DETERMINANTS OF NASCENT ENTREPRENEURIAL ACTIVITIES: THE ITALIAN CASE [1]

Thaís García-Pereiro, Ivano Dileo

1. Introduction

Recently, national and local governments have placed great emphasis on the development of an entrepreneurship culture, which is considered to be crucial for creating economic growth, innovation and new job opportunities (Acs & Armington, 2006; Audretsch, 2007; Baumol, 2002; Schramm, 2006; Shane, 2008; Wennekers & Thurik, 1999; Andersson, 2011). Particularly, Nascent Entrepreneurship is an important phenomenon that has received significant attention in the last decade due to the contributions of new venture creation to the global, national and regional economies (Davidsson, 2006). Nascent entrepreneurship has been explored in a variety of different contexts and through a multitude of different theoretical stand points (Parker & Belghitar, 2006).

To facilitate, stimulate or enhance entrepreneurial activities in a specific geographical or territorial context area, it is absolutely necessary to get a deeper understanding of the factors and dynamics affecting nascent entrepreneurial processes. The Italian entrepreneurial environment has shown to be inefficient for economic development. Some researches reveal that Italy has experienced negative impacts on the growth of its economy because of self-employment. A recent study by Micozzi & Curci (2014) based on a GEM survey in 2008 has demonstrated the existence of a weak entrepreneurial environment, characterized by low rates of new venture activities, in most case operating in traditional sectors, with a low propensity to export, a lower level of education than other international competitors and with a lowest rate of entrepreneurship skills for the adult population. This situation underlines the need of structural policy interventions aiming to counteract the over-regulation in general and streamline the tax system.

The empirical analysis conducted in this paper aims at examining the profiles of Nascent Entrepreneurs (NE) in Italy between 2001 and 2010, by establishing the role played by certain socio-demographic in the process of new ventures' creation. Data are drawn from the Italian section of the Global Entrepreneurship Monitor

[1] The paper is a result of a joint research activity.

(GEM) publicly available for download at the GEM website[2] for the ten-year period 2001-2010. The multivariate analysis of the probability of adult individuals to start-up a new business is computed through a pooled binary logistic regression model, in order to provide preliminary findings to the following key questions: which is the role played by socio-demographic characteristics in Nascent Entrepreneurship in Italy?; is gender a key variable to explain the propensity to be a Nascent Entrepreneur?; are nascent entrepreneurial activities led by entrepreneurs with a high educational profile?; which is the relative weight of other important variables such as entrepreneurial networks and household income?

The structure of this paper is as follows. The second section reviews previous empirical contributions on the determinants affecting the start up entrepreneurial process. Section three describes data source and the methodology used whilst section four describes the evolution and the characteristics of Nascent Entrepreneurship in Italy, by examining the profiles of individuals who started a new business during the observation period. The results of the binary logistic regression model, measuring the likelihood of being a Nascent Entrepreneur are explained in section five. Finally, section six contains a brief discussion of the results and some policy recommendations.

2. Background: factors affecting an entrepreneurial start-up process

The meaning of "Nascent Entrepreneur" (NE) is complex, and is not able to provide a unique interpretation on the differences between nascent and non-nascent entrepreneurs (Thompson, 2009; Oviatt & McDougall, 2004,). Perhaps, this is due to the fact that there are only few databases available concerning, specifically, Nascent Entrepreneurs. Many scholars are bound to adapt their own definition of nascent entrepreneurs in relation to the type of data available (Newbert & Tornikoski, 2013).

Literature shows that both economic and non-economic conditions, such as technology, demographic characteristics, culture and institutions influence the rate of nascent entrepreneurship in a certain geographical setting. In fact, several factors characterize the profile of nascent entrepreneurs including new and better career opportunities; gender differences; age; financial, social and human capitals; entrepreneurial intentions; nascent venturing outcomes; nascent academic entrepreneurs; attributions of nascent entrepreneurs; prior related industry experience and prior entrepreneurial or start-up experiences. Many scholars have demonstrated that among the factors determining the decision to whether or not to

[2] http://www.gemconsortium.org/data

become a nascent entrepreneur, gender and age are some of the most popular variables included in empirical studies (Reynolds et al. 2004).

