

INSTITUTIONS, GENDER, AND ENTREPRENEURSHIP IN LATIN AMERICA

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ABSTRACT

This chapter seeks to explore the institutional effects on the probability of becoming an entrepreneur, for both women and men, among a low-income level population, in the context of Latin American countries. By using institutional economics, it is hypothesized that personal autonomy, membership of an art or music organization, membership of a religious organization, and secondary educational environment have a positive effect on the probability of becoming self-employed, for both female and male. The world values survey (at individual level) and the world development indicators (at country level) provide the main information to empirically assess the influence of institutions on low-income self-employment. The findings from Probit models suggest that personal autonomy, membership of an art or music organization, and secondary educational environment are factors defining the context in which women and men become entrepreneurs. Public strategies regarding gender equality are discussed.

INTRODUCTION

Latin American countries have been overcoming income inequality problems since the early 2000s, although some issues persist mainly because of the short-term capacity of public policies (Amarante, 2016; Székely & Mendoza, in press). Cord et al. (2017) argued that inequality reduction stagnated after the economic crisis. According to these authors, people in lower income deciles tend to be more affected by the stagnation. Among other problems, the persistence of inequality increases informality among firms and workers (La Porta & Shleifer, 2008, 2014), as well as gender disparities (Deere et al., 2012; Larraz, 2015). To solve these problems, many strategies have been discussed (e.g., education, access to labor market, business regulation, etc.); particularly, there has been an increasing interest in understanding how entrepreneurship policies may help to reduce existing inequalities within society and generate long-term economic development (Aparicio et al., 2016b). Although there are studies that have suggested that policies associated with entrepreneurial activity should focus only on high added value businesses (Arshed et al., 2014; Shane, 2009), other scholars have argued that the type of entrepreneurship does not matter; public policies should encourage a variety of entrepreneurs since they all contribute to social and economic outcomes (Acs et al., 2016; Welter et al., in press).

It has been argued that entrepreneurship is especially useful for competitiveness and for the alleviation of poverty in emerging economies, since entrepreneurial activity has become an alternative to participation in the labor market in these countries (Bruton et al., 2009, 2013). In this sense, the solution to some of the main social problems in developing countries (i.e., inequality and low income levels) requires a strategy that considers all people, from the bottom to top of the pyramid, as well as gender equality associated with entrepreneurship (Hughes et al., 2012; Klyver et al., 2013; McMullen, 2011). Here, the role of not only

male but also female entrepreneurs could generate a social transition to improve standards of living (Bruton et al., 2013; Gatewood et al., 2009).

As Bruton et al. (2010) suggested, the way entrepreneurship may affect social and economic outcomes depends on the institutional context that the entrepreneurs are embedded. Particularly, some scholars have analyzed how institutions may affect entrepreneurial activity in general (Aidis et al., 2008; Aparicio et al., 2016a), and among women and men (Hughes et al., 2012; Noguera et al., 2013, 2015; Welter & Smallbone, 2008). Along with other scholars, these ones have suggested that there is a scarcity of evidence in developing countries; this evidence is needed to discuss the contributions of effective public policies. Thus, this chapter seeks to explore the institutional effects on the probability of becoming an entrepreneur for both women and men from low-income populations in Latin America. By using institutional economics (North, 1990, 2005), it is hypothesized that institutions such as personal autonomy, membership in an art or music organization, membership in a religious organization, and secondary education environments have a positive effect on the probability of becoming self-employed for both females and males. Based on information from the World Values Survey (WVS) during the period of 2011–2014, this chapter applies different probit models to understand those factors affecting such probabilities for both female and male entrepreneurs. The results support the idea that even though there are gender differences, policies related to some institutions (e.g., personal autonomy, membership in an art or music organization, and secondary education environments) may reduce the gap between women and men in low-income deciles in Latin America and improve their standards of living.

The rest of the chapter is structured as follows. Section 2 presents the theory of institutional economics and posits the main hypotheses. Section 3 explains the methodology employed to assess the theoretical hypotheses through probit models. Section 4 presents and describes the results, and Section 5 provides a discussion in terms of public policies. Finally, Section 6 concludes and comments on some future research lines.

BACKGROUND

From a general perspective, disciplines such as sociology, psychology, anthropology, and management—among others—have been focused on institutional characteristics of societies and organizations (Fine, 1994). In this regard, Ansari et al. (2012), DiMaggio and Powell (1991), Mahoney et al. (2009), and Scott (1995, 2001, 2008) have discussed how institutional dimensions may influence managerial practice, bureaucracy, capabilities, and private-public interactions that ultimately affect the value creation of organizations. To consider the environment on a macro level, this chapter draws upon institutional economics (North, 1990, 2005) to explore those institutions affecting the probability of becoming an entrepreneur for both women and men in low-income levels. Even though the focus is on Latin American countries, it is recognized that there is a heterogeneity in terms of the institutional context among these nations (Acemoglu & Robinson, 2012); therefore, this institutional approach may be useful to comprehend the phenomenon.

