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Explaining Women's Level of Involvement in Nascent Entrepreneurial Activities – The Non-linear Role of R&D Investments in Different OECD Countries

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Abstract

While women entrepreneurship is often seen to be one of the most important economic and social phenomena of our times, especially since many women opt for entrepreneurship to reconcile their professional and personal lives, relatively less attention has been paid to the effect of R&D on women's entrepreneurship. In this study we argue and empirically demonstrate how R&D impacts nascent women's entrepreneurship. Regarding the debate and ambiguous evidence concerning the linkages between entrepreneurship and innovation, we investigate not only the linear relation between the tandem "R&D and nascent women's entrepreneurship" but also the non-linear one.

1. Introduction

Acknowledging that "*There is perhaps no greater initiative a country can take to accelerate its pace of entrepreneurial activity than to encourage more of its women to participate*" [25, p.5]), our study is interested in explaining women's level of involvement in nascent entrepreneurial activities in different countries.

It has been argued, "*Institutional theory may be a particularly apt framework for addressing national contexts shaping entrepreneurial activity*" [7, p. 688]. Indeed, structural characteristic of a given country could explain why there are consistent differences in the levels of entrepreneurial activity in different countries [10, 25]. While we do not lack empirical studies about the importance of different regulative and normative institutions, we still know relatively little about one important regulatory institution, namely the level of R&D investments, and its role in explaining women's level of involvement in nascent entrepreneurial activities.

Since the first lessons of endogenous growth theory [13, 22, 26] innovation has been considered as one of the main sources of economic development. Innovation should ensure higher productivity gain, develop new business opportunities and, hence promote self-employment. Yet, findings of empirical studies on the linkages between innovation and levels of entrepreneurial activity remain somewhat ambiguous. In some cases [3] scholars have observed a positive relationship between small firms and innovation, while in other cases a negative link [5, 14, 23]. These negative results are usually attributed to important run-up costs of research and development (R&D) related to innovation activities, which, in turn, makes R&D investments an enormous hurdle for entrepreneurial activities [9].

Because relatively less attention has been paid to the constraining or empowering role of R&D investments in explaining women's level of involvement in nascent entrepreneurial activities, in this study our main objective is to explore conceptual arguments and empirically test them about the effects of R&D investments on the relative rates of female nascent entrepreneurs in different countries [1, 12].

2. Data

As noted by Baughn et al. [7], the limited availability of data on women's involvement in entrepreneurial activities at the macro level is one of the major gaps in entrepreneurial studies. Partly, the Global Entrepreneurship Monitor consortium (GEM) solves this problem.

Therefore, to assess this phenomenon, we consider the *Rate of female nascent entrepreneurs*, namely the ratio Female/Male TEA (Total early-stage Female

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Entrepreneurial Activity) in the GEM database, as a dependent variable. The rate represents the percentage of nascent female entrepreneurs and owner-managers of new business divided by the equivalent percentage for their male counterparts. We explain this by the *R&D investments* variable, indicating the extent to which national research and development will lead to new commercial opportunities and is available to SMEs, as well as by four common macro-determinants of entrepreneurship [5], i.e., *Real GDP per capita* (logarithm), *Unemployment rate*, *Socio-cultural norms score* and *Bureaucracy score*. They are extracted from the World Development Indicators (WDI), the International Country Risk Guide (ICRG) and the GEM database.

Table 1. Variables and sources

Variables	Description	Source
Female/ male TEA	The ratio between nascent female entrepreneurs as well as owner-managers of new business and the equivalent percentage for their male counterparts.	Global Entrepre-neurship Monitor (GEM)
Real GDP	Real GDP per capita in US dollars (log).	World Develop-ment Indicators (WDI)
Unem-ployment rate	Percentage of the labor force that is unemployed, but available and looking for work.	WDI
Bureau-cracy score	Institutional strength and quality of the bureaucracy. Each value has a score between 4 (Very Low Quality) and 0 (Very High Quality) points.	Interna-tional Country Risk Guide (ICRG)
Socio-cultural norms	Influence of cultural norms on actions leading to new business methods or activities that potentially increase personal wealth and income (Likert scale 1 to 5).	GEM
R&D invest-ments	Research and development expenditure expressed as a percentage of GDP.	WDI

On the basis of these data (Table 1), we specify an unbalanced panel including the 36 OECD countries observed from 2000 to 2014. This specification and spatio-temporal framework are selected under the constraint of the problem of too many missing values before 2000 and after 2014.

