¿El género afecta la continuidad de los negocios? Un análisis con modelación jerárquica

Does gender affect business continuity? An analysis with hierarchical modeling

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Resumen

Introducción: Las diferencias de género, cultural y socialmente creadas, determinan las actividades más apropiadas para hombres y mujeres, así como la manera en que unos y otros se comportarán en cada una. Como los aspectos culturales y sociales enfatizan las diferencias en los roles de hombres y mujeres, la cultura y los estereotipos de género pueden influir en la diferencia de la probabilidad de éxito de los negocios encabezados por hombres y mujeres. El objetivo de este artículo es explorar si el impacto de los determinantes de la continuidad de los micronegocios varía entre hombres y mujeres en el Área Metropolitana de Monterrey, México.

Método: Se utiliza una modelación jerárquica con distribución Bernoulli, utilizando el sexo del microempresario como variable de segundo nivel.

Resultados: Los resultados indican que el sexo modera el efecto de la escolaridad, ya sea teniendo la microempresa para ejercer su carrera o profesión, si el microempresario está dispuesto a cambiar la actividad empresarial a un trabajo con ingresos similares, pero con acceso a servicios sociales, seguridad, y si la microempresa está en el sector manufacturero.
**Discusión:** Las mujeres emprendedoras pueden sentirse en desventaja, tomando decisiones que enfatizan los roles tradicionales de género. En consecuencia, las restricciones sociales y culturales que enfrentan las mujeres limitan su participación y desempeño en el mundo empresarial.

**Palabras clave:** microempresarios; diferencias de género; continuidad de los micronegocios; mujeres; modelo jerárquico; roles de género; emprendimiento; mujeres emprendedoras; estereotipos; cultura; negocios

**Abstract**

**Introduction:** Gender differences, which are socially and culturally created, determine how women and men will perform and the more appropriate activities for each person. As cultural and social aspects emphasize the differences in men’s and women’s roles, culture and gender stereotypes may influence the difference in the probability of success of business headed by men or women. The objective of this article is to explore whether the impact of the determinants of micro-businesses continuity varies between men and women in the Metropolitan Area of Monterrey, Mexico.

**Method:** We use hierarchical modeling with Bernoulli distribution using the sex of the micro-entrepreneur as a variable in the second level.

**Results:** Results indicate that sex moderates the effect of schooling, having the micro-business to exercise his or her career or profession, if the micro-entrepreneur is willing to change the business activity to a job with similar income, but with access to social security, and if the micro-business is in the manufacturing sector.

**Discussion:** Women entrepreneurs can feel disadvantaged as entrepreneurs or make choices that emphasize traditional gender roles. As a consequence, the social and cultural restrictions faced by women restrict their participation and performance in the business world.

**Keywords:** microentrepreneurs; gender differences; micro-business continuity; women; hierarchical modeling; gender roles; entrepreneurship; enterprising women; stereotypes; culture; business

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Introduction

Based on feminist theory, business continuity, as well as women’s participation in the labor market, are restricted by gender stereotypes. Gender stereotypes determine how women and men should behave and generate differences in their aspirations and preferences. As a consequence, gender stereotypes not only designate the activities that women and men must perform, but also produce differences in their actions and develop the barriers that women face (Lamas, 2018). The gender division of labor, where women are responsible for the domestic tasks and care and men are financial providers, generates a double burden for women participating in the labor market or the business world. An excessive burden of work and traditional cultural mandates increases women’s incentives to exit the labor market or in the business world. At the same time, perceptions of women’ and men’s roles shape the way in which structures and other actors interact with women (Connell, 1987).

Although female participation in the business world is crucial for promoting societies’ social and economic development (Minniti & Naudé, 2010), women’s involvement in business activities is still low in developing countries. Despite the growing number of studies that analyze the determinants of female entrepreneurship, there is a shortage of studies that explore the difference in men’ and women’s characteristics that affect business continuity in Mexico. The objective of this article is to explore whether the impact of the determinants of micro-businesses continuity varies between men and women in the Metropolitan Area of Monterrey, Mexico. For this, we employ hierarchical modeling using the sex of the micro entrepreneur as a variable in the second level.