In this regard, North (1990, 3) defined institutions as rules that coordinate human actions. According to North, there are two types of institutions. First, there are institutions such as regulations, laws, and legal procedures that are known as formal institutions. Second, there are also informal institutions that include cultural values, social norms, and socialization processes. According to Williamson (2000), these two types of institutions are constantly interacting with each other. Thus, some formal institutions could be better defined depending on the cultural values of a society. In addition, this analysis serves as an

important tool for designing public policies, since informal institutions are associated with long-term effects while formal institutions tend to endure in the short-term.

Shedding light on institutional economics, some scholars have contributed to the field of entrepreneurship by exploring institutions influencing entrepreneurial activity (Aidis et al., 2008; Bruton et al., 2009, 2010; Urbano & Alvarez, 2014). The extant literature has identified that culture, social norms, and self-perception or autonomy (informal institutions)—among others—exert greater effects than formal institutions on entrepreneurial behavior, particularly in the case of female entrepreneurship at low-income levels (Manolova et al., 2007; Noguera et al., 2015; Romani et al., 2012). In this regard, the extant literature in entrepreneurship research has emphasized that this field needs to understand social embeddedness beyond the mere concept of culture. Therefore, by exploring informal institutions, scholars have found that pro-market institutions (Dau & Cuervo-Cazurra, 2014), social trust (Kim & Li, 2014), socially supportive culture (Stephan & Uhlaner, 2010), and social progress orientation (Urbano et al., 2016) are highly relevant factors for entrepreneurs in emerging economies. Similarly, elements such as self-perception and entrepreneurial attitudes are also needed. Here, women may experience more difficulty (Romani et al., 2012). Likewise, the literature has also identified that collaborative networks where people socialize are important informal factors when deciding to be an entrepreneur, especially for the female collective (Noguera et al., 2013). Among other institutional factors, the literature has emphasized the importance of conducting further research about the socialization process in schools, since many potential entrepreneurs shape their ideas at a young age (Frank et al., 2005).

In terms of self-perception and entrepreneurial attitudes, some scholars have discussed the importance of how individuals perceive themselves in terms of the skills and abilities needed to set up a new business, or how society positively accepts entrepreneurship as a social phenomenon (Arenius & Kovalainen, 2006; Manimoy & Smith-Hunter, 2011; Shinnar et al., 2012). These perceptions are associated with entrepreneurial intentions and actions that are relevant elements in deciding to start a business (Minniti & Nardone, 2007). The extant literature has posited that female entrepreneurs perceive themselves and the entrepreneurial environment as less favorable than their male counterparts. Field et al. (2010) have provided some statistical facts from developing countries about the idea that poor women entrepreneurs might be restricted in undertaking projects due to lack of financial autonomy, which at the same time limits them to make household decisions. In line with this idea, Anderson and Eswaran (2009) and Minniti and Naudé (2010) have argued that empowering women's autonomy around the decision to be an entrepreneur contributes to enhancing their standard of living for themselves and their families. The perception of autonomy affects the choice to becoming an entrepreneur, particularly in sectors considered traditionally male (Anna et al., 2000; Minniti & Nardone, 2007; Noguera et al., 2013; Verheue et al., 2005). The process of creating a new business may involve a high level of self-perception or autonomy, and women may have obstacles to achieving these (Dolinsky & Caputo, 2003; Romani et al., 2012). Raising entrepreneurial effectiveness also involves raising perceptions of venture opportunities (Krueger et al., 2000). Plenty of studies have suggested the importance for both female and male entrepreneurs to have their own positive perception about their entrepreneurial skills and to recognize opportunities. However, those perceptions are mainly a function of gender differences, since cultural attitudes, values, and social conventions may urge or discourage behaviors, including female or male entrepreneurship (Arenius & Minniti, 2005; Centindamar et al., 2012; Langowitz & Minniti, 2007; Thomas & Muller, 2000). Welter and Smallbone (2008) and Mahadea (2001) agreed with the idea that though autonomy might be perceived differently according to the context, it is an important institution that may explain differences between female and male entrepreneurs in developing countries. Accordingly, the following hypothesis is proposed:

H1: Higher personal autonomy is positively related to the probability of becoming an entrepreneur. However, there is a higher effect on the probability of males becoming entrepreneurs than females.

