Entrepreneurship and well-being: a cross-country analysis

Abstract

Are entrepreneurs "happier" than employees? Is personal well-being a driver to be an entrepreneur? In this paper we explore the relationship between entrepreneurship and subjective well-being at individual level. We put emphasis on the direction of causality between both variables. Data comes from a study introduced in the Global Entrepreneurship Monitor, GEM´s *adult population survey*, APS in 2013 that included for first time subjective well-being measures in a large international sample of entrepreneurs. We have data of 244,000 individuals from 70 different countries. Using a double probit sample selection estimator our results suggest that in average entrepreneurs as well as in specific type of nascent entrepreneurs have more subjective well-being than those that are not involve in business of their own. Likewise, subjective well-being affect the likelihood of becoming an entrepreneur. This effect is lower in nascent entrepreneurs motivated by necessity. Discussion about non-economic measures and well-being is included.

Keywords: well-being, entrepreneurship, motivation, Global Entrepreneurship Monitor.

1. Introduction

Economic development has traditionally been measured using strictly finance-oriented indicators like GDP per capita. However, this material component of economic development represents only one dimension of a country's development. As economics is a social science, it is quite surprising that the social component has, until recently, not been regarded as a key indicator for scholars and policy makers. It is exemplary that a different term is being used for this: well-being. The topic of well-being has been gaining presence rapidly in social sciences and economics. The promotion of factors that could increase well-being of the population—for example, how people are satisfied with their lives and their jobs—is progressively seen as essential objectives of policy. Since the Kingdom of Bhutan introduced the notion of "gross national happiness," many measures have been developed to provide additional elements to the traditional economic-oriented measures of development (Angner, 2010). Stiglitz, Sen and Fitoussi (2009) suggest exploring the use of indicators of well-being to develop better policies: "The time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being."[1] Advances in the measurement of subjective well-being (or "happiness"), particular to the extent that happiness can now be sensibly compared across countries, has made such an approach eminently feasible (Bolle et al., 2009; Bolle and Kemp, 2008; Blanchflower and Oswald, 2007). Some recent examples are the World Happiness Report (Helliwell et al., 2013), edited

[1] The Commission on the Measurement of Economic Performance and Social Progress (Stiglitz et al., 2009).

under the endorsement of the United Nations, or the OECD measures of subjective well-being (OECD, 2013).

Some questions that emerge intuitively from this topic are the following: Do entrepreneurs (self-employed) experience more personal well-being than employees? Is personal well-being a driver to be an entrepreneur? Are opportunity-driven entrepreneurs experiencing higher levels of well-being than necessity-driven entrepreneurs? And to what extent are differences, if any, contingent on the regional or national context? Hence to say something about the relationship between entrepreneurship and the well-being of nations we need to focus on entrepreneurship activities –business ownership and start-up rates– directly, control for and disentangle the effects of good institutions on well-being variables, and investigate the likely bi-directional causality between entrepreneurship and well-being (that could include life satisfaction or happiness). Surprisingly, there are not many literature and empirical evidence about the relationship between subjective well-being (happiness or satisfaction) and entrepreneurial activities at individual level (Cooper and Artz, 1995; Carree and Verheul, 2011). More specific, there is a lack of evidence to consider whether and how entrepreneurship may matter for well-being and how well-being matter for entrepreneurship (Naude et al., 2011). This brings us to the purpose of the present study, which is to attempt to provide an indication of the effect of entrepreneurship on well-being, and to evaluate the impact of this on entrepreneurship in turn.

Global Entrepreneurship Monitor; GEM data shows, in several economies, between 10% and 30% of a country's labor force could be considered early-stage entrepreneurs or business owners (Amorós and Bosma, 2014). If entrepreneurs generally experience higher levels of well-being, they can significantly raise aggregate well-being scores. Some empirical evidence shows that entrepreneurs do indeed experience higher levels of job satisfaction than employees. Empirical research suggests that this is because they value the independence and lifestyle flexibility of running their own business (Benz and Frey, 2004; Blanchflower, 2004; Lange, 2012; Moskowitz and Vissing-Jorgensen, 2002; Ajayi-Obe and Parker, 2005; Taylor, 2004). Furthermore, entrepreneurs experience "procedural utility," that the process of being an entrepreneur provides enjoyment over and above the material success of being an entrepreneur (Block and Koellinger, 2009). However, this initial evidence is still based on samples in a limited set of economies.

