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Socio-cultural and institutional factors of Entrepreneurial Intention at the Technological University of Huejotzingo, Puebla, Mexico

Factores socioculturales e institucionales de la Intención Empresarial en la Universidad Tecnológica de Huejotzingo, Puebla, México

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Abstract

Currently, entrepreneurship is proposed as an alternative to unemployment, so it is important to know what factors influence the generation of entrepreneurial intention; this paper analyzes the association of socio-cultural and institutional factors in the generation of entrepreneurial intention in university students through non-parametric tests. The results show that the majority of students do not have in mind to create a company when they graduate as a University Higher Technician, they are more inclined to continue studying or access a job. Concluding that the students are betting on continuing their professional training and probably maturing more the idea of becoming entrepreneurs upon graduating from the university.

Keywords: entrepreneurial intention, college, unemployment, business, self-employment

Resumen

En la actualidad, el emprendimiento se propone como una alternativa al desempleo; por lo que es importante conocer qué factores influyen en la generación de la intención emprendedora: En este trabajo de investigación se analiza la asociación de los factores socioculturales e institucionales en la generación de la intención emprendedora en los estudiantes universitarios a través de pruebas no paramétricas. Los resultados muestran que la mayoría de los estudiantes no tienen en mente crear una empresa cuando se gradúan como Técnico Superior Universitario, sino que están más inclinados a seguir estudiando o a acceder a un empleo. Concluyendo que los estudiantes están apostando por continuar su formación profesional y probablemente madurando más la idea de convertirse en emprendedores al graduarse en la universidad.

Palabras clave: intención emprendedora, universidad, desempleo, negocios, autoempleo.

1. Introduction

Currently graduated professionals not only must seek to be hired by large firms, but must also include in their life projects the creation of their own companies that generate jobs and diversify the economic activity of their environment.

Tertiary education is one of the keys in the modernization of Mexico given its ability to provide the country with the human capital necessary to grow in a sustained manner, achieve greater social integration and fully develop (OECD, 2010). Therefore, the importance and great responsibility of universities to promote entrepreneurial intention in university students.

To encourage entrepreneurial intention in the country, it is essential to promote a culture of entrepreneurship that is gestated, motivated and developed during the training of young people in schools and universities in the country, since these educational institutions could be the key point and start to promote individuals with entrepreneurial, innovative characteristics and capable of creating productive projects of high impact.

Around 305,000 graduates of universities in the country will face an unemployment scenario during this decade if the economy does not increase its level of growth, warns a study by the National Association of Universities and Institutions of Higher Education (Hernández, Solis and Stefanovich, 2012). Currently 40% of university students are unemployed or have a hard time finding a job (Hernández, 2013), because there are more graduates than formal positions, in 2020 the number of unemployed professionals could exceed 3 million (ídem).

Mexico has 109 Technological Universities where there is a total enrollment of 137,709 TSU students, the state of Puebla serves 12,393 of these students, of which the formation of 1,744 students corresponds to the TUH (CGUTyP, 2015), which could be adopted by the generation of their own source of work as an option to graduate from the university can become entrepreneurs who could generate productive projects that generate investment, innovation and jobs.

Etzkowitz (1988) proposes the concept of *University Entrepreneurship*, where the university entities are a fundamental piece for the regional economic development of a nation, in which the universities must act as natural incubators where successful ideas are generated in response to the real needs that are detected in their environment, Ruiz *et al*., (2012) cite several authors as Aidan, Andrew & Gibbs (2004); (Kuratko, 2004), highlight the role of universities as trainers and educators of people with an entrepreneurial spirit so that, upon completing their university studies, they create companies, generate employment and contribute to the economic and social development of the regions.

In this tenor, higher education institutions have in their hands the raw material *young students* that could include in their employment alternatives the generation of a business of their own. For this it would be necessary to generate professionals with

entrepreneurial intention, in this sense it is necessary to know that sociocultural or institutional stimuli are motivating and triggering to generate an entrepreneurial intention and in this way, contribute to the generation of entrepreneurial professionals capable of generating productive projects.

