

FACTORS AFFECTING THE ENTREPRENEURIAL INTENTION IN COLLEGE STUDENTS OF QUINDIO (COLOMBIA) ¹

Tarapuez, Edwin

Facultad de Ciencias Económicas y Administrativas
Universidad del Quindío
Armenia Colombia
etarapuez@uniquindio.edu.co

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ABSTRACT

The objective of this research is to determine the main factors influencing the entrepreneurial intention of university students in Quindio (Colombia), based on the Theory of Planned Behaviour proposed by Ajzen (1991); the study is deductive, quantitative and correlational scope. To obtain information a questionnaire was validated and administered to a sample of 297 college students last semester of different careers of the seven universities of the region. The data were analyzed using Logistic Regression Analysis, Sorting Method of Relevance Criteria and Confirmatory Factor Analysis, using statistical software Statgraphics Centurion version 16.1.15, R version 15.0 and Spad version 5.6. It is concluded that the entrepreneurial intention of college students in Quindio is determined by a heterogeneous set of intrinsic and extrinsic factors, namely: the type of college, have a businessman friend, the social norm linked to better be entrepreneur than employee, the positive image of entrepreneurs and some obstacles related to the lack of capital, poor institutional support, many college academic obligations, lack of clarity about which company to create and lack of partners.

KEYWORDS: Ajzen; Entrepreneurial Intention; Entrepreneurship Intention; Theory of Planned Behavior.

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INTRODUCTION

Business creation is an important socio-economic development of regions subject because the generation of employment depends largely on them, income and welfare for the community, however, the process followed individuals to realize ideas business in real companies, has several links that ultimately make up a value chain in which the entrepreneurial intention (IE) occupies an important place because it implies a mental orientation, as the desire and hope that influence the choice of entrepreneurship (Peng, Lu & Kang, 2012).

Research on IE among young converge in some generalizable conclusions about the way some factors that determine it. A significant number of studies, for example, found that EI is defined by a comprehensive set of varied factors that interact dynamically (Hisrich, Peters & Shepherd, 2004; Wang & Wong, 2004; Linan & Chen, 2006; Kuratko & Hodgetts, 2006; Linan, 2008, Nabi & Holden, 2008; Harris & Gibson, 2008; Jones, Jones, Packham & Miller, 2008; Almeida & Borges, 2009; Olomi & Sinyamule, 2009) and that subjects with a higher propensity to create their own company they have more positive beliefs toward entrepreneurship and earn less inconvenient to carry out the process (Aponte, 2002 and Rueda, Fernandez & Herrero, 2012, 2013).

There is also some agreement that many of the ideas, beliefs, perceptions, values and attitudes can be cemented by college students through entrepreneurship education programs (Pittaway & Cope, 2007; Varela Martinez & Peña, 2011; Ekpoh & Edet, 2011 and Linan & Fayolle, 2015) or at least can contribute to young people perceive entrepreneurship as more feasible (Urban & Toledano, 2008). It has been found, in that regard, that the environmental stimulus university affects IE students, because apparently there are differences in context between institutions of higher education (Ruiz, Rojas & Suarez, 2008 and Kantis et al, 2014) . In the area of study of college career, some research found that this variable does influence EI although there is no general agreement on what kind of areas promote it more (Birdthistle, 2006; Osorio, Parra & Tarapuez, 2014) as this also depends on other aspects such as the type of university, its management model and its orientation towards entrepreneurship, among others.

Meanwhile, research on aspects that motivate EI found that those who want to create business feel driven especially by intrinsic factors (Birdthistle, 2008 and Rueda et al, 2013) or a combination of these rewards with other extrinsic character (García & Fernandez, 2004; Veciana, 2005; Choo & Wong, 2006; Rueda et al, 2013 and Kantis, Federico & Trajtenberg, 2014).

The family variables also have an important place in the study of EI. Different studies find that the role of family businesses is an aspect that is associated with the hope of developing an entrepreneurial career (Wang & Wong, 2004; Veciana, Aponte & Urban, 2005; Hundley, 2006; Ruiz et al, 2008; Olomi & Sinyamule, 2009; Bulut & Sayin, 2010; Ahmed Nawaz Ahmad, Shaukat Usman, Wasim-ul-Rehman & Ahmed, 2010; Kantis et al, 2014; Solimano, 2014 and Dehghanpour, 2015), although in other investigations, a family effect on the purpose of creating business is not noticed, it is possible that there is some influence (Urban, 2006; Espí, Arana, Heras & Diaz, 2007 and Franco, Haase & Lautenschläger, 2010). As for the occupation and education of parents, studies have found that these two aspects have an important relationship with the entrepreneurial attitudes of young people (Abd-Moen, Abd Rahman, Md Salleh & Ibrahim, 2004; Kantis et al, 2014), but for others there is no influence of family environment on the perception of viability on an entrepreneurial career (Diaz, Hernandez & Barata, 2007).