The existing literature on entrepreneurship has also suggested the importance of social and collaborative networks that are crucial for socialization processes, especially for female entrepreneurs. It has been argued that this factor contributes to the survival and success of a female entrepreneur's business (Greve & Salaff, 2003). Although there are similarities in how men and women socialize and create networks, the social groups they create differ considerably (Cromie & Birley, 1992; Shaw et al., 2006). The extant research has also provided evidence that female entrepreneurs use their contacts to expand personal or operational support rather than strategic support (Noguera et al., 2013; Sorenson et al., 2008). Authors such as Lerner et al. (1997) and Lee et al. (2011) have shown that certain structures, such as network affiliations (e.g., contacts and membership of organizations), motivation, human capital, and institutional variables explain the differences between South Korean and Israeli female entrepreneurs and their male counterparts with relative income levels. Basically, the differential effects of network affiliations were significantly higher for women than for men. Nonetheless, the literature has proven that commitment to a single group or organization is better than a loose alignment with many support groups. Similarly, some recent studies have stated that entrepreneurs who are members of associations and who have socialized with other entrepreneurs are more likely to create new businesses (Busch, 2014; Dufays & Huybrechts, 2014). Showing entrepreneurial intentions among social groups or using role models positively influences women to become an entrepreneur (BarNir et al., 2011; Langowitz & Minniti, 2007). For instance, Dodd (2012) has provided evidence that female entrepreneurs participating in creative industries (i.e., arts, music, etc.) tend to exhibit greater leadership capacity since they organize group activities. Authors such as Shaw (2006) and Townley et al. (2009) have offered significant evidence about the importance of music or arts organizations as social networks. Shaw et al. (in press) has offered a framework to comprehend how small firms are included in the context of a creative industry. Accordingly, these authors have discussed the relevance of those firms pertaining to activities such as music or arts in order to create a sort of social capital in this industrial context. As a consequence, Reina et al. (2017) have explained that the social capital raised in these creative activities may bust the growth of territories where entrepreneurship is a direct mechanism.

The literature review has also suggested the importance of collaborative networks where some embedded values are the key characteristic (Díaz García & Carter, 2009; Noguera et al., 2013; Sorenson et al., 2008). The existing research on entrepreneurship and women's studies suggests that labor choices such as entrepreneurship could be desirable, especially for women. The extent to which they perceive management as a participative, communicative, empathetic, and flexible activity is likely to contribute to their motivation to undertake a business project. Normally, this occurs within an environment where information is shared, values are common, and members work together as a team (Brush, 1992; Eddleston & Powell, 2008). The National Foundation for Women Business Owners (2000) found that about 92% of women involved in entrepreneurship supported charitable and community organizations. Some works have provided evidence that female entrepreneurs tend to use religious networks where the proportion of friends and family members tends to be high (Brush et al., 2009; Greve & Salaff, 2003; Ogunrinola, 2011; Sorenson et al., 2008); thus, knowing other entrepreneurs with the same religious values increases the desire to create a new business (Busch, 2014; Davidsson & Honig, 2003; Dufays & Huybrechts, 2014). Knowing other experienced entrepreneurs in these associations and seeing successful role models can reduce the uncertainty that is always present in entrepreneurial process development (Gnyawali & Fogel, 1994; Minniti & Nardone, 2007). Some authors have argued that the experience shared by role models with the same religious bases are particularly appreciated by women and have a stronger positive effect on women than men (BarNir et al., 2011; Langowitz et al., 2006). Effectively, Maniyalath and Narendran

(2016) have shown that religion is a predictor of female entrepreneurship. The proportion of Christians in a country exhibits a positive correlation with women entrepreneurs. Similarly, Field et al. (2010) highlight religion as a factor that affects entrepreneurial decisions for women more than men. Hence, the following hypotheses are proposed:

H2a: Being a member of an intellectual organization (such as art or music) has a positive effect on the probability of becoming an entrepreneur. However, the effect is higher for the probability of females becoming entrepreneurs than for their male counterparts.

H2b: Being a member of a church or religious organization is positively related to the probability of becoming an entrepreneur. However, the relationship is stronger for females becoming entrepreneurs than for their male counterparts.