The objective of this research is to analyze the association of socio-cultural and institutional factors in the generation of an entrepreneurial intention in the students of the Technological University of Huejotzingo. For the above, it was necessary to develop a questionnaire validated by experts in the area. In April 2016, a survey was conducted with a coverage of 840 out of 1025 students of the first four months of the eight TUH educational programs corresponding to 81.9% of the total enrollment, visiting the classrooms during school hours with the purpose of finding the majority of students. The aspects for which 100% coverage was not met were because the students were not found during class time because they did not attend university, the second aspect is school dropout.

The method used for the analysis of the information is descriptive in addition to tests from contingency tables such as: chi square and phi coefficient.

2. The Technological Universities in Mexico: a general panorama

The TU they have to offer young people who have completed the baccalaureate fast and intense studies so that they can integrate into the labor market in a shorter time than conventional university careers (CGUT, 2006), despite this model structure and others existing today Hernández, (2013) argues that 40% of Mexican professionals are unemployed or face difficulties finding a job because there are more graduates than formal jobs.

The Technological Universities and the entrepreneurial culture

The promotion of entrepreneurial culture among students and society as a whole is aimed at promoting business development; In 2004, the Technological Universities created the network of business incubators, based on the use of their infrastructure and equipment, the knowledge and experience of the teaching staff and their degree of linkage with the productive sectors of the environment. In this sense, the CGUT affirms that:

> The generation of companies characterized by their degree of innovation based on research and aimed at satisfying the needs of the client, is representative of the era of knowledge, so that educational institutions have represented the ideal space for the development of this activity (CGUT, 2006: 435).

In the same way, and based on the previous achievement, the TUs designed the Entrepreneurship Training Program with the objective that "the students, as part of the training that is granted to them from the first semester, structure a preliminary investment project. Based on the development of their knowledge, the development of their life and career plan through the strengthening of their attitudes, skills and entrepreneurial skills.

This approach is aimed at self-em-

ployment and self-management, and aims to create new companies "(CGUT, 2006, p.439) This activity is known as" Integrative Task "in which all the subjects corresponding to the semester that is being studied should focus on the construction of the previously selected project.

In the 2011-2012 statistical record, the TUH defines its area of influence which includes 40 km from its location where 307 locations are located, which are integrated into 32 municipalities, of which 22 belong to the State of Puebla and 10 to Tlaxcala, (TUH, 2013). The TUH imparts eight educational programs at TSU and Engineering level, currently has a global enrollment for the school year September-December 2015 of 3,240 students (TUH, SAIIUT, 2015), distributed in its eight educational programs, from its 32 municipalities of influence.

3. University entrepreneurship: an alternative to unemployment

Given the new reality of competitiveness in the world, it is essential to promote, strengthen and support entrepreneurship in young people as a key objective for the development of today's Mexico and the new generations (IMJUVE, 2012); since the economic and social costs of unemployment, lack of encouragement and low-quality jobs for young people continue to rise, undermining the growth potential of economies (OIT, 2013).

The report of the OIT (International Labor Organization) entitled *Global trends in youth employment 2013* states that it is not easy to be young in the current labor market, where the weakening of the global economic recovery in 2012 and 2013 has aggravated the youth employment crisis[1], making access to employment even more difficult for many young people, to such an extent that many are forgoing to continue searching. The global youth unemployment rate worldwide is estimated at 12.6%, equivalent to 73.4 million young people unemployed in 2013; projections for 2016 suggest that it will continue to grow, to 12.7%, by 2018 a global youth unemployment rate of 12.8% is foreseen (OIT, 2013).

In Mexico, the panorama of the professional labor market is not the exception to the problem of global employment. In the 2010-2011 higher education school year, there was an enrollment of 3'161,195 students, of whom 442,020[2] graduated from university and technology, a bachelor's degree and a University or Associate Professional Technician (TSU / PA), of which 34, 128 belong to the higher technical level. This figure is attended mainly by the Technological Universities covering 90.4% of these; with these figures, coverage in education rises to 32.8% (SEP, 2012). The question is: What does the labor market hold for these young professionals who graduate year after year?

1 Youth unemployment considers men and women between 15 and 24 years of age.

2 Generated from data of graduates of the system of higher education, excluding the postgraduate, where the studies of Superior Technician have a duration of two or three years and the degree of four or five years on average, published in the 5th. Report of the SEP 2011-2012 school year.