The following section presents the literature review on the determinants of business continuity and their difference depending on the owner’s sex. Then, the data and the method used to analyze whether there exist differences in the factors that determine business continuity in Mexico are presented. Finally, results and discussion are included.
Literature review

The factors that explain the success of a business can be broadly classified into individual aspects related to the entrepreneur and determinants attributed to the characteristics of the business context. Owners’ characteristics, such as age, marital status, schooling, and labor experience, play a crucial role in business continuity. Higher levels of education and experience provide entrepreneurs with capabilities and skills to manage a business. Also, older people are more likely to have more experience in the labor market, which increases businesses’ probability of success (Dvouletý, Gordievskaya & Procházka, 2018).

Several studies have pointed out the importance of having a business plan in a business’ probability of success (Oudah, Jabeen & Dixon, 2018; Rodríguez Espinosa, Ramírez Gómez & Restrepo Betancourt, 2018; Salinas-Reyes, Badillo-Piña, Tejeida-Padilla, 2018; Sepúlveda Rivas & Gutiérrez Walter, 2016). With an effective business plan, entrepreneurs identify risks, opportunities, and their possible impacts. Better educated entrepreneurs are more likely to have a business plan. Caliendo, Goethner & Weißenberger (2020) find out a positive relationship between entrepreneurs’ education level and the probability of continuing with the business.

Meanwhile, evidence indicates that older and married entrepreneurs are more likely to continue with the business because they look for leaving their family a heritage (Alvarado Lagunas, Dávila Aguirre & Vázquez Zacarías, 2018). In this sense, the incentive that microentrepreneurs had to start their business determines their probability of success. In the face of an opportunity with a similar income in the labor market, entrepreneurs who started their business due to economic needs are less likely to continue with the business than those who started the business with other motives (Mirjam van Praag, 2003).

Regarding the number of employees, Kim & Amran (2018) indicate that the number of employees have a positive impact on the business continuity because businesses with more human capital are more likely to adopt and develop innovation. Also, having more employees allows enterprises to reach their goals easier.
Concerning the characteristics of the context, the macroeconomic condition, as well as the sector, have an effect on the business continuity (Gómez Villanueva, 2008; Sáinz Ochoa, 2002). Although the impact of entrepreneurs’ characteristics is higher than the context, the type of sector plays a relevant role in the business success (Spanos & Lioukas, 2001; Porter, 1998). Enterprises dedicated to economic activities that are drivers in the region are more likely to succeed because they have a higher probability of being integrated into the regional economic dynamics (Porter, 1998). Regarding the way in which the context affects the difference in the performance of men and women in the business world, according to Connell (1987), structures are derived and developed from practice, but also practice is shaped by situations that restrict them.

Literature in developed countries indicates that the magnitude of the impact of these determinants on the probability of continuing with the operation of the business will vary depending on the sex of the entrepreneur (Meyer, Tegtmeier & Pakura, 2017; Saridakis, Marlow & Storey, 2014; Terjesen & Amorós, 2010). Gender differences, which are socially and culturally created, determine how women and men will perform and the more appropriate activities for each person (Connell, 1987). As cultural and social aspects emphasize the differences in men’s and women’s roles (Del Tronco, 2008), culture and gender stereotypes influence the difference in the probability of success of business headed by men or women (Gupta, Goktan & Gunay, 2014).

