

Article

High-Growth Aspirations of Entrepreneurs in Latin America: Do Alliances Matter?

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Abstract: This study considers how the formation and implementation strategies of a Latin America alliance between four of the best economic performance countries in the region have impacted the quality of entrepreneurship in these countries. To this end, we studied the Pacific Alliance (PA) and employed an ordered probit model with sample selection bias and statistical information from the Global Entrepreneurship Monitor (GEM) database for the 2012–2017 period. As a dependent variable, we used the growth aspiration of entrepreneurs as a proxy to measure the future growth of the company, from which a possible economic impact could be inferred. The evidence shows that during the implementation period of the PA, there is a positive impact on entrepreneur growth aspirations in member countries; the likelihood that entrepreneurs have high-growth aspirations is found to be greater during and after the implementation period than before the signing of the PA. Likewise, it was found that motivation, gender, education, skills, innovation (as perceived by the entrepreneur), export level, two pillars of the global competitiveness index (GCI), and the gross domestic product (GDP) growth rate explain the growth aspirations of entrepreneurs in the member countries during the period under study.

Keywords: entrepreneurship; growth aspirations; Latin America; international alliances; gem; regional development

1. Introduction

In recent years, Latin American countries have experienced economic recessions such as those that occurred in Argentina and Brazil, while Venezuela that has been experiencing critical social and economic conditions for several years; these situations have reached their peaks. Meantime, the Pacific Alliance (PA), created in 2012, has drawn international attention due to the dynamism it intends to promote in this region. The initiative for the PA includes four countries: Chile, Mexico, Colombia, and Peru. These four countries comprise the most successful economies in the region; in 2015, their combined gross domestic product (GDP) reached 38% of that of Latin America, representing 50% of international trade and receiving 47% of foreign investment [1]. As one of its objectives, the PA seeks to promote greater growth, development, and competitiveness of the economies of its members with the aim of achieving greater welfare, overcoming economic inequality, and increasing the social inclusion of its inhabitants, as expressed in the terms of the framework agreement. These goals would be achieved through the development of an integration that would allow the free movement of goods, services, capital, and people.

Through the development of workshops involving the collaboration of international development and academic institutes, the PA identified four areas of cooperation: (1) digitization, (2) entrepreneurship

and small and medium size enterprises (SMEs), (3) education, and (4) training and gender equality [2]. SMEs are very important in the region because they represent the majority of businesses and employees, many of which belong to informal sectors of the economy. Likewise, the document outlining the PA's Strategic Vision for the year 2030 indicates the importance of implementing a regional strategy that promotes innovation and entrepreneurship as a fundamental element to improve the competitiveness of member countries.

According to the Global Entrepreneurship Monitor (GEM), there is a high rate of entrepreneurship in Latin America, but many of these businesses have low growth aspirations [3–5]. Growth aspirations are a determinant of business growth [6–8] and affect the welfare and wealth of countries [9,10]. In this context, the integration mechanisms that the PA generates that encourage high growth aspirations of the entrepreneurs will result in the achievement of one of its main objectives related to economic development.

The literature on the PA includes analyses of the agreements and their implications and of the progress of each country in terms of specific goods and services marketed among the countries of the PA, as well as the future potential for development [2,11]. We also found theoretical and conceptual approaches to the PA [12] and the success factors needed to reach the potential of its international projections [13]. Similarly, there are analyses of case studies related to social ventures and innovative ecosystems within the framework of the PA sponsored by Inter-American Development Bank (IDB) [14]. However, there seems to be a gap in terms of studies that include empirical measurements of the economic development achieved by the PA. García, Gálvez, and Maldonado [15] developed one of the few empirical studies of a sample of companies within the countries of the PA and found that innovation in products, processes, and management positively impacts the growth of employment, sales, and profits of the companies; this growth would be expected to affect the growth of the countries' internal economies, increase employment, and allow for greater progress in terms of the economic development of the member countries. We also undertake the measure of the impact of PA on innovation to achieve economic development but this measure indicating the perceptions of the entrepreneur and as a structural factor was taken from the Global Competitiveness index.

For the above reasons, this study aims to provide empirical evidence regarding the effectiveness of a Latin America alliance, the PA. The focus of this study is an analysis of whether the PA has had an impact on the high-growth aspirations of entrepreneurs in the member countries during the implementation period of the PA. To accomplish this, the previous results obtained during the transition to and after the implementation of the PA are compared. Because high-growth aspirations are determinants of business growth, which in turn impacts the economic development of countries, the results will assess whether the efforts of the PA have been effective. The period of implementation is a proxy variable used to measure the enactment of the PA. The study is expected to answer the following research questions: (1) Does the empirical evidence indicate that there are significant differences in the growth aspirations of entrepreneurs in each of the member countries before, during the transition stage, and after the implementation of the PA agreement? (2) What individual, contextual, and institutional factors (Individual: gender, education, and age; Contextual: desirable career, recognition, motivation, skills, fear of failure, some of the Global Competitiveness Index (GCI) factors, and gross domestic product (GDP); and Institutional: innovation, some of the GCI factors, and entrepreneurs' export orientation) determine the high-growth aspirations of PA entrepreneurs? and (3) Does innovation, a key objective of the PA's efforts, determine entrepreneurs' high-growth aspirations?

This study is structured as follows. First, a theoretical framework is presented in which the literature on the PA regarding its objectives, achievements, weaknesses, and future is summarized. Next, the relevant literature on growth aspirations, especially in the member countries of the PA, and the general situations of these countries are analyzed. Then, we presented the database and discussed the methodology used in the empirical analysis. Finally, through an analysis of the results in light of whether they lead to the conclusion that the objectives proposed by the PA have been at least partially

achieved, recommendations for public policies are developed and possible future lines of research are defined.

2. Theoretical Framework

The research on regional economic integration shows a positive impact on the overall national economies of member countries [15]. This effect is related to an increase in intra-regional trade among member nations because of the removal of trade barriers and the formation of a common regional market [16,17]. In the long term, creating the appropriate environments for cross-border collaborations can lead to regional economic outcomes such as job creation, scale and scope economies, and international competitiveness [18–20].

Alhorr, Boal, and Cowden [21] found that multinational enterprises (MNEs), in the presence of regional economic integration, shift their global portfolio to a regional scope due to the perceived benefits of doing so, such as increased economies of scale and economies of scope. Additionally, the results of this research suggest that the reduction in transaction costs and regional market growth can potentially improve the performance of the MNEs [21].

Bonilla [22] proposes to analyze any regional integration effort from three perspectives: economic integration, political integration, and physical integration. This author emphasizes that a zero-stage is needed to enable the long-term sustainability of a regional bloc. Political and physical aspects are proposed as the first stages and do not replace any economic integration measures. This research presents the necessity for developing countries, due to globalization, to join or die. In the last two decades, for example, the regional blocs formed were in Africa, Asia, Europe, and America. Bonilla explains that from all this regional integration, only the South American Nations Union (UNASUR), created in 2008, was an example of political integration, while the others (the Southern African Development Community SADC; West African Economic and Monetary Union UEMOA; Economic and Monetary Community of Central Africa, CEMAC; East African Community, EAC; Association of Southeast Asian Nations, ASEAN+3; Eurozone; and the Pacific Alliance, PA) are examples of economic integration.

