did not understand the questions. By this way, the sample could evidence a lack in meaningfulness. Forth, it might also be of interest to distinguish between product and process innovation, as these activities display different features and problems.

References

- Abdellatif M., Amann B., Jaussaud J., (2010), "Family versus nonfamily business: A comparison of international strategies", *Journal of Family Business Strategy*, vol. 1, n. 2, p. 108–116.
- Acquaah M., (2013), "Management control systems, business strategy and performance: a comparative analysis of family and non-family business in a transition economy in sub-Saharan Africa", *Journal of Family Business Strategy*, vol. 4, p. 131-146.
- Ahuja G., Lampert C. M., (2001), 'Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions', *Strategic Management Journal*, vol. 22, n. 6/7, p. 521–543.
- AIDAF (2011), *Family business international monitor*, available at <http://www.aidaf.it>, date accessed 10 November 2011.
- Aldrich H. E., Cliff J. E., (2003), 'The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective', *Journal of Business Venturing*, vol. 18, n. 5, p. 573–596.
- Allison T. H., McKenny A. F., Short J. C., (2014), "Integrating Time into Family Business Research: Using Random Coefficient Modeling to Examine Temporal Influences on Family Firm Ambidexterity", *Family Business Review*, vol. 27, n. 1, p. 20–34.
- Ambrosini V., Bowman C., (2009), "What are dynamic capabilities and are they a useful construct in strategic management?", *International Journal of Management Reviews*, vol. 11, n. 1, p. 29–49.
- Anderson R. C., Duru A., Reeb D. M., (2012), "Investment policy in family controlled firms", *Journal of Banking & Finance*, vol. 36, n. 6, p. 1744–58.
- Anderson R. C., Reeb D. M., (2003), "Founding-Family Ownership, Corporate Diversification, and Firm Leverage", *Journal of Law and Economics*, vol. 46, n. 2, p. 653–684.
- Anderson R. C., Reeb D. M., (2004), "Board Composition: Balancing Family Influence in S&P 500 Firms", *Administrative Science Quarterly*, vol. 49, n. 2, p. 209–237.
- Appel T., (2001), "Sputtering economy puts squeeze on winemakers", *The Press Democrat*, 1 September, p. A1.
- Aronoff C. E., (1998), 'Megatrends in family business', *Family Business Review*, vol. 11, n. 3, p. 181–186.
- Arregle J. L., Hitt M. A., Sirmon D. G., Very, P., (2007), 'The Development of Organizational Social Capital: Attributes of Family Firms', *Journal of Management Studies*, vol. 44, n. 1, p. 73–95.
- Astrachan J. H., (2010), "Strategy in family business: Toward a multidimensional research agenda", *Journal of Family Business Strategy*, vol. 1, n. 1, p. 6–14.
- Astrachan J. H. Jaskiewicz, P., (2008), "Emotional returns and emotional costs in privately held family businesses: Advancing traditional business valuation", *Family Business Review*, vol. 21, n. 2, p. 139–49.
- Astrachan J.H., Shanker M.C., (2003), "Family businesses' contribution to the US economy: a closet look", *Family Business Review*, vol. 16, n. 3, p. 211-219.