Categories are formed based on the attributes of the objects. In turn, stereotypes result from general categorizations made by individuals. Stereotypes encompass ideas for characterizing objects (Triandis, 1971). On the other hand, norms dictate to a great extent people’s behavior and its expected consequences. Norms develop habits and these are created through a process of learning over time (Triandis, 1971). Therefore, norms also determine emotions developed towards objects and shape individuals’ expectations and perceptions about which activities are most appropriate for men and women. This leads to productive activities ending up being classified as feminine or masculine, as well as in the economic sectors in which it is more appropriate for women and men to perform. Concerning business activities, several authors point out that entrepreneurship has historically been stereotyped as a male activity (Ahl, 2006, Gupta, Goktan & Gunay, 2014). Also, some sectors such as manufacturing and construction maintain a stereotype as masculine spheres, which has led women to have a lower participation both in the levels of self-employment and in the labor force in these sectors.
Saridakis, Marlow and Storey (2014) find that due to gender stereotypes and existing cultural norms, when considering starting a business, women prioritize more aspects related to situations such as motherhood, childcare, the balance of work and family life, among others; meanwhile men emphasize more financial factors. In the case of Mexico, women who face greater restrictions caused by their gender, such as violence or discrimination, tend to be more involved in self-employment activities or to have a more intermittent participation in the labor force (Casique, 2012). Also, women entrepreneurs who are married and have young children are more likely to have an intermittent participation in business activities because they perceive self-employment as an activity with greater flexibility to reconcile domestic and economic activities (Justo & De Tienne, 2008). Therefore, gender constructions and their reproduction not only affect the gap in the participation of women and men in the business world, but also their performance (Ahl, 2006, Gupta, Goktan & Gunay, 2014) and the type of economic activities in which they get involved (Terjesen & Amorós, 2010).

Women, mainly in poor and developing countries, face greater barriers to enter the formal sector because of cultural and social aspects (Minniti et al., 2006). In addition to the existing institutional restrictions for formality in these countries, the fact that for women self-employment has a lower priority in comparison with domestic and care activities generates fewer incentives for female entrepreneurs to enter the formal sector. Several studies have pointed out the importance of being in the formal sector and accessing to credit in the probability of business continuity (Carter, 1989; Hemmen, 2002). Limitations to access a credit and the costs of starting a business are generally greater in poor and developing countries, and in the case of women, they tend to be higher due to their shortage of assets or income. Although it has been found that access to micro-loans has improved women’s decision-making capacity and autonomy, they have not yet expanded enough to develop a business culture among women (Bianco, Lombe, Bolis, 2017).

According to Minniti and Naudé (2010), increases in average levels of education can lead women to reduce their participation in the business sector. Higher levels of women’s education bring higher returns in the labor market, which in turn increase their opportunity cost to start a business. This is reinforced by the fact that, as mentioned above, business activities and skills have historically been conceived as masculine. Therefore, in countries with marked gender asymmetries, as average levels of women’s education increases, educated women will be more likely to enter the
labor force and less educated women will tend to be involved in micro-business activities. Thus, this may reduce the probability of success of businesses headed by women.

**Data**

The data for this article were collected in the Metropolitan Area of Monterrey in 2019. The target population consists of micro entrepreneurs from all productive sectors. The sampling frame was considered based on the 2014 Economic Census collected by the National Institute of Statistics and Geography. The sampling was probabilistic, multistage, stratified, systematic and by conglomerate. The estimation showed a sample size of 1,062 microenterprises. The respondents were women and men, owners of microenterprises in the Metropolitan Area of Monterrey.

**Variables**

**Plans to continue with the business.** The dependent variable of this study is dichotomous indicating 1 if the microentrepreneur plans to continue with the operation of the microbusiness in the year 2020, and 0 otherwise.

**Age.** Age is a continuous variable that indicates the age of the owner.

**Age^2.** This variable is built with the square of the microentrepreneur's age.

**Schooling.** This is a continuous variable that indicates the years of formal schooling of the microentrepreneur.

**Married.** This is a dichotomous variable that indicates 1 if the microentrepreneur is married or cohabiting, 0 otherwise.

**Single.** This is a dichotomous variable that indicates 1 if the microentrepreneur is single, 0 otherwise.
**Manufacturing sector.** This variable is 1 if the micro-business is in the manufacturing sector, 0 otherwise.

**Trade and commerce sector.** This variable is 1 if the micro-business is in the trade or commerce sector, 0 otherwise.

**Family income.** This is a dichotomous variable that indicates 1 if the main reason for starting the micro-business was to increase family income, and 0 otherwise.

**Profession.** This is a dichotomous variable that indicates 1 if the main reason for starting the micro-business was to exercise the owner’s career or profession, 0 otherwise.

