# PERCEPTIONS AND SOCIAL REFERENCES IN SENIORS ENTREPRENEURS: EVIDENCE FROM LATIN AMERICA COUNTRIES

# Gustavo Barrera, Faculty of Engineering and Business, Universidad de Las Américas, Chile

### **ABSTRACT**

Due to the employment difficulties of older people, entrepreneurship has become a suitable option to improve their well-being. In Latin America, the incidence of self-perception, perception of opportunities, fear of failure, and relationship with other entrepreneurs, has not been analysed in-depth among the cycle of life. This research evaluates these psychological traits on older people, and their impact on participation in the early stages of entrepreneurship and their intention to start a business. Through the data set from the GEM Adult Population Survey 2015, a logistic regression analysis is performed in 11 Latin American countries, comparing the magnitudes of regression coefficients among age cohorts. The results show that there are significant differences in adults over 54, especially in self-perception and relationships with other entrepreneurs. Findings can guide the efforts of universities, governments, and units associated with corporate social responsibility in private companies, to develop programs with a high impact on the entrepreneurship of older adults. This research contributes to recognise that the effects of psychological and social factors change throughout the life cycle, also, to understand that the perceptual and social conditions studied, have a high impact on the variance of early-stage entrepreneurship and venture intention in Latin American seniors.

**Keywords:** Senior Entrepreneurship, Self-Perceptions, Perception of Opportunities, Fear of Failure, Social Capital.

### **INTRODUCTION**

Life expectancies have increased significantly in recent years, reaching a mean of 72 years worldwide by 2019 and exceeding 75 years in Latin American countries (World Bank, n.d.). Complementarily, the digital transformation in companies is changing the operational processes in productive sectors and the labour market. In recent years, the replacement of workers by robots and software is growing (Berg et al. 2016), as well as the rotation of workers and the presence of new forms of employment such as teleworking (Martin & Omrani, 2015). Faced with this new scenario, older people have difficulties in obtaining and maintaining jobs, since their formal education is less recent, and they face more significant deficiencies in adopting new technologies (González-Oñate et al. 2015). Evidence of this reality is the higher rate of employment in people over 60 years in eight Latin American countries, which reached only 35.4% in 2016 (CEPAL, 2018).

Due to employability problems in older adults, entrepreneurship has been highlighted as an activity for the expression of personal initiatives and income generation (Cooney & Licciardi, 2019; Gallardo, 2012). Consequently, adults over 55 with low family income, little education, and therefore less employability constitute a group that currently attracts the attention of

programs for social development in Latin America, which seek to strengthen their participation in ventures.

Both psychological and social variables contribute to the understanding of entrepreneurial activities, models have determined two relevant conditions for participation in entrepreneurship (Shapero & Sokol, 1982; Ajzen, 1991), firstly, the degree of favourable or unfavourable perception about ventures conditions and, secondly, the understanding of control on performance and the belief in possessing the necessary capabilities to undertake. Regards, several concepts have been studied, such as social norms (Marulanda Valencia et al. 2014; Bhat & Singh, 2018), attitudes towards entrepreneurial behaviour (e.g., Ghio et al. 2019; Fayolle & Gailly, 2015), and entrepreneurial Self-Efficacy (e.g., Nowiński et al. 2019; Fuller et al. 2018). Despite the importance of these variables, Latin America has been a lack of a deep understanding of their magnitude in older populations, particularly, respect to differences with people who are in the middle stages of life and have greater possibilities for creating businesses for their experience, training, or well-being in health.

This research seeks to evaluate the differences on self-perception of knowledge and entrepreneurial skills, the fear of failure to develop new businesses, the perception of opportunities and knowledge of other entrepreneurs, among people who transit in different stages of life in Latin America, and it analyses the influence of these variables on participation in entrepreneurship in the phases of life. A comparative analysis by age cohorts is carried out on data published in GEM's APS 2015. The findings contribute to the knowledge of individual factors that affect entrepreneurship, since it allows the recognition of psychological and social conditions with a higher incidence in senior adults, which facilitates the understanding of the changes that an entrepreneur or person with the intention of entrepreneurship undergoes throughout his/her life cycle, and contributes to the design of support programs.

### LITERATURE REVIEW

### **Senior Entrepreneurship**

Mostly, senior entrepreneurship is defined as entrepreneurial activities carried out by people over 50, considering the process of opening, creating, and operating businesses after this age (Blackburn et al. 2000; Kautonen, 2012). Loretto and White (2006) point out that the literature tends to recognise entrepreneurs in the 55-64 age range as seniors. This research considering a senior entrepreneur, a business owner with less than 42 months in existence (Early-stage Entrepreneurial Activity-TEA), and an age higher than 54 years old.

Senior entrepreneurship generates economic and social benefits (Weber & Schaper, 2004), although older entrepreneurs are less inclined to innovate and adopt new technologies, and their businesses may have less growth potential. In particular, this type of entrepreneurship reduces social security financing and creates job opportunities for the unemployed (Kautonen et al. 2008). These entrepreneurs may be motivated by financial needs, as well as the search for new opportunities that modify their work reality (Isele & Rogoff, 2014) or a better balance in their lives by accessing flexible jobs (Walker & Webster, 2007). Likewise, contextual conditions, such as favourable government policies, are especially relevant for this entrepreneurship group (Pilkova et al. 2014; Pilková & Rehák, 2017).

Senior entrepreneurs share intra-group characteristics (Matos et al. 2018), as the social capital accumulated throughout their lives, which improve the probabilities of survival businesses (Singh & DeNoble, 2003), also, previous work experience that involves obtaining

technical and experiential knowledge, which supports the permanence of their ventures (Ahmad et al. 2014; Rotefoss & Kolvereid, 2005). Concerning differences between senior entrepreneurs and other age cohorts, a distinction is made between their gender distribution, since a notably higher proportion of men have been found in this cohort (Weber & Schapper, 2004). Another important distinction is their lower post-secondary educational background, compared to their younger counterparts (Tervo, 2014). Besides, the modality of "necessity entrepreneurship", typical of Latin America, is correlated with senior entrepreneurs (Rubach et al., 2015; Maldonado Briegas et al. 2016); thus, there are projects and funds for strengthening entrepreneurship in older adults due to the insufficient income of retired people (Oelckers, 2015).