In this context, in our research, we focus on the PA, as a Latin America regional integration that promotes the development of the economies of its members achieved through a free movement of goods and services, capital, and people. Although according to the literature, it is expected a positive impact on economies of this country's members, there is scarce evidence of such effect, at least that has been empirically measured.

2.1. PA and Entrepreneurs' Growth Aspirations

The framework agreement of the PA was signed in Chile on June 2, 2012, although the agreement declaration was signed in April of the same year in Peru. The objective of the member countries was predominantly economic and commercial, focusing on creating areas of integration that would promote and increase growth, development, and competitiveness among the PA economies that would allow them to progressively move towards the goal of free trade of goods, services, capital, and people [23]. As a group of countries, the PA is the eighth largest economy in the world; its GDP of US \$1950 billion represents more than 38% of the total GDP in Latin America and the Caribbean. The PA countries have a total population of 225 million inhabitants, and a GDP per capita of US \$18,000 (measured in purchasing power parity terms). In 2016, the PA countries received 41% of the foreign investment in the region; in 2017, the inflation rate in these countries was 3.6% and the unemployment rate was 6.1% [23].

Although the project began with only four member countries (Chile, Mexico, Colombia, and Peru), it has captured the world's attention and currently includes 55 observer countries, four of which are on track to become partners; 28 of these countries are members of the Organization for Economic Cooperation and Development (OECD). According to the PA report [23], progress has been made in the areas that were part of its objectives during its seven years of operation, namely, (a) free trade of

goods and services; (b) financial integration and free movement of capital; (c) freedom of movement of persons; (d) observer countries and associate members; (e) international presence of the PA; (f) social aspects; (g) digital and innovation aspects; and (e) SMEs.

Specifically, in the area of innovation, a Network of Innovation Agencies that adopts protocols for the acceleration of business networks and angel investors and an AP Innovation Award that promotes the internationalization of innovation and entrepreneurship were created. In the area of SMEs, achievements are focused on identifying mechanisms that promote the participation of SMEs as suppliers in public processes and promote exports by these companies. A fund to promote financing for start-ups with high growth potential from SMEs was also created in collaboration with the IDB and the Multilateral Investment Fund. Finally, an observatory that includes a platform to provide relevant information and easy access to these companies [23] was created. Therefore, the importance of promoting the growth of SMEs within the objectives of the PA is understood, as is the importance of encouraging the development of innovation to achieve greater competitiveness and a better export capacity, and thereby impact the economic development of countries.

However, the path to achieving the objectives that the PA has proposed will not be easy. Ortiz [13] enumerates the weaknesses that are part of this embryonic project; they include the following: (a) lack of leadership; (b) low levels of economic interdependence; (c) a lack of regional convergence due to political differences that leads to distance between the countries of the region; (d) lack of a state identity exacerbated by domestic problems; and (e) low levels of institutionality dependent on governments' political will. For these reasons, it is essential to develop mechanisms that allow the PA to measure the effectiveness of its efforts; therefore, this research aims to support this evaluation through the exploration of the impact of PA on growth and on the future of entrepreneurship.

The variable representing entrepreneurs' aspirations to growth has garnered much attention because it is a predictor of business growth [6,9,10,24] In addition, this variable impacts economic and social growth at different levels: the individual, the company, the community, and the country [25–27]. Many studies have taken into account the variables that determine entrepreneurial growth aspiration and these variables will be considered in the present work based on GEM data. These variables were divided by Puente, Cervilla, González, and Auletta [28] as well as by Puente, González, and Cervilla [29] into 3 categories: context (desirable career, recognition, motivation, skills, fear of failure, the GCI, and GDP); individual factors (gender, education, and age); and business and institutional factors (innovation and GCI).

Regarding the literature related to this group of determinants of growth aspirations of entrepreneurs, we could summarize that opportunity-motivated individuals have a higher probability of focusing on the growth of their businesses [30,31] than other individuals. There is a positive effect of traits and skills on growth aspirations [32,33]. With respect to individual demographic variables, the enterprises initiated by women tend to be smaller and with lower expectations for growth than those started by men [34]; the relationship between entrepreneurship and age is typically a U-inverted shaped function, with the highest proportion of entrepreneurs being in relatively younger age groups [35]. On the other hand, there is a significant positive relationship between the level of education of an entrepreneur and his/her business growth expectations [26,36] and the context is a determining factor of growth aspirations [29], particularly for necessity-driven entrepreneurs.

We also consider the variable entrepreneur export orientation, because Lecuna, Cohen, and Chavez [37] demonstrated that entrepreneurs' export orientation is an important factor for predicting growth aspirations. They recommend policies that support the development of these entrepreneurs' orientation in Latin America to benefit from high growth aspirations.

On the other hand, Urbano, Audretsch, Aparicio, and Noguera [38] found a positive influence on economic growth in developing countries from two institutional factors of entrepreneurial activity: communication, that involves developing networks, and financial assistance. Both elements are significant efforts that the PA implementation had been developing to achieve its goals. In this context, García-Cabrera, Gálvez-Albarracín and Maldonado-Guzmán, [15] found that the entrepreneurs'

perception of institutional factors in emerging countries affects the decision they adopt in the area of international expansion. The last evidence allows us to hypothesize that the implementation of the PA could have a positive effect on high-growth aspirations of entrepreneurs in the Latin America countries involved.

2.2. Countries of the PA: Current Situation and Entrepreneurship

Tables 1 and 2 show the behavior of GDP growth rates and GCI for the countries of the PA; these parameters allow us to understand the situations of the countries of the PA in terms of economic and institutional development. As shown in Table 1, of the countries in the PA, Peru has the highest average growth rate (4.0%). Next is Colombia, which was more stable than Peru during the years analyzed and has a growth rate of 3.4%. Chile and Mexico close the group with GDP growth rates of 2.7%.

Table 1. Real GDP growth rates in the PA.

Year	Country			
	Chile	Colombia	Mexico	Peru
2012	5.3	4.0	3.6	6.1
2013	4.0	4.9	1.4	5.9
2014	1.8	4.4	2.8	2.4
2015	2.3	3.1	3.3	3.3
2016	1.3	2.0	2.9	4.0
2017	1.5	1.8	2.0	2.5
Average	2.7	3.4	2.7	4.0
St. Dev.	1.5	1.2	0.8	1.5

Source: Prepared by the authors using data from the International Monetary Fund (IMF) [39].

Table 2. GCI of the member countries of the PA.