**Training.** This is a dichotomous variable that indicates 1 if the microentrepreneur needed training to start the micro-business, and 0 otherwise.

**Number of workers.** This variable indicates the total number of workers in the micro-business.

**Willing to change.** This is a dichotomous variable that takes the value of 1, if the microentrepreneur is willing to change to a salaried job with a similar income, but with access to social security, 0 otherwise.

**Formal.** This variable is dichotomous, which takes the value of 1, if the micro-business is in the formal sector, and 0 otherwise.

**Sex.** This variable is dichotomous, which takes the value of 1, if the micro-entrepreneur is a woman, and 0 if is a man.

**Method**

Hierarchical modeling is the appropriate technique when the data contain a structure with individuals (Level 1) grouped into other categories (Level 2). The main objective of the analysis is to examine the relationship between the probability of continuing with the micro-business and the predictors of Level 1, as well as the sex of the owner of the micro-business (Level 2). The predictors used at Level 1 are the age of the microentrepreneur, age squared, years of schooling, if the microentrepreneur is married or cohabiting, if the microbusiness is in the manufacturing, trade or commerce sector, if the main reason why the microentrepreneur started the business was to increase
the family income or to exercise his or her career or profession, if the owner needed training to
start the micro-business, the total number of workers in the micro business, and if he or she would
change to a salaried job with similar income but with social security, and if the business is in the
formal sector or not. At Level 2, the sex of the microentrepreneur is used as a variable that groups
the units of Level 1. The predictors of Level 1 were introduced as group centered variables to obtain
more precise estimates of the intercepts and analyze the effects of the predictors of the Level 1 and
2 in an independently. The variable sex (Level 2) was included as grand centered variables.
Because the dependent variable is dichotomous, the predicted value should be found in the range
between 0 and 1. Therefore, a transformation of the predicted probability on Level 1 using a
Bernoulli distribution is more appropriate for the data. Level 1 and Level 2 models and the mixed
model were estimated using equations 1 and 2. Equations 1 and 2 represent the model of intercepts
and slopes as a result using a Bernoulli distribution.

Level 1 model:

\[ Y_{ij} = \beta_{0j} + \beta_{kj}X_{ij} + r_{ij} \quad (1) \]

Where:
- \( Y_{ij} \) = Dependent variable that indicates 1 if the micro-entrepreneur i (unit at Level 1) of sex j (unit
  at Level 2) plans to continue to operate the micro-business in 2020.
- \( X_{ij} \) = Values of the predictors of Level 1 for the micro-entrepreneur i with sex j.
- \( r_{ij} \) = Random error associated with the microentrepreneur i with sex j.

Level 2 model:

\[ \beta_{0j} = \gamma_{00} + \gamma_{01}G_j + U_{0j} \quad (a) \]
\[ \beta_{kj} = \gamma_{k0} + \gamma_{k1}G_j + U_{kj} \quad (b) \quad (2) \]

Where:
- \( \beta_{0j} \) = Intercept for sex j.
\( \beta_{kj} = \text{Slope of predictor } k \text{ for sex } j. \)

\( G_j = \text{Sex } j \text{ of the micro-entrepreneur.} \)

**Results**

Table 1 presents the descriptive statistics of the data. The average age of the microentrepreneurs is 44 years and their average schooling is 10 years. In addition, 64.32 \% are married and 23.73 \% are single. Of the micro-businesses in the survey, 15.16 \% are in the manufacturing sector and 42.68 \% in the commerce and trade sector. Regarding the reason why the microentrepreneur started the business, 52.31 \% was to increase the family income, and 14.26 \% to exercise their career or profession. Of the total of microentrepreneurs, 21.65 \% needed training to start the micro-business and 55.87 \% are willing to change their economic activity if they were offered another activity where they would receive a similar salary, but with social security. Concerning formality, only 22.39 \% of micro-businesses are in the formal sector.

