THE ROLE OF AGE IN THE INNOVATIVENESS OF MICROENTERPRISES: TRADE-OFF OF EFFECTS

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Abstract

The current socio-economic paradigm is characterized by the implementation of systems which are increasingly global and homogeneous. The disappearance of trade barriers, the optimization of communications and access to information, has led companies to operate in an increasingly open market, where increased competition has shortened cycle times, leading to companies to have increasingly difficult sustainability over time. Given this context, companies have to make more efficient use of available resources and most importantly, must properly manage innovation to generate competitive advantages that will, in time, enable it to achieve an optimal position in the market.

Differences between large and small companies have been studied and tested by the literature, regarding the possible benefits that both types of firms present in the development of innovations (Hadjimanolis, 2000). In this sense, large companies seem to have certain comparative advantages in the development of innovations in capital intensive industries where economies of scale may occur. In

contrast, small firms seem to have more success in industries in which skilled labor represents an important factor (Acs and Audretsch, 1990).

On the other hand, large and small companies also show differences in the allocation of resources to develop innovative activities (Rizzoni, 1991). It is generally accepted that small firms tend to have more limited resources, less influence on the market and less informal communication mechanisms than larger firms (Dickson et al., 1997). However, studies show that the strengths in innovation of small businesses do not rely so much on the availability of resources (at least tangible ones) but on certain behavioral characteristics that are more closely linked to the figure of managers. Thus, some studies claim that the strengths of small businesses do not reside in resources but in characteristics such as flexibility, entrepreneurial culture and motivation of both the employees and the owner (Vossen, 1998). Consequently, there are certain differences in the adoption of innovation strategies between small and large firms (Yap and Souder, 1994).

In this regard, several studies have contrasted that small businesses tend to be more successful in industries where the skills and abilities carry more weight (Bosma et al., 2004), showing how one of the most influential sociological characteristics in the innovation of companies with fewer than 10 employees is the age of microenterprise. In addition, the age of the microenterprise affects other factors such as the use of information and communication technologies (ICT) (Schleife, 2006); implementation of corporate social responsibility activities (CSR) (Hafsi and Turgut, 2012) or strategies of diversification as a result of risk aversion which increases with age (Hermann and Datta, 2005).

With this as the background, this paper studies the dual role played by age, in exerting a positive or negative influence on innovation depending on the use of moderator variables such as the use of ICT or CSR. In other words, this study seeks to determine whether the traditional consideration of the scientific literature of a negative influence of the age of the microenterprise on the innovative capacity of firms, can become positive if combined with the use of ICT and / or performing CSR activities. This article is thus affiliated to a line of research that studies the differences in motivation, strategies and performance between large and small businesses. In the case of microenterprises, the study becomes even more important given the high representation of small and medium enterprises (and in particular micro-

enterprises) in Europe, and especially in the case of Mediterranean countries (Croatia, Cyprus, Greece, Italy, Spain and Portugal).

A priori, the age would be negatively related to entrepreneurial activity and innovation capacity (Schneider, 2008) as it begins to decrease with age due to loss of skills and abilities, particularly the deterioration of cognitive or mental skills: over the years, with the loss of memory and mental agility, the learning process is more expensive (Warr, 1993). Similarly, older age produces a loss of technological skills (Scheleife, 2006), increasing the aversion to its use (Meyer, 2011), and in general terms, this leads to greater resistance to change, resulting in less incentive for innovation.

In this regard, certain interactions have been carried out between age and other factors, like the use of ICT, CSR, or diversification, in order to achieve more specific results on the significance of age in the process of micro innovation and bring more clarity to the ambiguity that the age factor has in this context.

Thus, the interactions studied in this paper have been significant, which could be interpreted as follows: although the first model contrasts that age negatively affects the carrying out of innovation, the fact is that there is a combined effect, which means that the use of ICT and carrying out CSR activities "mitigate" the effect of conservatism and risk aversion, thus generating a positive effect on innovation, while diversification "strengthens" that effect thus generating a combined negative effect.

This could be explained as follows: As entrepreneurs gain experience, this produces an increase in understanding and comprehension of the environment surrounding the company. This means that the attitudes and decision making in day to day business are aligned in a more real, effective and appropriate way with regard to the context of the market or industry in which it operates, but on the other hand, increasing age is associated with increased risk aversion and greater resistance to change. The sum of the effects of age through conservatism and experience will determine a net result that will explain the final effect of age on innovation in the company.

In this sense, the easy access to ICT by the older entrepreneur can help save costs in the search for opportunities by encouraging innovation. It can thus counteract the negative effect on it of age. Similarly, some researchers have argued that CSR can be a route to innovation thanks to the use of CSR drivers like social, quality or environmental challenges to create new and more efficient ways of working, processes or products (Grayson and Hodges, 2004). However, diversification cancels or mitigates the "experience effect" by making the micro-entrepreneurs environment more complex, so the overall effect is negative. In other words, the combination of the micro-entrepreneur's age with diversification strategies has negative effects on business innovation.

This article proposes a theoretical model with the new contributions found in the empirical study, which is based on data from a survey of a representative sample of the Spanish reality composed of 148 small businesses. To sum up, this study questions the net relationship between the age of the businessman and business innovation capacity, which has traditionally been considered negative by the literature and the results of prior works to this study.

References

Acs, Z., Audretsch, D. (1990). Innovation in Small Firms. The MIT Press, Cambridge (MA).

Bosma, N., Van Praag, C., M., Thurik, A. R., De Wit, G. (2004). The value of human and social capital investments for the business performance of start-ups. Small Business Economics 23, 227–236.

De Saá Pérez, P., Díaz Díaz, N.L., Ballesteros Rodríguez, J.L. (2011). The role of training to innovate in SMEs. XI ACEDE Spanish national congress, Barcelona.

Dickson, K., Coles, A-M. y Lawton Smith, H. (1997). Staying the course: Small firm strategies for long term R&D collaboration. Business and Enterprise Development Journal 4(1), 13-21.

Grayson, D., Hodges A. (2004). Corporate Social Opportunity! Seven Steps to Make Corporate Social Responsibility Work for Your Business. Greenleaf Publishing, UK.

Hadjimanolis, A. (2000). An investigation of innovation antecedents in small firms in the context of a small developing country. R&D Management 30 (3), 235-245.

Hafsi, T., Turgut G. (2012). Boardroom Diversity and its Effect on Social Performance: Conceptualization and Empirical Evidence. Journal of Business Ethics.

Herrmann, P., Datta, D.K. (2005). Relationships between Top Management Team Characteristics and International Diversification: An Empirical Investigation. British Journal of Management 16, 69–78.

Meyer, J. (2011). Workforce age and technology adoption in small and medium-sized service firms. Small Business Economics 37, 305-324.

Rizzoni, A. (1991). Technological innovation and small firms: A taxonomy. International Small Business Journal 9 (3), 31-42.

Schleife, K., (2006). Computer use and employment status of older workers – an analysis based on individual data. In Labour, 20 (2), 325–48.

Schneider, L. (2008). Alterung und technologisches Innovationspotential- Eine Linked-Employer-Employee-Analyse. Zeitschrift fu¨r Bevo¨lkerungswissenschaft 33 (1), 37–54.

Vossen, R. (1998). Relative strengths and weaknesses of small firms in innovation. International Small Business Journal 16 (3), 88-94.

Warr, E. (1993). In what circumstances does job performance vary age? European Work and Organizational Psychologist 3, 237-249.

Yap, C. M. Souder, W. (1994). Factors influencing new product success and failure in small entrepreneurial high-technology electronics firms. Journal of Product Innovation Management 11, 418-432.