# **Self-Perception**

Self-concept is the sum of the thoughts and feelings that an individual has about himself or herself (Gecas, 1982). It is a complex psychological construct, with affective and cognitive components, and can refer both to the subject as a whole and self-perception in specific fields (Bong & Clark, 1999). To this day, there is a discussion in the literature regarding the distinction between self-concept and self-efficacy. However, in general, self-efficacy is understood as a more operative and exclusively cognitive notion (Marsh et al. 2019), while self-concept is related to structuralist currents that have emphasised the social and comparative field with other people (Rosenberg, 2017).

Thus, self-efficacy is defined as a person's beliefs about his or her abilities to obtain desired outcomes (Bandura, 2001). Besides, the literature has focused on entrepreneurial self-efficacy, understood as an individual's confidence that he or she is capable of successfully performing the various roles and tasks of the enterprise (Newman et al. 2019). A topic of broad interest is the variability of self-efficacy among people (Unrau et al. 2018), so the positive effect of entrepreneurship education on self-efficacy has been recognised (Newman et al. 2019; Zhao et al. 2005), as well as the strong positive impact of socioeconomic status and social capital. (Han et al. 2014).

It is recognised that with increasing age, the perception of one's abilities to run a business successfully would tend to decrease (Bohlmann et al. 2017). It has also been suggested that entrepreneurial self-efficacy develops during childhood (Obschonka et al. 2010), reaching its maximum level in middle age, and then goes down as the perception of entrepreneurial opportunities also decreases (Gielnik et al. 2012).

In Latin America, self-efficacy has been studied in higher education students, a group that is mostly composed of young people (Soria-Barreto et al. 2016; Durán-Aponte & Arias-Gómez, 2015). For instance, Llamazares et al. (2015), highlights the incidence of self-efficacy in young people but does not make a comparative analysis with other generations. Regarding the evaluation of self-efficacy in older people, no relevant information has been published on entrepreneurship in this region; the few related studies to link self-efficacy with health well-being, and quality of life in this group (e.g., Ortiz Arriagada & Castro Salas, 2009; Rodríguez Garza, 2002). Since previous research on other contexts suggests differences in self-efficacy between age groups, this research proposes that in Latin America, such variations are maintained about their incidence on entrepreneurship, and the following hypothesis is presented.

H1: The incidence of self-perception on participation in TEA and on the intention to create a new business is significantly different among Latin American seniors.

# **Social Capital and Networking**

Increasingly, the literature has recognised the importance of social relationships in successful entrepreneurship (De Carolis & Saparito, 2006; Stuart & Sorenson, 2005). One way of understanding the role of these relationships is from the concept of social capital, that is, the investment in social relations that are beneficial to the individual performance and, therefore, to entrepreneurship (Kim & Aldrich, 2005). It is also possible to utilise the concept of social networks, that is, personal contacts that facilitate the acquisition of resources by entrepreneurs (Neira et al. 2013; Banks & Hengartner, 2008).

The positive influence of social capital on successful entrepreneurship has been empirically supported around the world (Estrin et al. 2013). Latin America is no exception, public policy studies in the region have highlighted the importance of family and social capital in overcoming the obstacles to entrepreneurship (e.g., Lora & Castellani, 2013); thus, social capital in a country is an essential predictor of higher levels of entrepreneurship (Merino & Chanes, 2011). Besides, several recent studies have focused precisely on the importance and form that social capital takes in Latin America, this includes studies located in countries such as Colombia (Henley et al. 2017), México (Estrada-Robles et al. 2018), and Chile (Felzensztein et al. 2015). There has also been recent interest in studying Latino migrant communities, where interpersonal relationships are even more necessary for income generation (Allen & Busse, 2016; Ortiz-Walters et al., 2015).

Gender is a factor related to social capital since women have more social networks than men, and therefore, they are more collaborative in their ventures; instead, men tend to be more strategic (Tata & Prasad, 2015; Yetim, 2008). Also, a high socioeconomic level helps to have a more privileged social capital (Anderson & Miller, 2003). Related between age and social capital has been scarcely studied in entrepreneurship, the little existing literature indicates that senior entrepreneurs accumulate social capital through their life, and they are aware of the importance of this (Broadbridge, 2010), especially in older women (Terjesen, 2005). Besides, older adults tend to have a high need for social capital to address age-related obstacles (Isele & Rogoff, 2014). Although a comparative analysis that contrasts the social capital between generations in Latin America is not available, the evidence in other contexts suggests differences about their incidence on entrepreneurship, and the following hypothesis is proposed.

H2: The incidence of social capital on participation in TEA and on the intention to create a new business is significantly different among Latin American seniors.

### Fear of Failure

This construct evaluates individuals' beliefs about the harmful consequences of failure in multiple dimensions (Conroy, 2001). The fear of failure in the business world has been a factor of particular interest, due to its double predictive role, since the fear of failure can be an inhibitor of entrepreneurship, but it can also encourage the creation of businesses (Berger, 2015; Cacciotti et al. 2016). Most of the business literature has recognised that fear of failure affects the entrepreneurial activities negatively (Ng & Jenkins, 2018), but, in the opposite sense, it has also been associated with behaviours that contribute to business success (Cacciotti & Hayton, 2015; Wood & Pearson, 2009). In Latin America, it has been recognised that the fear of failure is relatively high (Neira et al. 2013). However, it has also been argued that it is not an effective

deterrent for entrepreneurship that is motivated by a lack of employment and income to subsist (Rubach et al. 2015).