- Bergfeld M. M. H., Weber F. M., (2011), "Dynasties of innovation: Highly performing German family firms and the owners' role for innovation", *International Journal of Entrepreneurship and Innovation Management*, vol. 13, n. 1, p. 80–94.
- Bertoli G., (2002), *Il valore della marca: modello evolutivo e metodi di misurazione*, Università degli studi di Brescia, Dipartimento di economia aziendale, Brescia.
- Bertoli G., (2004), *La competitività del sistema Italia: dal locale al globale*, Franco Angeli, Milano.
- Bertoli G., Busacca B., Pelloni O., (2007), *Brand extension: l'impatto della qualità relazionale della marca e delle scelte di denominazione*, Università degli studi di Brescia, Dipartimento di economia aziendale, Brescia
- Bertrand M., Johnson S., Samphantharak K., Schoar A., (2008), "Mixing family with business: A study of Thai business groups and the families behind them", *Journal of Financial Economics*, vol. 88, n. 3, p. 466–498.
- Birkinshaw J., Hamel G., Mol M. J., (2008), "Management innovation", *Academy of Management Review*, vol. 33, n. 4, p. 825–45.
- Bisbe J., & Otley D., (2004). "The effects of the interactive use of management control systems on product innovation", *Accounting, organizations and society*, vol. 29, n. 8, p. 709-737.
- Block J. H., (2009), *Long-term orientation of family firms. An investigation of R&D investments, downsizing practices, and executive pay*, Gabler, Wiesbaden.
- Block J. H., (2012), "R&D investments in family and founder firms: An agency perspective", *Journal of Business Venturing*, vol. 27, n. 2, p. 248–265.
- Blundell R., Griffiths R., Van Reenen J., (1999), "Market share, market value and innovation in a panel of British manufacturing firms", *Review of Economic studies*, vol. 66, n. 3, p. 529-554.
- Bonti M., Cori E., (2006), *Competenze organizzative nella media impresa: il caso Loccioni*, Franco Angeli, Milano.
- Bresciani S. (2009), "Innovation and creativity within firms. An empirical demonstration in the Piedmont area", *International Journal of Business Innovation and Research*, vol. 3, n. 4, p. 427-443.
- Bresciani S. (2010), "Innovation within firms. A survey in the Piedmont area", *International Journal of Quality and Innovation*, vol. 1, n. 2, p. 138-152.
- Bresciani S., Bertoldi B., Giachino C., Ferraris A., (2013b), *The Approach of Family Businesses in the Luxury Industry*, 6th Annual Conference of the EuroMed Academy of Business Confronting Contemporary Business Challenges through Management Innovation, Estoril 23-24th September.
- Bresciani S., Ferraris A. (2012), *Imprese multinazionali. Innovazione e scelte localizzative*, Maggioli Editore, Santarcangelo di Romagna.
- Bresciani S., Ferraris A., (2014), "The Localization Choice of Multinational Firms' R&D Centers: A Survey in the Piedmont Area", *Journal of Promotion Management*, vol. 20, n. 4, p. 481-499.
- Bresciani S., Vrontis D., Thrassou A., (2012), "Human Resource Management – Practices, Performance and Strategy in the Italian Hotel Industry", *World Review of Entrepreneurship, Management and Sustainable Development*, vol. 8, n. 4, p. 405-423.

- Bresciani S., Vrontis D., Thrassou A., (2013a), "Change through Innovation in Family Businesses: Evidence from an Italian Sample", *World Review of Entrepreneurship, Management and Sustainable Development*, vol. 9, n. 2, p. 195-215.
- Bresciani S., Giacosa E., Broccardo L., Truant E., (2015), *Innovation in Family Firms: an Italian Survey*, in 8th Euromed Conference of the EuroMed Academy of Business "Innovation, Entrepreneurship and Sustainable Value Chain in a Dynamic Environment", September 16-18, 2015, Verona, Italy.
- Bresciani S., Vrontis D., Thrassou A., (2014), "Strategic Reflexivity in the Hotel Industry – A Value Based Analysis", *World Review of Entrepreneurship, Management and Sustainable Development*, vol. 10, n. 2/3, p. 352-371.
- Bresciani S., Vrontis D., Thrassou A., (2015), "Determinants of performance in the hotel industry - an empirical analysis of Italy", *Global Business and Economics Review*, vol. 17, n. 1, p. 19-34.
- Bresciani S., Vrontis D., Thrassou A., (2015), "The Internationalization Of R&D Activities To Asian Developing Countries", *World Review of Entrepreneurship, Management and Sustainable Development*, vol. 11, n. 2/3, p. 200-216.
- Broekaert W., Andries P., Debackere K., (2014), *Family firms' dynamic capabilities as enablers of innovation*, in Conference Proceedings, 10th Workshop on Family Firm Management Research 'Innovation, Family Firms and Economic Development', May 22–24, 2014, Bergamo, Italy, p. 1–16.
- Brown S. L., Eisenhardt K. M., (1995), "Product development: Past research, present findings, and future directions", *Academy of Management Review*, vol. 20, n. 2, p. 343-378.
- Cabrera-Suárez K., De Saá-Pérez P., García-Almeida D., (2001), "The succession process from a resource- and knowledge-based view of the family firm", *Family Business Review*, vol. 14, n. 1, p. 37–46.
- Cafferata R., (1988), *Competitive advantage and internationalization of italian small and medium-sized manufacturing firms*, McGraw-Hill, Milano.
- Cafferata R., (1988), *Sistemi ambiente e innovazione: come s'integrano la continuità e il mutamento nell'impresa*, Giappichelli, Torino.
- Cafferata R., (1995), *Sistemi ambiente e innovazione: come s'integrano la continuità e il mutamento nell'impresa*, Giappichelli, Torino.
- Cantino V., (2007), *Corporate governance, misurazione della performance e compliance del sistema di controllo interno*, Giuffrè, Milano.
- Cantino V., De Bernardi P., Devalle A. (2015), *Sistemi di rilevazione e di misurazione delle performance aziendali: dalla redazione del bilancio di esercizio al controllo di gestione*, Giappichelli, Torino.
- Carnes C. M., Ireland D. R., (2013), 'Familiness and Innovation: Resource Bundling as the Missing Link', *Entrepreneurship Theory & Practice*, vol. 27, n. 6, p. 1339–419.
- Carrasco-Hernandez A., Jimenez-Jimenez D., (2012), "Can family firms innovate? Sharing internal knowledge from a social capital perspective", *The Electronic Journal of Knowledge Management*, vol. 11, n. 1, p. 30-37.
- Caselli L., (1966), *Teoria dell'organizzazione e processi decisionali nell'impresa*, Giappichelli, Torino.