The main objective of this work is analyze one approach of individuals well-being that participate in the GEM Project and correlate these measures with entrepreneurship dynamics across economies. We use information at the country level as well as primary data from individuals about their own perception of well-being and entrepreneurial activities. This approach with large samples is unique and one of the first attempts to study the relationship between well-being and entrepreneurship at the individual level. In 2013, the GEM surveys included a special set of questions that provided evidence of the entrepreneurial activities and motivations in relation to well-being measures from the 2013

participant economies. The general analysis contrasts the well-being indicators of the different stages of entrepreneurial activity with the population not involved in entrepreneurship. The motivation to become entrepreneurs was also analyzed.

In order to delimitate our scope, the present study is based on the concept of the *Capabilities Approach* (Naudé, Amorós and Cristi, 2014) that argue that human development is about people having "the freedoms (capabilities) to lead the kind of lives they want to lead, to do what they want to do and be the person they want to be. Once they effectively have these freedoms, they can choose to act on those freedoms in line with their own ideas of the kind of life they want to live" (Robeyns, 2003, p. 7). Human development and subjective well-being can be defined "as a process of enlarging people's choices" (UNDP, 1996, p. 49). Capabilities Approach include the use of f*unctionings* that are defined like "valuable activities and states that make up people's well-being" (Alkire, 2005, p. 1) and includes "working, resting, being literate, being healthy, being part of a community, being respected" (Robeyns, 2003, p. 6). Gries and Naudé (2011) argue that being *entrepreneurial or entrepreneur* is also a functioning, as it can be valued in itself. Here, since we will be using data on entrepreneurship at individual level, we will consider the functionings that is related to individual subjective well-being. Moreover, we may think that resources and other functionings, such as those that result from human development and subjective well-being, will be driving entrepreneurship. Hence in this study we will also be concerned to investigate the direction of causality between entrepreneurship and subjective well-being at individual level.

2. Conceptual framework

Entrepreneurs create jobs and provide the goods consumed by households, including innovative products that contribute to health and experiential activities (Csíkszentmihályi, 2003). We know that unemployment is a major and significant cause of unhappiness and no-satisfaction (Clark and Oswald, 1994; Clark, 2010). Thus by providing jobs, entrepreneurs contribute importantly to raising happiness and well-being (or at least prevent happiness from declining). We also know that good health, and having experiential activities, raises well-being levels (Grinde, 2002; Goetz, Goetz and Robinson, 2007; Bolle et al., 2009). To the extent that entrepreneurs improve productivity and raise economic output, they would also contribute to incomes and wealth that also, up to a point, raise satisfaction, well-being (and happiness) significantly. Moreover, aggregate happiness can also indirectly be raised through the finding that happiness is interdependent (Bolle et al., 2009): entrepreneurs' happiness can rub off on the happiness of non-entrepreneurs.

There are many reasons to suppose, *ex ante*, that entrepreneurs could contribute significantly to well-being. A potentially powerful piece of suggestive evidence comes from comparing countries' position on the Global Entrepreneurship Index (GEINDEX) (Acs and Szerb, 2009) with their happiness scores as contained in the Gallup 2005 World Poll. That comparison reveals that there *may* be a very

strong relationship between entrepreneurship and happiness. Indeed the relationship appears to be non-linear, with countries having a higher score on the GEINDEX seemingly having an increasing level of happiness. If this is indeed the case it would be a very remarkable result, given that most determinants of happiness on a country level, most notably income per capita, show declining marginal benefits A rigorous result in the economics of happiness literature is that rising per capita incomes contributes positively to individuals and countries' happiness, but after a certain level, found by some to be around US $ 15,000 (Frey and Stutzer, 2005), extra income seems to add very little to overall happiness (Easterlin, 1995; Layard et al., 2008).