On work experience, a representative amount of research associate directly with IE (Wang & Wong, 2004; Ruiz et al, 2008; Olomi & Sinyamule, 2009; Gomez Marin & Rodriguez, 2006; Ahmed et al, 2010; Mushtaq , Niazi, Hunjra & Rehman, 2011; Kantis et al, 2014 and Solimano, 2014), in contrast to other scholars this is not a significant factor in IE or not directly concerned (Yeng & Ahmad, 2012; Medina, Bolivar & Lemes, 2014).

It is important to note that there is diversity of Social Norms analyzed for EI (Rodríguez & Prieto, 2009; Medina et al, 2014 and Varela et al, 2011), however there is no consensus on the impact it because some authors found a positive influence (Benavides & Sanchez, 2004; Kolvereid & Isaksen, 2006; Rodriguez & Prieto, 2009; Gallurt, 2010; Rueda et al, 2013 and Martinez & Fields, 2014), while others could not establish a direct relationship between the two aspects (Krueger, Reilly & Carsrud, 2000 and Medina et al, 2014).

Meanwhile, the values of individuals have an important influence in defining his business career, these values show significant changes between countries and regions taking into account, among other things, their level of development (Amoranto, Chun & Deolalikar, 2010, Franco et al, 2010 and Gasse & Tremblay, 2011); In this sense, the territorial dimension constitutes an important variable in the definition of EI.

Within the image of the entrepreneur diverse abilities, characteristics and positive and negative attributes (Ayala, 2007 and Garcia Moreno & Rosique, 2012) are included to explain why part of the population choose the entrepreneurial path; nevertheless there is still no agreement on whether a positive perception of entrepreneurs represents a significantly important to start an entrepreneurial activity (Urban, 2006) reason.

Business creation, in many cases, not due to positive reasons but rather situations, factors or negative events (Veciana, 1998), however, in situations of economic crisis the drawbacks associated with the venture have no significant effect on the IE, because people are discouraged from seeking employment and focus on creating a proper activity (Aponte, 2002 and Rueda et al, 2013).

The obstacle to undertake more recurrent in the literature is related to financing (Aponte, 2002; Cano, Garcia & Gea, 2003; Garcia & Fernandez, 2004; Veciana, 2005; Choo & Wong, 2006; Urban, 2006; Birdthistle, 2008; Rodriguez & Prieto, 2009; Yeng & Ahmad, 2012; Osorio et al, 2014), but it can respond to a false belief that a barrier really confirmed.

With this research is to determine which factors influence the IE college students Quindio are; in the same way literature is analyzed based on the hypothesis that EI is determined by a heterogeneous set of factors. This work is also intended to contrast proposed by the Theory of Planned Behavior (TCP) in a pioneering study in Colombia that proposes an expanded conceptual framework in which seven groups of variables are analyzed.

DEVELOPMENT

Theoretical framework

In this research we worked with the Theory of Planned Behavior (TCP) which was proposed by Ajzen in the early 80's This theory raises the relationship between attitudes, subjective norms and locus of control individuals (Figure 1), by which tries to predict and explain the behavior of individuals focusing on the intent of human beings to act on a specific long-term behavior (Ajzen, 1987, 1991).

