Valuing Research-intensive Firms Going Public and Gender Diversity in Management

Cristina Quintana-García*, Carlos A. Benavides-Velasco**

* Corresponding author. Facultad de Ciencias Económicas y Empresariales. University of Málaga, Spain E-mail: cqg@uma.es

> ** E.T.S. Ingenieros Industriales. University of Málaga, Spain E-mail: cabv@uma.es

This study addresses how female representation in top management teams (TMTs) and indicators of innovation capabilities can attract investment at the initial public offering (IPO) of research-intensive entrepreneurial firms. These firms are more likely to encounter finance difficulties than large established firms. Although science-based firms preparing for an IPO often attract investors' attention, this does not always result in investment because those firms have short operating histories, have higher risk than larger and more established companies, and a lack of revenues for the foreseeable future (Zimmerman, 2008). Thus, accounting data in many of these cases is simply too unreliable a measure (Ritter and Welch, 2002). For science-based entrepreneurial firms, the potential for raising capital in the IPO market is specially based on knowledge-based capital (Bach, Judge and Dean, 2008).

Gender diversity in TMTs is a useful non-financial signal to potential investors concerning the effectiveness of the top management team and the viability of the firm. Differences between male and female social behavior, management style, desired exposure to competition, investment strategies, etc. can have an effect on the valuation of potential investors regarding a TMT's competences to foster effective decision-making, exploit market opportunities and enhance performance. Nevertheless, gender diversity in TMTs has received insufficient attention in the research literature on IPOs compared to other aspects of diversity such as tenure, education, and functional background.

By carrying out a longitudinal study of a particular high-technology sector, we seek to make a contribution examining indicators that are particularly relevant for research-based firms and can mediate the perception of investors about the influence of gender diversity in the potential performance of those types of companies. Such indicators are related to significant patents and the development of products (products on the market and products under development). They are important signals of research and learning skills and innovation capabilities in high-technology industries (Hagedoorn and Cloodt, 2003) that can mediate, in this case reduce, the influence of gender diversity in TMTs on IPO success.

The empirical study that we carried out found no support for the prediction that gender diversity in TMT positively influences IPO success. The result obtained in this predominantly male sector is coherent with those works based on social identity theory and organizational demography theories of diversity that suggest that women in male-dominated groups receive more negative evaluations than men in those groups, at least until they prove themselves to be competent (e.g. Nieva and Gutek, 1980; Sackett, Dubois and Noe, 1991). Nevertheless, relevant indicators related to innovation capabilities may reduce the potential gender stereotyping. Our results showed that the significance of the firm's stock of patent and the number of products under development and on the market are relevant factors that shape the ability to attract investment in their IPOs.

References

- Bach, S.B. and Judge, W.Q., Dean, T.J., (2008), "A knowledge-based view of IPO success: superior knowledge, isolating mechanisms, and the creation of market value". *Journal of Managerial Issues*, Vol. 20, pp: 507-525.
- Hagedoorn, J. and Cloodt, M., (2003), "Measuring innovative performance: is there an advantage in using multiple indicators?". *Research Policy*, Vol. 32, pp: 1365-1379.
- Nieva, V. and Gutek, B., (1980), "Sex effects on evaluation". *Academy of Management Review*, Vol. 5, pp: 267-276.
- Ritter, J.R. and Welch, I., (2002), "A review of IPO activity, pricing, and allocations". *Journal of Financial Economics*, Vol. 57, pp: 1795–1828.
- Sackett, P., DuBois, C. and Noe, A., (1991), "Tokenism in performance evaluation: The effects of work representation on male-female and black-white differences in performance ratings". *Journal of Applied Psychology*, Vol. 76, pp: 263-267.
- Zimmerman, M.A., (2008), "The influence of top management team heterogeneity on the capital raised through an initial public offering". *Entrepreneurship Theory and Practice*, Vol. 32, pp: 391-414.