Concerning entrepreneurial knowledge, training, and skills, authors such as Estrin and Mickiewicz (2012) have shown that these elements are required in the decision to create a new business. For instance, Harper (2003) discussed that being an entrepreneur is conditioned by individual skills, among other factors. Harper suggested that early education in training and skills in entrepreneurship enhances and addresses the progressive orientation of younger entrepreneurs and at the same time promotes alertness and opportunity recognition. In this sense, entrepreneurial education positively influences the ability to create new businesses with a higher potential for growth. Aragon-Mendoza et al. (2016) showed that secondary education plays a key role in new venture decisions by women and men, where gender defines another important distinction in entrepreneurial activity. Likewise, Estrin and Mickiewicz (2012) provided evidence about the impact of some skills on entrepreneurship. Additionally, Centindamer et al. (2012) found that the impact of human capital on the likelihood of becoming an entrepreneur is greater for women than for men. The findings also raise the importance of institutions with respect to entrepreneurial activity and suggest that these elements provide a useful framework for the improvement of social and economic outcomes. Lerner et al. (1997) discussed the social structures that relate to female entrepreneurs, while keeping in mind how work, family, and organized social life vary between developed and developing countries. Adom et al. (2016) explained the importance of secondary education in developing an entrepreneurial intention for those women located in developing countries. According to these authors, given the role played by education as an institution that defines the process of socialization, effective public policies should be designed to provide women more opportunities to participate actively in the labor market. On these bases, the literature has identified that social learning (entrepreneurial socialization at the secondary education level) and human capital (knowledge acquired through education) affect women's enterprise creation and economic development in the context of non-OECD countries (Hope, 2016). Guerrero et al. (2016) found that educational environments increase the possibility of identifying opportunities in the labor market. Socialization processes within schools that enhance managerial skills and develop networks are seen to be beneficial to future entrepreneurs. According to Moog et al. (2015), particular skills and training acquired in this educational context positively affect the decisions of students to become entrepreneurs. Kolstad and Wiig (2015) found that a variety of skills not only affects entrepreneurial intentions but also entrepreneurial success, which might imply that entrepreneurs can grow and constantly contribute to society. Thereby, we propose the following hypothesis:

H3: Experiencing a secondary education environment is positively related to the probability of becoming an entrepreneur. However, the relationship is stronger for males becoming entrepreneurs than for their female counterparts.

METHODS

To assess the previous hypotheses, this chapter uses standard binary logit models. In this regard, the probability of changing from the initial status to the final is supposed to depend on a set of observed institutional characteristics, as well as on individual and country variables (as a control), respectively. Thus, an individual (woman or man) who is a non-entrepreneur has a utility derived from becoming an entrepreneur which exceeds any utility obtained from being a non-entrepreneur. Consequently, the probability of changing from one choice to another can be written as

$$\begin{aligned} \Pr(Y_i = 1) &= \Pr(SEE_i = 1 | IF_i, X_i = 0) \\ &= \Pr(U_i^{SEE} > U_i^{Other} | U_i^{SEE} \leq U_i^{Other}) \\ &= F(\delta'IF_i + \beta'X_i + \varepsilon_i) \quad (1) \end{aligned}$$

where $Y_i = 1$ if the individual (i) becomes self-employed, and $Y_i = 0$ if the individual continues as a non-entrepreneur (or is an entrepreneur in high-income levels). For this exercise, δ and β are the associated vectors of institutional factors (IF_i), and control variable coefficients to be estimated, respectively; ε_i is a disturbance term that includes time-invariant unobserved heterogeneity, and $F(\cdot)$ is specified as the normal cumulative distribution function.

This method was applied to cross-section data from the WVS 2011–2014 wave based on 7,384 individuals from seven Latin American countries. The WVS has collected data from 97 countries, representing about 90% of the world’s population (Inglehart, 2000b, 2004). So far, six waves of the WVS have been published (1981–1984; 1989–1993; 1994–1999; 1999–2004; 2005–2009, and 2010–2014) to explore individuals’ basic values and attitudes across a broad range of issues, including politics and economics, family and religious values, gender issues, and environmental awareness. It is worth noting that this database has been widely used by scholars (Inglehart, 1997; Inglehart 2000a; Inglehart & Abramson, 1999; Inglehart & Baker, 2000). In addition, Equation 1 includes gross domestic product (GDP) based on purchasing power parity (PPP) and population as a control variables at country level, which are taken from the World Development Indicators of The World Bank. A summary of the variables used in this study is presented in Table 1. The list of countries is presented in Table 5 (Appendix 1).

Table 1. Variables description

	Variable	Description	Source
Dependent variables	Low income self-employment	Dummy variable takes the value 1 if the individual is self-employed and located in the fourth income decile or below, and 0 otherwise.	WVS (2011–2014)
	Low income female self-employment	Dummy variable takes the value 1 if the individual female is self-employed and located in the fourth income decile or below, and 0 otherwise.	WVS (2011–2014)
	Low income male self-employment	Dummy variable takes the value 1 if the individual male is self-employed and located in the fourth income decile or below, and 0 otherwise.	WVS (2011–2014)