But not all "types" entrepreneurial activities could be correlated to subjective well-being. A first possible instance could be when most entrepreneurs are not so by choice, but by necessity (Amorós and Cristi, 2011). When people turn to entrepreneurship (self-employment) by necessity, they essentially lose their "agency" or free will as far as their employment is concerned, and this is experienced as a loss of subjective well-being (Gries and Naudé, 2010). Moreover, many people would indeed be happier as employees in a hierarchical organizational set-up rather than being an independent entrepreneur. Fuchs-Schündeln (2009) for instance points out that not everybody attaches the same utility to the greater freedom, choice and responsibility that entrepreneurs tend to derive from their job and that "taking decisions independently, immediately feeling the consequences of one's actions, or receiving feedback from a superior might be perceived as positive job attributes by some, and as negative ones by others" (Ibid, p.162).

Consequently not everybody should become entrepreneurs. If more people become entrepreneurs than for whom it results in higher job satisfaction, then we may infer that overall "happiness" may be lowered. For example in countries such as Denmark, where entrepreneurs report high job satisfaction scores in excess of 8 (out of 10), the business ownership rate is relative low: people without the propensity to enjoy the independent style of living of an entrepreneur just do not choose to become entrepreneurs. Elsewhere however, people may not have the same choices, so that a larger proportion of the pool of entrepreneurs is not there by choice (Shane, 2008).

Finally, the state of a "nation's happiness" may have an impact on its entrepreneurship. We mentioned that it is not unreasonable to associate happy societies with entrepreneurial societies. Happiness has been found to be a causal factor of success in various domains, including work performance, productivity and creativity, all domains pertinent to entrepreneurship (Amabile et al., 2005; Lyubomirsky et al., 2005; Mohanty, 2009; Oswald et al., 2009). The positive affect associated with happiness may crucially contribute to different ways of thinking – allowing more creativity and optimism (Seligman, 2002) –that are associated with entrepreneurship. However, as far as we are aware there does not exist much research on whether the overall state of a "nation's happiness" significantly spurs on entrepreneurship. In this sense further empirical research is needed.

Summarizing, the literature shows that could be simultaneous effects of entrepreneurial activates and the general concept of subjective well-being. At the same time these relationships can be positive or negative depending both exogenous and endogenous factors. As we estate at the introduction, our approach is at individual level and how these entrepreneurs interact (or not) with their levels of subjective well-being. We hypothesize that people by exercising the choice to become entrepreneurs have more subjective well-being. The circumstantial evidence strongly suggests that entrepreneurs enjoy higher life satisfaction. Not only does job satisfaction contribute substantially to life satisfaction (after all, it is the way in which most of our lives are spent) but entrepreneurs have also been found to be healthier, less prone to negative feelings and depression, and to experience flow, than employees (Bradley and Roberts, 2004; Ceja, 2009; Graham et al., 2004; Patzelt and Shepherd, 2011). We state the above hypothesis not only to opportunity-motivated entrepreneur but also to necessity-motivated entrepreneurs. Although necessity entrepreneurship is not entrepreneurship by choice, it may nevertheless increase the entrepreneur's independence and self-determination and therefore certain degree of well-being.

We also hypothesize that people make benefit-marginal cost calculations to decide whether or not to become an entrepreneur and that well-being may have an impact on that calculation. For example higher levels of life satisfaction and happiness increase work performance, productivity, creativity and optimism (Amabile et al., 2005; Lyubomirsky et al., 2005; Mohanty, 2009; Oswald et al., 2009; Seligman, 2002) and all these factors increase the marginal net benefit of being an entrepreneur.

3. Methodology

3.1 Estimation methodology

As previously state, we are interested in the impact of subjective well-being individual-level variables on an individual decision to be an early stage entrepreneur and their initial motivations (opportunity-driven or necessity-driven). Given that the dependent variables are discrete variables and are not independent, we will use a Double Probit (or biprobit) sample selection estimator. Use of sample selection estimators such as the Double Probit is advised since there are a large number of adults surveyed that did not choose to become entrepreneurs. The cases where they did not choose to enter entrepreneurship in the first place may not be random but due to some particular individual features - so that using an OLS estimator could lead to biased estimates. In essence, opportunity (or necessity) outcomes are observed only for individuals that selected to be entrepreneurs. If the factors that determine the choice to be an entrepreneur or not are different from those that determine the motivation to be entrepreneurship, not taking the selection into account is tantamount to having the model subject to an omitted variable bias (Heckman, 1979). Moreover, because the possible

endogeneity of subjective well-being we will estimate using econometric techniques to estimate a Double Probit sample selection estimator with endogenous regressors.