- Caselli L. et al., (1990), *Risorse umane e trasformazioni produttive: l'ipotesi*, Giappichelli, Torino.
- Cassia L., De Massis A., Pizzurno E., (2012), "Strategic innovation and new product development in family firms: An empirically grounded theoretical framework", *International Journal of Entrepreneurial Behaviour & Research*, vol. 18, n. 2, p. 198–232.
- Cefis S. E., Marsili O., (2005), "A matter of life and death: innovation and firm survival", *Industrial and Corporate Change*, vol. 14, n. 6, p. 1167–1192.
- Cerruti C., (2008), *L'innovazione logistica nei distretti : ridisegno di processi e utilizzo delle nuove tecnologie*, EUM, Macerata.
- Cerruti C. (Eds.), (2012), *Internazionalizzazione e innovazione : approcci ed esperienze*, Aracne, Roma.
- Chen H. L., Hsu W. T., (2009), "Family Ownership, Board Independence, and R&D Investment", *Family Business Review*, vol. 22, n. 4, p. 347–362.
- Chesbrough H. W., (2003), *Open Innovation, The New Imperative for Creating and Profiting from Technology*, Harvard Business School Press, Boston.
- Chrisman J. J., Patel P. C., (2012), "Variations in R&D investments of family and nonfamily firms: Behavioral agency and myopic loss aversion perspectives", *Academy of Management Journal*, vol. 55, n. 4, p. 976–997.
- Chua J. H., Chrisman J. J., Bergiel E. B., (2009), "An Agency Theoretic Analysis of the Professionalized Family Firm", *Entrepreneurship: Theory & Practice*, vol. 33, n. 2, p. 355–372.
- Chua J. H., Chrisman J. J., Sharma P., (1999), "Defining the family business by behaviour", *Entrepreneurship Theory and Practice*, vol. 23, n. 4, p. 19–40.
- Claessens S., Djankov S., Lang L.H.P., (2000), "The Separation of Ownership and Control in East Asian Corporations", *Journal of Financial Economics*, vol. 58, n. 1, p. 81-112.
- Cohen W. M., Levinthal D. A., (1990), "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly*, vol. 35, n. 1, p. 140–152.
- Colli A., (2013), "State of the art – Family firms: risks and opportunities: the state of the art of the debate", *Socio-Economic Review*, vol. 11, p. 1-23.
- Colombo M. G., Laursen K., Magnusson M., Rossi-Lamastra C., (2012) 'Introduction: Small Business and Networked Innovation: Organizational and Managerial Challenges', *Journal of Small Business Management*, vol 12, n. 2, p. 181–90.
- Contò F., Vrontis D., Fiore M., Thrassou A., (2014), "Strengthening regional identities and culture through wine industry cross border collaboration", *British Food Journal*, vol. 116 n. 11, p. 1788-1807.
- Cori E., (2013), *Organizzare la piccola impresa*, Clua edizioni, Ancona.
- Covin J. G., Miles M. P., (1999), "Corporate entrepreneurship and the pursuit of competitive advantage", *Entrepreneurship Theory and Practice*, vol. 23, n. 3, p. 47-63.
- Craig J. B. L., Dibrell C., (2006), "The natural environment, innovation, and firm performance: A comparative study", *Family Business Review*, vol. 19, n. 4, p. 275–88.