Independent variables			
Personal autonomy	Dummy variable that indicates if respondents sees themselves as autonomous individuals.		WVS (2011–2014)
Membership in an art or music organization	Dummy variable takes the value 1 if the individual belongs to an art or music organization, and 0 otherwise.		WVS (2011–2014)
Membership in a religious organization	Dummy variable takes the value 1 if the individual is an active member of a church or a religious organization, and 0 otherwise.		WVS (2011–2014)
Secondary education environment	Dummy variable takes the value 1 if the individual has lived in an environment that provided secondary education, and 0 otherwise.		WVS (2011–2014)
Control variables			
Age	The age of respondents.		WVS (2011–2014)
Age ²	Represents the square of age reported by individuals.		WVS (2011–2014)
Primary education	Dummy variable takes the value 1 if the individual has only primary education, and 0 otherwise.		WVS (2011–2014)
Gender	Dummy variable takes the value 1 if male and 0 otherwise.		WVS (2011–2014)
GDP PPP	Gross domestic product based on purchasing power parity (PPP).		WDI (2011–2014)
Population	Number of inhabitants in each country.		WDI (2011–2014)

Note: WVS = WORLD VALUES SURVEY Wave 6 (2010–2014) OFFICIAL AGGREGATE v.20150418. Sourced from World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: Asep/JDS, Madrid SPAIN. WDI = World Development Indicators 2011-2014. Sourced from The World Bank (<http://data.worldbank.org/data-catalog/world-development-indicators>).

RESULTS

Issues, Controversies, Problems

Table 2 presents the mean, standard deviation, and maximum and minimum values; Table 3 shows the correlation matrix for the variables of the econometric model presented previously. Table 2 shows that our sample had an 8.19 % average of self-employment across developing countries. As expected, the level of male self-employment is higher than that of females (4.99% vs. 3.19%). The correlation analysis in Table 3 shows several significant correlations that met the initial expectations.

Table 2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Low income self-employment	7384	0.082	0.274	0	1
Low income female self-employment	7384	0.032	0.176	0	1
Low income male self-employment	7384	0.050	0.218	0	1

Personal autonomy	7384	0.687	0.464	0	1
Membership of an art or music organization	7384	0.100	0.300	0	1
Membership of a religious organization	7384	0.323	0.468	0	1
Secondary education environment	7384	0.497	0.500	0	1
Age	7384	39.905	15.953	18.000	97.000
Age ²	7384	1846.832	1445.143	324.000	9409.000
Primary education	7384	0.128	0.334	0	1
Gender	7384	0.491	0.500	0	1
GDP PPP	7384	14604.040	3073.242	10918.740	20187.490
Population	7384	75.797	67.762	3.369	202.769

Table 3. Correlation matrix

Variable	1	2	3	4	5	6
1 Low income self-employment	1					
2 Low income female self-employment	0.608*	1				
3 Low income male self-employment	0.767*	-0.041*	1			
4 Personal autonomy	0.025*	0.004	0.028*	1		
5 Membership of an art or music organization	0.005	0.016	-0.006	0.023*	1	
6 Membership of a religious organization	0.021*	0.034*	-0.000	-0.104*	0.119*	1
7 Secondary education environment	0.056*	0.038*	0.040*	0.054*	-0.095*	-0.089*
8 Age	0.062*	0.022*	0.060*	-0.041*	-0.058*	0.115*
9 Age ²	0.048*	0.010	0.052*	-0.035*	-0.055*	0.110*
10 Primary education	0.048*	0.031*	0.034*	-0.155*	-0.053*	0.123*
11 Gender	0.071*	-0.178*	0.233*	0.060*	0.009	-0.086*
12 GDP PPP	-0.072*	-0.036*	-0.061*	-0.214*	0.004	0.030*
13 Population	0.006	0.013	-0.002	-0.452*	0.004	0.225*

Variable	7	8	9	10	11	12
7 Secondary education environment	1					
8 Age	-0.000	1				
9 Age ²	-0.003	0.981*	1			
10 Primary education	-0.380*	0.274*	0.277*	1		
11 Gender	-0.015	0.016	0.027*	-0.026*	1	
12 GDP PPP	-0.007	0.055*	0.054*	0.068*	-0.022*	1
13 Population	-0.209*	-0.025*	-0.029*	0.205*	-0.055*	0.341*

Note: * $p < 0.1$.

In order to test for the problem of multi-collinearity, the VIF value was calculated for each individual predictor, obtaining low levels of possible linear combinations among the independent variables (lower than 1.02). As mentioned before, discrete choice models for the entire sample (Model 1), self-employed females (Model 2), and male entrepreneurs (Model 3) were estimated through the probit technique. Overall, the models estimated the probability of becoming an entrepreneur (female and male) by taking into account institutional factors such as personal autonomy, membership in an art or music organization, membership in a religious organization, and secondary education level. Here, the purpose was to explore the differences between women and men restricted to a set of specific Latin American countries (see Table 4). Although it is not displayed in Table 4 (through ordinal least square; OLS), a linear probability model was also estimated for comparison purposes. The results showed the expected relationships as well as similar coefficients. This may indicate that the model specification is robust; therefore, the findings serve to carry out an analysis of institutions and lower-income entrepreneurs in Latin American countries.