Table 2 below shows that the mean values of all variables are higher than the values of their standard deviations. This result corroborates the homogeneity of our sample by pointing out the absence of outliers. The number of observations varies from one variable to another, which led us to use the unbalanced panel data specification, knowing that this specification allows us to go further than previous research on the determinants of entrepreneurial activities based on time series or cross-section data. Indeed, as Hsiao [18] argues, the use of panel data is beneficial for econometric processing through a complete modelling of economic reality, because unlike time series and cross-sectional data, it considers the individual dimension of information, in addition to its time dimension.

Table 2. Variables, sources and descriptive statistics

Variables	Obser-vation	Mean	Standard Deviation	Sources
Female/Male TEA	311	0.53	0.17	GEM
Real GDP	468	26.61	1.61	WDI
Unemployment rate	468	8.04	4.27	WDI
Bureaucracy score	468	3.46	0.62	ICRG
Socio-cultural norms	285	2.81	0.53	GEM
R&D investments	303	2.60	0.40	GEM

As shown in Table 2, the *Rate of female nascent entrepreneurs* is over 50%. This underlines the high level of involvement of women in nascent entrepreneurial activities in OECD countries. *Socio-cultural norms* and *R&D investments* are above average. In fact, their values exceed 2.6 points on a Likert scale of 1 to 5 points, which shows the high level of research and development activities and the importance of normative support for entrepreneurship promotion in OECD countries. The *Bureaucracy score* is 3.46/4, which points out a good performance in terms of bureaucracy and governance expertise. In addition, overall, with reference to the Word Bank classification, OECD countries are considered as high-middle-income and high-income economies in terms of the average value of their *Real GDP*. However, they suffer from an *unemployment rate* of about 8%.

Furthermore, Table 3 presents the correlations between the *Rate of female nascent entrepreneurs* and the set of explanatory variables, including *R&D investments* for the 36 OECD countries between 2000 and 2014. It reveals a positive and significant relationship between the *Rate of female nascent entrepreneurs* and *R&D investments*. This may indicate

that the level of involvement of women in nascent entrepreneurial activities is highest in countries with the highest level of national research and development. However, this linear relationship is very thin (r = 0.08) which reinforces the relevance of examining a curvilinear relationship between the *Rate of female nascent entrepreneurs* and *R&D investments*. In addition, according to Table 3, the women's level of involvement in nascent entrepreneurial activities is highest in the richest OECD countries, in terms of the average value of their *Real GDP*. This level is also positively related to the level of *Socio-cultural norms* that encourage entrepreneurial activities. Nevertheless, it seems that the general institutional norms, quantified by the *Bureaucracy score*, are not linked to the *Rate of female nascent entrepreneurs*. Also, there is no correlation between the *Unemployment rate* and the *Rate of female nascent entrepreneurs*. Finally, as shown by Table 3, the values of the VIF-test are close to 1, demonstrating the absence of the problem of multicollinearity between the explanatory variables [6].

Figure 1 below illustrates the relationship between the *Rate of female nascent entrepreneurs* (Female/Male TEA) and *R&D investments* in the 36 OECD countries between 2000 and 2014. The scatter plot highlights that this relationship is non-linear, it takes the form of an inverted U. Hence, it seems that it is only above a certain threshold that *R&D investments* increase the *Rate of female nascent entrepreneurs*. This supports our intuition we derived from Table 3 above about the thin linear relationship between the *Rate of female nascent entrepreneurs* and *R&D investments*.

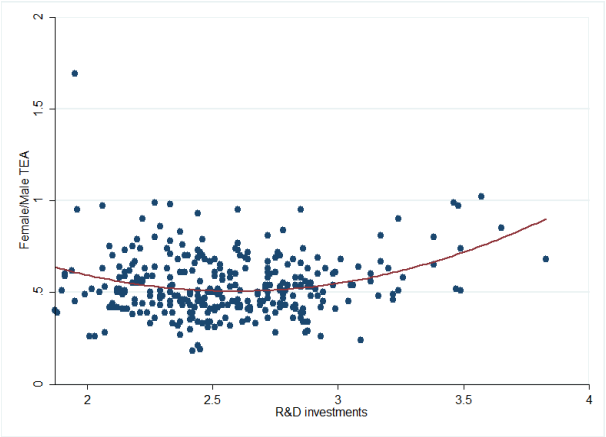

Figure 1. Female/Male TEA and R&D investments

The data cover the 36 OECD countries (Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States) observed between 2000-2014.

