

Study On The Determinants Of Success In Urban Area Entrepreneurship

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Abstract

The objective of this research work was to identify the main factors and determinants that positively influence the success of the enterprises established in the municipality of Riobamba (Ecuador). The research is descriptive and correlational; the field study includes a survey applied to 57 enterprises. For the analysis, the econometric model of binary logistic regression is used, taking nine explanatory variables. The results show that the main determinants of success in entrepreneurship are represented by human capital explained by age, the greater the human capital there is a greater possibility of achieving success in the ventures; financial capital is another important variable in the analysis, and which significantly determines entrepreneurial activity; and finally, social capital has a direct relationship with the success of the ventures.

Introduction

At present the labor field is exposed to various constant changes, so the adaptability of the work to market needs must be carried out immediately, since companies require from the worker to perform adequately in assigned functions, this being one of the reasons why individuals seek new employability alternatives, that allow them achieving a degree of personal self-esteem, social well-being and adequate economy, one of the initiatives to achieve the aforementioned is entrepreneurship, which allows personal development, professional and business (Saif Al Muqbal, 2017).

The factors that allow success in entrepreneurship are diverse, including motivation, risk taking, political and economic stability (Thapa et al., 2008; Marulanda and Morales, 2016), but the main ones are: 1) human capital explained by age, education and experience; 2) financial capital obtained through the contributions of partners, loans received by families and, on the other hand, financial experience; 3) finally, the social capital explained by family entrepreneurs and contacts with business networks; which are factors that help to show whether the venture has achieved success (Lussier and Pfeifer, 2001; Kamitewoko, 2013; Yadav, Venkata and Pradhan, 2018; Vidyatmoko and Hastuti, 2017). That is why, in recent years, governments have shown importance in promoting the generation of entrepreneurs, because they contribute to economic growth and contribute to reducing the unemployment rate.

In the last five years, several Latin American countries such as Peru, Chile, Brazil, Argentina, Uruguay, Colombia, and Mexico have shown a positive increase in the generation of entrepreneurs, since they have a greater young population willing to undertake, and that age it is a determining factor for its success (Sparano, 2014). Younger startups have a high degree of ambition, energy, and are more creative, which allows them to overcome their lack of credibility, experience, and attract funding (Brüderl and Preisendörfer, 2000; Gerschenkron, 2000; Frese, 2009). However, Lafuente, Vaillant and Gómez (2011) indicate that entrepreneurs with the longest experience in the market are generally more reserved and conservative when starting a business. Business success in the region can be explained by several determining factors such as a high level of university education, since knowledge can help overcome different financial difficulties, in turn entrepreneurs have new business opportunities (Evans and Leighton, 1989; Arias and Peña (2010).

Also, Guerrero and Urbano (2017), state that educational institutions such as universities are essential to promote entrepreneurship as an innovative component; another determining factor is experience, which refers to the skills acquired by entrepreneur in labor, commercial and financial fields (Praag, 1999; Bosma et al., 2000; Sepúlveda and Reina, 2016). Following this line, Capelleres and Kantis (cited in Messina and Hochsztain, 2015), affirm that experience is a determinant of entrepreneurship that influences the time used for the creating process of a new venture; cooperation networks is another determining factor of success, since it allows obtaining business opportunities such as accessing resources, financing, and receiving support or professional advice (Frese, 2009).

Studies carried out in Ecuador indicate that determining factors of success in undertakings that reflect a positive impact are age, which ranges between 17 and 71 years, with 41 years as average; where women represent 52%

and men 48%; another factor that determines entrepreneurship in Ecuador would be the education level (Quispe et al., 2017). Also, it is observed that 70.5% of entrepreneurs have experience when starting their business, so this factor would also be considered as one of the determinants of entrepreneurship (Arteaga and Lasio, 2009); however, the literature refers to financing as an important factor in the start-up and permanence of the enterprise in the market (Arteaga and Lasio, 2005), and finally, cooperation networks play an important role in determining the undertakings (Arteaga and Lasio, 2009).

Nevertheless, in Riobamba case there are few studies developed in entrepreneurship field and specifically on the factors that determine the success of this phenomenon. Some studies established that there are an average of 700 companies (Ayaviri et al., 2017), and the enterprises registered in the municipality of Riobamba in the last two years, reach 57 units (GADMR, 2020); of which it is unknown how many units have closed their operations and how many enterprises are in constant growth. The interest of this research is the approach of those business units that remain in the market and identify the factors that positively influence to achieve success in the venture and thus know the determinants in these business units. The study of those business units that remain in the market are of great interest in order to identify the main factors and determinants that positively influence the success of the ventures established in the municipality of Riobamba (Ecuador).

Method

The research assumes a qualitative and quantitative approach, has a descriptive and correlational character, because it determines the degree of relationship that exists between success in entrepreneurship and its determinants (human, financial and social capital). The sample reaches 57 enterprises, the total being registered in the municipality of Riobamba, in which a survey has been developed. For the analysis of the data that contemplates the period of 2017-2019, the binary logistic regression model is applied. It is important to mention the use of documents, reports from institutions linked to entrepreneurial activity, as secondary sources.

