Motivation
Research Question
Empirical analysis
Data & Methodology
Variables
Results

Reviviendo al emprendedor Schumpeteriano

Contribuyendo al desarrollo socioeconómico mediante emprendimientos de alto potencial

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In entrepreneurship we trust...

- Goal of the Chilean economy: Pursuing economic development... jumping from US$18k to US$23k by 2020
- Challenges:
  - Sustained TFP-based growth rates: 5% (CNIC, 2010)
  - Productive diversification (Hausmann, Hidalgo et al, 2011)
  - Decrease economic concentration (Solimano, 2012)

One mechanism $\rightarrow$ Innovative entrepreneurship

- As the innovator; the one that carries out new combinations (Schumpeter, 1934). Not necessarily the arbitrageur (Kirzner, 1973) or the unproductive rent-seeker (Baumol, 1990).
- Entrepreneurship as conduit for the spillover of new knowledge (Braunerhjelm et al., 2010)

Who are these guys?

- The Schumpeterian entrepreneur: A special type of person in terms of his conduct (Schumpeter, 1934)
- **Personality traits** of the entrepreneur have been found to be positively related to **business creation and success** (Rauch and Frese, 2007)
- Personality is non-observable but can be inferred from **motivations** to start-up a new venture (Herron and Robinson, 1993; Carsrud and Brännback, 2011)
- Other entrepreneurial traits...

Research question

- Research Question:

  1. *Do entrepreneurial traits influence firm innovation propensity?*
  2. *Which traits?*

- Contribution:
  - Go beyond firm and sectoral level characteristics to understand innovation propensity in Chilean firms.
  - Understand features from innovative entrepreneurs
  - Focus on **entrepreneurial traits**, in particular on **entrepreneurial motivations**.

Data and methodology

- Second wave of the Longitudinal Survey on Chilean Firms (ELE, 2011).
- Restricted sample of 1,443 according to **entrepreneur definition**: *Self-employed owners and partners who perform as general managers*.
  - Only owners or partners with 50% or more of ownership
  - Large firms dropped to assure entrepreneur is key-decision maker
- Innovation propensity is modeled through a probit model where:

$$y_i = \begin{cases} 1 & \text{if } y_i^* > 0 \rightarrow \text{the firm introduced an innovation} \\ 0 & \text{if } y_i^* \leq 0 \rightarrow \text{otherwise} \end{cases} \tag{1}$$

Variables

- Dependent variable: Overall innovation (Binary variable)
- Entrepreneurial traits: Gender, age, education, experience, social capital proxy and motivations to start a business:

Entrepreneurial Motivation	**% Answers**
1. Family tradition/inheritance	24.09
2. Did not find a waged job	2.18
3. Contract termination	2.89
4. Complement family income	5.20
5. Found an opportunity in the market	21.72
6 Wanted to organize his/her own business	43.33
5.1 Flexibility	1.99
5.2 Make my own decisions	29.87
5.3 Economic success	21.90
5.4 Enjoyment in facing new challenges	20.41
5.5 Social commitment	1.74
5.6 Obtain outcome of my own work	23.79

- Firm controls: size, sector and age.

Variable	Mean	Std. Dev.	Min.	Max.	N
gender (1 if male)	0.82	0.38	0	1	1443
age_entrep	51.77	11.32	21	93	1443
d_postdoc	0.00	0.04	0	1	1443
d_master	0.03	0.16	0	1	1443
d_university	0.38	0.49	0	1	1443
d_IP	0.12	0.32	0	1	1443
d_CFT	0.04	0.2	0	1	1443
d_secondary_less	0.43	0.5	0	1	1443
sb_family	0.2	0.4	0	1	1443
sb_no_job	0.02	0.15	0	1	1443
sb_fired	0.04	0.19	0	1	1443
sb_income	0.05	0.21	0	1	1443
sb_market	0.21	0.41	0	1	1443
sb_own	0.47	0.5	0	1	1443
sb_own_flexibility	0.01	0.08	0	1	1443
sb_own_decisions	0.14	0.35	0	1	1443
sb_own_autonomy	0.15	0.35	0	1	1443
sb_own_success	0.11	0.31	0	1	1443
sb_own_challenge	0.1	0.3	0	1	1443
sb_own_social	0.01	0.09	0	1	1443
sb_own_goal	0.11	0.32	0	1	1443
soc_cap	0.2	0.4	0	1	1443
business_exp	1.57	2.94	0	85	1443
prior_employee	0.56	0.5	0	1	1443