Table 1: Prospecting 2013-2020 enrollment and graduates of the National System of Higher Education (SNES)

	Enrollment SNES		Graduates	
	2013	2020	2013	2020
TSU / PA	114,900	164,700	30,772	44,120
Bachelor's	3'220,100	4'537,300	470,251	662,606
Postgraduate	248,500	432,100	80,933	129,986
Total	3'583,500	4'969,400	581,956	836,712

Source: Own elaboration. With data from Labor market of professionals in Mexico, diagnosis 2000-2009 and prospective 2010-2020 (Hernández et al., 2012).

The answer becomes more relevant when a gradual growth in enrollment is predicted for 2020[3] (see Table 1) of 4.9 million of which 4.5 correspond to the bachelor's degree and 164,700 to TSU / PA, leaving for the same year 662,606 and 44,120 respectively (Hernández, Solís, & Stefanovich, 2012). When comparing the supply of graduated professionals with the demand for jobs, the incapacity of absorption of professionals by the labor market is evident (Table 2).

According to the figures in the previous paragraph, ANUIES[4] proposes three scenarios in its 2009-2020 professional unemployment survey i) low growth of 2.2% of the annual Gross Domestic Product (GDP), ii) base growth of 3.5% and iii) dynamic growth of 5%, which compares the supply of professional graduates and TSU / PA against the demand of them leaving a balance[5] based on the base growth of 2'877,990 and 332,580 respectively, in this context there will be more graduates than jobs or formal jobs, in 2020 the number of unemployed professionals could exceed 3 million.

Entrepreneurship in the TU is only implicitly considered in educational policies combined with some actions such as the incubator of companies, business training events, visits to events such as: the week of the entrepreneur among others, aimed at society and to students indirectly.

In this context, tertiary education (university higher education) is one of the keys in the modernization of Mexico given its ability to provide the country with the human capital necessary to grow in a sustained manner, achieve greater social integration and fully develop (OECD, 2010). For this reason, the importance and the great responsibility of the universities to promote entrepreneurship skills in university students.

3 The expected growth of the graduates, which in all cases is 5.8% per year, results from the coverage goal of 49% for 2020 proposed by the ANUIES in Hernández *et al.* (2012).

4 Asociación Nacional de Universidades e Instituciones de educación superior en http://www.anuies.mx/

5 Balance = Net demand - Net offer

Table 2: Prospecting unemployment of professionals 2009-2020 in Mexico

	Stage 1 - 2.2% PIB			Stage 2 - 3.5% PIB			Stage 3 - 5% PIB		
	2009-2020			2009-2020			2009-2020		
	Offer	Demand	Balance	Offer	Demand	Balance	Offer	Demand	Balance
TSU/PA	359,170	21,110	338,070	359,170	26,590	332,580	359,170	42,650	316,520
Bachelor's degree	5'111,310	2'019,080	3'092,230	5'111,310	2'233,330	2'877,990	5'111,310	2'846,950	2'264,360
Postgraduate	961,320	461,650	499,670	961,320	243,090	718,230	961,320	265,140	696,170
Total	6'431,800	2'501,840	3'929,970	6'431,800	2'503,010	3'928,800	3'928,800	3'431,740	3'277,050

Source: Own elaboration. With data from Labor market of professionals in Mexico, diagnosis 2000-2009 and prospective 2010-2020 (Hernández *et al*., 2012).