- Craig J. B. L., Moores K., (2006), "A 10-year longitudinal investigation of strategy, systems, and environment on innovation in family firms", *Family Business Review*, vol. 19, n. 1, p. 1–10.
- Crossan M. M., Apaydin M., (2010), "A multi-dimensional framework of organizational innovation: A systematic review of the literature", *Journal of Management Studies*, vol. 47, n. 6, p. 1154-1191.
- Culasso F., Manzi L. M., Broccardo L., Giacosa E., (2013), *Family Italian Listed Firms: Comparison in Performances and Identification of Two Main Configurations*, in Conference Readings Book Proceedings, 6th Euromed Conference of the Euromed Academy of Business, 'Confronting Contemporary Business Challenges through Management Innovation', October 3-4, 2013, Estoril, Cascais, Portugal (Nicosia: Euromed Press), p. 723 etc.
- Cyert R. M., March J. G., (1963), *A behavioral theory of the firm*, Prentice-Hall, Englewood Cliffs.
- Damanpour F., (1991), 'Organisational innovation: A meta-analysis of effects of determinants and moderators', *Academy of Management Journal*, vol. 34, n. 3, p. 555–90.
- Dana L. E., Smyrnios K. S., (2010), "Family business best practices: Where from and where to?", *Journal of Family Business Strategy*, vol. 1, n. 1, p. 40–53.
- De Massis A., Frattini F., Pizzurno E., Cassia L., (2015), "Product innovation in family versus nonfamily firms: An exploratory analysis", *Journal of Small Business Management*, vol. 53, n. 1, p. 1-36.
- De Massis A., Frattini F., Lichtenthaler U., (2013), "Research on technological innovation in family firms: Present debates and future directions", *Family Business Review*, vol. 26, n. 1, p. 10-31.
- De Massis, A., Sharma, P. A., Chua, J. H., Chrisman, J. J. (2012), *Family business studies: An annotated bibliography*, Edward Elgar, Northampton.
- Donna G., (1992), *L'impresa competitiva: un approccio sistemico*, Giuffrè, Milano.
- Drucker P., (1985), *Innovation and entrepreneurship*, Harper & Row, New York.
- Ducassy I., Prevot F., (2010), "The effects of family dynamics on diversification strategy: Empirical evidence from French Companies", *Journal of Family Business Strategy*, vol. 1, n. 4, p. 224–235.
- Dyer Jr. W. G., (2006) 'Examining the "family effect" on firm performance', *Family Business Review*, vol. 19, n. 4, p. 253–73.
- Enkel E., Gassmann O., Chesbrough H., (2009) "Open R&D and open innovation: exploring the phenomenon", *R&D Management*, vol. 39, n. 4, p. 312–16.
- Ethical Firm System Theory to Competitive Success/Ethics Relationships", in De Gennaro, I., QUITTERER, J., Smekal, C., Tasser, B. (eds.), *Ethics in Economic Life: Challenges to a Globalizing World*, Innsbruck University Press, Innsbruck.
- Faccio M., Lang L., (2002), "The Ultimate Ownership of Western Corporations", *Journal of Financial Economics*, vol. 65, n. 3, p. 365-395.
- Ferrando P M., (1981), *Impresa, ambiente, processi decisionali e organizzativi*, ECIG, Genova

- Ferrando P. M. (1998a), *Risorse e risorse immateriali. Natura e implicazioni per il valore dell'impresa*, in Ferrando P.M., Fadda L., Dameri R.P., *Saggi sull'immateralità nell'economia delle imprese*, Giappichelli, Torino.
- Ferrando P. M., (2009), "Risorse immateriali e creazione di valore nell'offerta formativa post lauream dell'Università", *Impresa Progetto*, vol. 2, p. 1-20.
- Ferrando P.M., Fadda L., Dameri R. P. (1998b), *Saggi sull'immateralità nell'economia delle imprese*, Giappichelli, Torino.
- Ferraris A. Grieco C., (2014), "A new actor in the Development of Social Innovation: the case of Trentorise, Paper presented at 7th Annual Conference of the EuroMed Academy of Business, The Future of Entrepreneurship, September 18-19, 2014 Kristiansand, Norway.
- Flatten T. C., Greve G. I., Brettel M., (2011), "Absorptive Capacity and Firm Performance in SMEs: The Mediating Influence of Strategic Alliances", *European Management Review*, vol. 8, n. 3, p. 137-52.
- Freeman C. (1976), *Economics of industrial innovation*, Pinter, London.
- Frey M., Cerruti C., Binci D. (2012), *Management dell'innovazione: flessibilità, interazione, integrazione e tecnologia nei processi innovativi*, CEDAM, Assago.
- Galunic D. C., Rodan S., (1998), "Resource recombinations in the firm: Knowledge structures and the potential for Schumpeterian innovation", *Strategic Management Journal*, vol. 19, n. 12, p. 1193-1201.
- Garcia-Ramos M., Garcia-Olalla R., (2011), "Board characteristics and firm performance in public founder and nonfounder-led family business", *Journal of Family Business Strategy*, vol. 2, n. 4, p. 220-231.
- Garzella S., (2000), *I confini dell'azienda*, Giuffrè, Milano.
- Geroski P., Machin S., Van Reenen J., (1993), "The profitability of innovating firms", *RAND Journal of Economics*, vol. 24, n. 2, p. 198-211.
- Ghoshal S., Bartlett A. C., (1990), "The Multinational Corporation as an Interorganizational Network", *Academy of Management Review*, vol. 15, n. 4, p. 603-25.
- Giacosa E., (2011), *L'economia delle aziende di abbigliamento*, Giappichelli, Torino.
- Giacosa E., (2012), *Mergers and Acquisitions (M&A) in the Luxury Business*, McGraw-Hill, Milano.
- Giorgetti G., (2013), *Organizzazione aziendale: aspetti di base per l'interpretazione dei processi organizzativi*, Maggioli, Rimini.
- Goel S., Mazzola P., Phan P. H., Pieper T. M., Zachary R. K., (2012), "Strategy, ownership, governance, and socio-psychological perspectives on family businesses from around the world", *Journal of Family Business Strategy*, vol. 3, n. 2, p. 54-65.
- Gomez-Mejia L. R., Haynes K. T., Nunez-Nickel M., Jacobson K. J. L., Moyano-Fuentes J., (2007), "Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills", *Administrative Science Quarterly*, vol. 52, n. 1, p. 106-137.
- Gomez-Mejia L. R., Makri M., Larraza-Kintana M., (2010), "Diversification decisions in family controlled firms", *Journal of Management Studies*, vol. 47, n. 2, p. 223-252.