It is widely acknowledged that females are less likely to be entrepreneurs (Bosma & Levie 2010). According to Wagner (2007), this difference is mainly due to their attitudes towards the willingness to take risks. Using GEM data on 28 countries, Arenius and Minniti (2005) emphasize that whereas perceptual variables are important to distinguish between entrepreneurs and non entrepreneurs, there are only negligible differences between entrepreneurs of the two sexes. As for the age effect, empirical studies show a clear result: age has a negative or curvilinear effect on the probability of becoming a nascent entrepreneur, with a clear peak in the age group comprised between 25 and 34 years old (Reynolds 1997, Delmar, Davidsson & Gartner 2003; Bosma & Levie 2010).

Davidsson and Honig (2003) and Davidsson (2006) point out that whilst for the Swedish case the willingness to be a nascent entrepreneur is also correlated with higher educational levels, in US and in some other international contexts, it emerges an under representation of those with low levels of education, but with no further increase in the propensity to become nascent entrepreneur above medium levels of education (Reynolds, 2008). Other studies (Verheul & Van Stel 2007) show that education and skills together can increase the likelihood of engaging in start-up activities and can enhance venture survival. Thematic studies have also pointed out that income disparities can stimulate entrepreneurship. In fact, a strong level of income inequality may be both a push and a pull factor for low-income groups to enter self-employment as well as the existence of work experience in young and small firms increases the propensity to start a business (Dunn and Holtz-Eakin, 2000; Davidsson & Honig, 2003).

In addition, recent literature identifies certain factors that act as barriers to entrepreneurship. One of the most common fears among entrepreneurs is called the fear of failure (Bosma et al. 2008). Several studies define fear of failure in terms of risk aversion. For example, some authors describe fear of failure as the attitude to risk (Minniti & Nardone 2007; Langowitz & Minniti 2007). While others suggest that fear of failure is an indicator of high degree of risk aversion (Wagner & Stenberg 2004), for Ray (1994) the fear of failure reflects two specific aspects of risk propensity: "potential loss of self-image and self-respect". Although, Grilo and Irigoyen (2006) demonstrate that fear of failure could be mitigate by the educational level.

3. Data source and methodology

For the country-specific analysis presented here data are drawn from the Italian Adult Population Survey (APS) dataset of the Global Entrepreneurship Monitor (GEM). The GEM is an academically-driven worldwide cross-sectional survey designed to chart and explain entrepreneurship. The data is collected internationally but each project is directed by a "GEM National Team" responsible for data collection and country reports. In Italy the team is led by: Università degli Studi di Padova and Università Politecnica delle Marche.

In each country, GEM data examine the entrepreneurial behaviour and attitudes of individuals using the Adult Population Survey (APS). The APS maps the entrepreneurial attitudes, activities and aspirations of individuals, a minimum of 2.000 adults in each country. The dataset for each year available was downloaded, filtered and merged in a unique file, containing the Italian samples of the ten-year observation period (2001-2010). The Italian Adults Population Surveys, pooled for ten successive years, includes 23.853 individuals, 2.14% classified as Nascent Entrepreneurs. The variables that will be use are part of the core model of the GEM APS questionnaire which includes several socio-demographic characteristics of the respondents and some concerning its entrepreneurial character. The surveys carried out by the Global Entrepreneurship Monitor, focusing on individual entrepreneurs, recognise entrepreneurship as a complex and evolving process, which has to be measured at different stages. The definition of Nascent Entrepreneurs (NE) in GEM regards one of the first steps of the entrepreneurial process capturing individuals who are currently in the process of starting a new business.

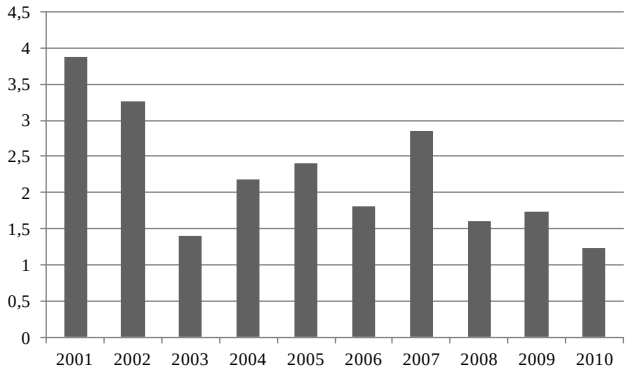
The methodological framework chosen is divided in two parts. The first is dedicated to the study of the incidence of Nascent Entrepreneurs in Italy by calculating the annual percentage distribution of Nascent Entrepreneurs (among all respondents), also disaggregated by gender; and the description of their profiles. The second deals with the empirical analysis of the determinants of Nascent Entrepreneurship in Italy, which test the results of the descriptive analysis in a multivariate setting, by closely analyzing the effects of both socio-demographic and entrepreneurial characteristics through the construction of a binary logistic regression model. The binary logistic regression model run measures the likelihood of being a Nascent Entrepreneur vs. not being a Nascent Entrepreneur, controlling for eight individual-level explanatory variables grouped in two different categories: socio-demographic economic and entrepreneurial characteristics, plus time dummy variables. Within the model estimation were also calculated the standardized coefficients (Wald) useful to compare the different ratios obtained and determine

which variables influence, on a greater or lesser degree, the relative probability of Nascent Entrepreneurship in Italy.