Country	GCI 2018	Global Ranking/140	Ranking in Latin America
Chile	70.3	33	1
Mexico	64.3	46	2
Colombia	61.6	60	3
Peru	61.3	63	4

Source: Prepared by the authors using data from the World Economic Forum (WEF) 2018 GCI Report [40].

According to the ranking based on the GCI (Table 2) for the PA countries, Chile is the most competitive country in Latin America; it ranks 33rd in the world ranking of 144 countries that are included in this study. Mexico is the second in the region, followed by Colombia, which ranks third, and Peru is fourth. According to the report of the World Economic Forum (WEF) [41], of the four countries studied, Colombia and Peru are classified as in the development stage driven by efficiency (stage two), and Chile and Mexico are in the transition stage moving towards stage three. These classifications are the result of applying 12 pillars that determine the three stages. Table 3 shows the 12 pillars of competitiveness.

Table 3. Competitiveness pillars of the GCI.

Pillar	Description
First pillar: Institutions	<p>Concepts related to the protection of property rights, the efficiency and transparency of public administration, the independence of public administration, the independence of the judiciary, physical security, business ethics, and corporate governance</p> <ul style="list-style-type: none"> • Public institutions • Private institutions
Second pillar: Infrastructure	<p>Quality and availability of transportation, electricity, and communications infrastructure:</p> <ul style="list-style-type: none"> • Transportation infrastructure • Electricity and telephone infrastructure
Third pillar: Macroeconomic environment	Fiscal and monetary indicators, savings rate, and sovereign debt rating
Fourth pillar: Health and primary education	<p>State of public health, quality, and quantity of basic education</p> <ul style="list-style-type: none"> • Health • Primary education
Fifth pillar: Education and higher education	<p>Quality and quantity of higher education, and quality and availability of on-the-job training</p> <ul style="list-style-type: none"> • Amount of education • Quality of education • In training
Sixth pillar: Efficiency of marketing of goods	<p>Factors that drive the intensity of national and foreign competition and conditions of demand:</p> <ul style="list-style-type: none"> • Competition • Conditions of demand quality
Seventh pillar: Efficiency of the labor market	<p>Efficiency and flexibility of the labor market, meritocracy and gender parity in the workplace</p> <ul style="list-style-type: none"> • Flexibility • Efficient use of talent
Eighth pillar: Development of the financial market	<p>Efficiency, stability and reliability of the financial and banking system</p> <ul style="list-style-type: none"> • Efficiency • Reliability and trust
Ninth pillar: Technological preparation	<p>Adoption of technologies by individuals and businesses</p> <ul style="list-style-type: none"> • Adoption of technology • Use of ICT
Tenth pillar: Market size	<p>Size of national and export markets</p> <ul style="list-style-type: none"> • Size of the internal market • Size of the foreign market
Eleventh pillar: Business Sophistication	Efficiency and sophistication of business processes in the country
Twelfth pillar: Innovation	Capacity and commitment to innovation. Innovation can arise from new technological and non-technological knowledge

Source: World Economic Forum (WEF) [41].

In terms of entrepreneurship, according to the 2017 GEM Report, the four countries that make up the PA share a Latin American context and have high rates of entrepreneurship (18.5%); in fact, their rates of entrepreneurship are the highest in the study region, but their entrepreneurship is of low quality in terms of its growth potential (only 18% of companies, versus 29.5% in North America, expect to have more than 6 employees). The potential for growth has been related in many studies to the necessity motivation of entrepreneurs when starting their businesses [42,43]. Table 4 shows an overview of entrepreneurship in the PA countries based on some of the relevant indices of the 2017 GEM World Report.

Table 4. Entrepreneurship in the member countries of the PA based on GEM (2017).

	Early Stage of Entrepreneurial Activity (TEA)	Improvement of the Motivation Index for Opportunity/Need (% TEA)	Entrepreneurial Index (GESI)	Expectations of Creating 6 or More Jobs
Peru	24.6 (3)	3.7 (13)	0.37 (5)	19.1 (30)
Chile	23.8 (5)	2.3 (28)	0.28 (10)	29.8 (9)
Colombia	18.7 (13)	3 (20)	0.29 (9)	37.7 (4)
Mexico	14.1 (17)	2.1 (31)	−0.03 (28)	10.8 (38)

Note: The number in parentheses indicates the position occupied by the country based on the GEM study, which includes 54 countries. Source: Global Entrepreneurship Monitor. Global Report 2016/17 [44].

Based on the GEM indicators, it can be observed that the country with the most adverse situation in terms of entrepreneurship is Mexico, which has lower Early-stage Entrepreneurial Activity (TEA) and Entrepreneurship Spirit Index (GESI) and, in addition, lower expectations for large-scale job creation. Peru occupies the best position with respect to these two indices and with respect to the factor of improvement of entrepreneurs motivated by opportunity, a factor that is in turn related to enterprises with high rates of growth aspiration. However, Peru ranks third among the four countries in terms of the percentage of companies that expect to create 6 or more jobs within the next 5 years. For this reason, it could be said that if all the indicators are considered, Chile presents an average balance higher than that of the rest of the four countries followed by Peru, Colombia, and Mexico in that order.

Given that the PA an increase in economic growth and development through entrepreneurship has as one of its objectives, positively impacting growth aspirations is essential. Therefore, this research explores, first, whether the implementation of this alliance is a determinant of entrepreneurs' high-growth aspirations regarding the future growth of their businesses. Second, it is also interesting to determine how this impact has been exerted and what other context and institutional variables have determined growth aspirations. Finally, the contribution in each country of the impact of the PA on the variable aspiring to growth and whether innovation has been a determinant of these aspirations will also be analyzed as a way to evaluate the effectiveness of this alliance in the member countries.

3. Methodology

3.1. Database and Variables

This study uses the GEM database for the 2012 to 2017 period for the countries that make up the PA: Mexico, Colombia, Peru, and Chile. Specifically, information on nascent entrepreneurs and ASD is taken into account according to the GEM classification [45], given that this variable is considered a general measure of the entrepreneurial behavior of a country [46]. In addition, this approach allows correction of any potential bias. GEM measures the growth aspiration of entrepreneurs as the number of jobs that the entrepreneur expects to create in the next 5 years; this measure is considered a good predictor of the growth aspiration of the entrepreneur [47–49]. Based on Estrin and Mickiewicz [50], the creation of 10 or more jobs is considered to indicate high growth aspirations.

Table 5 presents a description of the variables that are considered to be determinants of entrepreneurial growth aspirations, including the dependent variable [28–30]. With the exception of the innovation variable, which was regrouped [51], all were taken directly from the GEM; the intervals of the age variable were redefined and the implementation period was created as a proxy variable to achieve the objective of this study. The latter was operationalized with the purpose of observing the effect of the entry into force of the PA on the growth aspiration of entrepreneurs, dividing the 6 years into three periods: before the implementation of the PA, the transition period, and after the implementation of the PA. The years 2012 and 2013 are considered the period before the implementation of the PA, since although the signing of the agreement occurred in 2012, the commercial signature of the protocol occurred at the beginning of 2014; therefore, the PA had no effect on the aspirations of entrepreneurs during this period. The transition stage comprises the years 2014 and 2015, since the

commercial protocol entered into force at the beginning of 2015, and it is expected that the Agreement would begin to have some results during that period. The later stage includes the years 2016 and 2017, the years when one would expect to observe the greatest effects of the PA.