The effect of fear of failure on entrepreneurship is affected by different demographic, cultural, and social conditions. It has been recognised that a person's social and cultural capital, and economic resources, reduce the fear of failure by providing greater security against losses from failed ventures (De Clerq & Arenius, 2003). In the field of culture, collectivism and its stability reduce the negative effect of fear of failure on entrepreneurship (Wennberg et al. 2013; Vaillant & Lafuente, 2007) likewise, in more traditional cultures, gender roles increase the effect of fear of failure on women, (Shinnar et al. 2012); moreover, in these contexts, women show higher levels of fear of failure (Berger, 2015). Concerning age, the evidence tends to support that the fear of failure is lower in older people, Duhamel et al. (2016) indicate that in Canada, fear of failure is present in 31.2% of older people versus 42.9% of the general population; complementarily, Holienka et al. (2016) study youth entrepreneurship, showing that fear of failure is a relevant inhibitor to start-ups creation in this group. Although no extensive analysis by age cohorts about the effect of fear of failure on entrepreneurs exists in Latin America, as inferred by results obtained in other contexts, the following hypothesis is proposed.

H3: The incidence of fear of failure on participation in TEA and on the intention to create a new business is significantly different among Latin American seniors.

# **Perception of Opportunities**

From an economic perspective, opportunities arise due to imbalances between supply and demand. On the other hand, from a personal perspective, the understanding of opportunities is related to the capabilities of the entrepreneur, who can recognise them successfully (Renko et al. 2012). There is consensus that the perception of an opportunity depending on the discoveries about changes in the environment, but also of the entrepreneur's creativity who will manage to recognise a significant event (Edelman & Yli-Renko, 2010; Baron, 2006). According to the paradigm of personal capacities, different variables have been studied that are related to the recognition of opportunities, such as psychological and demographics aspects (Arenius & Minniti, 2005). In Latin America, the findings also indicate that the perception of opportunities is an essential predictor of entrepreneurship and is enhanced by the degree of people's education (Lecuna et al. 2017).

Gender differences have been found in recognition of opportunities, so the more significant participation in entrepreneurship by men could be explained by a lower subjective perception of opportunities by women (Minniti, 2010; Bosma & Schutjens, 2011). Education is also a significant factor that supports the successful recognition of business opportunities (Arenius & Minniti, 2005). Regarding the comparative analysis of the perception of opportunities by age, research is nascent; Bohlmann et al. (2017) show that this condition decreases significantly in people over 70 years. Similarly, Gielnik et al. (2017) identify a negative correlation between the recognition of opportunities and the age in managers of small companies. Based on the evidence obtained in other contexts regarding the relationship between age and perception of opportunities, the following hypothesis is presented.

H4: The incidence of perception of opportunities on participation in TEA and on the intention to create a new business is significantly different among Latin American seniors.

### MATERIAL AND METHODS

# **Information Source and Sample**

In order to achieve the objective of this study, 28,183 valid responses from GEM's Adult Population Survey (APS) collected in 2015 -and publicly available- (Global Entrepreneurship Monitor, n.d.) have been analysed. Selected responses were obtained from Latin America, particularly: Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, México, Panamá, Perú, Puerto Rico, and Uruguay. Respondents are men and women who belong to the general adult population and are grouped into age ranges of 18-24, 25-34, 35-44, 45-54, 55-64, and 65-120.

This research studies the person's participation in the group of senior entrepreneurs in the initial stages, composed of people over 54 years old who own businesses that are less than 42 months old (Total Early-stage Entrepreneurial Activity, TEA). The entrepreneurial intention of adults over 54 years old is also studied. The age range starting from 55 years old is supported by Loretto and White (2006).

### **Evaluation of Variables**

From the Adult Population Survey (APS) of the Global Entrepreneurship Monitor (GEM), questions are selected to evaluate positive self-perceptions, knowledge of other entrepreneurs, fear of failure as a barrier to starting new businesses, and perception of opportunities to start new businesses. Table 1 describes the survey items that have been chosen, as well as their measurement scale and theoretical background.

Table 1 QUESTIONS AND AFFIRMATIONS INCORPORATED IN THE ANALYSIS									
Question or Affirmation	Theoretical Basis	Examples of Uses	Measurement						
Do you expect, individually or with others, to start a new business, including self-employment in the next three years?	Reference to the projection of creating a new business, which is consistent with the definition of entrepreneurial intent (Thompson, 2009).	Klyver and Hindle (2007). Brixy et al. (2012).	Dummy, Dichotomous: yes or no.						
He or she is involved in Total Early-stage Entrepreneurial Activity.	It evaluates participation in ventures less than 42 months old, which corresponds to the definition of TEA in GEM.  Bosma and Schutjens (2009). Dumitru and Dumitru (2018).								
Do you know anyone who started a business in the last two years?	It is related to being close to another entrepreneur, which contributes to the development of new businesses, according to the authors (e.g., Farooq et al., 2018; De Carolis & Saparito, 2006).	Shim and Kim (2018). Ramos-Rodríguez et al. (2010).	Dummy, Dichotomous: yes or no.						
Do you have the knowledge, skills, and experience needed to start a new business?	Assesses the self-perception of entrepreneurial skills. Consistent with the concept of entrepreneurial self-efficacy, according to Newman et al. (2019).	Clercq and Arenius (2006). Mühlböck et al. (2018).	Dummy, Dichotomous: yes or no.						
Does the fear of failure prevent you from starting a new business?	It is related to fear of failure and avoidance in entrepreneurship. This approach follows the guidelines of previous publications (Ng & Jenkins, 2018).	Beynon et al. (2018). Minniti (2010).	Dummy, Dichotomous: yes or no.						
Will there be good	It measures the perception of	Casero et al. (2010).	Dummy,						

business opportunities	opportunities to create a business,	Espinosa and Stiepoviæ	Dichotomous:
where you live in the next	referring directly to opportunities and	(2006).	yes or no.
six months?	is consistent with definitions of this		-
	concept (e.g., Eckhardt & Shane,		
	2003).		

### **DATA ANALYSIS**

The evaluation is performed by logistic regressions, estimating odds ratios and *p*-Value to assess the significance of coefficients; also, Pseudo-R2 to recognise the variance percentage explained on dependent variables. The observations have been weighted by age and gender factor associated with distribution in the countries studied, in order to achieve proportional representativeness. The logistic regressions estimated with the Maximum Likelihood Method, to assess business intent and participation in TEA within each age cohort are presented below, "i" represent each age cohort.