3. Regressions, tests and robustness

Based on the results drawn from Figure 1, we perform three types of modelling to explain our dependent variable, namely the *Rate of female nascent entrepreneurs* across OECD countries. First, Model (1) regresses the *Rate of female nascent entrepreneurs* only on the control-explanatory variables (*Socio-cultural norms*, *Bureaucracy score*, *Real GDP* and *Unemployment rate*). Then, Model (2) includes the interest-explanatory variable (*R&D investments* in level), in addition to these control-explanatory variables. These two models capture the linear relationship (LM) between the *Rate of female nascent entrepreneurs* and its potential determinants, including

Table 3. Spearman's correlation and VIF-test

Variables	Female/ Male TEA	Real GDP	Unemploy-ment rate	Bureaucracy score	Socio-cultural norms	R&D invest-ments
Female/Male TEA	1.000					
Real GDP	0.155*	1.000				
(1/VIF = 0.95)						
Unemployment rate	0.005	-0.170*	1.000			
(1/VIF = 0.82)						
Bureaucracy score	0.033	0.269*	-0.444*	1.000		
(1/VIF = 0.62)						
Socio-cultural norms	0.166*	0.123*	-0.246*	0.301*	1.000	
(1/VIF = 0.81)						
R&D investments	0.081*	0.179*	-0.219*	0.514*	0.403*	1.000
(1/VIF = 0.64)						
Mean VIF = 1.33						

* shows significance at the 5% level. VIF is the Variance Inflation Factor.

the *R&D investments* variable. Model (3) focuses on the non-linear relationship (N-LM) between the *Rate of female nascent entrepreneurs* and *R&D investments.* Indeed, it includes *Socio-cultural norms*, *Bureaucracy score*, *Real GDP* and *Unemployment rate*, as well as *R&D investments* in level and squared as explanatory variables for the *Rate of female nascent entrepreneurs* across OECD countries (see below, Table 4).

As mentioned above, the three models are specified in unbalanced panel data. According to Arellano [4], Hsiao [18] and Baltagi [6] there are two common types of empirical modeling for regressing unbalanced panel data. These are fixed-effects models and random-effects models.

Fixed-effect models reflect the relationship between dependent and independent variables within countries by assuming that the interactions of these variables over the period studied do not fluctuate randomly, unlike random-effect models. Thus, in order to choose the most consistent empirical model, we perform the Hausman test recommended by Arellano [4], Hsiao [18] and Baltagi [6]. If the P-value of this test is less than 10%, the null hypothesis is tested, which means that the fixed-effect models are consistent, otherwise random-effect models could be considered.

As Table 4 below shows, the P-values of the Hausman test are less than 3% for our three models. This result could be explained by the fact that fluctuations of the national level of female nascent entrepreneurs are not substantially random. It also leads us to adopt fixed-effects models. According to Baltagi [6], the Least Squares Dummy Variables estimator (LSDV) is adequate for estimating fixed-effects models. Hence, we apply the LSDV estimator for the three models, as Table 4 depicts. However, this estimator may be less efficient if the error terms are heteroscedastic (the conditional variance of the error terms is not constant) and/or serially correlated. Consequently, we carry out the Wooldridge test for autocorrelation and the Modified Wald test for heteroskedasticity to detect these two problems in panel data, referring to Long and Ervin (2000) [21], Reed and Ye [24] and Juhl and Sosa-Escudero [20]. The P-values of these tests included in Table 4 are lower than 5%. This indicates the presence of the heteroscedasticity and serial correlation problems. To overcome this limitation, we applied the Panel Corrected Standard Errors estimator (PCSE), in line with Beck and Katz [8], Garand [17] and Bendickson and Chandler [10].

The results of the multiple regressions run by the PCSE, as well as the LSDV estimator explaining the *Rate of female nascent entrepreneurs* in OECD countries between 2000 and 2014 are presented in Table 4. They concern our three models (model (1); model (2); model (3)) and focus on the linear (LN) and non-linear (N-LN) effects of *R&D investments* on the *Rate of female nascent entrepreneurs*. The value of R-squared that is between 47 % and 76%, as well as the values of Fisher-statistic and Wald-statistic show a relatively good explanatory power of our models at the 5% level. Nevertheless, the regressions run by PCSE are more meaningful and explanatory (R-squared = 0.479< 0.484< 0.764<0.767).

