## Founders' Voices R&D investment behavior in family-controlled corporations in Europe

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Kurz gefasst: Investitionen in Forschung und Entwicklung (F&E) sind ein entscheidender Faktor für unternehmerischen Erfolg. Zeigen Firmen in Familienbesitz ein anderes, möglicherweise eher zögerliches F&E-Investitionsverhalten als Firmen in Streubesitz? Unsere Analyse zeigt: Familienkontrollierte Unternehmen halten sich bei Investitionen in F&E nicht zurück. Es gibt diesbezüglich sogar einen positiven Effekt, wenn der Firmengründer selbst noch eine Rolle im Vorstand spielt. Wenn die Familie gar nicht im Vorstand vertreten ist, ist eine schwächere F&E-Investitionsneigung festzustellen.

Summary: R&D investment is crucial to entrepreneurial success. Do family-controlled firms invest less in R&D than widely held firms? Our research reveals that family control does not inhibit propensity to invest in R&D. In fact, we find a positive effect on R&D investment activity when the family founder is still alive and has a role on the board. At the same time, absence of the family on the board negatively affects the level of R&D investment.

Investments in research and development (R&D) are widely regarded as an essential factor for achieving and sustaining a competitive advantage through innovation. Family-owned firms have demonstrated an ability to innovate in almost every industry, from agriculture to space engineering. Family-owned firms are widely considered as a predominant organization type across the globe. Around 65 to 80 percent of companies world-wide are family-controlled. Entire industries are dominated by family-controlled firms, like for example the global beer industry. A significant fraction of large European firms have been controlled over generations by the families who founded them.

There is open debate about positive and negative effects of family control on organizational R&D behavior. Some scholars claim that family firms are, on average, risk-averse. Moreover, they are subject to larger agency costs in contrast to non-family firms when it comes to R&D investments. Another school of thought suggests that family firms are able to develop a unique composition of organizational resources together with knowledge structures and knowledge combinability that enhances their R&D investment behavior. To address this controversy, empirical evidence becomes of critical importance for both academics and policy makers, in theoretical and empirical research on family firms.

In a joint research project with Roberto Barontini at the Sant'Anna School of Advanced Studies in Pisa (Italy), I provide empirical evidence on whether or not family control inhibits the propensity of large publicly traded firms across Europe to invest in R&D. In our study we explore the impact on R&D investment behavior of two characteristics that generally distinguish large publicly traded family firms in continental Europe, such as family involvement in ownership and management. In addition, we test whether R&D investment activity is related to lone founder ownership. Lone founder-owned firms are usually associated with better monitoring mechanisms leading to more efficient R&D spending strategies in contrast to firms led by founder's families and descendants.

Orientation of managerial behavior toward personal benefit rather than organizational goals might pose a threat to corporate survival. In particular, agency costs arise from the conflict of interest between suppliers of finance (shareholders) and company management. One of the central arguments about larger agency costs of family firms in relation to others emerged partly because incentives to efficiently monitor a company differ substantially between family and non-family firms. For instance, a family firm might be faced with issues of self-control, problems associated with altruism and internal family conflict. The general notion derived from this line of literature is that family firms are interested in wealth maximization at the expense of minority shareholders and company value. For instance, a family firm might pursue a set of corporate actions in line with family values (i.e. maintaining a controlling stake) but not necessarily leading to a better financial position and the market performance minority investors desire.

In regard of higher risk-averseness by family firms, several authors argue that family firms are loss-averse in regard to their socio-emotional wealth (i.e. preservation of family business social capital and the family dynasty). For example, it is widely known that firms tend to diversify in order to reduce highly concentrated risk in a single business. However, on average, family-controlled firms are

less diversified both domestically and internationally in contrast to widely held firms. Therefore, due to the risky nature and unknown rate of return of R&D investments, family firms might decrease their ability to invest in innovation substantially if it poses a threat to their socio-emotional health.

For our analysis, we use panel firm-level data on R&D expenditure from 2002 to 2011 and corporate governance characteristics of 871 publicly-traded firms in 11 EU countries: Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and Switzerland. We agree with scholars highlighting heterogeneity among family firms' R&D investment behavior.