Or model contains two equations one for individual well-being (WB) and other for the individual marginal net benefit of being an entrepreneur (MB) as:

$$WB_i = j_0 + j_1 ED_i + \mathbf{j}\,'\mathbf{Z}_i + e_i \qquad (1)$$

$$MB_i = \beta_0 + \beta_1 WB_i + \boldsymbol{\beta}'\mathbf{X}_i + u_i \qquad (2)$$

where ED_i represents the entrepreneurial decision and takes a value of 1 when the individual starts new business and 0 otherwise, **Z** and **X** are sets of controls, e and u are random errors, and j_0 , j_1, $j'$and β_0, β_1, β' are unknown parameters.

On this model we don't observe MB_i, only whether the person start a new business or not. Therefore our observation is:

$ED = 1$ if $MB > 0$

$ED = 0$ if $MB \leq 0$

Hence we can postulate the following model for the probability that ED=1:

$$Prob(ED=1) = Prob(MB_1 > 0) = F(\boldsymbol{\beta}, WB_i, \mathbf{X}_i) \qquad (3)$$

where $F(\boldsymbol{\beta}, WB_i, \mathbf{X}_i)$ is a probability model . Thus our equations (1) and (2) are rewritten as:

$$WB_i = \varphi_0 + \varphi_1 ED_i + \varphi' Z_i + \varepsilon_i \qquad (4)$$

$$ED_i = F(\boldsymbol{\beta}, WB_i, \mathbf{X}_i) \qquad (5)$$

In this setting the two endogenous variables, WB_i and ED_i are also among the regressors which cause a system of simultaneous equations. Moreover, in this case one of the endogenous variables is continuous (WB) and the other is dichotomous (ED). That requires the use of two-stage Probit least squares as estimation technique. This two-stage estimation method has been described in Maddala (1983) and provides consistent estimates for the coefficients, as well as their corrected standard errors (Keshk, 2003). In the first stage, models for each endogenous variable are fitted using all of the exogenous variables (i.e., the exogenous variables in both (4) and (5)). Model for WB_i is estimated via OLS and model for ED_i via Probit. From these reduced-form estimates, the predicted values from each endogenous variable are obtained for use in the second stage. In the second stage, the original

endogenous variables WB_i and ED_i are replaced by their respective fitted values in the right hand side of equations (4) and (5). Again, model for WB_i is estimated via OLS and model for ED_i via Probit. The final step in the procedure is the correction of the standard errors. To estimate this model we use option *cdsimeq* in STATA (Keshk, 2003).

3.2 Data and variables

Data comes from the Global Entrepreneurship Monitor, GEM the *adult population survey*, APS 2013 that included for first time subjective well-being measures. We have a preliminary data of up to 244, 000 individuals that responded a set of questions related their subjective wellbeing. Well-being is a complex construct, and there is not a clear consensus about how to measure well-being (Conceição and Bandura, 2008). We adopt a wide concept using measures of "Subjective well-being". Subjective well-being is related to the manner in which people experience the quality of their lives, and it comprises both emotional reactions and cognitive judgments (Diener, 1984). To measure subjective well-being, the Satisfaction With Life Scale SWLS (Pavot and Diener, 2008), a five-item instrument designed to measure global cognitive judgments of satisfaction with one's life, was adopted.[2] The scale is in the public domain (not copyrighted)[3]. These are the questions using five-point Likert scales, from 1 "Strongly Disagree" to 5 "Strong Agree":

1. In most ways, my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have obtained the important things I want in life.
5. If I could live my life again, I would not change anything.

These questions were posed to all employed and self-employed individuals in 70 countries. We calculate a single indicator of subjective well-being for each individual, using Principal Component Analysis (normalized, media=0). This procedure permits to capture more information from the proposed scale versus the simple average of the five items[4].

GEM `provides different measures of entrepreneurship dynamics: (1) The indicator called the early stage entrepreneurial activity (TEA). This indicator is based on the life-cycle of the entrepreneurial process which is divided into two periods: the first covers nascent entrepreneurs who have undertaken some action to create a new business less than three months old. The second period

[2] For example, UNDP adopted this scale to measure life satisfaction in some countries. The Coca-Cola Happiness Institute (created in Spain in 2008 to provide credible scientific information to support the link between happiness and wellness) also uses the SWLS.