Early-stage entrepreneur TEA 
$$(i) = \beta 0i + \beta 1i \times P$$
 opportunities  $+ \beta 2i \times Know$  entrepreneur  $+ \beta 3i \times P$ \_self-perception  $+ \beta 4i \times F$ \_failure

Intention to create a business 
$$(i) =$$
 (2)

 $\beta 0i + \beta 1i \times P$  opportunities  $+ \beta 2i \times Know$  entrepreneur  $+ \beta 3i \times P$ \_self-perception  $+ \beta 4i \times F$ \_failure

### **FINDINGS**

Table 2 presents the percentage of the adult population who: have known an entrepreneur in the last two years; have the knowledge, experience, and skills required to start a new business; perceives good opportunities to open a business; the fear of failure will prevent him/her from creating a business; integrate the TEA group. The figure shows the findings, differentiating the results by age.

Table 2 AFFIRMATIVE RESPONSES BY AGE										
	Know an Entrepreneur Positive Self-Perceives Opportunities Fear of Failure Particip									
18-24	39%	50%	49%	32%	17%					
25-34	44%	61%	49%	32%	25%					
35-44	43%	63%	47%	34%	24%					
45-54	38%	63%	46%	34%	20%					
55-64	34%	55%	43%	35%	14%					
65-120	24%	49%	43%	34%	8%					

The groups of people aged 55-64 and 65-120, show less self-perception of capabilities, less knowledge of nearby entrepreneurs, and less participation in entrepreneurship in the initial stages. It is also recognised that the opportunity perception is higher in those under 35 and tends to decrease in older cohorts. When performing the non-parametric Chi-square test for comparison of proportions in qualitative variables, significant differences in proportions on self-perception of capabilities, knowledge of nearby entrepreneurs, and participation in entrepreneurship in the initial stages are observed among the groups studied, with 99% of confidence (p < 0.01). Concerning differences in fear of failure and opportunity perception,

significantly different proportions were found in groups of young people, which was corroborated by the Chi-square test with 99% or 95% of confidence (p < 0.01 or p < 0.05).

# **Regression Analysis by Age Groups**

Table 3 presents the results of logistic regressions with odds ratios, *p*-Value to measure the coefficients' significance, Chi-square parameter for the goodness of fit, and Pseudo-R2 to measure the percentage of variance on the dependent variable that is explained by the independent variables in the regression. Significantly higher magnitudes are observed on older adults in the odds ratios of self-perception of skills, knowledge, and experience, and knowledge of another entrepreneur.

	Table 3 REGRESSIONS WITH PARTICIPATION IN TEA AS A DEPENDENT VARIABLE										
	Perceives Know a Opportunities Entrepre					Self-Per	rception	Fear of	Failure		
	Odds	p-	Odds	p-	Odds	p-	Odds	p-	Ps-R2	N	
	Ratios	Value	Ratios	Value	Ratios	Value	Ratios	Value	1 3-112	14	
18-24	1.43	0.00	2.53	0.00	4.37	0.00	0.72	0.00	0.13	5,298	
25-34	1.63	0.00	2.15	0.00	3.28	0.00	0.75	0.00	0.10	6,786	
35-44	1.51	0.00	2.39	0.00	2.91	0.00	0.79	0.00	0.10	5,935	
45-54	1.66	0.00	2.00	0.00	2.96	0.00	0.75	0.00	0.09	5,013	
55-64	1.99	0.00	2.73	0.00	4.76	0.00	0.73	0.01	0.15	3,600	
65-120	1.76	0.00	2.70	0.00	6.60	0.00	0.75	0.18	0.15	1,551	

Also, Pseudo-R2 parameters of the regressions are higher in the older people that integrate the cohorts 55 to 64 (0.148) and 65 to 120 (0.140) years old. These results indicate that the psychological and social variables studied, explain a more percentage of the variance concerning the participation in TEA, and consequently have higher explanatory capacity on the nascent venture of these groups. Table 4 differentiates the magnitudes of odds ratios associated with self-perception of skills, knowledge, and experience in each age cohort by gender. The results indicate that this condition is especially relevant for men between 55 and 64 years of age. In the case of women, the magnitudes are slightly higher in those over 54.

	Table 4 SELF-PERCEPTION'S ODDS RATIOS. TEA IS THE DEPENDENT VARIABLE											
			Men		Wo	men						
	Odds Ratios	<i>p</i> -Value	Ps-R2	N	Odds Ratios	<i>p</i> -Value	Ps-R2	N				
18-24	4.01	0.00	0.12	2,872	5.53	0.00	0.14	2,855				
25-34	3.32	0.00	0.09	3,579	3.75	0.00	0.10	3,786				
35-44	3.21	0.00	0.08	3,132	3.11	0.00	0.11	3,286				
45-54	3.28	0.00	0.07	2,638	2.98	0.00	0.08	2,799				
55-64	4.57	0.00	0.11	1,850	5.24	0.00	0.15	2,076				
65-120	6.68	0.00	0.09	813	6.20	0.00	0.20	1,005				

Figure 1 represents the odds ratios associated with the self-perception of personal attributes to undertake by age and gender, and this is the variable with the most significant incidence on participation in TEA. It highlights the greater relevance of this condition in the age groups of 55-64 and 65-120 years. Among the older population, having self-perception of knowledge, skills, and experiences to undertake, implies a probability of participation in TEA

significantly higher than those who do not express this characteristic. Besides, the odds ratios estimated by gender demonstrate that the contribution of self-perception of attributes to entrepreneurship in TEA is higher among women in the 55-64 age group.