Table 5. Description of the variables.

Variable	Question from the Survey	Answer	Code Assigned
Growth aspiration	Growth aspirations are obtained from the absolute value of the difference between the answers to the following two questions: - How many people do you think will work for this business when five years of establishment have been completed, excluding owners but including exclusive contractors? - How many people currently work for this business, excluding the owners but including the exclusive contractors?	Aspires to have between 0 and 1 employee	1
		Aspires to have 2 employees	2
		Aspires to have 3 employees	3
		Aspires to have between 4 and 9 employees	4
		Aspires to have 10 or more employees	5
Implementation Period	This variable was created by the authors according to the timeline of the implementation of the PA.	Period before implementation (2012–2013)	0
		Transition Period (2014–2015)	1
		Implementation Period (2016–2017)	2
Gender	What is your gender?	Male	1
		Female	0
Education level	What is the highest level of education that you have completed? (This variable was reclassified, since the ranges varied between years (Terjesen and Szerb, 2008; Bhola et al., 2006).	Secondary school	1
		Others	0
Motivation	Did you become involved in this new company to take advantage of a business opportunity or because you do not have a better alternative for work?	Necessity	1
		A reason other than necessity	0
Export	What percentage of your annual sales revenue comes from customers residing outside of your country?	0%	0
		10% or less	1
		11% to 50%	2
		More than 50%	3
Age (years)	How old are you?	18–29	1 and 0 in another case
		30–39	1 and 0 in another case
		40–49	1 and 0 in another case
		50–59	1 and 0 in another case
		≥60	1 and 0 in another case
Skills	Do you have the knowledge, skills, and experience necessary to start a new business?	Yes	1
		No	0
Fear of failure	Is fear of failure preventing you from starting a new business?	Yes	1
		No	0
Desirable career	In your country, do most people consider starting a new business to be a desirable career option?	Yes	1
		No	0
Acknowledgement	In your country, do those who succeed in starting a new business obtain a high level of status and respect?	Yes	1
		No	0
Innovation	This variable is based on the three questions about innovation: How many of your potential customers do you think will consider this a new and unknown product/service? How many other companies do you know of that offer the same products or services to their potential customers? How long have the technologies or procedures required for this product or service been available? (This variable was reclassified according to Koellinger, 2008)	Innovation	1
		Imitation	0

Table 5. Cont.

Variable	Question from the Survey	Answer	Code Assigned
GDP	The growth rates of the gross domestic product were obtained from the IMF's World Economy and Economics Database.	Continuous variable	
Country	Dichotomous variable that takes the value of 1 for each country. This variable was created by the authors according to the country in which the survey was conducted.	Chile	1 and 0 in another case
		Colombia	1 and 0 in another case
		Mexico	1 and 0 in another case
		Peru	1 and 0 in another case

Source: Prepared by the authors.

The GDP and GCI variables were included as a means of estimating the institutional and contextual effects. The growth rate of real GDP, calculated as, $((x_t - x_{t-1})/x_{t-1}) \times 100$, comes from the IMF database; it measures the difference in the performance of the economy in two consecutive years and captures the short-term effect of the capacity of an economy to generate satisfactory conditions for its population [52–55]. The GCI data were taken from the Global Competitiveness report, which defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country [40]. The GCI is also relevant to return on investment, which is a determining factor in explaining the growth potential of an economy [56].

Table 6 shows the frequencies of the growth aspiration variable for the countries of the PA. A total of 9758 observations were identified for the four countries: Chile had the highest participation (55%), followed by Colombia (22%), Peru (12%), and Mexico (10%). As expected in Latin America, the majority of the aspirations are low; only 14% of the observations among all countries indicate high growth aspirations from entrepreneurs. Chile and Colombia have the highest proportions of high growth aspirations in relation to their sample sizes.

Table 6. Growth aspirations of PA countries.

Countries	Growth Aspiration					De la
	1	2	3	4	5	
Peru	661	180	93	156	78	1168
Mexico	535	154	79	179	52	999
Chile	2412	788	461	1048	697	5406
Colombia	577	270	202	585	551	2185
Total Observations	4185	1392	835	1968	1378	9758

Source: Prepared by the authors using Global Entrepreneurship Monitor. Global Report 2016/17 [44].

The frequencies presented in Table 7 show the percentage of entrepreneurs for each value of the independent variable per implementation period (before, transition and after) of the PA. There is an increase in the percentage of entrepreneurs with low growth aspirations ($Y_i = 1.2$) throughout the period and a decrease in the percentage of entrepreneurs with high growth aspirations ($Y_i = 4.5$) after the signing of the agreement. This finding allows us to infer that the results of the PA are still incipient in terms of improving the quality of the enterprises in their member countries.

Table 7. Entrepreneurial frequencies by growth aspiration by implementation period.

Growth Aspiration	Implementation Period: Before	Implementation Period: Transition	Implementation Period: After	Total
Between 0 and 1 employees	41.0%	39.7%	46.6%	42.9%
2 employees	12.5%	13.6%	15.9%	14.3%
3 employees	9.0%	8.5%	8.3%	8.6%
Between 4 and 9 employees	22.8%	20.9%	18.0%	20.2%
10 or more employees	14.6%	17.3%	11.3%	14.1%
N	2524	3201	4033	9758

Source: Prepared by the authors using Global Entrepreneurship Monitor. Global Report 2016/17 [44].

Table 8 shows the descriptive statistics for the independent variables according to the implementation period. For the entrepreneurs' motivation to start their businesses, it is observed that both motivations behave similarly throughout the implementation of the PA, with the fewest motivations per opportunity in the sample. Regarding gender, 59.87% of the entrepreneurs in the sample analyzed are male and 40.13% are female. The ages with the greatest frequency are between 30 and 49 years old

Table 8. Independent descriptive variable statistics by implementation period.

		Implementation			Total
		Implementation Period: Before	Implementation Period: Transition	Implementation Period: After	
Implementation	Before				25.87%
	Transition				32.80%
	Implementation				41.33%
Motivation	A reason other than necessity	26.80%	31.97%	41.23%	70.49%
	Necessity	23.65%	34.79%	41.56%	29.51%
Gender	Female	25.56%	33.12%	41.32%	40.13%
	Male	26.07%	32.59%	41.34%	59.87%
Education	Other	26.01%	34.56%	39.43%	23.60%
	Secondary school	25.82%	32.26%	41.92%	76.40%
Export	None	19.14%	31.71%	49.16%	54.04%
	10% or less	35.86%	34.23%	29.91%	30.63%
	11% to 50%	30.36%	33.95%	35.69%	9.42%
	More than 50%	28.42%	33.62%	37.95%	5.91%
Age	18–29	26.15%	37.07%	36.77%	17.08%
	30–39	27.43%	32.86%	39.71%	23.95%
	40–49	26.92%	32.97%	40.11%	24.55%
	50–59	24.46%	31.77%	43.76%	21.03%
	≥60	22.97%	28.56%	48.47%	13.38%
Skills	No	26.16%	35.03%	38.81%	15.71%
	Yes	25.81%	32.39%	41.80%	84.29%
Fear of failure	No	25.98%	32.62%	41.40%	77.43%
	Yes	25.48%	33.42%	41.10%	22.57%

Table 8. Cont.