4. Evolution and characteristics of Nascent Entrepreneurship in Italy

Recently, both entrepreneurship and self-employment have become topics of great interest for EU governments and policy makers, as aimed to stimulate growth and development both at national and regional levels. Figure 1 illustrates the evolution of nascent entrepreneurship in Italy from 2001 to 2010, computed as the part of Nascent Entrepreneurs considered in relation to both entrepreneurs and non entrepreneurs. Its percentage distribution for each year shows a strong impulse for emerging firms in the first two years of observation (3.9% in 2001 and 3.3% in 2002), probably as a consequence of the excesses produced by the so-called "new economy". After a weak recovery between 2004 and 2005, with an intermediate peak that reached 2.9%, following the year 2007 there was instead a sharp setback in the proportion of new ventures started, registering the minimum value in 2010 (1.2%).

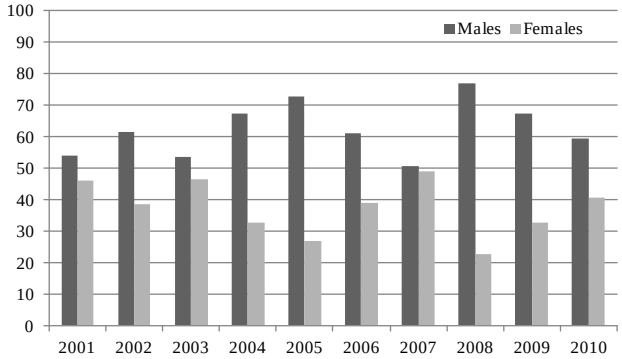
Figure 1 – *Italy. Evolution of Nascent Entrepreneurship (%). Years 2001-2010.*



Source: Own elaboration GEM data.

Figure 2 shows the percentage distribution of Nascent Entrepreneurs by gender during 2001-2010. Although the sample always shows a higher share of males throughout the time series analyzed, data point out a clear decreasing proportion of male nascent entrepreneurship between 2008 and 2010, after the registered peak of 2008. As a consequence, the percentage of women Nascent Entrepreneurs increases during the same period from 22.9% in the first year to 40.5% in the last year under observation.

Figure 2 – *Italy. Percentage distribution of Nascent Entrepreneurs by gender. Years 2001-2010.*



Source: Own elaboration GEM data.

Table 1 – *Percentage distribution of Nascent Entrepreneurs and non entrepreneurs by selected independent variables (n=23.853).*

SOCIO-ECONOMIC		Non NE	NE
Gender	Male	49,6	64,3
	Female	50,4	35,7
Age groups	<24	11,4	9,2
	25-34	22,1	37,8
	35-44	25,3	32,0
	45-54	21,7	14,1
	55+	19,5	6,8
Educational attainment	Secondary or less	72,5	57,1
	Bachelor	17,1	25,1
	Master/PhD	10,3	17,8
Work status	Working PT/FT	55,2	74,6
	Not working	21,5	16,9
	Retired/students	23,3	8,5

SOCIO-ECONOMIC (CONT.)		Non NE	NE
Income	Upper	57,9	53,5
	Middle	22,1	17,8
	Lower	20,0	28,7
ENTREPRENEURIAL		**Non NE**	**NE**
Fear of failure	Yes	42,0	21,9
	No	58,0	78,1
Skills for entrepreneurship	Yes	42,3	86,7
	No	57,7	13,3
Personally know an entrepreneur	Yes	35,9	60,8
	No	64,1	39,2

Source: Own elaboration GEM data.

More likely, these findings reflect some of the different effects produced by the recent socio-economic crisis including the higher mortality rates for SMEs and the subsequent growing unemployment. This last probably triggered a higher propensity risk for women, motivated by income needs, especially if married with children.