Besides, in Model 3, the signs of the coefficient of the *R&D investments* variable, first in level and then squared – negative, then positive – highlight a non-linear impact of the *R&D investments* on the *Rate of female nascent entrepreneurs*. Indeed, according to this U-Shaped link, it seems that it is only above a certain threshold that the *R&D investments* promote the *Rate of female nascent entrepreneurs*. Furthermore, *Real GDP* and *Socio-cultural norms* have the most explanatory power on the *Rate of female nascent entrepreneurs*, while the *unemployment rate* and *Bureaucracy score* variables are not significantly related to the latter phenomenon. That is, it appears that the countries characterized by a high level of wealth, as well as an advanced level of socio-cultural norms supporting entrepreneurial activities, have a high women's level of involvement in nascent entrepreneurial activities. However, it is likely that the global level of unemployment and the national bureaucracy performance impact more the total level of entrepreneurship than the proportion of involvement of women to men in nascent entrepreneurial activities.

In order to better assess the effect of *R&D investments* on the *Rate of female nascent entrepreneurs* in OECD countries between 2000 and 2014, we are testing the robustness of our baseline estimations from Table 4 in two ways (see below, Table 5 and 6).

- The first is by replacing the two non-significant control variables, *unemployment rate* and *Bureaucracy score*, with two other alternative variables, *Female/Male labor* (Ratio of female to male labor force participation) – from the WDI – and *Law and order score* (Application of law and order. Each value has a score between 6 (Very Low Quality) and 0 (Very High Quality) points.) – from the ICRG. These alternative variables reflect women's involvement in labor market compared to men and the quality of

institutions in terms of law enforcement and legal system, respectively. This first test leaves our baseline results stable as indicated by Table 5 below. It also shows that women's involvement in the labor market is positively linked to their integration into nascent entrepreneurial activities. On the contrary, Law and order score is negatively related to the *Rate of female nascent entrepreneurs*. Again, this could be explained by the fact that institutional norms are more suited to male than to female entrepreneurship.

- The second applies regressions similar to those in Table 4 for our three models, excluding data for the 2007-2008 sub-period. Indeed, this sub-period coincides with the international financial crisis, which has destabilized developed and developing countries [15, 16]. Thus, we would like to check whether our baseline results are maintained when we exclude this time window. As shown in Table 6 below, our baseline findings are significantly verified after this test, which proves their robustness.

Finally, these results, which, on the whole, withstand two robustness tests, namely the changing of control variables and time windows, suggest that there is a threshold effect on the positive impact of R&D investments on women's level of involvement in nascent entrepreneurial activities in different OECD countries. That is, R&D investments seem to predict

Table 4. Baseline estimations

	LSDV			PCSE		
	Model (1) LM	Model (2) LM	Model (3) N-LM	Model (1) LM	Model (2) LM	Model (3) N-LM
Real GDP	0.265***	0.275***	0.328***	0.020***	0.021***	0.021***
	(0.095)	(0.094)	(0.095)	(0.006)	(0.006)	(0.006)
Unemployment rate	0.004	0.004	0.004	0.000	0.000	-0.001
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Bureaucracy score	-0.066	-0.064	-0.056	-0.039*	-0.032	-0.021
	(0.092)	(0.087)	(0.084)	(0.022)	(0.023)	(0.024)
Socio-cultural norms	0.094***	0.114**	0.089**	0.058***	0.065***	0.046***
	(0.035)	(0.045)	(0.039)	(0.014)	(0.016)	(0.017)
R&D investments		-0.069	-1.228**		-0.040	-1.119***
		(0.060)	(0.536)		(0.034)	(0.360)
R&D investments^2			0.223**			0.209***
			(0.097)			(0.067)
Constant	-6.651**	-6.797**	-6.699**	-0.017	0.016	1.403***
	(2.655)	(2.643)	(2.754)	(0.139)	(0.145)	(0.488)
Observations	312	312	312	312	312	312
R-squared	0.479	0.484		0.764	0.767	
Fisher-statistic	6.008	4.813	4.707			
Number of Countries	36	36	36	36	36	36
Wald-statistic				38.87	41.42	33.05
Fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
Wooldridge test for autocorrelation	0.0000	0.0000	0.0000			
Modified Wald test for heteroskedasticity	0.0000	0.0000	0.0000			
Hausman test for fixed- or Random-effects modelling	0.0214	0.0096	0.0054			