Results

Statistic analysis

Next, the results of the survey applied to the enterprises registered in the Autonomous Government of Riobamba are presented; Descriptive analysis shows that 68.42% of the target population are successful and 31.58% fail, respondents who reported failure attribute it to unexpected drops in sales, problems with suppliers, excessive loans requested by from the entrepreneur to a financial institution and poor internal organization; It is made up of 59.65% women and 40.35% men; the most frequent age range is the 35-44 years interval, which corresponds to 38.60%; Regarding educational level, a significant percentage claim to have higher education represented by 47.37%, followed by secondary education by 31.58%. However, those that show a lower percentage than the previous ones, correspond to a postgraduate and primary education level, with 17.54% and 3.51% respectively. On the other hand, at the time of starting the venture, the entrepreneur had a lot of experience in the trade, represented by 45.61%, while 38.60% and 31.58% of the respondents had regular experience in the business. Sector and as an employee respectively; similarly, 61.40% of the entrepreneur's state that when they started the venture, they did not have financing from a partner. On the other hand, 54.39% of those surveyed indicated that they obtained financial help from family members and 45.61% state that they had not received a contribution from a member of their family.

Formulation of the econometric model

Based on research on the determinants of success in entrepreneurship using binary logistic regression models, they are used when it is intended to explain a characteristic or dichotomous event (yes or no, which are coded with values 1 and 0) and with more than an independent variable or covariates; The fundamental objective is to model how the explanatory variables influence the probability of a particular event occurring. For which, the binary logistic regression model has the following elements: a dichotomous dependent variable Y_i , which takes the value of (1) when there is success in the venture and takes the value (0) when there is failure in the venture. And some independent variables $X_1, X_2, \dots, X_k$ that help explain the dependent variable.

In general terms, the binary logistic regression model would be:

$$\Pr(\text{entrepreneurship success}) = \Pr(Y_i = 1) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_{1i} + \dots + \beta_k X_{ki})}}$$

Replacing the values in the previous equation the study model is obtained:

$$\Pr(\text{entrepreneurship success}) = \Pr(Y_i = 1) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9)}}$$

Where:

Yi: Success of the ventures, categorized (1) for success and (0) for failure of the ventures.

X_1: Age (ED): It is the age of the owner of the venture

X_2: Education (EDU): Refers to the educational level achieved by the owner of the venture.

X_3: Experience in the sector (EXS): Indicates if the owner of the venture has experience working in the same sector in which the venture was started.

X_4: Experience in the trade (EXC): Indicates if the owner of the venture is already familiar with the trade.

X_5: Experience as an employee (EXE): Indicates whether the owner of the venture has had experience as an employee.

X_6: Contribution by partners (CPS): Indicates the source of financing with which the venture was started was by the contribution of a partner.

X_7: Loans received by the family (PRF): Indicates the source of financing with which the undertaking started was for the contribution of the family.

X_8: Family Entrepreneurs (EF): The owner of the venture has been influenced by a member of the family who is self-employed.

X_9: Contact with network entrepreneurs (CER): Indicates if the owner of the venture has contact with other entrepreneurs.

Analysis of the Econometric Model

By applying binary logistic regression through the Wald method (forward), which is an automatic method that allows the software to fit variables into the model, starting with those variables that have larger, statistically significant regression coefficients, In each step carried out, the coefficients and their level of significance are reevaluated, therefore, those variables that are not statistically significant can be eliminated from the model (Berlanga and Vilá, 2014). The following results were obtained:

Table 1 MODEL SUMMARY			
Step	Logarithm of likelihood 2	Cox and Snell's R squared	Nagelkerke's R square
1	64.786a	.105	.147
2	56.623 ^b	.224	.315
3	53.521 ^b	.265	.372
a. The estimate has ended at iteration number 4 because the parameter estimates have changed by less than .001.			
b. The estimate has ended at iteration number 5 because the parameter estimates have changed by less than .001.			
Source: Own elaboration based on the SPSS.			

According to the R squared of Cox and Snell, it estimates the proportion of variance of the dependent variable explained by the independent variables; in this case, the model has a value of 0.265, which means that the variation experienced by the dependent variable is explained by 26.5% by the variables that are introduced in the model. Nagelkerke's R squared is an adjusted version of Cox and Snell's R squared, in this case it has a value of 0.372. The following is a global fit test of the model known as the Hosmer-Lemeshow test.

Table 2 HOSMER AND LEMESHOW TEST			
Step	Chi squared	gl	Sig.
1	4.878	2	.087
2	11.321	8	.184
3	6.865	8	.551

Source: Own

elaboration.