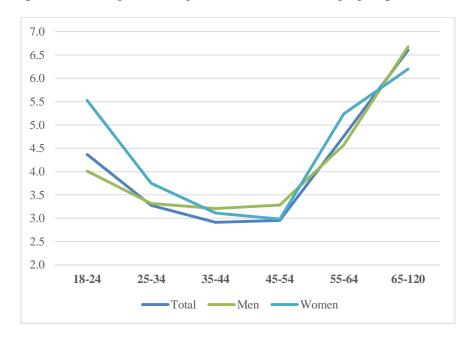


FIGURE 1
ODDS RATIOS OF SELF-PERCEPTION IN TEA, BY AGE AND GENDER

Table 5 replicates the analysis made in Table 3, considering the intention to create a new venture by people who are not currently involved in entrepreneurial activities. Although with a lower magnitude in odds ratios obtained, the results are similar to those previously exposed in people who participate as Early-stage Entrepreneurship Activities (TEA). The high odds ratios in people over 54, and the negative influence of fear of failure as an impediment to entrepreneurship in the group over 64, stand out. In the opportunities perceptions, there is also a higher incidence in the groups over 54 years of age.

REGRE	Table 5 REGRESSIONS RELATED TO THE INTENTION TO CREATE A VENTURE -NOT INVOLVED IN ENTREPRENEURSHIP										
	Perceives Know an Opportunities Entrepreneur Self-Perception Fear of Failure										
	Odds Ratios	<i>p</i> -Value	Odds Ratios	<i>p</i> -Value	Odds Ratios	<i>p</i> -Value	Odds Ratios	<i>p</i> -Value	Ps-R2	N	
18-24	1.74	0.00	1.16	0.03	2.90	0.00	0.76	0.00	0.08	4,192	
25-34	1.86	0.00	1.25	0.00	2.58	0.00	0.97	0.65	0.07	4,620	
35-44	1.79	0.00	1.29	0.00	2.64	0.00	1.01	0.88	0.07	3,838	
45-54	1.58	0.00	0.10	0.98	3.19	0.00	1.15	0.09	0.07	3,349	
55-64	2.25	0.00	1.13	0.27	4.21	0.00	1.12	0.09	0.11	2,602	
65-120	2.27	0.00	1.22	0.32	4.50	0.00	0.84	0.00	0.11	1,225	

## **CONCLUSIONS AND DISCUSSION**

The above results show that, when comparing the coefficients in participation in TEA (Table 3) and intention to create a new venture (Table 5), associated with self-perception of capacities, skills, and experiences, the knowledge of other entrepreneurs and opportunities perceptions, significant differences are recognised among the older people; therefore H1, H2, and H4 are validated. Regarding fear of failure, it is proven that this condition reduces to a greater extent the participation in TEA and intention in entrepreneurship in the cohort between 18 and 24 years old. Also, that fear of failure reduces the intention to undertake in adults over 64; therefore, it is possible to argue that the results show differences between the older and younger age groups, and the hypotheses H3 are validated. Additionally, odds ratios and Pseudo-R2 in Figure 1 supports the higher importance among the older people of self-perception and to know an entrepreneur; these results suggest that these psychological and social conditions are more important in explaining the participation of senior people in the business.

When analysing such conditions by age cohorts, significant disparities are recognised. These results are related to those published by previous authors (e.g., Bohlmann et al. 2017; Duhamel et al. 2016; Broadbridge, 2010) and extend the knowledge about the effect of the psychological and social conditions on entrepreneurship in different phases of the life cycle in the Latin American population. Particularly noteworthy is the lower ratio of self-perception of knowledge, skills, experience, and knowledge of other entrepreneurs in the older cohorts.

Besides, regarding the influence of the variables studied on the intention to create a new venture and the participation in TEA, self-perception of knowledge, skills, and experiences, and the knowledge of entrepreneurs show an outstanding incidence in the group of older adults. Additionally, the research supports that the psychological and social conditions studied explain a higher variance in TEA participation of older adults; this result is evidenced by higher Pseudo-R2 in the regressions of these groups.

In summary, the novelty and the contribution of this research for Latin America are:

- 1. To identify that some psychological and social factors are more important in older adults´ entrepreneurship.
- 2. To understand that the psychological and social conditions studied, have a more impact on the variance of early-stage entrepreneurship in older adults, considering the magnitudes of Pseudo-R2 obtained.

These outcomes are particularly important for social welfare in Latin American countries, since, as has been pointed out, there is growing unemployment among the elderly, as well as low retirement pensions.

From a practical perspective, the findings can guide the efforts of universities, governments, and units associated with corporate social responsibility in private companies, as they identify factors with a high impact on the entrepreneurship of older adults. Concerning the self-perception of skills, knowledge, and experience; training programs, mentoring, and coaching, as well as the development and dissemination of entrepreneurial networks focused on older adults, should contribute to the development of this personal quality.

### LIMITATIONS AND FUTURE RESEARCH

The research incorporates a significant number of Latin American countries; however, some states have not been evaluated. Additionally, the evaluation is transactional and compares groups at the moment in time, without recognising changes in those evaluated longitudinally, throughout their life cycle. Despite these limitations, the high number of cases and the weighting of responses according to the proportion of age and gender, support findings. Future research could investigate complementary psychological conditions considered relevant, such as the

perception of social norms linked to entrepreneurship and expand the number of countries in this region.