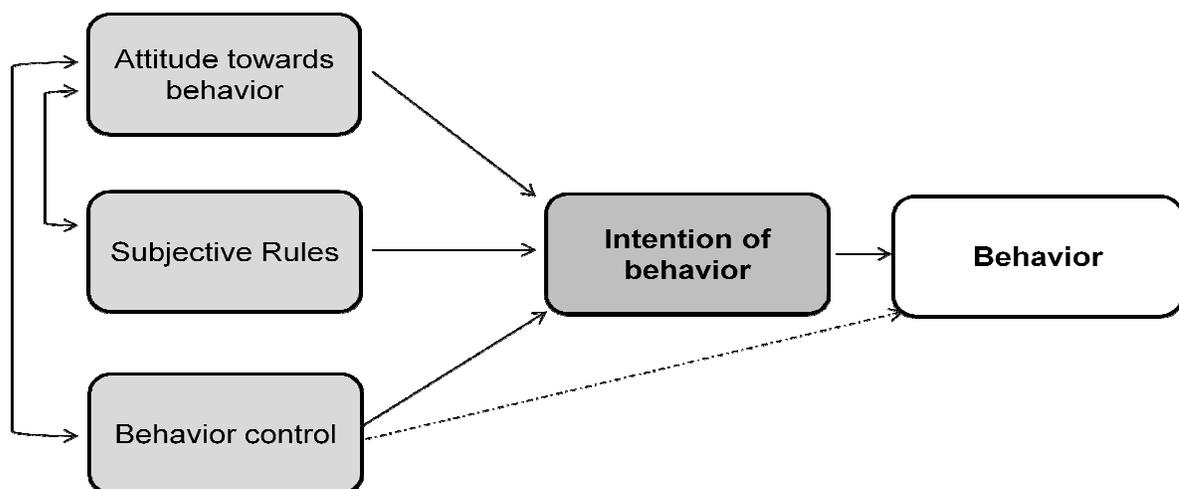


Figure No 1: Theory of Planned Behavior of Ajzen (1987, 1991)
Source: Own Elaboration

The TCP includes the locus of control as a theoretical innovation, something that originates from the theory of self-efficacy that was proposed by Bandura in the late 70s Based on this, Ajzen (1987, 1991) proposed an approach focused processes which has been widely used by a significant group of scholars around the world. However, few investigations that have attempted to understand the way the values, attitudes and behaviors can make people have a predisposition to create business or to develop the intention (Gasse & Tremblay, 2011).

The central element of this theory, in this case, is the intention of each individual to create a company and perform a behavior that is influenced by attitudinal aspects, subjective norms and social aspects of self-imposed. However, TCP does not incorporate in its analysis of personality characteristics or socioeconomic variables, or social factors, which are necessarily related to the behavior of individuals.

Methodology

Population, sample and survey design

The population was constituted by students last semester of professional careers face seven universities Quindio; of this population a sample of 297 people was obtained. Table 1 shows the technical specifications of detailed fieldwork.

Table No. 1: Technical data of field work

Universe	1.304 students
Sample	297 students
Scope (universities)	University of Quindio, San Martin, La Gran Colombia, School of Management and Marketing - EAM, Antonio Nariño, Alexander Von Humboldt and San Buenaventura.
Sampling error	+/- 5%
Confidence Level	95% , Z=1,96% , p=q=0,5
Sample design	Stratified random sampling with proportional allocation, considering stratum university of origin. Theorem of Integral Transformation Reverse used for probabilistic sample selection.
Information collection form	Through www.encuestafacil.com or by physical format
Field work	Between May and August 2014

Source: Own Elaboration

The survey was divided into two general parts, the first corresponded to two subsets of variables called multiple-choice Personal and Family Issues (13 questions) and resources to

create enterprise (4 questions); The second part concerned all questions with Likert Scale. Since there is a wide variety of items it was decided to follow the proposal of Padua, Ahman, Apezechea & Bosrotti (2013) to order the relevance of the questions most discriminating information.

The process followed for the validation of the instrument collection of information can be analyzed in detail in Tarapuez, Garcia and Castilian (2015), in which step by step performed shown. In short, the procedure consisted of the following steps:

a) Collection of 50 questions with Likert Scale used by other authors in various research and classification of items into positive and negative.

b) Conducting a pretest to 30 students (10% of the sample) allowed to make some initial adjustments to the model survey.

c) Administration adjusted test with 50 questions to a group of 51 judges students. the score of each student judges through the sum of the weighted scores are totaled for each item; in the case of negative items was algebraic sum.

d) After obtaining the judges scores for all students, they were sorted in descending order; the two extreme quartiles (highest and lowest scores) were selected and prioritized 25 questions with Likert Scale. The selection of questions that discriminate was made by comparing two groups: one consisting of less than or equal to the first quartile scores, identified as low and the other consisting of greater than or equal to the third quartile scores, identified as high. questions that discriminate, those in which there is significant difference between the two groups were considered; for this process and the Kruskal Wallis was used in the program Statgraphics Centurion.