The dependent variable is Female/Male TEA. The regression coefficients are estimated using the Least Squares Dummy Variables (LSDV) and the Panel Corrected Standard Errors (PSCE) estimators. Standard errors are reported in parentheses. ***, ** and * correspond to significance at the 1%, 5% and 10% level, respectively. The coefficient of determination (R-squared) is reported for each linear regression. It is not interpretable for non-linear regressions. All regressions include country-specific effects. The P-values of the Wald test for groupwise heteroskedasticity in fixed effect regression model and those of Wooldridge test for autocorrelation in panel data and Hausman test are reported.

Table 5. Robustness estimations: changing control variables

	LSDV			PCSE		
	Model (1) LM	Model (2) LM	Model (3) N-LM	Model (1) LM	Model (2) LM	Model (3) N-LM
Real GDP	0.184*	0.184*	0.241**	0.020***	0.023***	0.021***
	(0.098)	(0.098)	(0.103)	(0.006)	(0.006)	(0.006)
Female/Male labor	0.019**	0.021**	0.020**	0.012***	0.013***	0.013***
	(0.010)	(0.009)	(0.010)	(0.002)	(0.002)	(0.003)
Law and order score	-0.002	-0.004	-0.013	-0.059***	-0.051***	-0.046***
	(0.050)	(0.047)	(0.047)	(0.015)	(0.016)	(0.016)
Socio-cultural norms	0.096***	0.119***	0.094**	0.047***	0.057***	0.045**
	(0.035)	(0.044)	(0.039)	(0.015)	(0.017)	(0.017)
R&D investments		-0.076	-1.281**		-0.055*	-1.036***
		(0.061)	(0.541)		(0.033)	(0.364)
R&D investments^2			0.232**			0.190***
			(0.098)			(0.068)
Constant	-5.501**	-5.434**	-5.285**	-0.377**	-0.398**	0.891*
	(2.495)	(2.487)	(2.576)	(0.190)	(0.189)	(0.510)
Observations	312	312	312	312	312	312
R-squared	0.480	0.486		0.734	0.737	
Fisher-statistic	6.542	5.277	5			
Number of Countries	36	36	36	36	36	36
Wald-statistic				85.07	90.79	69.55
Country-specific effects	Yes	Yes	Yes	Yes	Yes	Yes
Wooldridge test for autocorrelation	0.0000	0.0000	0.0000			
Modified Wald test for heteroskedasticity	0.0000	0.0000	0.0000			
Hausman test for fixed- or Random-effects modelling	0.0708	0.0245	0.0454			

Reconducted baseline regressions of Table 4 with changed control variables.

the female proportion of a county's entrepreneurial activity. These results lead to suggest that women may be more responsive than men to the level of R&D investments. As a general policy implication, by increasing investments in R&D, policy makers could promote entrepreneurship in general and women's entrepreneurship in particular in any given country. In the future, it would be important to try to replicate these findings in the context of non-OECD countries.

Table 6. Robustness estimations: changing period

	LSDV			PCSE		
	Model (1) LM	Model (2) LM	Model (3) N-LM	Model (1) LM	Model (2) LM	Model (3) N-LM
Real GDP	0.260***	0.266***	0.322***	0.018***	0.020***	0.018**
	(0.097)	(0.097)	(0.098)	(0.007)	(0.007)	(0.007)
Unemployment rate	0.004	0.004	0.003	0.000	0.001	-0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Bureaucracy score	-0.067	-0.064	-0.054	-0.042*	-0.034	-0.018
	(0.097)	(0.091)	(0.087)	(0.023)	(0.024)	(0.023)
Socio-cultural norms	0.097**	0.121**	0.091**	0.069***	0.077***	0.050**
	(0.038)	(0.048)	(0.041)	(0.015)	(0.017)	(0.020)
R&D investments		-0.082	-1.336**		-0.048	-1.349***
		(0.065)	(0.571)		(0.036)	(0.376)
R&D investments^2			0.242**			0.254***
			(0.104)			(0.070)
Constant	-6.507**	-6.543**	-6.392**	0.011	0.032	1.743***
	(2.724)	(2.740)	(2.858)	(0.153)	(0.158)	(0.509)
Observations	281	281	281	281	281	281
R-squared	0.477	0.485	0.510	0.766	0.766	0.699
Fisher-statistic	5.389	4.339	4.431			
Number of Countries	36	36	36	36	36	36
Wald-statistic				35.90	39.20	31.47
Country-specific effects	Yes	Yes	Yes	Yes	Yes	Yes
Wooldridge test for autocorrelation	0.0000	0.0000	0.0000			
Modified Wald test for heteroskedasticity	0.0000	0.0000	0.0000			
Hausman test for fixed- or Random-effects modelling	0.0497	0.0162	0.0093			