### REFERENCES

- Ahmad, N.H., Nasurdin, A.M., Halim, H.A., & Taghizadeh, S.K. (2014). The pursuit of entrepreneurial initiatives at the "silver" age: From the lens of Malaysian silver entrepreneurs. *Procedia-Social and Behavioral Sciences*, 129, 305-313.
- Ajzen, I. (1991). The theory of planned behavior. *Organisational Behavior and Human Decision Processes*, 50(2), 179-211.
- Allen, R., & Busse, E. (2016). The social side of ethnic entrepreneur breakout: Evidence from Latino immigrant business owners. *Ethnic and Racial Studies*, *39*(4), 653-670.
- Anderson, A.R., & Miller, C.J. (2003). "Class matters": Human and social capital in the entrepreneurial process. *Journal of Socio-Economics* 32(1), 17-36.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), 233-247.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. Annual Review of Psychology, 52(1), 1-26.
- Banks, D.L., & Hengartner, N. (2008). Social networks. *Encyclopedia of Quantitative Risk Analysis and Assessment,*4.
- Baron, R.A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs "connect the dots" to identify new business opportunities. *Academy of Management Perspectives*, 20(1), 104-119.
- Berg, A., Buffie, E.F., & Zanna, L.F. (2016). Robots, growth, and inequality. Finance & Development, 53(3), 10-13.
- Berger, P.K. (2015). The role of fear for entrepreneurial venture creation: Causes of failure before and after foundation. Springer.
- Beynon, M.J., Jones, P., & Pickernell, D. (2018). Entrepreneurial climate and self-perceptions about entrepreneurship: A country comparison using fsQCA with dual outcomes. *Journal of Business Research*, 89, 418-428.
- Bhat, I.H., & Singh, S. (2018). Analysing the moderating effect of entrepreneurship education on the antecedents of entrepreneurial intention. *Journal of Entrepreneurship Education*, 21(1), 1-10.
- Blackburn, R., Hart, M., & O'Reilly, M. (2000). Entrepreneurship in the Third Age: New dawn or misplaced Expectations? In 23rd ISBA National Small Firms Policy and Research Conference, 1-17.
- Bohlmann, C., Rauch, A., & Zacher, H. (2017). A lifespan perspective on entrepreneurship: Perceived opportunities and skills explain the negative association between age and entrepreneurial activity. *Frontiers in psychology*, *8*, 2015.
- Bong, M., & Clark, R.E. (1999). Comparison between self-concept and self-efficacy in academic motivation research. *Educational psychologist*, 34(3), 139-153.
- Bosma, N., & Schutjens, V. (2009). Mapping entrepreneurial activity and entrepreneurial attitudes in European regions. *International Journal of Entrepreneurship and Small Business*, 7(2), 191-213.
- Bosma, N., & Schutjens, V. (2011). Understanding regional variation in entrepreneurial activity and entrepreneurial attitude in Europe. Annals of *Regional Science*, 47(3), 711-742.
- Brixy, U., Sternberg, R., & Stüber, H. (2012). The selectiveness of the entrepreneurial process. *Journal of Small Business Management*, 50(1), 105-131.
- Broadbridge, A. (2010). Social capital, gender and careers: Evidence from retail senior managers. Equality, *Diversity and Inclusion: An International Journal*, 29(8), 815-834.
- Cacciotti, G., & Hayton, J.C. (2015). Fear and entrepreneurship: A review and research agenda. *International Journal of Management Reviews*, 17(2), 165-190.
- Cacciotti, G., Hayton, J.C., Mitchell, J.R., & Giazitzoglu, A. (2016). A reconceptualisation of fear of failure in entrepreneurship. *Journal of Business Venturing*, 31(3), 302-325.
- Casero, J.C.D., Mogollón, R.H., Escobedo, M.C.S., & Jiménez, M.V.P. (2010). Actividad emprendedora y género: Un estudio comparativo. *Revista Europea de Dirección y Economía de la Empresa*, 19(2), 83-98.
- CEPAL. (2018). La inserción laboral de personas mayores en América Latina. Retrieved from https://www.cepal.org/es/enfoques/la-insercion-laboral-personas-mayores-america-latina
- Clercq, D.D., & Arenius, P. (2006). The role of knowledge in business start-up activity. *International Small Business Journal*, 24(4), 339-358.

11

- Conroy, D.E. (2001). Progress in the development of a multidimensional measure of fear of failure: The Performance Failure Appraisal Inventory (PFAI). *Anxiety, Stress and Coping, 14*(4), 431-452.
- Cooney, T.M., & Licciardi, M. (2019). The same but different: Understanding entrepreneurial behaviour in disadvantaged communities. In *Entrepreneurial Behaviour* (pp. 317-345). Palgrave Macmillan, Cham.
- Curran, J., & Blackburn, R.A. (2001). Older people and the enterprise society: Age and self-employment propensities. *Work, Employment and Society, 15*(4), 889-902.
- De Carolis, D.M., & Saparito, P. (2006). Social Capital, Cognition, and Entrepreneurial Opportunities: A Theoretical Framework. *Entrepreneurship Theory and Practice*, 30(1), 41-56.
- Duhamel, M., Erogul, M., & St-Jean, E. (2016). Senior Entrepreneurship: Empirical evidence of the effect of aging on entrepreneurial intent. In 61st Annual ICSB World Conference, June, (pp. 15-18).
- Dumitru, I., & Dumitru, I. (2018). Drivers of entrepreneurial intentions in Romania. *Romanian Journal of Economic Forecasting*, 21(1), 159-166.
- Durán-Aponte, E., & Arias-Gómez, D. (2015). Intención emprendedora en estudiantes universitarios: integración de factores cognitivos y socio-personales. *Revista Colombiana de Ciencias Sociales*, 6(2), 320-340.
- Eckhardt, J. T., & Shane, S.A. (2003). Opportunities and entrepreneurship. Journal of Management, 29(3), 333-349.
- Edelman, L., & Yli-Renko, H. (2010). The impact of environment and entrepreneurial perceptions on venture-creation efforts: Bridging the discovery and creation views of entrepreneurship. *Entrepreneurship Theory and Practice*, 34(5), 833-856.
- Espinosa, J.E.A., & Stiepoviæ, O.P. (2006). Mujeres y dinámica emprendedora: Un estudio exploratorio. *Universidad & Empresa*, 5(11), 15-32.
- Estrada-Robles, M., Williams, N., & Vorley, T. (2018). Navigating institutional challenges in Mexico: The role of social capital in entrepreneurial families. *International Journal of Entrepreneurial Behaviour & Research*, 26(1), 98-121.
- Estrin, S., Mickiewicz, T., & Stephan, U. (2013). Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations. *Entrepreneurship Theory and Practice*, *37*(3), 479-504.
- Farooq, M. S., Salam, M., ur Rehman, S., Fayolle, A., Jaafar, N., & Ayupp, K. (2018). Impact of support from social network on entrepreneurial intention of fresh business graduates: A structural equation modelling approach. *Education+Training*, 60(4), 335-353.
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93.
- Felzensztein, C., Ciravegna, L., Robson, P., & Amorós, J. E. (2015). Networks, Entrepreneurial Orientation, and Internationalisation Scope: Evidence from Chilean Small and Medium Enterprises. *Journal of Small Business Management*, 53(sup1), 145-160.
- Fuller, B., Liu, Y., Bajaba, S., Marler, L.E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and Individual Differences*, 125, 120-125.
- Gallardo, F.H.W. (2012). El emprendimiento como factor de movilización social. *Nómadas. Critical Journal of Social and Juridical Sciences*, 36(4), 1-6.
- Gecas, V. (1982). The Self-Concept. Annual Review of Sociology, 8(1), 1-33.
- Ghio, N., Guerini, M., & Rossi-Lamastra, C. (2019). The creation of high-tech ventures in entrepreneurial ecosystems: Exploring the interactions among university knowledge, cooperative banks, and individual attitudes. *Small Business Economics*, 52(2), 523-543.
- Gielnik, M.M., Zacher, H., & Frese, M. (2012). Focus on opportunities as a mediator of the relationship between business owners' age and venture growth. *Journal of Business Venturing*, 27(1), 127-142.
- Gielnik, M.M., Zacher, H., & Schmitt, A. (2017). How small business managers' age and focus on opportunities affect business growth: A mediated moderation growth model. *Journal of Small Business Management*, 55(3), 460-483.
- Global Entrepreneurship Monitor. (2018). *Global Report 2017/2018*. Retrieved from https://www.gemconsortium.org/report
- Global Entrepreneurship Monitor. (n.d). *GEM Global Entrepreneurship Monitor*. Retrieved from https://www.gemconsortium.org
- González-Oñate, C., Fanjul-Peyró, C., & Cabezuelo-Lorenzo, F. (2015). Uso, consumo y conocimiento de las nuevas tecnologías en personas mayores en Francia, Reino Unido y España. *Comunicar: Revista Científica de Comunicación y Educación*, 23(45), 19-28.
- Han, J., Chu, X., Song, H., & Li, Y. (2014). Social Capital, Socioeconomic Status and Self-efficacy. *Applied Economics and Finance*, 2(1), 1-10.