The questions used Likert Scale finally grouped as follows: Social Norms (3 questions), Image and Values (6 questions), beliefs (6 questions), Aspects that motivate entrepreneurship (positive attitudes, 4 questions) and Obstacles to create business (negative attitudes, 9 questions)².

Methods of analysis used

The methods used for data processing were: Logistic Regression Analysis, Planning Method of Relevance Criteria and Confirmatory Factor Analysis.

² In the end it was decided to include three additional items that did not discriminate enough: one recommendation of a research project evaluator and two at the discretion of the experts involved in the design of the survey and the investigator. The final survey form can be downloaded from the following Internet address:

https://www.researchgate.net/profile/Edwin_Tarapuez/publications?pubType=technicalReport

Logistic regression analysis (RL)

The RL is one of the techniques of inferential statistical analysis is used to predict the result of a categorical variable, that is, one whose elements of variation are qualitative and adopt a limited number of modalities or categories according to the independent variable. Ultimately, the RL values the contribution of different factors on the occurrence of a single event (Source, of 2011).

In general, the RL is extremely useful when that variable is dichotomous (accepts only two possible answers). It can be seen, therefore, as a special case of regression analysis where the dependent variable (intention to create business for the present case) is dichotomous (Yes = 1, No = 0). The RL is specially used in medical and social sciences to model the probability of an event that occurs as a function of other variables.

Sorting method Criteria Relevance³

This method of analysis developed by Thomas Saaty can be applied to establish an order of importance of a set of categories facing a problem. This technique makes use of information on subjective evaluations of the importance of each of the aspects analyzed and then specify your preference about the decision alternatives for the criteria under study. The result obtained by applying this method is a sort of criteria showing the overall bias in the decision alternatives.

This analysis is based on the fact that a decision-making process when several alternatives are being considered by a group of people, the choice of one or the other will depend on the relative importance among the alternatives (Saaty, 1991). In the presentation of the results the procedure followed for the construction of detailed Saaty matrix.

Confirmatory Factor Analysis (CFA)

It is a multivariate statistical technique that aims to determine whether the factors obtained have correspondence with what would be expected according to a previously defined about the data under study theory. Initially it is assumed that there are certain factors previously established and that each is associated with a subset of the research variables.

Hypothesis testing and software used

Hypothesis testing for the p-value obtained is used in the RL, the Chi-square and the CFA. Centurion Statgraphics version 16.1.15 for the RL, the R software version 15.0 for the

³ For a detailed explanation of this method see Hurtado Garcia & Salcedo (2005).

construction of the Matrix Saaty and Spad software version 5.6 for the AFC: data analysis in the following statistical programs were used.

Results

The results are presented in four sections: the first two models of analysis of RL are listed, then the results of the method are presented to sort the relevance of a set of criteria (Matrix Saaty) in the third AFC shown and in the final section the hypothesis testing indicated.

First model: RL with information of all respondents

This analysis was done with the information of the 297 respondents and 29 students from 46 research variables (13 Personal and Family Issues, 3 Social Norms, Values 6 Image and entrepreneur, 6 Beliefs and EI). These 29 items were selected considering that from the question of IE there are 22 subjects who responded that they have never thought about creating a company and completed their survey in this part, therefore you do not have additional information about them there onwards.

The RL shows that this group of analyzed variables that determine the IE are: Type of college, I am a businessman friend, is better to own your own company that employed in an alien and entrepreneurs are optimistic and have long-term vision (Table 2).

Table No. 2: first estimated RL model that predicts the business intent

Parameter	Dear	Standard error	Odds ratio
Constant	-1,68684	0,45993	-----
Type University* = Private	0,900661	0,267151	2,46123
I entrepreneur friend ** = No	-0,861712	0,257147	0,422438
Best owner who employed *** = Agree	1,18979	0,391941	3,28641
Best owner who employed *** = Disagree	1,39973	0,624883	4,05412
Entrepreneur is optimistic **** = Agree	0,494072	0,308321	1,63898
Entrepreneur is optimistic **** = Disagree	-0,350989	0,383068	0,703991

Note: analysis with the total sample and 29 of the 46 variables

* $p_v=0.0006$, ** $p_v=0.0007$, *** $p_v=0.0036$, **** $p_v=0.0343$

Source: Own Elaboration

In the variable type is considered as a reference university public university and the odds ratio in the response indicates that there are private university 2.46123 times more likely to have IE if the student belongs to a private university that if you study at a public university.