|                          | Mean   | Standard deviation | Minimum | Maximum |
|--------------------------|--------|--------------------|---------|---------|
| Age                      | 43.72  | 12.23              | 16      | 98      |
| Schooling                | 10.40  | 3.91               | 0       | 25      |
| Number of workers        | 0.95   | 2.07               | 0       | 9       |
| Married                  | 64.31  | 35.69              |         |         |
| Single                   | 23.73  | 76.27              |         |         |
| Manufacturing sector     | 15.16  | 84.84              |         |         |
| Commerce and trade sector| 42.68  | 57.32              |         |         |
| Family income            | 52.31  | 47.69              |         |         |
| Training                 | 21.65  | 78.35              |         |         |
| Willing to change        | 55.87  | 44.13              |         |         |
| Formal                   | 22.39  | 77.61              |         |         |

**Notes:** Own elaboration. The table shows the mean values and standard deviation of the continuous variables, as well as the frequency of the discrete variables. The sample size is 1,062 microenterprises.
Regarding the hierarchical equations, the multilevel analysis allows us to identify how the sex of the micro-entrepreneur contributes to the explanation of the variance in the probability of continuing with operations of the micro-business the following year. Due to the binary nature of the dependent variable, the variance at Level 1 of the model is heteroscedastic and therefore, the intra-class correlation (ICC) does not reveal the percentage of variance explained by the sex of the microentrepreneur included as explanatory variable at Level 2 (Raudenbush & Bryk, 2002). Therefore, as a first step we estimated a logit model using the original dependent variable and the sex of the microentrepreneur as independent to verify the significance of the component of the random variance at Level 2 of the multilevel model. Results of the logit model indicate that the variance explained by the sex of the microentrepreneur is significantly different from zero. Then, the multilevel model based on a Bernoulli distribution was estimated. Table 2 presents the estimates of the intercepts and slopes as outcomes model.

### Table 2. Regression coefficients of the probability of continuing with the micro-business

(Intercepts and slopes as outcomes model).

| Fixed effect               | Coefficient | Standard Error | t-ratio | p-value |
|---------------------------|-------------|----------------|---------|---------|
| Intercept, $\beta_0$      | 2.259345    | 0.029369       | 76.931  | < 0.001 |
| Intercept, $\gamma_{00}$  | 0.014466    | 0.011481       | 1.260   | 0.208   |
| Sex, $\gamma_{01}$        | -0.069930   | 0.325769       | -0.215  | 0.830   |
| Age, $\beta_1$            | 0.038899    | 0.006113       | 6.364   | < 0.001 |
| Intercept, $\gamma_{10}$  | -0.069930   | 0.325769       | -0.215  | 0.830   |
| Sex, $\gamma_{11}$        | 0.000226    | 0.000029       | -7.825  | < 0.001 |
| Age$^2$, $\beta_2$        | 0.000764    | 0.002233       | 0.342   | 0.732   |
| Schooling, $\beta_3$      | -0.059557   | 0.007638       | -7.798  | < 0.001 |
| Intercept, $\gamma_{30}$  | -0.045634   | 0.004732       | -9.645  | < 0.001 |
| Sex, $\gamma_{31}$        | -0.196841   | 0.309771       | -0.635  | 0.5253  |
| Married, $\beta_4$        | 0.078209    | 0.092574       | 0.845   | 0.398   |
| Intercept, $\gamma_{40}$  | 0.430046    | 0.118008       | 3.644   | < 0.001 |
| Sex, $\gamma_{41}$        | 0.255596    | 0.733322       | 0.349   | 0.728   |
| Single, $\beta_5$         | 0.066030    | 0.015012       | 4.399   | < 0.001 |
| Intercept, $\gamma_{50}$  | -0.224767   | -0.113261      | 1.985   | 0.048   |
| Manufacturing sector, $\beta_6$ | 0.053353    | 0.080686       | -0.661  | 0.509   |
| Intercept, $\gamma_{60}$  | -0.053353   | 0.080686       | -0.661  | 0.509   |
|                          | \(\gamma_{i1}\) | \(\gamma_{i2}\) | \(\gamma_{i3}\) | \(\gamma_{i4}\) |
|--------------------------|------------------|------------------|------------------|------------------|
| Sex, \(\beta_8\)        | 0.075816         | 1.125143         | 0.067            | 0.946            |
| Family income, \(\beta_8\) | 0.180818         | 0.031721         | 5.700            | < 0.001          |
| Sex, \(\gamma_{90}\)   | 0.424524         | 3.136997         | 0.135            | 0.892            |
| Profession, \(\beta_9\) | 0.228780         | 0.027083         | 8.447            | < 0.001          |
| Sex, \(\gamma_{91}\)   | 0.193310         | 0.071174         | 2.716            | 0.007            |
| Training, \(\beta_{10}\) | 0.473938         | 0.067900         | 6.980            | < 0.001          |
| Sex, \(\gamma_{100}\)  | 0.144474         | 0.442807         | 0.326            | 0.744            |
| Number of workers, \(\beta_{11}\) | 0.266666         | 0.050265         | 5.305            | < 0.001          |
| Sex, \(\gamma_{110}\)  | 0.073400         | 0.096568         | 0.760            | 0.447            |
| Willing to change, \(\beta_{12}\) | -0.489419       | 0.085534         | -5.722           | < 0.001          |
| Sex, \(\gamma_{120}\)  | 0.118416         | 0.026894         | 4.403            | < 0.001          |
| Formal sector, \(\beta_{13}\) | 0.010174         | 0.002416         | 4.211            | < 0.001          |
| Sex, \(\gamma_{130}\)  | 0.031298         | 6.878261         | 0.005            | 0.996            |