[3] Credit is given to the authors of the scale: Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the Journal of Personality Assessment. A set of translations in the most common languages is available at http://internal.psychology.illinois.edu/~ediener/SWLS.html.

[4] Scale reliability coefficient (Cronbach´s alpha) = 0.8106. PCA matrix and additional information by request.

includes owners/managers of businesses that have paid wages and salaries for over three months, but less than 42 months. (Bosma et al., 2008). (2) Entrepreneurs that own and manage a firm older than 42 months are defined like established entrepreneurs.

We use a combination of the former described variables: our first depended variable is called "*Entrepreneurs"* that include TEA plus established entrepreneur in order to compare people involved in entrepreneurship activities versus ones not involved directly. The second one is the *nascent entrepreneurs*. We put emphasis on nascent entrepreneurs in order to capture individual that are initiated a business in a very early stage within the year. In specific we put focus is on its motivational derivations of the nascent entrepreneurs: *necessity*- and *opportunity-based* entrepreneurial activity. The nascent opportunity-based entrepreneurial activity comprises individuals who voluntarily undertake action to create a new venture pursuing perceived business opportunities. They have a "pull motive", such as the desire for independence, or the purpose of increasing his personal or family income, challenge, status and recognition. The other category involves individuals engaging in necessity-based entrepreneurial activity. They are "pushed" into entrepreneurship because being an entrepreneur is the only option for wealth generation. Because there are individual that declare that they are "partially motivated by opportunity" we take in account this third category. We use one instrumental variable for entrepreneurship model: if individuals perceive good opportunities to start a new business. For subjective well-being model we use as instruments a proxy of social-capital (know an other entrepreneurs) and if fear to failure ear of failure would prevent individuals from starting a business. These three variables are dichotomous (1= affirmative; 0=otherwise) and are included on GEM´s Adult Population Survey. At individual level we control by age, gender (1=male, 2= female), level of education (in seven categories from 0= non basic education to 6=postgraduate degree) and personal income (measure in three categories 1=first third on the national income, 2=middle third, 3=upper third). At country level, we control by degree of development using the five categories suggested by the WEF´s Global Competitiveness Report (also used by GEM project), that are: 1=factor-driven economies (less development), 2=transition to efficiency-driven, 3=efficiency-driven, 4=transition to innovation-driven, and 5=innovation-driven. We also control by country.

Our sample is characterized by the existence of 49,503 entrepreneurs and among them 15,418 are classified nascent entrepreneurs. Among the latter we have 8,018 nascent entrepreneurs motivated by opportunity, 3,097 nascent entrepreneurs partially motivated by opportunity and 3,739 nascent entrepreneurs motivated by necessity. The average of early stage entrepreneurs exhibit relatively higher rates of subjective well-being contrasted with all populations and individuals not involved in entrepreneurship activities. A similar analysis of opportunity-based versus necessity-motivated entrepreneurship, confirms that necessity-based entrepreneurs across development stages have considerably lower rates of subjective well-being.

4. RESULTS

Descriptive statistics and correlation matrix are in Table 1.

--Table 1 about here--

Results from our estimation are summarized in Table 2. As we can see there, our results suggest that in average entrepreneurs as well as in specific type of nascent entrepreneurs exhibit more subjective well-being than those that are not involve in business of their own. When we distinguish among nascent entrepreneurs accordingly to their motive to start a new business, we found that be a nascent entrepreneurs motivated by opportunity has the foremost contribution to subjective well-being (b=0.375, p=0.000). Interesting, be nascent entrepreneurs motivated by necessity also contribute to subjective well-being (in less degree that opportunity-based; b=0.019, p=0.0016). Likewise, subjective-wellbeing (after control by countries) affects positively the likelihood of becoming an entrepreneurs or a nascent entrepreneur, including necessity-based (in less marginal effect). As expected see good opportunities have influence on the propensity to be nascent entrepreneurs. Interesting but also surprising, know other entrepreneurs are negative and significant in all models of subjective well-being. This result will request future analyzes because appear contradictory to previous literature that highlight the importance of the personal and social relationships (Frey, 2010). In the other hand fear to failure is also negative and significant to subjective-well being. Related control variables in well-being models, educations and income are positive related. The same with the degree of country development. Age shows a skewed to right U curve, that means well-being have relative high evaluation in young people, then reduce and next start to increase with the age. In the entrepreneurship models, age is an inverted U curve, be women reduce the propensity to be an entrepreneur and have more education level and more income also reduce the propensity to be entrepreneur.