- Greenwood R., Miller D., (2010), "Tackling design anew: Getting back to the heart of organizational theory", *Academy of Management Perspectives*, vol. 24, n. 4, p. 78-88.
- Greve H. R., (2007), "Exploration and exploitation in product innovation", *Industrial and Corporate Change*, vol. 16, n. 5, p. 945-975.
- Greve H. R., (2009), "Bigger and safer: The diffusion of competitive advantage", *Strategic Management Journal*, vol. 30, n. 1, p. 1-23.
- Gudmundson D., Hartman E. A., Tower C. B., (1999), "Strategic orientation: Differences between family and nonfamily firms", *Family Business Review*, vol. 12, n. 1, p. 27-39.
- Gudmundson D., Tower C. B., Hartman A. E., (2003), "Innovation in small businesses: Culture and ownership structure do matter", *Journal of Developmental Entrepreneurship*, vol. 8, n. 1, p. 1-17.
- Gulati R., Martin G., (1999), "Where Do Networks Come From?", *American Journal of Sociology*, vol. 104, n. 5, p. 1439-1493.
- Gulati R., Nitin N., Akbar Z., (2000), "Strategic Networks", *Strategic Management Journal*, vol. 21, p. 203-15.
- Habbershon T. G., Williams M. L., (1999) "A resource-based framework for assessing the strategic advantages of family firms", *Family Business Review*, vol. 12, n. 1, p. 1-22.
- Hagedoorn J., Duysters G., (2002), "External Sources of Innovative Capabilities: The Preferences for Strategic Alliances or Mergers and Acquisitions", *Journal of Management Studies*, vol. 39, n. 2, p. 167-188.
- Hargadon A., Sutton R. I., (1997), "Technology brokering and innovation in a product development firm", *Administrative Science Quarterly*, vol. 42, n. 4, p. 716-749.
- Hoy F., Sharma P., (2010), *Entrepreneurial family firm*, Prentice Hall, Upper Saddle River.
- Hülsbeck M., Lehmann E. E., Weiß D., Wirsching K., (2012), "Innovationsverhalten in Familienunternehmen", *Zeitschrift für Betriebswirtschaft*, vol. 82, n. 3, p. 71-91.
- Hult M., Hurley R. F., Knight G. A., (2004), "Innovativeness: Its antecedents and impact on business performance", *Industrial Marketing Management*, vol. 33, n. 5, p. 429-38.
- Human S. E., Provan K. G., (1997) "An Emergent Theory of Structure and Outcomes in Small-Firm Strategic Manufacturing Networks", *Academy of Management Journal*, vol. 40, n. 2, p. 368-403.
- Huston L., Sakkab N., (2006), "Connect and develop: Inside Procter & Gamble's new model for innovation", *Harvard Business Review*, vol. 84, n. 3, p. 58-66.
- IFERA (2003), "Family businesses dominate", *Family Business Review*, vol. 16, n. 4, p. 235-240.
- Keller K.L., (2003), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, Prentice-Hall, Upper Saddle River, NJ.
- Kellermanns F., Eddleston K., Sarathy R., Murphy F., (2012), "Innovativeness in family firms: A family influence perspective", *Small Business Economics*, vol. 38, n. 1, p. 85-101.