**Notes:** Own elaboration. The table shows the coefficients related to the Level-1 variables and the sex of the microentrepreneur at Level-2 on the probability of continuing with the micro-business next year. The sample size is 1,062 microenterprises.

The results indicate that as the microentrepreneur is older, the probability of continuing with the business increases \((\gamma_{10} = 0.038899, p < 0.001)\). However, the age square indicates that the marginal effect of age is diminishing \((\gamma_{20} = -0.000226, p < 0.001)\). Regarding schooling, as the owner has a higher level of formal education, the probability of continuing with the business decreases \((\gamma_{30} = -0.059557, p < 0.001)\). Also, results reveal that if the microentrepreneur is willing to change his or her economic activity to a salaried job, but with social security \((\gamma_{120} = -0.489419, p < 0.001)\) is negatively related to the probability of continuing with the operation of the micro-business. On the other hand, being single \((\gamma_{50} = 0.430046, p < 0.001)\), in the manufacturing sector \((\gamma_{60} = 0.066030, p < 0.001)\), having the micro-business to complement the family income \((\gamma_{80} = 0.180818, p < 0.001)\), to exercise his career or profession \((\gamma_{90} = 0.228780, p < 0.001)\), having received training to start the micro-business \((\gamma_{100} = 0.473938, p < 0.001)\), the total number of workers \((\gamma_{110} = 0.266666, p < 0.001)\), and being in the formal sector \((\gamma_{130} = 0.010174, p < 0.001)\) is positively related to the probability of continuing with the business the following year.

Concerning the effect of the sex the microentrepreneur, the interaction effects are significant only for the level of schooling \((\gamma_{31} = -0.045634, p < 0.001)\), if the micro-business is in the manufacturing sector \((\gamma_{61} = -0.224767, p = 0.048)\), have the micro-business to exercise his or
her career or profession ($\gamma_9 = 0.193310, p = 0.007$), and if the micro-entrepreneur is willing to change his or her business to a job with similar income, but social security ($\gamma_{12} = 0.118416, p < 0.001$). **Fig. 1** shows the effect of these variables on the probability of continuing with the business by the sex of the microentrepreneur. As it can be seen, as the years of schooling increase, the probability of continuing with the micro-business decreases, but the decrease is greater if the owner is a woman. If the reason to start the micro business was to exercise the owner’s career or profession, the probability of continuing with the business will be greater if the owner is a woman. Although the main effect of being in the manufacturing sector is positive, the interaction term shows a negative impact in the probability of continuing with the micro-business if the owner is a woman and the micro-business is in the manufacturing sector. That is, when the microbusiness is in the manufacturing sector and the owner is a woman, the probability of continuing to operate next year is lower in comparison if the owner is a man. On the other hand, if the owner is willing to change his or her economic activity to a salaried job with similar income and social security, the probability of not continuing with the microbusiness is greater if the owner is male.