4. The Theory of Planned Behavior and entrepreneurial intention

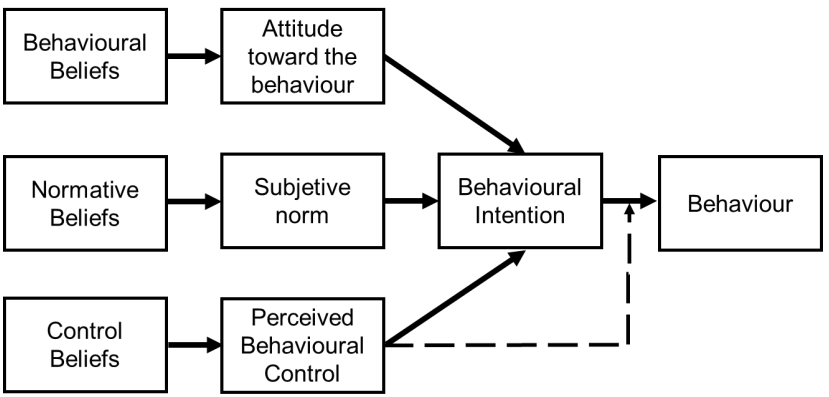
Research of different types have used various theories in order to understand or even modify or incentivize entrepreneurial intention; in this sense Ali, Lu and Wang (2012) used the Shapero business event theory (Shapero and Sokol, 1982), to identify and compare the impact of the propensity to act, the perceived convenience and perceived viability on the entrepreneurial intention of university students in China and Pakistan. Benavides, Sánchez and Luna (2004) analyze the figure of the entrepreneur in the university context, with special reference to the impact that the student's learning process has on the future intention to start his own business, another perspective Rueda, Fernández and Herrero (2012), analyze the psychological factors that influence the intention of creating a company of their own by university students using the Theory of Planned Behavior (TPB), there have even been studies applied to new entrepreneurs such as Miralles, Riverola and Giones (2012), where he tries to know if nascent entrepreneurs provide new knowledge to explain the intention of entrepreneurship.

Entrepreneurial behavior is rare and very difficult to observe, it is even considered that the creation of a new company requires time and involves considerable planning, therefore it would be difficult to imagine the creation of a business simply as a response to a stimulus and not as a planned decision (Sánchez, Lanero, & Yurrebaso, 2005).

Therefore, the entrepreneurial behavior is not an instantaneous reaction to the impressions received during life, if it does not respond to a set of different variables coming from factors of various types such as: political, economic, sociocultural, institutional, as well as the availability of resources and the identification of opportunities Ajzen (1991) argued that the actions considered are preceded by conscious decisions to act in a certain way, these intentions were the result of the attitudes formulated through life experiences, the personal characteristics and the perceptions extracted from these previous experiences. It is proposed that the three determinants of intention are the following (Figure 1).

The TPB model is used to explain and know different behaviors, for this case study this model is used to explain how institutional and sociocultural factors influence the entrepreneurial intention that could result in an entrepreneurial behavior in university students.

Figure 1: Theory of Planned Behavior (TPB)



Source: Ajzen (1991).

The first phase referred to by Ajzen in his TPB is that of *behavioral beliefs*, which links the behavior of interests to the expected results, in this way it is the subjective probability that the behavior adopted will produce a result expected, the behavioral beliefs to which it refers are of various types and can be oriented to different behaviors; only a relatively small number are easily accessible at a given time and the beliefs that are accessed at a given moment in combination with the subjective assessment of the expected results, determine the predominant attitude towards behavior Ajzen, 2006).

This is how behavioral beliefs directly influence the "attitude towards behavior", where this is the degree to which the performance of the behavior is valued positively or negatively according to the expec-

tation and the value model of the individual.

The attitude toward behavior is determined by the total set of behavioral beliefs accessible at a given moment for a given situation. Because attitude is a predisposition towards action, it is also formed through experience and perceptions that are integrated throughout a person's life. Even any behavior, however simple it may seem, reflects not only the influence of a cognitive disposition general or relevant, it also makes evident the influence of many other factors that influence the observed action (Rodríguez & Prieto, 2009).

The second phase of the TPB refers to *normative beliefs* which allude to the perceived behavioral expectations of important individuals or groups such as family, friends and are based on the population and the context; the normative beliefs in combination with the motivation of the person to comply with the different referents determine the subjective norm (Ajzen, 2006). Within the normative beliefs, motivation is a fundamental part, because it directly contributes to the *subjective norm* and this is the perceived social pressure to participate or not to participate in a behavior, which is determined by the important referents of the individual.

The third phase is composed of *control beliefs* which refer to the perceived presence of factors that can facilitate or impede the performance of a behavior; these control beliefs in combination with the perceived ability of each control factor determine the control of perceived behavior (Ajzen, 2010). This is how the *control of perceived behavior* refers to the perception of their capacity as a person to perform a certain behavior, which is determined by the total set of control beliefs, that is, the presence of factors that can facilitate or prevent the performance of a behavior, therefore reflects the previous experience and knowledge obtained, as well as the anticipated impediments and the obstacles that have arisen in it.