- Henley, A., Contreras, F., Espinosa, J.C., & Barbosa, D. (2017). Entrepreneurial intentions of Colombian business students: Planned behaviour, leadership skills and social capital. *International Journal of Entrepreneurial Behaviour and Research*, 23(6), 1017-1032.
- Holienka, M., Pilková, A., & Jancovicová, Z. (2016). Youth entrepreneurship in Visegrad countries. *Entrepreneurial Business and Economics Review*, 4(4), 105-121.
- Isele, E., & Rogoff, E.G. (2014). Senior entrepreneurship: The new normal. *Public Policy & Aging Report*, 24(4), 141-147.
- Kautonen, T. (2012). Senior Entrepreneurship. A background paper for the OECD centre for entrepreneurship. *SME's and Local Development*. Paris, France: OECD.
- Kautonen, T., Down, S., & South, L. (2008). Enterprise support for older entrepreneurs: The case of PRIME in the UK. *International Journal of Entrepreneurial Behaviour & Research*, 14(2), 85-101.
- Kim, P.H., & Aldrich, H.E. (2005). Social capital and entrepreneurship. *Foundations and Trends in Entrepreneurship*, 1(2), 55-104.
- Klyver, K., & Hindle, K. (2007). The role of social networks at different stages of business formation. *Small Enterprise Research*, 15(1), 22-38.
- Lecuna, A., Cohen, B., & Chavez, R. (2017). Characteristics of high-growth entrepreneurs in Latin America. *International Entrepreneurship and Management Journal*, 13(1), 141-159.
- Lipset, S.M. (2018). Values, education, and entrepreneurship. In *Promise of development* (pp. 39-75). Routledge.
- Lora, E., & Castellani, F. (Eds.). (2013). Entrepreneurship in Latin America: A step up the social ladder? The World Bank.
- Loretto, W., & White, P. (2006). Work, more work and retirement: older workers' perspectives. *Social Policy and Society*, 5(4), 495-506.
- Maldonado Briegas, J.J., Corrales Vázquez, J.M., Ruiz Fernández, M.I., & González Ballester, S. (2016). Nuestros mayores activos: inteligentes y emprendedores. Revista INFAD de Psicología. *International Journal of Developmental and Educational Psychology*, *1*(2), 85-92.
- Marsh, H.W., Pekrun, R., Parker, P.D., Murayama, K., Guo, J., Dicke, T., & Arens, A.K. (2019). The murky distinction between self-concept and self-efficacy: Beware of lurking jingle-jangle fallacies. *Journal of Educational Psychology*, 111(2), 331-353.
- Martin, L., & Omrani, N. (2015). An assessment of trends in technology use, innovative work practices and employees' attitudes in Europe. *Applied Economics*, 47(6), 623-638.
- Marulanda Valencia, F.Á., Montoya Restrepo, I.A., & Vélez Restrepo, J.M. (2014). Motivational theories in the study of entrepreneurship. *Pensamiento & Gestión*, *36*, 206-238.
- Matos, C.S., Amaral, M., & Baptista, R. (2018). Senior entrepreneurship: A selective review and a research agenda. *Foundations and Trends in Entrepreneurship 14*(5), 427-554.
- Merino, M., & Chanes, D.V. (2011). Evaluación comparativa del potencial emprendedor de Latinoamérica: Una perspectiva multinivel. *Academia. Revista Latinoamericana de Administración*, 46, 38-54.
- Minniti, M. (2010). Female entrepreneurship and economic activity. *The European Journal of Development Research*, 22(3), 294-312.
- Mühlböck, M., Warmuth, J.R., Holienka, M., & Kittel, B. (2018). Desperate entrepreneurs: No opportunities, no skills. *International Entrepreneurship and Management Journal*, 14(4), 975-997.
- Neira, I., Portela, M., Cancelo, M., & Calvo, N. (2013). Social and human capital as determining factors of entrepreneurship in the Spanish Regions. *Investigaciones Regionales-Journal of Regional Research*, 26(26), 115-139.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behavior*, 110, 403-419.
- Ng, L. and Jenkins, A.S. (2018). Motivated but not starting: How fear of failure impacts entrepreneurial intentions. *Small Enterprise Research*, 25(2),152-167.
- Nowiński, W., Haddoud, M.Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 44(2), 361-379.
- Obschonka, M., Silbereisen, R.K., & Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior*, 77(1), 63-72.
- Oelckers, F. (2015). Emprendimiento en la tercera edad: Una revisión de la situación actual. *Journal of Technology Management and Innovation*, 10(3), 143-153.