		Implementation			Total
		Implementation	Implementation	Implementation	
		Period: Before	Period: Transition	Period: After	
Desirable career	No	21.56%	36.15%	42.28%	29.42%
	Yes	27.66%	31.41%	40.93%	70.58%
Acknowledgments	No	23.23%	35.01%	41.76%	33.08%
	Yes	27.17%	31.72%	41.12%	66.92%
Innovation	Imitation	22.63%	36.04%	41.33%	22.69%
	Innovation	26.82%	31.85%	41.33%	77.31%

Source: Prepared by the authors using Global Entrepreneurship Monitor. Global Report 2016/17 [44].

It is interesting to highlight the observations for exports throughout the implementation period of the PA; the category of not exporting increases the most (30%), while exporting more than 50% shows only slight growth throughout implementation (9.5%). Likewise, the majority of entrepreneurs consider that their offers are innovative or offer something distinctive to their competence (77%).

Spearman correlations for the independent variables included in the model were estimated to avoid possible multicollinearity problems. The results presented in Table 9 (on the previous page) show that, despite having significant correlations, the independent variables do not present problems of collinearity due to their weak correlation. All correlations are less than 0.8.

Table 9. Correlations among independent variables.

	Aspiration	Implementation	Motivation	Gender	Education	Exportation	Age 18–29	Age 30–39	Age 40–49	Age 50–59	Age ≥60	Skills	Fear of Failure	Desirable Career	Acknowledgments	Innovation
Implementation.	−0.0740 *	1..	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Motivation.	−0.1720 *	0.0177.	1..	.	.	.	.	.	.	.	.	.	.	.	.	.
Gender.	0.1571 *	−0.0026.	−0.0844 *	1..	.	.	.	.	.	.	.	.	.	.	.	.
Education.	0.1642 *	0.0154.	−0.1806 *	0.0782 *	1..	.	.	.	.	.	.	.	.	.	.	.
Exportation.	0.1950 *	−0.1724 *	−0.0978 *	0.0788 *	0.1238 *	1..	.	.	.	.	.	.	.	.	.	.
Age 18–29.	0.0975 *	−0.0298 *	−0.0537 *	−0.0022.	0.0901 *	0.0367 *	1..	.	.	.	.	.	.	.	.	.
Age 30–39.	0.0445 *	−0.022.	−0.0573 *	−0.0324 *	0.0648 *	0.0113.	−0.2547 *	1..	.	.	.	.	.	.	.	.
Age 40–49.	0.0187.	−0.0161.	0.003.	0.0056.	−0.0048.	−0.0033.	−0.2589 *	−0.3201 *	1..	.	.	.	.	.	.	.
Age 50–59.	−0.0536 *	0.0251.	0.0537 *	0.0156.	−0.0685 *	−0.0187.	−0.2342 *	−0.2896 *	−0.2944 *	1..	.	.	.	.	.	.
Age >=60.	−0.1231 *	0.0508 *	0.0631 *	0.0173.	−0.0927 *	−0.0281 *	−0.1784 *	−0.2206 *	−0.2243 *	−0.2028 *	1..	.	.	.	.	.
Skills.	0.1152 *	0.0163.	−0.0800 *	0.0671 *	0.0943 *	0.0310 *	−0.0323 *	0.0206.	0.0284 *	0.0037.	−0.0305 *	1..	.	.	.	.
Fear of failure.	−0.0764 *	0.0006.	0.0871 *	−0.0372 *	−0.0452 *	−0.0245.	−0.0392 *	−0.0255.	0.0133.	0.0331 *	0.0189.	−0.1584	*	1..	.	.
Desirable career.	−0.0181.	−0.0386 *	0.0209.	−0.0056.	−0.0755 *	−0.0068.	0.0033.	−0.0392 *	0.0167.	0.0263 *	0.0352 *	0.0241.	0.0054.	1..	.	.
Acknowledgments.	0.0215.	−0.0242.	−0.0121.	0.0474 *	−0.0466 *	−0.0031.	−0.0269 *	−0.0061.	0.019.	0.0095.	0.0019.	0.0394 *	0.0419 *	0.1755 *	1..	.
Innovation.	0.0975 *	−0.019.	−0.0405 *	−0.0357 *	0.0562 *	0.1302 *	0.0112.	−0.0056.	−0.0292 *	0.0046.	0.0261 *	0.0492 *	0.0113.	0.0154.	0.0059.	1..

*: Statistical significance level less than 0.01. Source: Prepared by the authors.

3.2. Method

An ordered probit model with sample selection bias was used to estimate the relationships between entrepreneurs' growth aspirations (Y_i) and a set of independent variables (X_i). The selected model serves to correct the potential selection bias in the sample, which is not randomly selected. In this case, the decision to aspire to the growth of business Y_i is conditional on the decision to be an entrepreneur (TEA group s_j), correcting the potential bias with respect to the other part of the GEM sample. Heckman [57] popularized this statistical correction. Other authors who have developed this topic include van den Ven and van Praag [58], Cameron and Trivedi [59], Chiburis and Lokshin [60] and De Luca and Perotti [61].

The growth aspiration of entrepreneurs can be grouped into five categories. These categories are ordered so that they arise sequentially as a latent variable that reflects incentives arising from certain unobservable attributes that determine the probability of choosing to be an entrepreneur [59]. The analysis of ordered multiple choice models implies minimization of the differences in the sum of squares between a dependent variable and a set of predictor variables, where the coefficients or estimators reflect how the changes in the predictors affect the response variable.