How are Nascent Entrepreneurs in Italy? Table 1 describes the profiles of Nascent Entrepreneurs vs. non Nascent Entrepreneurs by using the percentage distribution of some socio-economic characteristics. The first impact regards the remarkable gender differences: in fact, during 2001-2010 Nascent Entrepreneurs are mostly males (64.3% vs. 35.7%). Another interesting element regards the age

structure: Nascent Entrepreneurs are concentrated in the central age groups (25-34: 37.8% and 35-44: 32.0%). In terms of the educational attainment, there is a higher percentage of Nascent Entrepreneurs with a Bachelor Degree (25.1%) compared with non Nascent Entrepreneurs (17.1%) and with a Master/PhD (17.8% vs. 10.3%). Then, as regards the "work status", we have a high proportion of Nascent Entrepreneurs within Part time/Full time working category (74.6%) respect to non Nascent Entrepreneurs (55.2%).

The percentage distribution by the three entrepreneurial characteristics considered complete the picture of the heterogeneity that exists between both profiles. Indeed, Nascent Entrepreneurs have declared to personally know another entrepreneur (60.8% vs. 35.9% of non entrepreneurs), to have the skills required to start a new venture (86.7% vs. 42.0%) and they do not have fear of failure (78.1% vs. 42.3%).

5. Factors influencing Nascent Entrepreneurship in Italy

The observed heterogeneity between individuals who are engaged in the process of starting a new business and those who are not may be conditioned by its particular age and gender structures and the differentials observed in their entrepreneurial attitudes. Thus, it is essential to test their statistical significance in a multivariate setting maintaining the influence of such variables under control.

The empirical analysis carried out compares the factors affecting the probability of being a Nascent Entrepreneur rather than not being a NE during the period under examination (2001-2010). Among the factors associated with the process of starting a new venture in Italy are considered as independent variables: five in the group of socio-demographic and economic characteristics -gender, age (five groups), educational attainment, employment status, income levels- and three within the group of entrepreneurial attitudes –fear of failure, skills for entrepreneurship and networks (the respondent declares to personally know an entrepreneur). Furthermore, the variable "years" is included to indicate each year in which the survey was conducted and to control for possible time effects.

Table 2 presents the results of the binary logistic regression model in which are represented the effects that the nine covariates considered exert in the odds ratio (relative risks) of being a Nascent Entrepreneur in Italy between 2001 and 2010 with the respective Wald coefficients, useful to rank such effects from the stronger –showing the highest value- to the weaker –showing the lowest value-. The probability of a woman been a Nascent Entrepreneur is lower if compared to a man (β =0.65). This is a sign of the strong gender bias that exists at the very beginning

of the entrepreneurial process in Italy, which confirms the results of Bosma and Levie (2010) and Wagner (2007).

Table 2 – *Results (odds ratio) of the pooled binary logistic regression model (n=23.853).*

SOCIO-ECONOMIC CHARACTERISTICS		**B**	**Exp(B)**	**Sign.**	**Wald**
Gender	(Male)				
	Female	-0,43	0,65	***	9,41
Age groups	<24	0,26	1,29	**	
	25-34	0,37	1,44	**	
	(35-44)				30,77
	45-54	-0,43	0,65	***	
	55+	-0,83	0,44	***	
Educational attainment	(Secondary or less)				13,55
	Bachelor	0,19	1,21	*	
	Master/PhD	0,03	1,03		
Work status	(Working PT/FT)				15,29
	Not working	0,15	1,16		
	Retired/students	-0,99	0,37	***	
Income	(Upper)				14,55
	Middle	-0,01	0,99		
	Lower	0,57	1,78	***	
ENTREPRENEURIAL CHARACTERISTICS					
Fear of failure	(Yes)				23,10
	No	0,71	2,03	***	
Skills for entrepreneurship	(Yes)				95,72
	No	-1,87	0,16	***	
Personally know an entrepreneur	(Yes)				16,13
	No	-0,53	0,59	***	
YEARS					
	(2001)				
	2002	0,00	1,00		1,16
	2003	0,00	1,00		1,16
	2004	0,00	1,00		1,16
	2005	-0,44	0,64		2,13
	2006	-0,36	0,70		1,32
	2007	0,09	1,10		0,13
	2008	-0,84	0,43	***	8,08
	2009	-0,81	0,45	***	7,95
	2010	-1,60	0,20	***	9,58
Constant		-1,86	0,16	***	31,93
N					23.853
R2 Nalgerkelke					0,19
-2 log likelihood					2225,26

Source: Own elaboration GEM data.