- Kim H., Lee P. M., (2008), "Ownership structure and the relationship between financial slack and R&D investments: Evidence from Korean firms", *Organization Science*, vol. 19, n. 3, p. 404–418.
- Kraus S., Pohjola M., Koponen A., (2012), "Innovation in family firms: an empirical analysis linking organizational and managerial innovation to corporate success", *Review of Managerial Science*, vol. 6, n. 3, p. 265-286.
- La Porta R., Lopez-de-Silanes and L., Shleifer A., (1999), "Corporate ownership around the world", *The Journal of Finance*, vol. 54, n. 2, p. 471-517.
- Le Breton-Miller I., Miller D., (2006), "Why do some family businesses out-compete? Governance, long-term orientations, and sustainable capability", *Entrepreneurship Theory & Practice*, vol. 30, n. 6, p.731–746.
- Levinthal D. A., March J. G., (1993), "The myopia of learning", *Strategic Management Journal*, vol. 14, n. S2, p. 95–112.
- Levinthal D., March J. G., (1981), "A model of adaptive organizational search", *Journal of Economic Behavior and Organization*, vol. 2, n. 4, p. 307–33.
- Llach J., Nordqvist M., (2010), "Innovation in family and non-family businesses: a resource perspective", *International Journal of Entrepreneurial Venturing*, vol. 2, n. 3, p. 381–99.
- Lorange P., Roos J., (1993), *Strategic Alliances: Formation, Implementation, and Evolution*, Blackwell Business, Cambridge.
- Marchiori M., (2009), "Le competenze: misurazione e valutazione di risorse intangibili ai fini di valorizzazione e sviluppo", *Impresa Progetto*, vol. 2, p. 1-20.
- Mediobanca (2013), *Indagine sul settore vinicolo*, Ufficio Studi Mediobanca, Roma. Retrieved March 2013, available at: http://www.mbres.it/ita/mb_pubblicazioni/vinicole.htm (accessed 2 March 2014).
- Menguc B., Auh S., (2006), "Creating a firm-level dynamic capability through capitalizing on market orientation and innovativeness", *Journal of the Academy of Marketing Sciences*, vol. 34, n. 1, p. 63-73.
- Miller D., Le-Breton Miller I., (2006), "Family governance and firm performance: Agency, stewardship, and capabilities", *Family Business Review*, vol. 19, n. 1, p. 73–87.
- Miller D., Le Breton-Miller I.,(2005), *Managing for the Long Run: Lessons in Competitive Advantage from Great Family Businesses*, Harvard Business School, Boston.
- Miller D., Le Breton-Miller I., Lester R. H., (2011), "Family and lone founder ownership and strategic behavior: social context, identity, and institutional logics", *Journal of Management Studies*, vol. 48, n. 1, p. 1–25.
- Mintzberg H., (1979), *The structuring of organization*, Prentice Hall, Upper Saddle River.
- Morck R., Yeung B., (2004), "Family Control and the Rent Seeking Society", *Entrepreneurship Theory and Practice*, vol. 28, p. 391-409.
- Munari F., Oriani R., Sobrero M., (2010), "The effects of owner identity and external governance systems on R&D investments: A study of Western European firms", *Research Policy*, vol. 39, n. 8, p. 1093–1104.

- Naldi L., Nordqvist M., Sjöberg K., Wiklund J., (2007), "Entrepreneurial orientation, risk taking, and performance in family firms", *Family Business Review*, vol. 20, n. 1, p. 33–47.
- Nieto M. J., Santamaría L., (2010), "Technological Collaboration: Bridging the Innovation Gap between Small and Large Firms", *Journal of Small Business Management*, vol. 48, n. 1, p. 44–69.
- Nordqvist M., Merlin L., (2010), "Entrepreneurial families and family firms", *Entrepreneurship and Regional Development*, vol. 22, n. 3/4, p. 211–39.
- Pakes A., Griliches Z., (1980), "Patents and R&D at the firm level: A first report", *Economics Letters*, vol. 5, n. 4, p. 377–81.
- Perez-Gonzalez F., (2006), "Inherited control and firm performance", *American Economic Review*, vol. 96, n. 5, p. 1559–88.
- Pistrui D., (2002), *Innovate now: report on innovation*, D. Stuart School of Business, Illinois Institute of Technology, Chicago.
- Porter M., (1990), *The competitive advantage of nations*, Macmillan, London.
- Porter M., (1985), "Capital disadvantage: America's failing capital investment system", *Harvard Business Review*, vol. 70, n. 5, p. 65-82.
- Poskela J., Martinsuo M., (2009), "Management control and strategic renewal in the front end of innovation", *Journal of Product Innovation Management*, vol. 26, n. 6, p. 671-684.
- Poza E., (2007), *Family business*, 2nd edn, Thompson, Mason.
- Re P. G., Giacosa E., Giachino C., Stupino M., (2014), *The management of innovation in the wine business*, in Conference Proceedings, 2nd International Symposium 'Systems Thinking for a Sustainable Economy. Advancements in Economic and Managerial Theory and Practice', January 23-24, 2014, Rome, Italy, p. 1–17.
- Romano C. A., Tanewski G. A., Smyrnios K. X., (2000), "Capital structure decision making: A model for family business", *Journal of Business Venturing*, vol. 16, n. 3, p. 285–310.
- Rosenberg N., (1990), "Why do firms do basic research (with their own money)?", *Research Policy*, vol. 19, n. 2, p. 165–74.
- Rothaermel F. T., Hess A. H., (2007), "Building dynamic capabilities: Innovation driven by individual-, firm-, and network-level effects", *Organization Science*, vol. 18, n. 6, p. 898–921.
- Rusconi G., (2006), Stakeholder and Documents of the Direct Accountability of Companies, in Arena P., (eds.), *The Corporate Social Responsibility, Scientific Development and Implementation*, Aracne, Rome.
- Rusconi G., (2009), *Management, Ethics and Stakeholder Theory: an Application of Italian Ethical Firm System Theory to Competitive Success/Ethics Relationships*, in De Gennaro I., Quitterer J., Smekal C. and Tasser B., *Ethics in Economic Life: Challenges to a Globalizing World*, Innsbruck University Press, Innsbruck.
- Salvato C., Chirico F., Sharma, P., (2010), "A farewell to the business: Championing exit and continuity in entrepreneurial family firms", *Entrepreneurship & Regional Development*, vol. 22, n. 3/4, p. 321–348.