Let Y , the variable of growth aspiration in the ordered response, take the values $\{0, 1, 2, \dots, 5\}$. The ordered probit model for Y_i (conditioned to explanatory variables X_i) can be derived from a latent variable model:

$$Y_i^* = F(X_i'\beta) + u_i \quad (1)$$

where X_i' does not contain a constant, β contains k parameters and $u_i|x \sim N(0, 1)$ [57]. Wooldridge [62] indicates that the ordered probit model is constructed as a linear function of independent variables and a set of cutoff points that determine the choice of the entrepreneur. The conversion of latent variable values into ordered discrete values of the observed variable Y_i follows the following rule for the five categories:

$$\left\{ \begin{array}{l} 1 \quad si \quad Y_i^* \leq c_1 \\ 2 \quad si \quad c_1 \leq Y_i^* < c_2 \\ 3 \quad si \quad c_2 \leq Y_i^* < c_3 \\ 4 \quad si \quad c_3 \leq Y_i^* < c_4 \\ 5 \quad si \quad Y_i^* \geq c_4 \end{array} \right. \quad (2)$$

where c_1, c_2, c_3 , and c_4 are threshold values or cut-off points in which the individual defines the choice of being an entrepreneur and the distances between the categories are unknown. The choice among the categories is framed as follows:

- $j = 1$ if entrepreneur i aspires to growth of his business to have 0 employees or 1 employee
- $j = 2$ if entrepreneur i aspires to growth of his business to have 2 employees
- $j = 3$ if entrepreneur i aspires to growth of his business to have 3 employees
- $j = 4$ if entrepreneur i aspires to growth of his business to have 4 to 9 employees
- $j = 5$ if entrepreneur i aspires to growth of his business to have 10 or more employees

Ordered formulations can appropriately capture certain decision processes. However, relating the decision of the entrepreneur to the value of the latent variable implies assuming that there is a linear function of the set of explanatory variables of individual and business characteristics such that if this function takes values between the cut-off points, then the alternative j of choice over growth aspiration is the one which represents the entrepreneur. The model specified above should consider the selection bias in the sample in estimating the relationships between entrepreneurs' growth aspirations because not all people participating in the GEM sample belong to the TEA group.

The ordered probit model with selection bias [57] corrects for potential selection bias in the sample. Equation (3) is subject to a rule of the equation for selecting Equation (4).

$$y_i = \sum_{h=1}^H v_h 1(c_{h-1} < x_j\beta + u_{1j} \leq c_h) \quad (3)$$

Equation (3) represents the choice as a function of equation (1) according to the latent thresholds that define the choice of the level of aspiration, and u_{1j} is the random error term. The selection equation is as follows:

$$S_j = 1(Z_j\gamma + u_{2j} > 0) \quad (4)$$

where $S_j = 1$ if y_i is observed, otherwise, it is 0; Z_j is the covariable used to model the selection process, γ is the coefficient for the selection process, and u_{2j} is the random error term. The model parameters are estimated using heckprobit [61].

4. Results and Discussion

Given that the main objective of this study is to evaluate the impact of a Latin America alliance, the PA, on the growth aspirations of entrepreneurs, the implementation period variable, which considers the period before the implementation of the PA, the transition period, and the period after the implementation of the PA, is used as a proxy for the effect of the PA on the member countries. Table 10 shows the parameters of the model estimated for the dependent variable growth aspiration; results indicate that the three implementation periods of the PA are determinants of entrepreneur growth aspirations in the member countries. Other variables that also affect the growth aspirations of entrepreneurs in the PA countries are motivation, gender, education, exports, entrepreneurial skills, recognition, and innovation perceived by the entrepreneur. Likewise, the indicators of the GCI (higher education and training (GCI5), efficiency of market goods (GCI6), and the growth rate of GDP) are generally significant for all categories of growth aspiration. Through the marginal effects of the proposed model, which will be presented in Table 12, these variables will be addressed in greater detail, as these variables impact the entrepreneurs' growth aspirations.

Table 10. Ordered probit model estimation for growth aspiration.

Variable	Coeff.	p.
Period:		
Transition	0.309	*
After	0.411	*
Motivation	−0.419	**
Gender	0.360	***
Education	0.227	***
Export: 10% or less	0.178	***
Export: 11% to 50%	0.302	***
Export: More than 50%	0.412	***
Age 30–39	−0.102	
Age 40–49	−0.125	
Age 50–59	−0.098	
Age ≥ 60	−0.089	
Skills	0.212	*
Fear of failure	−0.057	
Desirable career	−0.076	
Acknowledgments	0.076	*
Innovation	0.357	***
Mexico	0.105	.
Chile	−0.991	
Colombia	−0.385	
GCI1	0.075	
GCI2	0.285	
GCI3	0.236	
GCI4	−0.140	

Table 10. Cont.

Variable	Coeff.	p.
GCI5	0.982	*
GCI6	−1.489	*
GCI7	0.161	
GCI8	−0.509	.
GCI9	−0.228	
GCI10	−0.886	
GCI11	0.698	
GCI12	1.120	.
GDP growth	0.124	**
Gender * Other than Necessity	0.005	
Education * Other than Necessity	0.074	
Age 30–39 * Other than Necessity	0.102	
Age 40–49 * Other than Necessity	0.100	
Age 50–59 * Other than Necessity	0.064	
Age >= 60 * Other than Necessity	−0.122	
Skills * Other than Necessity	−0.071	
Fear of failure * Other than Necessity	−0.170	*
Desirable career * Other than Necessity	0.072	
Innovation * Other than Necessity	−0.206	*

Source: Prepared by the authors. *** < 0.01; ** ρ < 0.05; * ρ < 0.10.

To answer the first research question regarding the possible impact of the PA in each country, we created Table 11. This table shows the proportionality tests for the growth aspiration variable of the entrepreneurs that were presented earlier in the section. Mexico is presented as the positive case related to the implementation of the PA because, in that country, the proportion of entrepreneurs with high growth aspirations increased as progress was made in the implementation of the PA; the proportion of entrepreneurs with low aspirations also increased but to a lesser extent. In the case of Peru, the results show that there are significant differences for entrepreneurs who have low growth aspirations; this category showed an upward trend throughout the study period, indicating that the PA negatively affected entrepreneurs' growth aspirations. However, nothing can be concluded about the high growth aspirations in Peru because the changes were not significant.

Table 11. Comparison of growth aspiration by period: Before (B), transition (T) and after (A) implementation of the PA.

Growth Aspiration.	Peru..				Mexico..				Chile..				Colombia..							
	Period of Implementation				Period of Implementation				Period of Implementation				Period of Implementation							
	B	T	A	Total	B	T	A	Total	B	T	A	Total	A	T	D	Total				
Between 0 and 1 employees	0.26	0.39	0.35	661	***	0.23	0.37	0.40	535	***	0.22	0.27	0.51	2412	***	0.39	0.27	0.34	577	**
2 employees	0.26	0.32	0.42	180	*	0.17	0.43	0.40	154	***	0.18	0.29	0.53	788	***	0.38	0.30	0.32	270	
3 employees	0.23	0.37	0.41	93	.	0.23	0.41	0.37	79		0.21	0.32	0.47	461	***	0.44	0.30	0.26	202	**
Between 4 and 9 employees	0.32	0.35	0.33	156		0.23	0.35	0.42	179	**	0.24	0.31	0.46	1048	***	0.41	0.39	0.21	585	***
10 or more employees	0.23	0.33	0.44	78	.	0.25	0.25	0.50	52	*	0.19	0.37	0.44	697	***	0.37	0.47	0.16	551	***
Total Observations	305	430	433	1168		222	371	406	999		1139	1617	2650	5406		858	783	544	2185	

Source: Prepared by the authors. *** < 0.01; ** ρ < 0.05; * ρ < 0.1.