Reconducted baseline regressions of Table 4 with changed periods.

4. Discussion and conclusion

According to the traditional views – the endogenous growth theory –, innovation is an essential driver of technological progress and then of economic development [13, 26]. It increases productivity through innovation and diminishes transactions costs, especially those related to information and communication. In doing so, innovation leads to the development of new business opportunities and the promotion of new companies. On this basis, R&D investment, which is a primary source of innovation, seems to promote entrepreneurship. In fact, individual entrepreneurship introduces "new combinations" and innovative procedures to create added value. This makes individual entrepreneurs consumers of R&D, in order to maintain, create or develop their competitive advantage. From another perspective, this implies that higher national levels of nascent entrepreneurship coincide with a higher rate of R&D investment, indicating that R&D is a positive factor in entrepreneurship. However, more recent views link innovation to established firms and corporate entrepreneurs rather than to early-stage and individual

entrepreneurship (e.g. [5, 14, 23]. These large incubator structures are characterized by higher productivity rates than smaller structures, particularly start-ups, reflecting the important role of R&D in their business model. In this sense, R&D could benefit established firms and corporate entrepreneurs more than nascent and small entrepreneurial activities. In addition, limitations in terms of financial resources could make it difficult for new SMEs to access R&D investment. They become minor technology users and producers, which is why large companies are generally characterized by higher productivity than small businesses. Overall, large firms control technological innovation because they are the main absorbers of R&D in the economy due to their market power and financial resources. On the other side, penalized by a comparatively limited resources and weak market power, nascent entrepreneurship is less able to drive technological development through innovation coming from R&D. It is also less able to cooperate with institutions that promote and diffuse new technologies such as laboratories, research centers and universities. Thus, because of the lack of financing, advanced equipment, higher-skilled and higher-salaried employees, nascent entrepreneurial activities have a lower capacity to absorb and exploit R&D investment at the national level. However, they can support their productivity through human resource management, especially the know-how of the head manager. Considering this second view, R&D seems to be a negative factor in entrepreneurship, particularly in its early stages. This relationship may also correspond to women entrepreneurs, as they are not really attracted by innovative sectors compared to men entrepreneurs [2, 22]. In addition, women entrepreneurs are more likely to be less stimulated than men by profit, competition and market reach, thus indicating a comparatively weak relationship between productivity, innovation, R&D and women entrepreneurship. Moreover, women start their businesses with less financial resources than men and base their fundraising on internal, non-formal sources. In this respect, R&D investment could be a barrier to entry for women's nascent entrepreneurship [11, 19, 27]. However, to the best of our knowledge, there has been no study on the impact of R&D investment on women's nascent entrepreneurship at the national level. To fill this gap, we examined in this study whether the national level of investment in R&D slows or stimulates the national level of women's nascent entrepreneurship. For this purpose, we examined a homogenous sample including the 36 OECD countries from 2000 to 2014. Our analysis revealed a non-linear impact of the R&D investment on the Rate of female nascent entrepreneurs. Indeed, according to this U-shaped link, it seems that it is only above a certain threshold that R&D investment promotes the Rate of female nascent entrepreneurs. This could mean that a country's low or medium level of R&D – less than 2.6% of GDP according to Figure 1 – is absorbed by established firms which may erect entry barriers to firms created by women entrepreneurs, characterized by a lack of resources and motivation for profit. Only a high level of R&D ensuring a surplus of R&D investment can reach and promote women's nascent entrepreneurship. This implies that policymakers can foster women's entrepreneurship in OECD countries in two ways: raise the national level of R&D above 2.6% of GDP and/or create specific programs and incubators capable of transferring and disseminating innovation and technology to new women entrepreneurs' businesses.

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