- Sbrana M., Torre T., (Eds), (1996), *Conoscenza e gestione del capitale umano: la learning organization*, Franco Angeli, Milan.
- Schilling M., (2009), *Strategic Management of Technological Innovation*, McGraw Hill, Boston.
- Schulze W. S., Lubatkin M. H., Dino R. N., Buchholtz A. K., (2001), "Agency relationship in family firms: Theory and evidence", *Organization Science*, vol. 12, n. 9, p. 99–116.
- Sirmon D. G., Hitt M. A., (2003), "Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms", *Entrepreneurship: Theory and Practice*, vol. 27, n. 4, p. 339–358.
- Spinelli R., (2009), "Ict Adoption and Use by Italian Smes: A Cross-Industry Comparison", *The E-Business Review*, vol. 9, p. 82-85.
- Spinelli R., Dyerson R., Harindranath H., (2013), "IT Readiness in Small Firms", *Journal of Small Business and Enterprise Development*, vol. 20, n. 4; pp. 807-823.
- Spithoven A., Frantzen D., Clarysse B., (2010), "Heterogeneous firm-level effects of knowledge exchanges on product innovation: Differences between dynamic and lagging product innovators", *Journal of Product Innovation Management*, vol. 27, n. 3, p. 362–81.
- Spriggs M., Yu A., Deeds D., Sorenson R. L., (2013), "Too many cooks in the kitchen: Innovative capacity, collaborative network orientation, and performance in small family businesses", *Family Business Review*, vol. 26, n. 1, p. 32–50.
- Stockmans A., Lybaert N., Voordeckers W., (2010), "Socioemotional wealth and earnings management in private family firms", *Family Business Review*, vol. 23, n. 3, p. 280–294.
- Teece D. J., Pisano G., Shuen A., (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, vol. 18, n. 7, p. 509–533.
- Thompson A. V., (1965), "Bureaucracy and innovation", *Administrative Science Quarterly*, vol. 10, n. 1, p. 1-20.
- Thrassou A., Vrontis D., (2008), "International strategic marketing of the small construction consultancy firm – The case of Cypriot firms", *International Journal of Entrepreneurship and Small Business*, vol. 6, n. 2, p. 296–314.
- Thrassou A., Vrontis D., (2009), "A new consumer relationship model: the marketing communications application", *Journal of Promotion Management*, vol. 15, n. 4, p.499–521.
- Thrassou A., Vrontis D., (2010), *The dawn of a new business–consumer relationship*, in Kaufmann, H.R. (Ed.), *International Consumer Behavior: A Mosaic of Eclectic Perspectives –Handbook on International Consumer Behavior*, Access Press, Carnarvon.
- Tidd J., Bessant J. R., (2009), *Managing innovation: Integrating technological, market and organizational change*, John Wiley, New York.
- Torre, T. (2005), "Il bilancio di competenze: nuovi ambiti di applicazione nella gestione delle risorse umane", *Impresa Progetto – Rivista on line del DITEA*, n.3, p. 3-27.