I have the variable entrepreneur friend mode Yes I entrepreneur friend is considered as a reference; the odds ratio of having IE is 2.3672 (1 / 422,438) times when it does you have a businessman friend when you do not.

In the variable is better to own your own company that employed in an alien is considered as a reference Neutra embodiment thereof; the odds ratio of having IE is 3.28641 times when the review this variable is Granted when Neutra; in a similar vein this odds ratio is 4.05412 times when the opinion is at odds when it Neutra.

In the variable The entrepreneur is optimistic and has long-term vision is considered as a reference Neutra mode of the variable in question; It must be the odds ratio of having IE is 1.63898 times when the view of a college student is Granted when Neutra; to the contrary, this ratio is 1.4204727 (1 / 0.703991) times when the review is Neutra that when you disagree.

The p-value for the model is less than 0.0001, its variables explain 10.5% of the deviation of the model. As the p-value table Deviations analysis is less than 0.05, there is a statistically significant relationship between the variables, with a confidence level of 95%. In addition, the p-value for the waste is less than 0.05, indicating that the model is significantly worse than the best model for these data with a confidence level of 95%.

Second model: RL with student information with some degree of IE

This analysis of RL was done with the information of the 275 students who have some degree of IE (remember that the total of 297 people surveyed, there were 22 who reported never have thought of creating a company) and the total of the 46 variables studied.

The RL shows that the total analyzed 46 variables which determine the IE are: Type of college, I have entrepreneur friend, Not sure what company would like to create and When I consider that could create my company (Table 3).

In the variable type is referenced university public university so that the odds ratio shows that there is 1.79617 times more likely to develop IE if a student belongs to a private university that if you study in public.

Table No. 3: Second estimated RL model that predicts the business intent

Parameter	Dear	Standard error	Odds ratio
Constant	15,0188	72,549	-----
Type of university *=Private	0,585659	0,283283	1,79617
I entrepreneur friend ** = No	-0,62272	0,284545	0,536483
Not sure what company creates *** = Agree	-0,928284	0,351749	0,395231
Not sure what company creates *** = Disagree	0,692674	0,3429	1,99905
When the company I **** = Immediately	-14,9017	72,5486	3,37E-07
When I think the company **** = Long after	-15,4702	72,5489	1,91E-07
When the company I ****= Do not know when	-15,7309	72,5485	1,47E-07

Note: analysis conducted with 275 respondents with some degree of IE and 46 variables

* $p_v=0.0375$, ** $p_v=0.0274$, *** $p_v=0.00001$, **** 0.00001

Source: Own Elaboration

In the variable I have a businessman friend, the mode Yes I have an entrepreneur friend is considered as the reference and the odds ratio of having IE is 1.86399196 (1 / 0.536483) times when it does you have a businessman friend when you do not have.

These first two variables are also present in the first model of RL and exhibit similar behavior in both cases.

In the variable is not clear to what company would like to create one looks at the Neutra mode, under it, the odds ratio indicates that there is 2.5301659 (1 / 0.395231) times more likely to have IE when the review is Neutra that when he agrees with this situation; Likewise there is 1.99905 times more likely to develop the intention to create new signatures when you disagree with this aspect that when you have an opinion Neutra.

When the variable create my company, it is taken as reference mode I have already undertaking; in this case the odds ratio shows that there is an outrageously large amount of possibilities to recreate another company when the student has previously created a plan to do it immediately when you graduate (1 / 3,37488E-7) or when creating it much thought after receiving the professional title (1 / 1.91151E-7) or when not clear on what date it will (1 / 1.47281E-7).

The p-value for the model is less than 0.0001, its variables explain 20.8% of the deviation of the model. As the p-value table Deviations analysis is less than 0.05, there is a statistically significant relationship between the variables, with a confidence level of 95%. In addition, the p-value for waste is greater than or equal to 0.05, indicating that the model is not significantly worse than the best model for these data with a confidence level of 95% or greater.

Method to sort the relevance of a set of criteria

With the application of this method, also known as the Matrix Saaty, we sought to order the relevance of a set of criteria using subjective assessments (opinions) that subjects respondents made about 28 questions that used the Likert Scale on Social issues Standards, image and Values, Beliefs, aspects that motivate and impeding the IE.