Table 4. Estimations results

	(1)		(2)		(3)	
	Low-income self-employment		Low-income female self-employment		Low-income male self-employment	
	Estimation	dy/dx	Estimation	dy/dx	Estimation	dy/dx
Personal autonomy (d)	0.186*** (0.058)	0.024*** (0.007)	0.151* (0.085)	0.016* (0.009)	0.213*** (0.079)	0.032*** (0.011)
Member of an art or music organization (d)	0.121* (0.074)	0.017 (0.011)	0.217** (0.105)	0.028* (0.015)	0.035 (0.101)	0.006 (0.017)
Member of a religious organization (d)	0.051 (0.048)	0.007 (0.007)	0.055 (0.071)	0.006 (0.008)	0.053 (0.067)	0.009 (0.011)
Secondary education environment (d)	0.405*** (0.052)	0.055*** (0.007)	0.397*** (0.079)	0.044*** (0.009)	0.410*** (0.069)	0.066*** (0.011)
Age	0.055*** (0.008)	0.007*** (0.001)	0.056*** (0.013)	0.006*** (0.001)	0.056*** (0.010)	0.009*** (0.002)
Age2	-0.001*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)
Primary education (d)	0.434*** (0.073)	0.073*** (0.015)	0.412*** (0.109)	0.058*** (0.019)	0.463*** (0.099)	0.093*** (0.024)
Gender (d)	0.299*** (0.044)	0.040*** (0.006)				
GDP PPP	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Population	0.002*** (0.000)	0.000*** (0.000)	0.002*** (0.001)	0.000*** (0.000)	0.003*** (0.001)	0.000*** (0.000)
Constant	-2.437*** (0.208)		-2.485*** (0.319)		-2.131*** (0.269)	
Observations	7384		3761		3623	
(Pseudo) R2	0.059		0.044		0.058	
Wald X2	218.140		72.600		128.470	
Log pseudolikelihood	-1969.446		-842.922		-1123.556	

AIC	3960.891	1705.844	2267.112
BIC	4036.869	1768.168	2329.063

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Heteroskedasticity-corrected standard errors are shown in parentheses. The (d) is for discrete change of dummy variable from 0 to 1.

The first hypothesis (*H1*) of this paper proposed that higher personal autonomy is positively related to the probability of becoming an entrepreneur with a higher effect on the probability of males becoming entrepreneurs versus females. The coefficient of this variable in all models was statistically significant. Thus, *H1* is supported by the results, which is in accordance with the literature. The magnitude of the coefficients showed the positive effect of autonomy on self-employment for both female and male entrepreneurs (Manimoy & Smith-Hunter, 2011; Shinnar et al., 2012). Additionally, there exists a marginal difference in favor of male self-employment that is higher than female self-employment. Compared to the extant literature, the results suggest that a higher level of autonomy is more embedded in male entrepreneurs than in females. Here, the marginal difference suggests that autonomy is important for both men and women in regards to becoming self-employed.

Hypothesis 2a (*H2a*) posited that being a member of an intellectual organization (such as art or music) has a positive effect on the probability of becoming an entrepreneur, with the effect predicted to be higher on the probability of females becoming entrepreneurs than on their male counterparts. This hypothesis was also supported by the data, except in the case of male entrepreneurs. Here, the literature established that social networks are a relevant factor defining the occupational choice to be self-employed (Busch, 2014; Dufays & Huybrechts, 2014; Lee et al., 2011). Generally, in spite of this, both men and women constantly interact with people from different groups. Although there was no statistical significance in the case of male entrepreneurs, the results were in accordance with the literature, since it is suggested that women take advantage of their social networks for supportive purposes while men use them for strategy reasons (Noguera et al., 2013; Sorenson et al., 2008). In this regard, the support that women entrepreneurs experience from their groups is more important for those women who are self-employed than it is for their male counterparts.

Hypothesis 2b (*H2b*) posited that being a member of a church or religious organization is positively related to the probability of becoming an entrepreneur, with the relationship being stronger for females becoming entrepreneurs than for their male counterparts. The findings did not support this hypothesis. In this regard, it is suggested that participating in religious organizations influences male entrepreneurship more than female entrepreneurship. The extant literature posited that being part of any social club or organization is an additional characteristic required to be an entrepreneur (Alvord et al., 2004; Austin et al., 2006; Certo & Miller, 2008). Nonetheless, given the operationalization of the variable analyzed, this chapter tried to capture those individuals that participate actively in church or religious organization. In this regard, there also exist academic works suggesting the negative impact of religion on entrepreneurship (Audretsch et al., 2013). It is argued that certain types of religious activities (e.g., Hinduism and Buddhism) have a negative influence on the decision to be an entrepreneur. However, other types, such as Christianity, seems to be non-significant for entrepreneurial activity (Audretsch et al., 2013). According to Parboteeah et al. (2009), there are productive activities that are not socially accepted from a religious point of view, and therefore some religious followers do not perform those business practices. Scholars such as Audretsch et al. (2013) argued that religion is a highly influential factor that defines institutional systems, which in turn affects individuals' decisions to become entrepreneurs.