Results

Estimation results

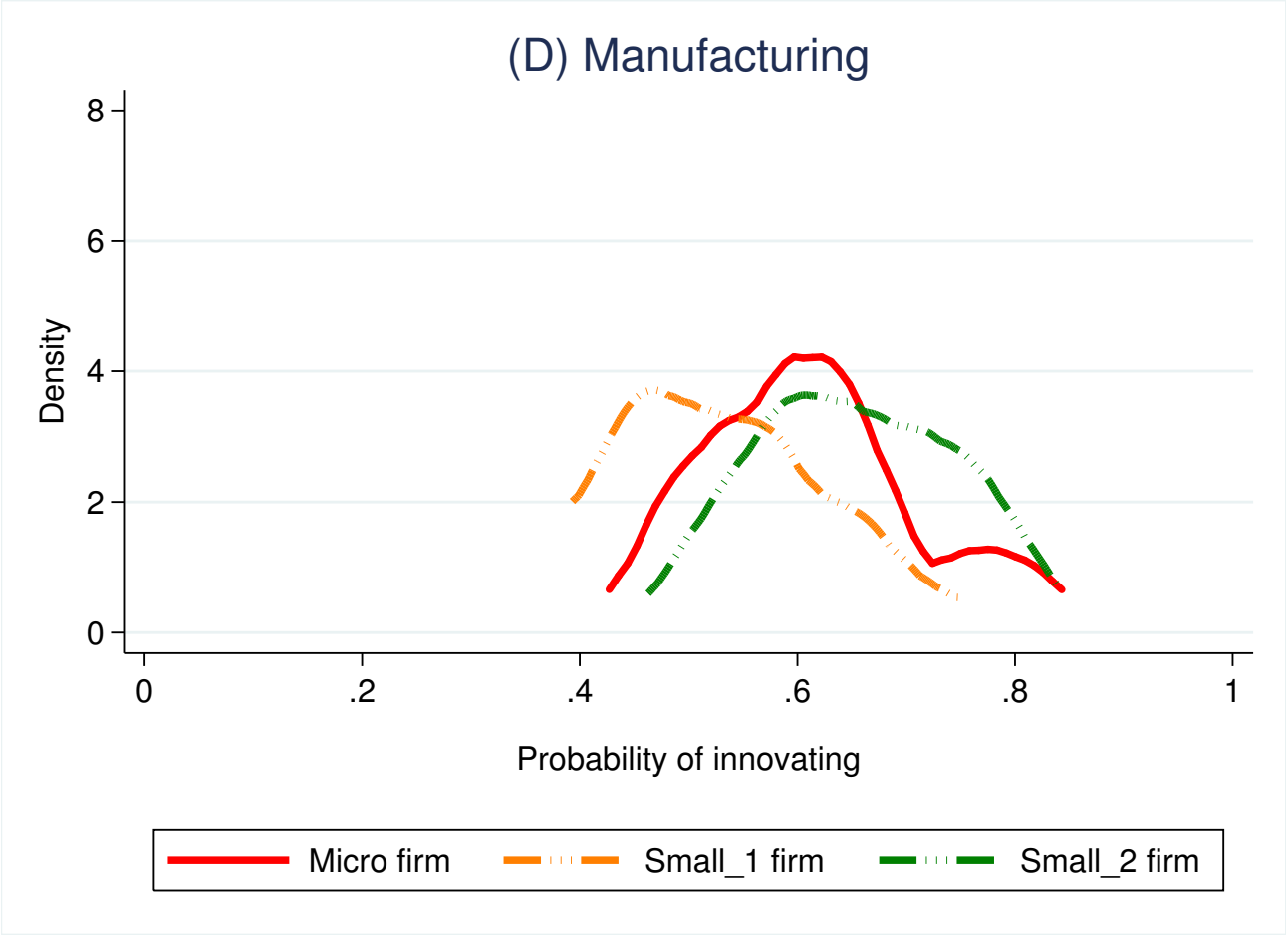
Dep. var.: innovator (1 if firm has innovated in 2009)								
	Model (1) : Overall Innovator				Model (2): Product Innovator			
Variable	**coef.**	**(se)**	**AME**	**(se)**	**Coef.**	**(se)**	**AME**	**(se)**
Characteristics of the entrepreneur								
sb_no_job	0.240	(0.236)	0.089	(0.085)	0.161	(0.244)	0.058	(0.089)
sb_fired	0.182	(0.189)	0.068	(0.069)	0.001	(0.201)	0.000	(0.070)
sb_income	0.167	(0.176)	0.062	(0.065)	-0.006	(0.187)	-0.002	(0.065)
sb_market	0.209†	(0.107)	0.078*	(0.039)	0.104	(0.112)	0.036	(0.040)
sb_own_autonomy	0.060	(0.118)	0.022	(0.044)	0.070	(0.125)	0.024	(0.044)
sb_own_success	0.014	(0.132)	0.005	(0.050)	-0.088	(0.139)	-0.030	(0.047)
sb_own_challenge	0.328*	(0.139)	0.121*	(0.050)	0.295*	(0.141)	0.107*	(0.053)
sb_own_social	0.440	(0.405)	0.159	(0.136)	0.077	(0.390)	0.027	(0.139)
sb_own_goal	0.515**	(0.131)	0.187**	(0.044)	0.155	(0.131)	0.055	(0.047)
gender	-0.106	(0.094)	-0.040	(0.035)	-0.049	(0.097)	-0.017	(0.034)
ln_age_entrep	-0.061	(0.177)	-0.023	(0.067)	0.006	(0.182)	0.002	(0.063)
d_more	0.682	(0.518)	0.235	(0.152)	0.683	(0.481)	0.255	(0.180)
d_master	0.413†	(0.226)	0.150†	(0.077)	0.378†	(0.221)	0.139†	(0.084)
d_university	0.210*	(0.082)	0.079**	(0.031)	0.074	(0.085)	0.026	(0.030)
d_IP	-0.109	(0.117)	-0.041	(0.044)	-0.001	(0.122)	-0.000	(0.042)
d_CFT	-0.165	(0.178)	-0.062	(0.067)	-0.020	(0.182)	-0.007	(0.063)
prior_employee	0.031	(0.073)	0.012	(0.028)	0.000	(0.076)	0.000	(0.026)
ln_business_exp	0.094†	(0.056)	0.035†	(0.021)	0.109†	(0.059)	0.038†	(0.020)
soc_cap	0.268**	(0.087)	0.100**	(0.032)	0.188*	(0.088)	0.067*	(0.032)