--Table 2 about here—

5. Implications and contribution

This work is exploratory and constitutes a preliminary assessment of entrepreneurship and well-being. Because is a cross section approach is difficult to infer all the relationships between entrepreneurship and well-being because the later (an also entrepreneurship dynamics) depends on several and large number of determinants (Frey, 2010). Even though this work opens the possibility to explore the role of entrepreneurs beyond the traditional notion of development generally associated with economic indicators. As Layard (2003:3) claimed: “GDP is a hopeless measure of welfare.” Therefore, the relationship between GDP and entrepreneurship can explain only part of the role of entrepreneurship in human development (Naude, Amorós and Cristi, 2014). In this research we intent to

provide evidence of the existence of a positive effect at individual level, of subjective well-being in the decision of starting new business and of being entrepreneur upon the individual evaluation of well-being. Our results that give some empirical support to those hypotheses, will contribute to reinforce the current measures that several economies are implementing to promote entrepreneurship and in most cases with especial programs to promote entrepreneurship activities among the poorest. Entrepreneurship matters for people beyond strictly source of material income and is consistent with the capability approach. This has special significance for non-developed economies which in most case are characterized by a sizeable proportion of their population being entrepreneurs (who are often happier and satisfied than employed workers) and that entrepreneurship contribute importantly to creation of jobs, consumer goods and incomes and wealth – all inputs, up to a point, well-being.

There are growing calls globally for more oriented policy towards non-material human-wellbeing than to just GDP per capita or other economic-driven indicators. The results in this paper, even if exploratory and descriptive, suggest that entrepreneurship can matter for individual and societal development; beyond mere increases of "traditional" economic variables like income or job. We suggest that it is time for entrepreneurship scholars to venture beyond material welfare. Several initiatives are now putting focus on subjective well-being like UNDP or the remarkable "Happiness Barometer Survey" developed by the Coca-Cola Happiness Institute, created in Spain in 2008 to provide credible scientific information to support the link between happiness and wellness. Entrepreneurship and well-being may be rewarding from the scientific, societal and policy making perspectives.

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Table 1. Descriptive statistics and correlation matrix

Variable	Mean	Std. Dev.	Min	Max
Subjective Well-being	-0.014	1.002	-2.511	1.642
Entrepreneur	0.232	0.422	0	1
Nascent	0.068	0.252	0	1
Nascent by opportunity	0.035	0.184	0	1
Nascent partially by opportunity	0.014	0.116	0	1
Nascent by necessity	0.017	0.131	0	1
Age	40.059	13.670	18	97
Gender	1.468	0.499	1	2
Education	3.161	1.419	0	6
Income	1.958	0.828	1	3
Opportunities	0.426	0.494	0	1
Know Entrepreneurs	0.394	0.489	0	1
Fear to Failure	0.393	0.488	0	1
Development (country)	3.751	1.217	1	5

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Subjective Well-being	1.000													
2.	Entrepreneur	0.038	1.000												
3.	Nascent	0.015	0.493	1.000											
4.	Nascent by opportunity	0.034	0.348	0.706	1.000										
5.	Nascent partially by opportunity	0.005	0.214	0.435	-0.023	1.000									
6.	Nascent by necessity	-0.027	0.242	0.491	-0.025	-0.016	1.000								
7.	Age	0.052	-0.027	-0.069	-0.053	-0.033	-0.027	1.000							
8.	Gender	0.009	-0.081	-0.035	-0.034	-0.018	-0.002	0.005	1.000						
9.	Education	0.116	-0.049	0.023	0.046	0.009	-0.027	-0.079	-0.044	1.000					
10.	Income	0.175	0.097	0.046	0.057	0.021	-0.012	-0.033	-0.080	0.316	1.000				
11.	Opportunities	0.094	0.191	0.130	0.104	0.061	0.045	-0.081	-0.040	-0.032	0.084	1.000			
12.	Know Entrepreneurs	0.013	0.238	0.125	0.095	0.056	0.050	-0.123	-0.073	0.036	0.121	0.227	1.000		
13.	Fear to Failure	-0.073	-0.115	-0.068	-0.059	-0.029	-0.020	0.019	0.071	0.027	-0.040	-0.117	-0.057	1.000	
14.	Development (country)	0.164	-0.184	-0.074	-0.032	-0.043	-0.060	0.217	-0.024	0.246	-0.005	-0.199	-0.184	0.095	1.000