As already shown in Table 1, the age of Nascent Entrepreneurs differs remarkably from that of individuals who are not engaged in NE, showing a

youngest age structure. In fact, the likelihood of being involved in nascent entrepreneurship is highest for individuals under 24 years old (β =1.29) and aged between 25 and 34 (β =1.44) with respect to those aged between 35 and 44 years old; and lowest for the last two age groups (45-54 and over 55). This is in line with other empirical studies (Reynolds 1997, Delmar, Davidsson & Gartner 2003; Bosma & Levie 2010) that shows a peak for nascent entrepreneurial activities among young adults between 25 and 34 years old. This variable also shows the highest Wald coefficient among the variables included in the group of the "Socio-economic Characteristics" (Wald=30.77).

The results for the educational attainment covariate show that individuals with a bachelor degree (β =1.21) are more likely to start a new business if compared to individuals holding less than secondary education. These effects partially confirm the outcomes of researchers concerning entrepreneurship and education (Davidsson and Honig, 2003; Davidsson, 2006; Wiklund, Dimov, Katz & Shepherd, 2006; Verheul & Van Stel, 2007). In Italy there are no significant differences between the probability of being a Nascent Entrepreneur between individuals with a Master/PhD and individuals with secondary education or less. This may be related to the high weight of artisans within the Italian entrepreneurship ecosystem.

Considering the relationship between employment status and nascent entrepreneurship, results show that retired people and students are much less often involved in creating new ventures than individuals working full or part time. No significant differences have been observed between people who are working full or part time compared to those who are not working.

With regard to income, those who appertain to the lower income level show a probability almost two times higher than those from the upper level of being a Nascent Entrepreneurs comparable to non-nascent entrepreneurs. The relatively lower incomes of Nascent Entrepreneurs in Italy might be linked to a particular type of business creation which is driven by necessity rather than opportunity driven.

Regarding the attitudes, for individuals with a higher declared confidence (without fear of failure) the probability of being a Nascent Entrepreneur is more than twice compared to those who declared to have fear of failure.

The impact of knowing someone personally who started his own business (entrepreneurial networks) is remarkable in Italy. In fact, the likelihood of nascent entrepreneurship among individuals who do not know an entrepreneur is significantly lower (β =0.59) with respect to those how interact with an entrepreneurial network. Also a negative influence, but stronger, is observed for the covariate skills for entrepreneurship. Indeed, the likelihood of being involved in nascent entrepreneurship is remarkably lower for individuals who declared not

having the appropriate skills to start a new venture (β =0.16) with respect to those who declared having them.

Finally, the model includes time dummy variables in order to control for the temporal variation of the dependent variable. Not including time fixed effects could lead to results biases. The probability of a being a Nascent Entrepreneur in 2008, 2009 and 2010 is lower if compared to 2001. This negative influence might be due to the exogenous shocks produced by the financial crisis of the Eurozone.

6. Conclusions

The study of nascent entrepreneurial activities is largely important because clue differences between entrepreneurs and the general population already become evident right at the beginning of the entrepreneurial process. Fostering entrepreneurship (especially among females and youth) and enhancing entrepreneurial attitudes and skills could represent an important way to add variety to the Italian economic process, enhance competitiveness, and fully realise its innovation potential.

Nevertheless, there are also structural barriers that influence the propensity to become a Nascent Entrepreneur. Policy makers should also address such context-specific barriers by favouring venture creation, introducing incentives for female and young entrepreneurs, and supporting the creation and development of entrepreneurial networks within the territory and abroad. Certainly, these results are partly influenced by economic trends during the years of crisis. In fact, the global financial crisis triggered deep effects and negatively affected nascent entrepreneurial rates in the majority of GEM countries.

Nevertheless, building a policy environment more beneficial to entrepreneurship is an urgent goal for Italy. The decreasing quality level of entrepreneurship is negatively affecting the whole country development as well as the regional one. For policy makers it is recommended to enhance incubation centres, develop a mentality more knowledge-based, implement programs through entrepreneur development centres and facilitate the sharing of existing opportunities with other nascent entrepreneurs.

The Italian government should define well-oriented policies to new emerging markets potentially able to absorb the national oversupply of higher skilled graduates and enhance the creativity and talent of entrepreneurs also through a better collaboration between R&D and the entrepreneurial world.

References

ACS, Z. J., ARMINGTON, C. (2006). Entrepreneurship, geography and American economic growth. Cambridge, England: Cambridge University.

ANDERSSON, S. (2011). International entrepreneurship, born globals and the theory of effectuation, *Journal of Small Business and Entreprise Development*, 18(3), pp. 627-643.