Estimation results

Dep. var.: innovator (1 if firm has innovated in 2009)								
	Model (1) : Overall Innovator				Model (2): Product Innovator			
Variable	**coef.**	**(se)**	**AME**	**(se)**	**Coef.**	**(se)**	**AME**	**(se)**
Characteristics of the firm								
ln_age_firm	0.415*	(0.178)	0.156*	(0.067)	0.291	(0.179)	0.101	(0.062)
ln_age_firm_2	-0.106*	(0.044)	-0.040*	(0.017)	-0.076†	(0.045)	-0.026†	(0.016)
micro	-0.004	(0.108)	-0.002	(0.041)	-0.045	(0.110)	-0.015	(0.038)
small_1	-0.220†	(0.120)	-0.083†	(0.045)	-0.280*	(0.127)	-0.092*	(0.040)
small_2	0.104	(0.088)	0.039	(0.033)	-0.054	(0.090)	-0.019	(0.031)
sector_A	-0.166	(0.155)	-0.062	(0.058)	-0.378*	(0.162)	-0.121**	(0.046)
sector_B	-0.678**	(0.189)	-0.246**	(0.062)	-0.776**	(0.207)	-0.218**	(0.042)
sector_C	-0.368*	(0.168)	-0.138*	(0.061)	-0.434*	(0.173)	-0.136**	(0.048)
sector_E	-0.767	(0.814)	-0.272	(0.248)	-0.405	(0.770)	-0.126	(0.209)
sector_F	-0.451**	(0.138)	-0.168**	(0.049)	-0.544**	(0.141)	-0.169**	(0.037)
sector_G	-0.141	(0.124)	-0.053	(0.047)	-0.412**	(0.126)	-0.133**	(0.037)
sector_H	-0.144	(0.137)	-0.054	(0.051)	-0.085	(0.136)	-0.029	(0.046)
sector_I	-0.368**	(0.138)	-0.138**	(0.050)	-0.521**	(0.145)	-0.162**	(0.039)
sector_J	-0.026	(0.577)	-0.010	(0.217)	-0.404	(0.567)	-0.126	(0.154)
sector_K	-0.430**	(0.144)	-0.160**	(0.051)	-0.260†	(0.143)	-0.086†	(0.044)
sector_O	-0.242	(0.170)	-0.091	(0.063)	-0.173	(0.170)	-0.058	(0.054)
Constant	-0.069	(0.726)			-0.498	(0.747)		
Observations	1,443		1,443		1,419		1,419	