- Ortiz Arriagada, J.B., & Castro Salas, M. (2009). Bienestar psicológico de los adultos mayores, su relación con la autoestima y la autoeficacia: Contribución de enfermería. *Ciencia y enfermería*, 15(1), 25-31.
- Ortiz-Walters, R., Gavino, M.C., & Williams, D. (2015). Social networks of latino and latina entrepreneurs and their impact on venture performance. *Academy of Entrepreneurship Journal*, 21(1), 58-81.
- Petrongolo, B., & San Segundo, M.J. (2002). Staying-on at school at 16: the impact of labor market conditions in Spain. *Economics of Education Review*, 21(4), 353-365.
- Pilková, A., & Rehák, J. (2017). Regional aspects of inclusive entrepreneurship of seniors in Europe. *Society and Economy*, 39, 49-64.
- Pilkova, A., Holienka, M., & Rehak, J. (2014). Senior Entrepreneurship in the Perspective of European entrepreneurial environment. *Procedia Economics and Finance*, 12, 523-532.
- Ramos-Rodríguez, A.R., Medina-Garrido, J.A., Lorenzo-Gómez, J.D., & Ruiz-Navarro, J. (2010). What you know or who you know? The role of intellectual and social capital in opportunity recognition. *International Small Business Journal*, 28(6), 566-582.
- Renko, M., Shrader, R.C., & Simon, M. (2012). Perception of entrepreneurial opportunity: A general framework. *Management Decision*, 50(7), 1233-1251.
- Rodríguez Garza, B.E. (2002). *Pros y contras percibidos y ejercicio en adultos mayores* (Doctoral dissertation). Universidad Autónoma de Nuevo León, México.
- Rosenberg, M. (2017). The self-concept: Social product and social force. In *Social psychology* (pp. 593-624). Routledge.
- Rotefoss, B., & Kolvereid, L. (2005). Aspiring, nascent and fledgling entrepreneurs: An investigation of the business start-up process. *Entrepreneurship & Regional Development*, 17(2), 109-127.
- Rubach, M.J., Bradley, D., & Kluck, N. (2015). Necessity entrepreneurship: A Latin American study. *International Journal of Entrepreneurship*, 19(1), 126-139.
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of entrepreneurship*, 72-90.
- Shim, J., & Kim, J. (2018). Estimating country-level social network density and supportive surroundings by simulation. *Journal of Business Venturing Insights*, 9, 24-31.
- Shinnar, R.S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial perceptions and intentions: The role of gender and culture. *Entrepreneurship Theory and Practice*, *36*(3), 465-493.
- Singh, G., & DeNoble, A. (2003). Early retirees as the next generation of entrepreneurs. *Entrepreneurship Theory & Practice*, 27(3), 207-226.
- Soria-Barreto, K., Zuniga-Jara, S., & Ruiz-Campo, S. (2016). Educación e intención emprendedora en estudiantes universitarios: Un caso de estudio. *Formación Universitaria*, *9*(1), 25-34.
- Stuart, T. E., & Sorenson, O. (2005). Social Networks and Entrepreneurship. In *Handbook of Entrepreneurship Research* (233-252).
- Tata, J., & Prasad, S. (2015). Immigrant family businesses: Social capital, network benefits and business performance. *International Journal of Entrepreneurial Behavior and Research*, 21(6), 842-866.
- Terjesen, S. (2005). Senior women managers' transition to entrepreneurship: Leveraging embedded career capital. *Career Development International*, 10(3), 246-259.
- Tervo, H. (2014). Starting a new business later in life. *Journal of Small Business & Entrepreneurship*, 27(2), 171-190.
- Thompson, E.R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669-694.
- Unrau, N.J., Rueda, R., Son, E., Polanin, J.R., Lundeen, R.J., & Muraszewski, A.K. (2018). Can Reading Self-Efficacy Be Modified? A Meta-Analysis of the Impact of Interventions on Reading Self-Efficacy. *Review of Educational Research*, 88(2), 167-204.
- Vaillant, Y., & Lafuente, E. (2007). Do different institutional frameworks condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity? *Entrepreneurship and Regional Development*, 19(4), 313-337.
- Walker, E.A., & Webster, B.J. (2007). Gender, age and self-employment: Some things change, some stay the same. *Women in Management Review*, 22(2), 122-135.
- Weber, P., & Schapper, M. (2004). Understanding the grey entrepreneur. *Journal of Enterprising Culture*, 12(02), 147-164.
- Wennberg, K., Pathak, S., & Autio, E. (2013). How culture moulds the effects of self-efficacy and fear of failure on entrepreneurship. *Entrepreneurship and Regional Development*, 25(9-10), 756-780.

- Wood, M.S., & Pearson, J.M. (2009). Taken on faith? The impact of uncertainty, knowledge relatedness, and richness of information on entrepreneurial opportunity exploitation. *Journal of Leadership and Organizational Studies*, 16(2), 117-130.
- World Bank. (n.d). *Esperanza de vida al nacer, total*. Retrieved from https://datos.bancomundial.org/indicador/SP.DYN.LE00.IN/
- Yetim, N. (2008). Social capital in female entrepreneurship. *International Sociology*, 23(6), 864-885.
- Zhao, H., Hills, G.E., & Seibert, S.E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of Applied Psychology*, 90(6), 1265-1272.