For the preparation of the matrix Saaty proceeded as follows: first columns were constructed to record the rating given by each of the subjects surveyed and three columns with the following information added: stockings rows, standard deviations and coefficients of variation.

Extreme scores were then removed when the coefficient of variation was greater than 40%, and these spaces were left blank so you do not modify the location statistic summarizing (average) data. With the average ratings of each of the criteria, the relative ratings W matrix was

constructed and Saaty procedure was applied. The results are summarized in Table 4, the last column contains the normalized weighting vector.

Values and eigenvectors of the Matrix Mutual Saaty were found, obtaining the real eigenvalue with algebraic multiplicity 28 1 while the other values were zero algebraic multiplicity 27. The sum of the components was equal principal eigenvalue to 5.20661, it results to be used for normalization priorities vector by dividing each component between 5.20661.

Thus, by weighting variables it found that according to the procedure determinants El college students Quindio are scarce capital to start the company, insufficient support from public and private institutions to create the company, Too academic obligations at university, not sure what company would like to create and Lack of partners to start a business, the first two being the most influential present (see Table 4).

Table No. 4: Results of application of the method Sorting Relevance Criteria

Group	Variable	Weights	Weights Standard
Social norms	It is better to own your own company that employed in a foreign	0.1566779	0.03009211
	In this region we admire those who run their own businesses	0.1803147	0.03463188
Image and Values	Having a company itself generates power, respect and high social status	0.19015	0.03652088
	They like to partner with other entrepreneurs and investors	0.1832102	0.035188
	Demonstrate their creative and innovative mindset	0.1740624	0.03343104
	Takes calculated risks to grow their businesses	0.1918945	0.03685594
	They are optimistic and have long-term vision	0.1862003	0.03576229
	They are autonomous to develop their initiatives	0.1878728	0.03608352
	They have great organizational skills.	0.1982607	0.03807865
	The family plays a positive role in the creation and development of the company	0.1586587	0.03047255
	Participate in courses and business counseling programs increases the intention of creating a company	0.1528612	0.02935906
	Money is only one factor more than is required to create company	0.1664443	0.03196788
Belief	The subjects of entrepreneurship of the university develop my intention to create a company	0.1967069	0.03778023
	Being an entrepreneur requires more dedication if you decide to be employed in a company	0.1515689	0.02911086
	Making money is all that matters to entrepreneurs.	0.1985744	0.0381389
	Identify and overcome a personal challenge	0.1524971	0.02928913
Aspects that motivate	Being my own boss, manage my time and achieve independence	0.1495531	0.0287237
	Achieve my self-fulfillment and personal satisfaction	0.1476529	0.02835874
	In my life plan I not visualize me as an employee in a company already created	0.1939946	0.03725929

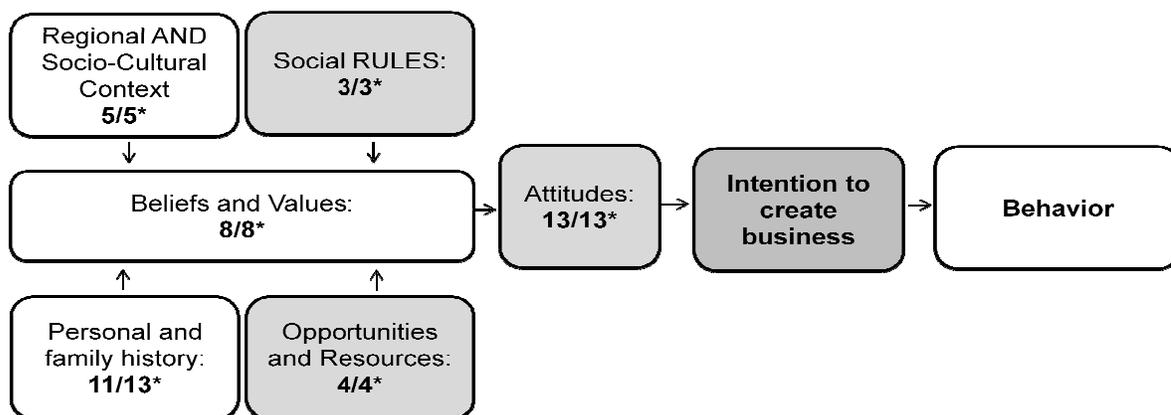
Obstáculos para crear empresa	Little capital to start the company *	0.2994917	0.05752144
	Too many college academic obligations *	0.2172015	0.04171649
	Insufficient support from public and private entities to create the company *	0.2623088	0.05037996
	My college career is not to create enterprise	0.1629773	0.031302
	Some religious beliefs that punish the rich and promote poverty	0.15767	0.03028266
	Low confidence in my entrepreneurial skills	0.1793253	0.03444185
	Not sure what company wants to create *	0.2159903	0.04148386
	Lack of partners to start a business *	0.2159903	0.04148386
	I do not know produce and manufacture anything in particular	0.178498	0.03428313
Total		52.066.097	0.99999994

