Research Proposal in the area of **ENTREPRENEUSHIP**

TITLE: **FAMILY FIRMS AND INNOVATION: DO THEY REALLY UNDERPERFORM DURING RECESSION?**

Economist who presents the proposal:

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Family firms are often considered to be traditional firms that shy away from looking for new opportunities, that follow conservative approaches, and that ultimately are less innovative than other types of firms (Economist, 2009). At the same time, however, family firms are the predominant form of business organization worldwide (Family Firm Institute, 2015[1], Faccio & Lang, 2002; Holderness, 2009; La Porta, Lopez-de-Silanes, & Shleifer, 1999) and make important contributions to gross national products, job generation, and wealth creation (Beckhard & Dyer, 1983; Feltham, Feltham, & Barnett, 2005; Kelly, Athanassiou, & Crittenden, 2000; Shanker & Astrachan, 1996). In addition, and even more important, evidence reveals that more than half of the most innovative large European firms are controlled by family owners (Forbes 2014[2]).

Because of the above reasons, economists, scholars in general, and entrepreneurs agree that an advanced understanding of their innovation behavior is pressing (Duran et al., 2015; Classen et al., 2014; Hsu et al., 2015)

Extant empirical literature has started to investigate family firms' innovation behavior, but findings seem to be still inconclusive. In particular, while some provide empirical evidence for a negative relationship between family firms and innovation (Block, 2012; Chen & Hsu, 2009; Chrisman & Patel, 2012; Munari, Oriani, & Sobrero, 2010), others find positive associations (Gudmundson, Tower, & Hartman, 2003; Kim, Kim, & Lee, 2008; Llach & Nordqvist, 2010). Moreover, as Duran et al (2015) note, from a theoretical point of view, previously applied theories fall short in explaining family firm innovation. For example, prior use of behavioral agency theory to family firm innovation (Chrisman & Patel, 2012) suggests that family firms typically underinvest in research and development (R&D) but cannot offer an explanation of the large number of innovative family firms that exist nowadays (Duran et al., 2015). On the other hand, the resource-based view (Barney, 1991), offers an explanation to several resource orchestration advantages of family firms (Sirmon, Hitt, Ireland, & Gilbert, 2011) but fails to explain family firms' low level of investment in innovation.

Furthermore, in the literature it is still lacking whether these peculiar resources of family firms are beneficial during severe downturns or they represent obstacles to firms' innovation and, in general, to firms' performance, as it is perceived analysing firms' survival statistics.

To shed light on this puzzling effects, we propose an empirical analysis that aims to understand how family involvement affects firm's innovation during recession time. In particular, we aim:

- to understand whether family involvement in the ownership or in the management affects firm's investment in innovation activities and whether the interaction effects of family involvement in management *and* ownership enhance or inhibit innovation investment.
- to investigate whether different type of family involvement in the governance of the firms affects its innovative performance conditionally to the investment done in innovative activities.
- to highlight the different innovation behavior between family and non-family firms during normal times and during recession.

In order to pursue these aims, we will perform an empirical study that:

- focuses on a representative sample of almost 3,000 high tech manufacturing firms in Italy during the period 2003 -2014;

[1] Available at http://www.ffi.org/?page=GlobalDataPoints

[2] Available at http://www.forbes.com/innovative-companies/list/

- integrates important data on innovation and on governance of firms. Concerning innovation, we will consider both the input side - R&D and intangible assets divided by typology, and on the output side – number of patents weighed by their citations, patents' technological classes and its level of "entropy"[3], and new products commercialized. With regard to the governance of firms, we will use precise indicators of the family involvement considering the extent of involvement in the ownership in a continuous way and in the management (including analysis of CEO/President roles, and of the board of directors' structure). These proxies go well beyond the usual dichotomous family ownership measure usually implemented in the existent literature offering a more complete view of the phenomenon under study;
- our models will also include a number of relevant control variables that have been overlooked so far by extant empirical literature. Variables will include: firm level characteristics like size, sector of the main activity (SIC code at 4/6 digits), geographical location (region and North, Centre, South Italy dummy) and all the data coming from the financial statements that we will consider relevant to the analysis; industry level characteristics like a proxy for concentration; time dummy variables.

The study will implement robust econometric analysis on a longitudinal basis in order to analyze the relationship between family involvement in the ownership and in the management of the firm and its innovation investment and performance. Among other methods, we will apply Propensity Score Matching Models that allow us to reduce the selection bias and strengthen the causal argumentation, in order to analyze innovation family business behavior with respect to non-family business one.

The added value of this study can be summarized in the following points:

- to our knowledge it is one of few studies to explore the relationship between different type of family involvement in the business and innovation on an extensive representative sample of high-tech firms and in a longitudinal manner;
- our models will be based on indicators, both for the innovation side and for the family involvement that better capture the two phenomena distinguishing among different phases of the innovation process inside the firm and among different types of family involvement in the governance of the firm;
- given our time span is across the last recession due to the "first" (the subprime mortgage crisis 2008-2010) and "second" crisis (the European 2010 debt crisis started in 2010) we will be able to discern whether family firms are able to face the challenge of the market better than non-family firms in terms of innovative performance.

By doing so we are able to show that:

- Family firms are distinct from non-family firms with regard to their behaviour in innovation activities and their innovative performance
- Family firms are not a homogeneous group (Chua et al., 2012) since the behaviour of family firms with a family member as CEO or with the majority of board positions covered by family members differs from that of family firms with an external CEO or with less board positions covered by family members (Miller et al., 2014). We expect that this heterogeneity will be reflected on the role of different firm leadership types in explaining firms' innovation process
- Different types of involvement in the governance of the firm will affect innovation investment and performance in completely different ways.
- Family firms are distinct from non-family firms in coping with global crisis and that different types of family firms react very differently, at least in terms of innovative behavior and performance, to severe downturns.

(The funds will be mainly used to gather the data and to hire a research assistant that would help us to clean the data and to extract the accurate information on family involvement and on innovation proxies)

[3] The "entropy" as a proxy for the potential spill-over in other sectors. The series of firms' patents goes back to 1978.

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