Finally, Hypothesis 3 (*H3*) posited that having experienced a secondary education environment is positively related to the probability of becoming an entrepreneur, with the relationship being stronger for males becoming entrepreneurs than females. This chapter found support through the estimation results. The findings suggested that if schools include entrepreneurship subjects, young people are socialized in an educational context, and they also acquire the knowledge, training, and skills needed to increase their probability of being potential entrepreneurs. According to Kolstad and Wiig (2015), if the knowledge, skills, and abilities of entrepreneurship are increased, it is not only an encouragement but also an accomplishment in terms of success. In this regard, the environment provided by secondary education generates a multiplier effect for people who are becoming entrepreneurs. Additionally, the results suggested that entrepreneurial alertness might be increased, along with the perception of opportunities (Estrin & Mickiewicz, 2012; Guerrero et al., 2014; Urbano et al., in press).

POLICY IMPLICATIONS

The findings briefly described above serve as evidence to discuss particular strategies aimed to increase entrepreneurial activity among women and men in low-income levels. Additionally, previous findings may be useful to the debate on policies aimed at overcoming gender inequality. It is worth highlighting that emerging economies, such as Latin America, present some obstacles to women's labor participation (Jennings & Brush, 2013). In this regard, the empirical study discussed in this chapter is in line with the extant literature. Thus, this chapter also emphasizes the importance of female entrepreneurs as actors who create social welfare not only for their families, but also for society. According to Kantor (2005), the core of each public policy implemented to overcome gender gaps, especially among populations in low-income levels, should take the family structure into account. This is especially helpful for Latin American countries that exhibit higher levels of poverty and strong discrimination against women. As Flórez and Núñez (2003) posited, Latin American governments should accompany the demographic transition with strategies that empower women in these countries. This implies providing basic goods such as education and health, while educating the population in terms of birth control. This also implies that family decisions should be considered when both women and men achieve academic goals and warranty a stable job position.

SOLUTIONS AND RECOMMENDATIONS

In terms of labor choices, it is important to notice that female entrepreneurship is a mechanism that allows market transferences through the regular market to the exchange market (Kantor, 2005). Moreover, this gender diversity of entrepreneurial activity may specifically provide role models to entrepreneurs' offspring. According to Welter et al. (in press), it is important to keep encouraging entrepreneurship at all levels to guarantee this process. By accomplishing a cultural change toward progress where women play the same role in society and participate actively in different decisions, it is possible to improve the standard of living for those people with low-income characteristics (Urbano et al., 2016). Certainly, by enabling different points of access for these individuals toward economic activity, inclusion processes may result in an inequality reduction. Hence, women's self-perception of autonomy should be empowered, not only in the home but also in other spheres on social, economic, and political levels. This could allow them to make decisions, take risks, and perceive support in cases of failure. Ruiz Arroyo et al. (2016) analyzed a sample of countries including Latin America. They found that policies empowering women positively affect female entrepreneurial activity distinguished between opportunity and necessity bases. Drawing on Welter et al. (in press), public policies in Latin American countries, although should keep the focus on high-added value new ventures, should also

exist to encourage regular entrepreneurship. Given the heterogeneity of individuals in these economies, government strategies should avoid discrimination goals. In this way, it is possible to generate inclusive economic development through entrepreneurship.

Other types of strategies that should be taken into consideration deal with the fact that, especially for women, there is an advantage to creating social groups. According to Busch (2014), different associations allow cultural exchange, stress relief, and possible business networking. In addition, to be part of a group may facilitate the generation of (entrepreneurial) ideas and the identification of different opportunities (Dufays & Huybrechts, 2014). In this regard, Latin American governments at regional and national levels should encourage (through subsidies) the creation of different groups or cooperatives for those individuals in low-income levels. According to the results presented in this chapter, clubs such as art or music organizations may serve not only as a mechanism to unite people in productive activities, but also to exploit the talent that they possess through the creation of clusters related to creative industries. To some extent, it creates virtual places to orchestrate and coordinate different people in a common cause. In this regard, the talent, experience, and knowledge acquired may be translated into results such as art galleries, music concerts, and different cultural activities aimed to increase income levels and standards of living.