ARENIUS, P., MINNITI, M. (2005). Perceptual variables and nascent entrepreneurship, *Small Business Economics*, 24(3), 233-247.

AUDRETSCH, D. B. (2007). Entrepreneurship capital and economic growth, *Oxford Review of Economic Policy*, 23(1), pp. 63–78.

BOSMA, N., LEVIE, J. (2010) Global Entrepreneurship Monitor 2009, Executive Report, London: Global Entrepreneurship Research Association.

DAVIDSSON, P. (2006). Nascent entrepreneurship: empirical studies and developments, *Foundations and Trends in Entrepreneurship*, 2(1), pp. 1-76.

DAVIDSSON, P., HONIG, B. (2003). The role of social and human capital among nascent entrepreneurs, *Journal of Business Venturing*, 18(3), 301-331.

DELMAR, F., DAVIDSSON, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs, *Entrepreneurship & Regional Development*, 12(1), 1-23.

DUNN, T., HOLTZ-EAKIN, D. (2000). Financial capital, human capital, and the transition to self-employment: Evidence from intergenerational links, *Journal of Labor Economics*, 18(2), pp. 282‑305.

MICOZZI, A., CURCI, N. (2014). Entrepreneurial activity and education in Italy. http://www.bancaditalia.it/pubblicazioni/altri-atti-convegni/2014-innovazione-italia/Curci-Micozzi.pdf.

NEWBERT, S. L., TORNIKOSKI, E. T. (2013). Resource acquisition in the emergence phase: considering the effects of embeddedness and resource dependance, *Entrepreneurship Theory and Practice*, 37(2), pp. 249-280.

OVIATT, B. M., MCDOUGALL, P. P. (2004). Toward a theory of international new ventures, *Journal of International Business Studies*, 36(1), pp. 29-41.

PARKER, S. C., BELGHITAR, Y. (2006). What happens to nascent Entrepreneurs? An econometric analysis of the PSED, *Small Business Economics*, 27(1), pp. 81-101.

RAY, D. M. (1994). The role of risk-taking in Singapore, *Journal of Business Venturing*, 9(2), 157–177.

REYNOLDS, P. D. (1997). Who starts new firms? Preliminary explorations of firms-ingestation, *Small Business Economics*, 9, 449-462.

REYNOLDS, P. D., CARTER, N. M., GARTNER, W. B., GREENE, P. G. (2004). The prevalence of nascent entrepreneurs in the United States: Evidence from the

panel study of entrepreneurial dynamics, *Small Business Economics*, 23(4), pp. 263-284.

REYNOLDS, P. (2008). Screening item effects in estimating the prevalence of nascent entrepreneurs, *Small Business Economics*, 33(2), 151–163

SCHRAMM, C. J. (2006). The entrepreneurial imperative, New York, NY: Harper Collins.

SHANE, S. (2008). The illusions of entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by, New Haven, CT: Yale University Press.

THOMPSON, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric, *Entrepreneurship Theory and Practice*, 33(3), pp. 669-694.

VERHEUL, I., VAN STEL, A.J. (2007). Entrepreneurial diversity and economic growth. (Intern rapport, ERIM Research in Management, no ERS-2007-070-ORG). 3000 DR Rotterdam: ERIM.

SUMMARY

Determinants of nascent entrepreneurial activities: the Italian case

This paper investigates the factors affecting the start up or not of entrepreneurial activities in Italy by focusing on the role played by some socio-demographic and entrepreneurial characteristics during 2001-2010. The paper presents a quantitative analysis of new business process in Italy by using data come from the Italian Adults Population Survey of the Global Entrepreneurship Monitor (GEM).

Results show that nascent entrepreneurs in Italy have a lower likelihood of having more than 45 years old respect to non nascent entrepreneurs, a higher likelihood for appertaining to the lowest income level and that are less likely to declare that they do not have the skills for entrepreneurship. Fostering entrepreneurship (especially among females and youth) and enhancing entrepreneurial attitudes and skills could represent an important way to add variety to the Italian economic process, enhance competitiveness, and fully realize its innovation potential. However, there are also structural barriers that influence the propensity to become a Nascent Entrepreneur. Policy makers should address context-specific tools favoring venture creation, especially introducing incentives for female and young entrepreneurs, and supporting the development of entrepreneurial networks.

Thaís GARCÍA-PEREIRO, UNISCO Network per lo sviluppo locale, t.pereiro@unisco.it

Ivano DILEO, Università degli Studi di Bari "Aldo Moro", ivano.dileo@uniba.it