* Factors that influence EI.

Source: Own Elaboration

Confirmatory Factor Analysis

For this analysis the extended conceptual model proposed in Figure 2 and the direct and indirect influence of different groups of variables on IE is determined is taken.



* Number of variables with high significance on total number of variables subgroup confidence level = 99%, $z \geq |2.64|$

Figure No 2: Confirmatory Factor Analysis in the extended conceptual model

Source: Own Elaboration

In Figure 2 the result of confirmatory factor analysis working with a confidence level of 99% ($\geq |2.64| z$), it is observed that 44 of the 46 variables used in the research have a highly significant effect seen within the conceptual model extended, except gender and work experience that belong to the group of family and personal history. This aspect can reinforce the fact that properly conducted the selection process of the questions were finally included in the survey used in research, so that can be categorized as a reliable and valid instrument.

On the other hand, note that there is an influence among the factors of regional socio-cultural context, the social norms of personal and family history and Opportunities and Resources, on Beliefs and Values. Similarly, it is clear the influence of the beliefs and values on attitudes and of these about EI.

Hypothesis testing

First hypothesis: The cultural context of Quindio EI promotes university students.

With the variables related to power, partnership, risk, optimism and the importance of money, RL analysis with that obtained that EI is determined by the following factor was performed:

The entrepreneur is optimistic and has a long-term vision ($p_v = 0.0343$)

With the variables analyzed the cultural context of Quindio it is that optimism and long-term vision of the entrepreneur is the factor that determines the IE.

Second hypothesis: The formation processes through academic areas related to entrepreneurship, IE positively influence the university students in the department of Quindio.

Cross Tabulation and tests of independence (chi-square) was performed; It was obtained that the variable entrepreneurship materials against EI throws a $p_v = 0.20$, ie, that the subjects of entrepreneurship and IE are independent.

Third hypothesis: In Quindio, college students in the areas of economics and engineering have higher IE.

a hypothesis test is performed for a population proportion. The benchmark is derived from Ruiz et al (2008) by the weighted average of the data for EI in six subject areas. The results are:

Economics and Management Sciences	$ -6.18 > 1.96$
Engineering and Architecture:	$ -1.67 < 1.96$
Health Sciences	$ -21.52 > 1.96$
Social Sciences and Humanities	$ -9.43 > 1.96$
Basic Sciences and Education	$ -11.86 > 1.96$
Agricultural Sciences	$ -46.55 > 1.96$

Given as parameter the weighted average study by Ruiz et al (2008), the value of IE among college students amounts to 54%, significant difference of students of Economics and Management but not of Engineering and Architecture is appreciated , indicating that while the

first group differs significantly from the possibility of having IE, in the second group there is such predisposition.

Fourth hypothesis: There is no gender difference in EI college students of Quindio.

Chi-square is calculated, in this case $\chi^2 = 0.21 < \chi^2_{\text{tabla}} = 3.84$, so in this case there is no significant difference between the values of the Chi-square, ie, there is no gender difference in EI Quindio college students. is also relevant to mention that in the AFC (Figure 1) gender is not a significant variable.

Fifth hypothesis: The image of the entrepreneur has a positive influence on the IE college students of Quindio.

the image of the entrepreneur is prepared based on six characteristics (partnership, creativity and innovation, risk, optimism, autonomy and organizational skills). When performing crosstabulation and tests of independence (Chi-square) is only the creative and innovative mindset of entrepreneurs Quindio is related to IE, analyzing this feature with 93% confidence.

Sixth hypothesis: The socioeconomic status influences the IE college students of Quindio.

When performing crosstabulation and tests of independence (Chi-square) is that the socioeconomic against EI are independent ($p_v = 0.96$), therefore this variable does not influence the IE college students of Quindio.