**Fig. 1.** The impact of the determinants of business continuity on the probability of continuing with the micro-business, by sex of the owner.


Note: Own elaboration. The figure shows the effect of the variables on the probability of continuing with the micro-business, by sex of the owner of the micro-business. The sample size is 1,062 microenterprises.

Conclusions and discussion

This article analyzed how the sex of the microentrepreneur affect the determinants of the probability of continuity of micro-businesses in the Metropolitan Area of Monterrey. The results of this study indicate that microentrepreneurs’ age, schooling, civil status, willingness to change to a job with similar salary, as well as the main reasons for starting the business, the total number of workers, having received training to start the micro-business, and the sector in which the micro-business is located have a direct impact on the likelihood of its continuity next year. Regarding the effect of sex on the impact of these variables, it was found that sex affects only the impact of schooling, having the micro-business to exercise his or her career or profession, if the microentrepreneur is willing to change the business activity to a job with similar income, but with access to social security, and if the micro-business is in the manufacturing sector.

Concerning the effect of sex on the impact of schooling, it is found that as the microentrepreneur has a higher level of education, the probability of continuing with the business diminishes. However, this decrease is higher if the owner is a woman. These results are congruent with the analysis of Minniti and Naudé (2010). As education levels increase, women’s opportunity cost of continuing with a micro-business is higher because the returns they would obtain in the labor market increase. In addition, the opportunity cost will increase more for female micro-entrepreneurs because entrepreneurship has been historically conceived as a male-stereotyped activity, and therefore, women possess lower levels of confidence in the business world than men. Thus, by increasing the number of years of schooling, female microentrepreneurs are less likely to continue with the operation of the business than men.

On the other hand, when entrepreneurs face other job opportunities with an income similar to that which they currently receive, but with access to social security, female entrepreneurs are
more likely to continue with the micro-business than men. As culturally men are expected to be financial responsible for the household, men tend to seek greater job stability (Jiménez Guzmán, 2007; Ravazzola, 2007).

Additionally, it is found that the probability of continuing with the business is greater if the owner is a woman and the microbusiness was launched with the objective of exercising her career or profession. Nichter and Goldmark (2009) point out that, due to gender roles, women entrepreneurs are more concerned about the survival of the micro-business and men emphasize more the business growth. In turn, Hamilton (2000) finds that, in average, women receive a lower income as entrepreneurs than the salary that they would obtain in the labor market. Therefore, as the economic incentives to stay in the business world are less for women, some authors point out that women’s reasons for having a business are not always pecuniary, but rather they are motivated by the realization of personal projects, or the gain of independence and flexibility (Justo & Detienne, 2008; Ucbasaran, Westhead & Wright 2006).

The promotion of women’s involvement in activities of high added value is essential for the social and economic development of countries (Minniti & Naudé, 2010). Based on the findings of this article, it is possible to point out some implications for the promotion of business development in Mexico. Due to the impact of gender ideologies, women entrepreneurs can feel disadvantaged as entrepreneurs or make choices that emphasize traditional gender roles. As a consequence, the social and cultural restrictions faced by women restrict their participation and performance in the business world. Some authors point out that it is possible to alter the stereotypes related to entrepreneurship to attributes that can be considered in the culture as feminine (Bird & Brush, 2002). This could increase women’s participation and improve their evaluations of business opportunities, as well as reduce their intermittency in the business sector.

This article was mainly limited by the measurement of the dependent variable. Although the dependent variable measures whether the microentrepreneur plans to continue next year with the micro-business or not, this study does not control by the respondent’s reason for doing so. Some microentrepreneurs may decide to continue or not with the micro business due to economic performance or changes in their personal preferences or aspirations. This could change the extent of the impact of the variables analyzed.

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