- Uhlaner L., Wright M., Huse M., (2007), "Private firms and corporate governance: An integrated and management perspective", *Small Business Economics Journal*, vol. 29, n 1, p. 225–241.
- Uotila J., Maula M., Keil T., Zahra S. A., (2009), "Exploration, Exploitation, and Financial Performance: Analysis of S&P 500 Corporations", *Strategic Management Journal*, vol. 30, n. 2, p. 221–231.
- Veider V., (2014), *Innovation in the Family Firm: how different types of Family influence shape exploration and exploitation activities*, in Conference Proceedings, 10th Workshop on Family Firm Management Research 'Innovation, Family Firms and Economic Development', May 22–24, 2014, Bergamo, Italy, p. 1–27.
- Viassone M., (2009), "What makes Piedmont catching up?", *2nd Annual EuroMed Conference of the EuroMed Academy of Business Conference Readings Book Proceedings*, EuroMed Press, Nicosia, p. 1825-1837.
- Vrontis D., (1998), "Strategic assessment: the importance of branding in the European beer market", *British Food Journal*, vol. 100, n. 2, p. 76–84.
- Vrontis D., Paliwoda S. J., (2008), "Brand and the Cyprus wine industry", *Brand Management*, Vol. 16, n. 3, p. 145-159.
- Vrontis D., Papasolomou I., (2007), "Brand and product building: the case of the Cyprus wine industry", *Journal of Product & Brand Management*, vol. 16, n. 3, p. 159-167.
- Vrontis D., Thrassou A., (2007), "A new conceptual framework for a business-consumer relationship", *Marketing Intelligence and Planning*, vol. 25, n. 7, p. 789–806.
- Vrontis D., Thrassou A., (2011), "The renaissance of Commandaria: a strategic branding prescriptive analysis", *Journal of Global Business Advancement*, vol. 4, n. 4, p. 302-316.
- Vrontis D., Thrassou A., Czinkota, M. R. (2011), "Wine marketing: A framework for consumer-centred planning", *Brand Management*, vol. 18, n. 4/5, p. 245-263.
- Vrontis D., Thrassou A., Pavlides D., (2011), "The renaissance of Commandaria – a strategic branding descriptive analysis", *Proceedings of Eighth CIRCLE (Centre for International Research in Consumers Location and their Environments) Conference*, Dubrovnic, Croatia, April.
- Vrontis D., Viassone M., (2013), "When Wine Meets Territory: The Italian Scenario", Paper presented at 6th Euromed Conference of the Euromed Academy of business, "Confronting Contemporary Business Challenges through Management Innovation", Portugal. Estoril, 23-24 September.
- Walker G., Kogut B., Shan W., (1997), "Social Capital, Structural Holes and the Formation of an Industry Network", *Organization Science*, vol. 8, n. 2, p. 109–25.
- Webb J. W., Ketchen D. J., Ireland R. D., (2010), "Strategic entrepreneurship within family-controlled firms: Opportunities and challenges", *Journal of Family Business Strategy*, vol. 1, n. 2, p. 67–77.

- Westhead P., (1997), "Ambitions, external environment and strategic factor differences between family and non-family companies", *Entrepreneurship and Regional Development*, vol. 9, n. 2, p. 127–58
- Westling B., (2001), "Building brand equity in the wine industry", November, available at: www.tincknell.com/pdfs/brandequity.pdf.
- Wolfe R. A., (1994), "Organizational innovation: Review, critique and suggested research", *Journal of Management Studies*, vol. 31, n. 3, p. 405–431.
- Zahra S. A., (2005), "Entrepreneurial risk taking in family firms", *Family Business Review*, vol. 18, n. 1, p. 23–40.
- Zahra S. A., Hayton J. C., Neubaum D. O., Dibrell C., Craig J. B. L., (2008), "Culture of family commitment and strategic flexibility: The moderating effect of stewardship", *Entrepreneurship Theory and Practice*, vol. 32, n. 6, p. 1035–54.
- Zahra S. A., Hayton J. C., Salvato C., (2004), "Entrepreneurship in Family vs. Non-Family Firms: A Resource-Based Analysis of the Effect of Organizational Culture", *Entrepreneurship Theory and Practice*, vol. 28, n. 4, p. 363–381.
- Zellweger T., (2007), "Time horizon, costs of equity capital, and generic investment strategies of firms", *Family Business Review*, vol. 20, n. 1, p. 1–15.
- Zellweger T. M., Astrachan J. H., (2008), "On the emotional value of owning a firm", *Family Business Review*, vol. 21, n. 4, p. 347–363.
- Zellweger T., Nason R., Nordqvist M., (2012), "From longevity of firms to transgenerational entrepreneurship of families: Introducing family entrepreneurial orientation", *Family Business Review*, vol. 25, n. 2, p. 136–55.
- Zimmerman B.J., (2001), *Achieving academic excellence: A self-regulatory perspective*, in Ferrari, M. (Ed.), *The pursuit of excellence through education* (p. 85-110), Erlbaum, Mahwah.

Elisa Giacosa
Ricercatore confermato in Economia aziendale
Dipartimento di Management
Università degli Studi di Torino
email: elisa.giacosa@unito.it

Laura Broccardo
Ricercatore confermato in Economia aziendale
Dipartimento di Management
Università degli Studi di Torino
email: laura.broccardo@unito.it

Elisa Truant
Ricercatore confermato in Economia aziendale
Dipartimento di Management
Università degli Studi di Torino
email: elisa.truant@unito.it