Table 2. Estimation Models Entrepreneurship and Subjective Well-Being

	Model I		Model II		Model III		Model IV		Model V	
Variables	Equation for Subjective well-being	Equation for the likelihood of being an entrepreneur	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur by opportunity	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur partially by opportunity	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur by necessity
Constant	-0.048* (0.026)	-1.426*** (0.087)	0.081** (0.031)	-1.605*** (0.091)	0.324*** (0.040)	-1.934*** (0.112)	0.206*** (0.043)	-2.423*** (0.136)	-0.506*** (0.026)	-2.172*** (0.120)
Entrepreneur	0.257*** (0.040)									
Nascent			0.330*** (0.009)							
Nascent by opportunity					0.375*** (0.011)					
Nascent partially by opportunity							0.277*** (0.011)			
Nascent by necessity									0.019** (0.008)	
Subjective well-being		2.2564*** (0.091)		1.654*** (0.094)		1.957*** (0.117)		1.236*** (0.142)		0.562*** (0.119)
Income	0.161*** (0.003)	-0.287*** (0.190)	0.183*** (0.004)	-0.288*** (0.021)	0.162*** (0.004)	-0.295*** (0.026)	0.188*** (0.003)	-0.203*** (0.032)	0.202*** (0.003)	-0.192*** (0.027)
Age	-0,041*** (0.001)	0.116*** (0.003)	-0.030*** (0.001)	0.064*** (0.003)	-0.027*** (0.001)	0.059*** (0.004)	-0.030*** (0.002)	0.058*** (0.005)	-0.023*** (0.001)	0.042*** (0.004)

Variables	Model I		Model II		Model III		Model IV		Model V	
	Equation for Subjective well-being	Equation for the likelihood of being an entrepreneur	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur by opportunity	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur partially by opportunity	Equation for Subjective well-being	Equation for the likelihood of being a nascent entrepreneur by necessity
Age2	0.001***	-0.001***	0.001***	-0.001***	0.001***	-0.001***	0.001***	-0.001***	0.001***	-0.001***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender		-.376***		-0.234***		-0.252***		-0.215***		-0.071***
		(0.013)		(0.014)		(0.017)		(0.021)		(0.018)
Education	0.033***	-0.095***	0.010***	-0.014**	-0.003	0.005	0.014***	0.000	0.022***	-0.051***
	(0.001)	(0.006)	(0.002)	(0.006)	(0.003)	(0.008)	(0.003)	(0.010)	(0.002)	(0.008)
Development (country)	0.173***		0.157***		0.149***		0.155***		0.137***	
	(0.026)		(0.003)		(0.003)		(0.003)		(0.002)	
Opportunities		-0.016		0.092***		0.045*		0.105**		0.095***
		(0.021)		(0.022)		(0.117)		(0.033)		(0.028)
Know Entrepreneurs	-0.105***		-0.088***		-0.098***		-0.044***		0.045***	
	(0.006)		(0.007)		(0.008)		(0.008)		(0.005)	
Fear to Failure	-0.084***		-0.077***		-0.049***		-0.114***		-0.160***	
	(0.005)		(0.006)		(0.008)		(0.007)		(0.005)	
F or LR Chi^2	419.5***	20965.4***	419.5***	8407.0***	419.5***	5185.2***	419.5***	2694.6***	419.5***	2245.8***
R^2 or Pseudo R2	0.16	0.14	0.16	0.10	0.16	0.10	0.17	0.11	0.17	0.08
Number of observations	159274	159274	159274	159274	159274	159274	159274	159274	159274	159274

Controls by country no reported.

Standard errors in parenthesis *** p< 0.01, ** p< 0.05, *p< 0.1