Seventh hypothesis: The presence of EI strengthens business friends in college students of the Department of Quindio.

The variable Having a businessman friend is one that apparently determines the IE among college students last semester of Quindio and observed in the analyzes, namely:

- a) In the URL that was developed with information from the entire sample (297 students) and 29 variables of a total of 46, $p_v = 0.0007$ was obtained.
- b) Analysis of RL done with the information of the 275 students who have some degree of IE (in total there were 297 students surveyed) shows a $p_v = 0.0274$.

Given the above, the presence of businesspeople friends strengthens EI college students of Quindio.

Eighth hypothesis promotion programs to encourage entrepreneurship among university IE Quindio.

When performing crosstabulation and tests of independence (Chi-square), it is that entrepreneurship programs against IE are independent ($p_v = 0.16$), ie they do not influence this intention.

CONCLUSION

The alternatives proposed in the expanded central model of IE shows that the set of variables studied shows a consistent structure for the study of EI among the target population, confirming the general hypothesis about the existence of a heterogeneous set of factors that determine EI, in accordance with the objective.

Factors influencing the IE university Quindío are: Type of university ($p_v = 0.0059$), Having a businessman friend ($p_v = 0.0004$), the Social rule that is better to own your own company employee an alien ($p_v = 0.0009$), the entrepreneur is optimistic and has a long-term vision ($p_v = 0.0080$); additionally, the positive image is based on creative and innovative mentality of the regional entrepreneur.

While these factors may act directly on EI they can also do so via the desirability and perceived feasibility or Beliefs and Values and Attitudes them on influencing IE.

As for the obstacles that affect IE, it is found that: insufficient capital to start the company, insufficient support from public and private institutions to create the company, Too academic obligations in college, I'm not sure which company would like to create and lack of partners to start a business. These aspects are based in the situation of university students in the region, characterized by its youth, lack of a proper source of income, limited work experience, little knowledge of the institutions of entrepreneurship support, the emerging network of contacts and abundant academic commitments in college.

In the area of study, it is that college of Engineering and Architecture have a higher level of IE compared with students of Economics and Administrative Sciences. This advantage could be due, among other factors, the immediate contact with students in the first group with direct work and handling of raw materials, drawings, designs and manufacture tangible products closer to business reality.

It is emphasized that the materials and programs related to entrepreneurship are independent of EI. According this, in non-formal (Education for Work and Human Development) Current conditions formal education and they would not promoting EI university students in the region. In the same way, other variables such as gender and work experience, which are not determinants of IE, could be discriminatory aspects in the implementation stage of the company.

This work also constitutes a contribution from the theoretical perspective as it generates a further advance in models that analyze the IE. In this sense, the extended factor conceptual model that influence the IE allowed to determine that in addition to the issues that originally contains the TCP there are also other services related to personal and family characteristics,

sociocultural variables, the factors that motivate and hinder entrepreneurship (attitudes) and resources that influence the IE.

It is found that while it is true that social norms and Opportunities and Resources (Control Behavior) influence EI, as established TCP, can do so through its influence on the beliefs and values. Similarly can act variables Sociocultural Context Regional and personal and family history, aspects that are not taken into account by the original theoretical model of Ajzen (1987, 1991).

Psychometric aspects used in this research were carefully selected and validated through a comprehensive process suggested by Padua et al (2013) which was published in the exercise of this investigation (see Tarapuez et al, 2015). This methodological instrument was used to measure a defined constructs to analyze aspects that influence the IE college students and can serve as a basis for further research in Latin America, given its relative socioeconomic and cultural similarity to the conditions studied. The marked influence of groups of variables in the proposed conceptual model, obtained by the AFC, realizes high model identification survey with the problem of study analyzed because of all 46 variables studied, only two appear to have a highly significant effect (direct or indirect) in the IE.

It can be concluded, finally, that while it is true that the TCP provides a consistent theoretical framework for the study of the subject in question, and it is true that although there are factors involved directly on EI, they also can do indirectly through its influence on beliefs and values, and of these about attitudes. Similarly, it is evident that other aspects such as personal and family history and the Regional Socio-Cultural Context may also influence directly or indirectly in the IE.

REFERENCES

Please refer to articles in Spanish Bibliography.

ABSTRACT BIOGRAPHICAL

Please refer to articles Spanish Biographical abstract.