In the case of Chile, there were significant differences in the proportions of entrepreneurs at all levels of aspiration, and we noticed an increase in each category as the periods progressed; thus, no conclusion could be drawn regarding the type of effect produced by the PA. Finally, in Colombia, both the proportions of entrepreneurs with high and with low growth aspirations decreased; therefore, the

effects of the PA did not have a positive impact on this variable, which is one of the determinants of economic growth in these countries.

This study explored the impact of PA on growth aspirations and on other individual and contextual factors that determine entrepreneurs’ growth aspirations. Table 12 shows the marginal effects associated with each growth aspiration category. Through the marginal effects of the implementation period variable, it is possible to affirm that the PA has significant positive effects on entrepreneurs’ high-growth aspirations. Specifically, in the transition period and after the implementation of the PA, the likelihood that entrepreneurs have high growth aspirations increases and it is higher after the implementation. In contrast, the likelihood that entrepreneurs have low growth aspirations decreases during both periods. This result empirically demonstrates the effectiveness of the PA agreement on high-growth aspirations, thus achieving the main objective of this research by supporting that alliances matter.

Table 12. Marginal effects of the ordered probit model with sample selection bias on the likelihood of growth aspiration.

	Between 0 and 1 Employees	2 Employees	3 Employees	Between 4 and 9 Employees	10 or More Employees
Implementation period: Transition	-0.112 *	-0.011 .	0.004 **	0.048 *	0.071 *
Implementation period: After	-0.150 *	-0.013 .	0.006 **	0.064 *	0.093 .
Motivation	0.160 *	0.005 ***	-0.011 *	-0.071 *	-0.083 **
Gender	-0.135 ***	-0.007 ***	0.008 ***	0.059 ***	0.075 ***
Education	-0.086 **	-0.004 ***	0.006 *	0.038 **	0.046 **
Export: 10% or less	-0.065 ***	-0.006 ***	0.003 ***	0.028 ***	0.040 ***
Export: 11% to 50%	-0.106 ***	-0.013 ***	0.002 **	0.043 ***	0.074 ***
Export: More than 50%	-0.140 ***	-0.021 ***	0.000	0.055 ***	0.107 ***
Age 30–39	0.038	0.002	-0.002	-0.017	-0.022
Age 40–49	0.047	0.003 .	-0.003	-0.021	-0.026
Age 50–59	0.037	0.002	-0.002	-0.016	-0.021
Age ≥ 60	0.033	0.002	-0.002	-0.015	-0.019
Skills	-0.081 *	-0.003 ***	0.006 .	0.036 *	0.042 **
Fear of failure	0.021	0.001	-0.001	-0.009	-0.012
Desirable career	0.028	0.002	-0.001	-0.012	-0.017
Acknowledgments	-0.028 *	-0.002 *	0.002 *	0.013 *	0.016 *
Innovation	-0.136 ***	-0.004 **	0.010 **	0.061 ***	0.069 ***
Mexico	-0.038	-0.003	0.002	0.016	0.024
Chile	0.349	0.030	-0.012 .	-0.140	-0.228
Colombia	0.147	0.004	-0.011	-0.066	-0.074
GCI1	-0.028	-0.002	0.001	0.012	0.016
GCI2	-0.106	-0.007	0.005	0.046	0.062
GCI3	-0.088	-0.006	0.005	0.038	0.051
GCI4	0.052	0.004	-0.003	-0.023	-0.030
GCI5	-0.366 *	-0.026 .	0.019 .	0.160 *	0.213 *
GCI6	0.554 *	0.039 *	-0.029 *	-0.242 *	-0.323 *
GCI7	-0.060	-0.004	0.003	0.026	0.035
GCI8	0.189 .	0.013 .	-0.010 .	-0.083 .	-0.110 .
GCI9	0.085	0.006	-0.004	-0.037	-0.049
GCI10	0.330	0.023	-0.017	-0.144	-0.192
GCI11	-0.260	-0.018	0.013	0.114	0.151
GCI12	-0.417 .	-0.030 .	0.021 .	0.182 .	0.243 .
GDP growth	-0.046 **	-0.003 **	0.002 **	0.020 **	0.027 **
Gender * Other than Necessity	-0.002	0.000	0.000	0.001	0.001
Education * Other than Necessity	-0.028	-0.002	0.001	0.012	0.016
Age 30–39 * Other than Necessity	-0.037	-0.003	0.002	0.016	0.023
Age 40–49 * Other than Necessity	-0.037	-0.003	0.002	0.016	0.023
Age 50–59 * Other than Necessity	-0.024	-0.002	0.001	0.010	0.014
Age ≥ 60 * Other than Necessity	0.046	0.002	-0.003	-0.021	-0.025
Skills * Other than Necessity	0.026	0.002	-0.001	-0.012	-0.016
Fear of failure * Other than Necessity	0.064 *	0.003 ***	-0.004	-0.029 .	-0.034 *
Desirable career * Other than Necessity	-0.027	-0.002	0.001	0.012	0.016
Innovation * Other than Necessity	0.076 *	0.006 *	-0.004 *	-0.033 *	-0.045 *

Source: Prepared by the authors. *** < 0.01; ** ρ < 0.05; * ρ < 0.10.

As for the motivations of the entrepreneurs to start their own business, the likelihood of having high growth aspirations increases when the motivation is business opportunity, the entrepreneur is male and the level of education is relatively high. In particular, if the motivation to start is necessity, the probability that the entrepreneur will have low growth aspirations increases ($Y_i = 1, 2$), but if,

on the contrary, motivation is related to business opportunities, it is more likely that he or she will aspire to grow with more employees. Regarding gender, if the entrepreneur is male, he is more likely to have high aspirations to grow his business ($Y_i = 4, 5$); if the entrepreneur is female, there is a greater likelihood of having low growth aspirations. Education, as a determinant of aspiration, means that if the entrepreneur presents a high level of education, the probability of having high growth aspirations increases relative to that of people who do not have had access or have low levels of education.

Similarly, variables such as export capacity, possession of the skills needed to start a business, recognition, and absence of a fear of failure can also favorably affect the likelihood of growth aspirations. Specifically, the export capacity of entrepreneurs has a significant effect on growth aspirations; that is, the greater the export capacity, the greater the probability of having high growth aspirations ($Y_i = 4, 5$) compared to entrepreneurs who do not export. Possessing enough skills to start a business also increases the probability of having high growth aspirations ($Y_i = 5$) versus not having these skills; the latter, on the contrary, increases the probability of having low growth aspirations. The recognition variable behaves in a similar manner; the higher its value is, the greater is the entrepreneur's likelihood of aspiring to have a high number of employees. Fear of failure becomes significant when it interacts with motivation. More precisely, entrepreneurs who express a fear of failure, even when they start their businesses due to motivations other than necessity, will have a higher probability of having low growth aspirations than entrepreneurs who are not afraid of failure and start their businesses motivated by necessity. The situation regarding the interaction of innovation and entrepreneurship due to a motivation other than necessity is similar.