Finally, secondary education coverage should be a priority for each public strategy. Particularly, Guerrero et al. (2016) suggested the implementation of entrepreneurship programs in different education levels. It is important to highlight that teaching entrepreneurship brings many advantages to society. For instance, younger potential entrepreneurs interact with each other within the context of education and intentional learning. Here, they socialize in terms of different experiences, expectations, and dreams. This constant exchange of ideas allows the possibility of understanding the minds of others, and perhaps to get motivated to pursue the same ideals. Another example is the fact that entrepreneurship does not always refer to business creation. Although this is the main purpose, other entrepreneurial behaviors might result (e.g., academia). Thus, entrepreneurship programs bring the possibility of exploring and understanding from rationality aspects, such as creativity and planning. Certainly, these characteristics are crucial for any kind of activity at social, economic, and political levels. As a matter of fact, Rodríguez Gutiérrez et al. (2014) provided evidence for Mexican female entrepreneurs that learning processes are required to grow new firms. In this regard, the previous evidence may be suggestive for the design of educational policies that enable the expansion of firms and competitiveness of Latin American companies owned by women (Acs & Amorós, 2008; Amorós et al., 2016).

FUTURE RESEARCH DIRECTIONS

The authors of this chapter believe that exploring the influence of institutional factors—not independently but in terms of their overall effects—would be a very worthwhile endeavor for governments and society. In this regard, future research should focus on exploring different institutional settings in these kinds of countries. This may contribute to the understanding of entrepreneurship for both females and males, especially taking into account the intention of providing an inclusive process and reducing poverty in Latin America. In addition, it would be interesting to compare the same institutional variables in different contexts of developing countries. For instance, it would be highly relevant to compare the institutions tested here in the context of African and Asian countries (Bruton et al., 2013), since many people in these nations are located in the lowest income deciles. Thus, according to Welter et al. (in press), entrepreneurship should also be encouraged in

terms of heterogeneity and diversity. Additionally, other control variables at individual and country levels should also be included to capture the unobserved characteristics of different countries. Hence, future studies in this line could contribute to entrepreneurship research as well as economic and management science.

CONCLUSION

In this paper, cross-sectional data (for the period 2011–2014) have been used to explore the institutional effects on the probability of becoming an entrepreneur for both females and males in low-income level populations, in the context of Latin American countries. Using institutional economics as a theoretical framework, this chapter analyzed the influence of institutional factors (personal autonomy, membership in an art or music organization, membership in a religious organization, and secondary education level) on both female and male entrepreneurship.

Regarding the determinants of overall self-employment, this chapter found positive and statistically significant effects from three institutional factors. First, the results suggested that personal autonomy is crucial to defining an entrepreneurial career. If individuals act consistently and responsibly, they can evaluate each opportunity that helps them and society. Second, groups and associations, particularly those related to arts and music, are useful mechanisms to exchange ideas and increase alertness, which in turn allows opportunity recognition. And third, educational context is crucial for younger entrepreneurs to get into a socialization process that defines entrepreneurial intentions. Regarding the differences between women and men, these three institutional factors were also important to explain the decision to become an entrepreneur. However (and in line with the literature), to be a member of an art or music organization was only statistically significant for female entrepreneurs. This is an interesting result since it opens the discussion of policies aimed to promote the reduction of gender gaps. The creation of groups and associations may be especially helpful for women who can increase their business networking and opportunity recognition. Finally, for both women and men, secondary education context was found relevant to increasing the probability of becoming an entrepreneur. In these contexts, women and men may socialize in terms of their expectations, and they may learn not only entrepreneurship content in terms of business, but also in terms of other daily activities.

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KEY TERMS AND DEFINITIONS

Female Entrepreneurship: The subarea of entrepreneurship research that studies all the issues related to women becoming entrepreneurs.

Formal Institutions: Those written laws, regulations, norms, etc. that define the legal boundaries to perform certain activities.

Inequality: Economic, political and social gaps that create problems to achieve common purposes.

Informal Institutions: Those social norms and cultural values derived and learned from different socializations processes.

Low-Income Population: Those individuals located in the fourth income decile (or lower) among the total population.

Probit Models: A discrete choice technique to estimate the probability of passing from one state to another, assuming the population is normally distributed.

Self-employment: The labor market activity related to those individuals choosing the occupation of creating their own employment.

APPENDIX 1

Table 5. List of countries

Country	2011	2012	2013	2014	Total
Brazil	0	0	0	1,110	1,110
Chile	621	0	0	0	621
Colombia	0	1,282	0	0	1,282
Ecuador	0	0	1,173	0	1,173
Mexico	0	1,788	0	0	1,788
Peru	0	836	0	0	836
Uruguay	574	0	0	0	574
Total	1,195	3,906	1,173	1,110	7,384