The Hosmer and Lemeshow test is a complement to assess the goodness of fit of the logistic model. In this case it has a $p = 0.551$, which gives sufficient evidence of an adequate fit and a consistent model. Next, the classification table is shown in which the frequencies in the categories of the dependent variable are considered according to what is observed and predicted in each model, as shown in the following table:

Table 3
CLASSIFICATION TABLE

Observed			Predicted		Correct percentage
			Success in entrepreneurship	Failure	
Step 1	Success in entrepreneurship	Failure	7	11	38.9
		Success	7	32	82.1
	Overall percentage				68.4
Step 2	Success in entrepreneurship	Failure	12	6	66.7
		Success	5	34	87.2
	Overall percentage				80.7
Step 3	Success in entrepreneurship	Failure	9	9	50.0
		Success	4	35	89.7
	Overall percentage				77.2

a. Cutoff value is .500

Source: Own elaboration based on the SPSS.

As shown in table 3, having a cutoff value of 0.5; there is a 77.2% probability of success in the result of the dependent variable, when I know the reason for success or failure

Table 4
VARIABLES IN THE EQUATION

		B	Standard error	Wald	gl	Sig.	Exp (B)	95% C.I. for (B)	EXP
								lower	Higher
Step 1 ^a	Trading experience	.863	.359	5.772	1	.016	2.371	1.172	4.797
	Constant	-2.762	1.473	3.515	1	.061	.063		
Step 2 ^b	Sector experience	-.818	.325	6.325	1	.012	.441	.233	.835
	Trading experience	1.165	.416	7.842	1	.005	3.206	1.419	7.246
	Constant	-1.519	1.572	.934	1	.334	.219		
Step 3 ^c	Sector experience	-.915	.346	7.013	1	.008	.400	.203	.788
	Trading experience	1.239	.436	8.080	1	.004	3.454	1.469	8.118
	Family entrepreneurs	-1.204	.710	2.877	1	.090	.300	.075	1.206
	Constant	-.835	1.683	.246	1	.620	.434		

a. Variables specified in Step 1: Trading Experience.

b. Variables specified in step 2: Experience in the sector.

c. Variables specified in Step 3: Family Entrepreneurs.

In table 4, we observe that the individual variables that are significant to formulate the logistic model are: experience in the sector, experience in trade, because the significance is <0.05; The family businessmen variable with a significance value of less than 10% is included in the model.

Therefore, the variables age, education, experience as an employee, contribution by partners, loans received by the family, contact with network entrepreneurs; they did not enter the model because their significance is > 0.05.

The new logistic regression model would be formed as follows:

$$\Pr(\text{entrepreneurship success}) = \Pr(Y_i = 1) = \frac{1}{1 + e^{-(0.835 - 0.915X_3 + 1.239X_4 - 1.204X_8)}}$$

$$\Pr(\text{entrepreneurship success}) = \Pr(Y_i = 1) = \frac{1}{1 + e^{-(0.835 + 0.915X_3 - 1.239X_4 + 1.204X_8)}}$$

This equation will allow to know, what would be the probability that an undertaking is successful or not. To check the validity of the estimated model, it will be assumed that an entrepreneur has had previous experience in the trade at the time of starting their venture.

$$\begin{aligned} \Pr(\text{entrepreneurship success}) &= \Pr(Y_i = 1) = \frac{1}{1 + e^{-(0.835 + 0.915X_3 - 1.239X_4 + 1.204X_8)}} \\ \Pr(\text{entrepreneurship success}) &= \Pr(Y_i = 1) = \frac{1}{1 + e^{-(0.835 + 0.915(0) - 1.239(1) + 1.204(0))}} \\ \Pr(\text{entrepreneurship success}) &= \frac{1}{1 + e^{(-0.404)}} \\ \Pr(\text{entrepreneurship success}) &= \Pr(Y_i = 1) = 1,667644 \\ \frac{1}{1,667644} &= 0,5996 \end{aligned}$$

That is, the 59.96% probability of being successful, or being greater than 0.5, the value of Y would be equal to one where one is success and 0 is failure.

Conclusion

The main determinants of success in the Riobamba municipality are represented by human capital explained by age, which comprises the range of 35-44 years; the highest academic training that the entrepreneur has reached is higher education; regarding the experience that the entrepreneur has obtained in the sector and as an employee; thus, the greater the human capital, the greater the possibility of achieving success in entrepreneurship. The financial capital within these ventures has had great support from the family involved in the business unit. Finally, social capital indicates that success in entrepreneurship has a direct relationship with family members who have their own business and contact with network entrepreneurs, where the entrepreneur has the has a greater chance of achieving success in the venture.

After applying the econometric model, it is determined that the human capital variable explained by experience in trade, turns out to be statistically significant because the significance values of the coefficients are less than 5%; while the social capital variable explained by family entrepreneurs turns out to be statistically significant at the significance value of the coefficient less than 10%. In this way, the hypothesis raised at the beginning of the research that the variables studied in relation to the determinants is empirically verified, except for financial capital, which turns out to be non-significant when carrying out the binomial logistic regression.

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