Variables other than those listed in the previous paragraph also affect the likelihood of growth aspirations. Higher education and training (GCI5) increase the likelihood that entrepreneurs aspire to expand their businesses to include a large number of employees. The opposite occurs with the efficiency of the goods market (GCI6) because, as the rating of this factor increases, the probability that the entrepreneur aspires to have high growth in his or her business decreases. This result was unexpected because it seems natural that the higher the efficiency is, the higher the growth aspirations should be. This variable may interact with the fear of failure because it is possible that faced with the challenges imposed by competitive markets in terms of productive efficiency and competitiveness, many entrepreneurs severely restrict their expectations of future earnings and decide to remain in small and very low-growth projects due to fear of not having the necessary skills and knowledge and not feeling secure about the future of their markets. In terms of GDP growth rates, as the growth rate of the economy increases, it is more likely that entrepreneurs will have high growth aspirations; this is an expected result because it reflects a positive picture of the economy of a country based on the expectations that entrepreneurs have about the behavior of the economy. We answered the second research question through the understanding of these variables that determine the growth aspirations of entrepreneurs in the PA.

Finally, to answer the third question posed in this study, which addresses innovation as a determinant in growth aspirations, given the great efforts that have been developed through the PA, there are two pieces of relevant information. Innovation, as a variable of the GEM wherein the perception of entrepreneurs is measured with respect to whether their offer is innovative, is a determinant of the aspirations of entrepreneurs; undertaking innovative entrepreneurship decreases the probability of having low growth aspirations with respect to those who perform imitation activities. However, the innovation variable, taken from the GCI, is not significant in explaining the growth variables in the implementation periods of the PA. This finding provides empirical evidence for the need to continue working on the subject of innovation as a structural factor of institutions to accompany and enhance the competitiveness of entrepreneurs.

It is important to mention that the ordered probit model with selection bias presents robustness in its estimates given that various tests were performed to categorize the implementation variable of the PA. Three alternative periods were tested: (1) before (Period 2010–2013) and after (Period 2014–2017); (2) before (Period 2010–2015) and after (Period 2016–2017); and (3) before (Period 2014–2015) and after

(2016–2017). In all of these estimations, results consistent with those obtained in the current three-period model were obtained, and a decision was made to develop the analysis using the ordered probit model, given that it permitted a better evaluation of the effects of the changes over the implementation period related to important milestones of the PA, as explained previously regarding the construction of the variable.

5. Conclusions, Implications and Future Research

The main objective of this research was empirically to demonstrate if the alliances in Latin America affect the high-growth aspirations of entrepreneurs, given the effect such aspirations have on the growth and development of business economics [10]. In this study, we demonstrated empirically that the implementation period, a proxy variable used to measure the implementation of the PA, is a determining factor in high-growth aspiration. Aspirations of this type improve the quality of the ventures and therefore will be aligned with the objectives of the PA regarding the growth and development of the member countries. These results contribute to measuring the effectiveness of the PA through an empirical model and to the understanding of the relationship of variables and their determinants. Of course, future studies that can empirically evaluate the achievement regional development by the implementation of this alliance through other proxy variables. Additionally, the exploration of effectiveness of other regional alliances is valuable to have a better understanding of how the different agreements could affect economic growth through the development of entrepreneurship.

Among the main results, it was found that Mexico and Peru exhibit significant positive differences over the periods considered in the implementation of the PA, given that they exhibit increases in high growth aspirations and reductions in low aspirations. Colombia is presented as a negative case because in this country, high aspirations decrease throughout the implementation period. In this sense, it would be interesting to explore in depth the possible variations in these countries in terms of the strategies that have produced these different results. Perhaps Mexico, which presents the worst situation among the four countries according to the GEM indices analyzed, has a greater recovery gap and its progress therefore exceeds that of the other three countries. This emphasizes the necessity of carefully analysing the policies established in the agreement of the four countries because, although the objective is the same in each country, the implementation should perhaps consider the differences in the current situations in each country.

Likewise, it was found that motivation and opportunity to start a business, being male, and having a high educational level and the necessary skills increase the probability of having high growth aspirations. In this sense, it is suggested that each country should develop policies that allow greater inclusion of women and of people with lower educational levels. This goal could be accomplished through education and the provision of the necessary accompaniments to allow these individuals to take advantage of environmental factors that create opportunities for initiatives in these countries. Clearly, one of the important factors that determines high growth aspirations is exports [38]; however, only a slight growth in exports of more than half of the supply versus a significant increase in non-exports of entrepreneurs occurs as the implementation of the PA is developed. Therefore, within the PA, all efforts that allow entrepreneurs to increase the percentages of their offers that are sold abroad should be fine-tuned. We suggest that, to broaden our conclusions, future research should examine alliances in other comparative contexts, particularly in developed markets.

One of the unexpected findings of this study was that the likelihood of having high growth aspirations decreased as the efficiency of the goods market improved (IGC6). This finding may be related to the stage of development of these countries in terms of their competitiveness; although this index is improving, there is still a gap to consider given that there may be a minimum level of efficiency that positively impacts entrepreneurial high-growth aspirations. Other factors that could influence this result are fear of failure and lack of skills needed to start a business; both of these factors could be interacting with market efficiency. Perhaps a lack of academic preparation could be positively correlated with the lack of skills; if so, some entrepreneurs might not feel secure before the demands of

much more efficient markets, causing them to prefer small or low-growth businesses. In this context, it is necessary to conduct more specific studies to determine whether these variables negatively affect the probability of high-growth aspirations and to create institutional support programmes that contribute to the academic training of people. This would decrease the asymmetries in the understanding of the signals that the markets send and increase the potential of entrepreneurs with high growth aspirations.

The innovation variable, which has been the object of much of the effort made by the PA in achieving its objectives, is shown to be an important determinant of growth aspirations when we consider the entrepreneurship level (GEM variable) but not the innovation index measured in the GCI report. In this sense, it is suggested that future studies be conducted that deepen the subject and permit the evaluation of whether the PA strategies are effective in the development of these ventures through innovation or whether the developed activities have not had a significant impact on the improvement of the growth aspirations of these entrepreneurs. Of course, it would be fulfilling to study the impact of innovation on economic growth through other alliances.

The present study has some limitations. First, the study of the impact of the implementation of the agreement of the PA considers three periods of time: before, transition and after. However, it is possible that the study does not capture all of the effects of the Agreement on the dependent variable. A possible future line of research would include the generation of other variables that capture greater variance of these efforts. Another possible limitation of this study is that it uses only the growth aspiration variable to measure the effects of the PA; it would be interesting to consider other dependent variables, including the growth of exports, the number of innovation projects versus the number of imitation projects, the quality of the products produced by innovation projects, and the number of projects that expect to enter the international market, among others.

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