Our analysis reveals that family-controlled firms do not underinvest in R&D compared to widely held listed firms. Due to the fact that family typically controls the largest stake within a company, it exhibits a stronger monitoring function over management and has powerful incentives to monitor efficiently. The information asymmetries between the owners and managers of family firms are lower versus other types of firms. Large shareholders, including the controlling family, also encourage managers to engage in long-term firm-specific investments.

We do not find any statistical significance regarding the negative effect of a family's presence on the corporate board. In contrast, we report a negative effect on the level of R&D investments when the family is not represented on the board. This finding suggests that elimination of family members from the board does not per se lead to increased R&D investment. It agrees with earlier literature suggesting that family firms invest more than others in long-term projects when the family is involved in management. Moreover, some scholars suggest that moderate family board presence provides substantial benefits for the company. Monitoring by non-family directors cannot be considered by definition a universal governance mechanism in regard to R&D investments. All in all, it can be stated that not only family ownership, but also family involvement in company management does not negatively affect R&D decisions.

Our study reports the positive effect on R&D investment when the founder is still alive and present on the board. This result not only shows us the significance of the founder effect on R&D investment but also suggests that founders do not necessarily view R&D investment as a threat to the family's socio-emotional wealth. Earlier studies in the U.S. have shown that lone-founder-owned firms invest more in R&D with a higher level of R&D productivity compared to other firms due to the founder effect. In addition, the founder could develop a unique combination of sources within the firm that could subsequently support positive R&D investment behavior. For instance, several scholars attribute innovations with superior technological significance and economic value to founder-managed firms.

We do not find any statistically significant relationship between the presence of a descendant on the board and the propensity to invest in R&D. This implies that when family is actively participating in company management through heirs, family-controlled corporations are not statistically significant from non-family firms. Furthermore, we do not find any statistically significant difference between firms led by a family CEO or by a professional CEO. The expected positive effect of the family CEO on the R&D investment does not hold true. This evidence could be justified by the fact that on one hand family firms have a greater ability to generate innovation versus others, and on the other they possess a lesser capacity to seize innovation abilities due to varying degrees of family control. It seems that firms with family CEOs are unable to fully lever innovation abilities in terms of relevant R&D investments because they are unable to manage the combination of knowledge and networking resources as effectively as the founder. Another possible explanation can be that agency issues are higher in the case of firms with a family CEO than in founder-led firms, and are therefore unable to exhibit positive impact on R&D decisions. In the case of lone-founder decisions, investing in R&D is likely to be aligned with long-term interests and goals of the firm while the family CEO's R&D behavior might be affected by arising family conflict when the founder leaves the firm.



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The main highlight of our results is that European family firms do not invest less in R&D than other ownership types. It suggests that family control does not inhibit R&D investment behavior at firm level. This evidence augments the benefits widely attributed to family firms. It is consistent with general theorization suggesting that family control does not represent inefficient ownership and management per se.

Our findings suggest at least three major implications. First, relevant public policies promoting investment into publicly traded family firms can be beneficial to national EU economies. Given that family firms drive a large part of the European economy and do not underinvest in R&D, it is of significance for the state to provide relevant tax instruments (i.e. tax allowances and tax credits) to support innovation development across family-controlled corporations in times of economic uncertainty.

Second, from the investors' prospective it seems that financing the R&D strategy of the family-controlled corporation might be a good option, especially when the family has a role on the board. Moreover, encouragement of the founder's active role on the corporate board might positively influence R&D investment patterns overall.

Finally, it is necessary to respond to proponents of the diffused ownership model. Their arguments, in regard to the inefficiency of the concentrated ownership model, do not hold in the context of family firms' R&D decisions in continental Europe. This can be a result of differences in political, financial, legal and social paths of development dominant in this particular part of the world. Different corporate governance systems bring different benefits and costs to the agents involved. Therefore, glorification of one particular corporate governance system over other systems does not represent a universal solution in globalized financial and economic markets.

## Literature

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