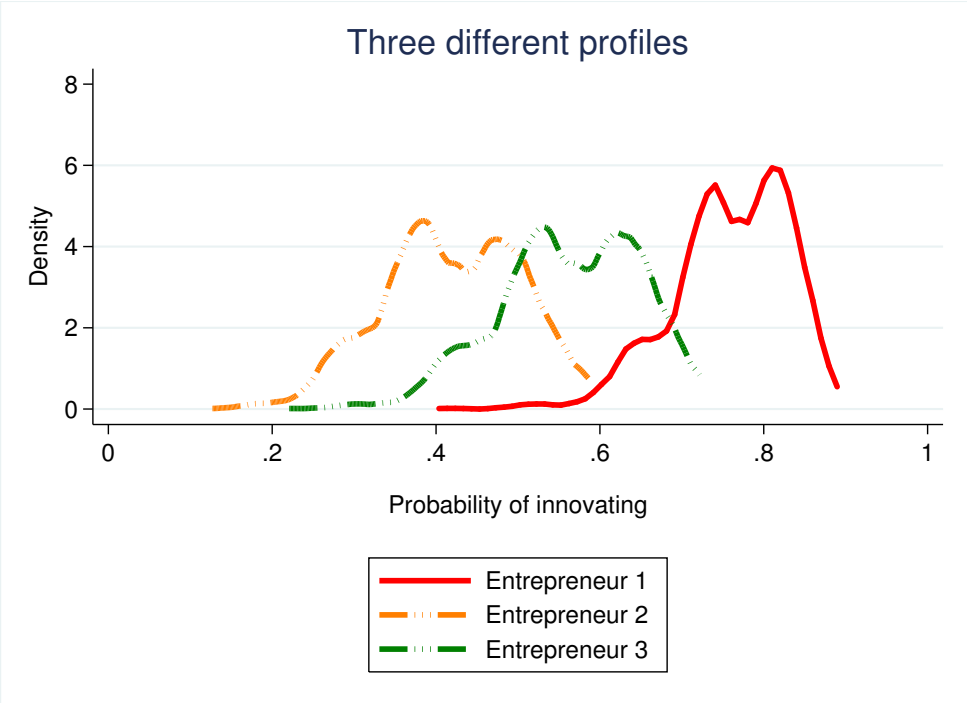
But how much entrepreneurial characteristics matter?

Importance of traits for a 5 year old firm...



Entrepreneurial profiles...

- E1: Male, master, 40 years old, motivated by challenge, prior employee condition, with social capital and novice.
- E2: Male, technical, 40 years old, motivated by not finding a job, prior employee condition, without social capital and novice.
- E2: Male, university, 40 years old, motivated by family tradition, prior employee condition, with social capital and novice.



Results

- Entrepreneurial characteristics do matter for firm innovation propensity.
- Innovative entrepreneurs are not all the same:
  - Underlying personality traits and motivations:
    - opportunity driven
    - need for achievement
    - goal oriented
  - Highly educated, former business experience and access to social capital.
- Any attempt to understand the determinants of firm innovation should control for characteristics of the entrepreneur as a source of heterogeneity.
- Limitations:
  - Cross section data! (endogeneity and causality issues).

Results from case studies

- Emprendimiento innovador de alto potencial:

Resultados estudios de casos

- Sectores: TICs. Algo en Biotecnología.
- Emprendimiento se hace en equipo (complementariedad).
- La mayoría con background en ingeniería. Postgrados.
- La mayoría con previa condición de empleados.
- La cuna: buenos colegios, buenas universidades.
- Motivación trasciende lo económico. Más motivado por las ganas de hacer algo diferente y generar un impacto en el entorno.
- Las redes son todo.
- En general restricciones financieras no constituyen un obstáculo. Excepción: Sector Biotecnología.
- El principal obstáculo es el mismo emprendedor.
- El plan de negocios no es tan relevante. Quién está detrás sí lo es.

Resultados estudios de casos

- Emprendimiento en la agenda púbica del gobierno.
- Alta visibilidad del fenómeno en los últimos años.
- Fase actual de aprendizaje: emprendedores, inversionistas ángel, VCs y policymakers.
- No obstante, concentrado en el sector alto de la sociedad que tiene acceso privilegiado a distintos tipos de capital.
- Necesidad de relevar casos de éxito en los medios para potenciar el impacto de role models en el resto de la ciudadana.
- Aprendizaje a todo nivel: profesionalización de la actividad.

Muchas gracias...

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