Phase four corresponds to the *intention* which is based on the attitude towards behavior, the subjective norm and the control of perceived behavior, therefore it is an indication of the disposition of a person to carry out a certain behavior and it is considered to be an immediate antecedent to the behavior (Ajzen, 1991).

Entrepreneurial intentions are the key to understanding the complex process of entrepreneurship, since these constitute the main individual predictor of entrepreneurial behavior (Krueger & Carsrud, 1993). The study of the antecedents and determinants of these intentions are key to understanding how entrepreneurial action is developed and developed in university students. In other words, the intention is the core and determining part for an entrepreneurial behavior, built by perceptions and knowledge in a specific space and time.

The behavior is the final phase of the TPB and is the observable response in a given situation with respect to a specific objective; behavior is a function of the intentions and perceptions of current behavior control, therefore a favorable intention may produce a behavior only when

the control of perceived behavior is strong Ajzen (1991). Therefore, the TPB allows interpreting the intention to undertake, conditioned by the result that the entrepreneur expects to achieve, the expectations that exist in his environment about his behavior and the perception that the entrepreneur has of his ability to control and achieve the results of his entrepreneurial action (Alonso & Galve, 2008).

5. Methodology

To analyze the association of socio-cultural and institutional factors in the generation of an entrepreneurial intention in the students of the Technological University of Huejotzingo in April 2016 a survey was carried out covering 840 of 1025 first-quarter students of the eight TUH educational programs corresponding to 81.9% of the total enrollment of new entrants, of which 36.5% were women and 63.5% were men. About 89% were between the ages of 17 and 20 and studied in 8 educational programs (see Table 3).

Table 3: Characteristics of the students surveyed of the TUH

Variable	%	Variable	%
Gender		Educational program	
Women	36.5	AAEP	10.9
Mens	63.5	MIEE	18.5
Family size		MEI	16.9
1 to 4 people	41.5	PAL	5.9
5 people and more	58.5	DMIP	5.5
Age		PIA	12.5
17 to 20 years	88.9	DNM	13
21 to 24 years	9.2	TICS	16.6
25 years and more	1.9	Place of origin	
		Puebla	87.5
		Tlaxcala	12.5

Source: own elaboration with data of the survey applied to students of the TUH 2016.

The information was gathered face-to-face in the university's classrooms during class hours in order to find the majority of students. The aspects for which 100% coverage was not met were because the students were not found in class time because they did not attend university, the second aspect was school desertion.

The method used for the analysis of the information is quantitative, descriptive

and comparative of transverse type according to Namihira, Moreno and Sosa, (1984). In addition to non-parametric tests such as: square chi and phi coefficient that are used to measure the intensity of association of independent variables with the dependent; in this case the association of sociocultural and institutional factors with entrepreneurial intention from contingency tables.

To make the estimates of Chi square, the following hypotheses were proposed:

- Ho = The proportions of the preferences of some alternative employment of TUH students to their graduation are the same.
- Ha = The proportions of preferences for some alternative employment of TUH students to their graduation are different.

In order to carry out the previous analysis, the following variables were considered:

Dependent variable: Entrepreneurial intention considered as the conduct and perception that the student of the UTH has of his capacity to control and achieve the results of his entrepreneurial action (Alonso & Galve, 2008).

Independent variables, which are grouped into sociocultural and institutional factors.

Sociocultural factors:

- Work Experience: conceived as the acquisition of knowledge along with academic preparation (Serrano, 1996), whether it is due to having been hired in a private or public company or in other cases to work in their free time.
- Friends and known businessmen: that the students of the UTH could have within their social circle and that they are an important referent for them.
- Home business: study variable that determines an influence on the generation of an entrepreneurial intention in university students by directly obtaining knowledge and experience in family businesses.

Institutional factors:

- Events: considering congresses, conferences, industrial visits, testimonials, contests held within the UTH to complement the professional training of young people who could influence the generation of an attitude towards entrepreneurial behavior.
- Professors as motivators: main human element in the construction of this subjective norm oriented to entrepreneurship as it is a reference point for thousands of young people.
- Subjects: taught in the UTH study programmes, as main elements in the construction of behaviour control perceived by their contribution in professional knowledge.

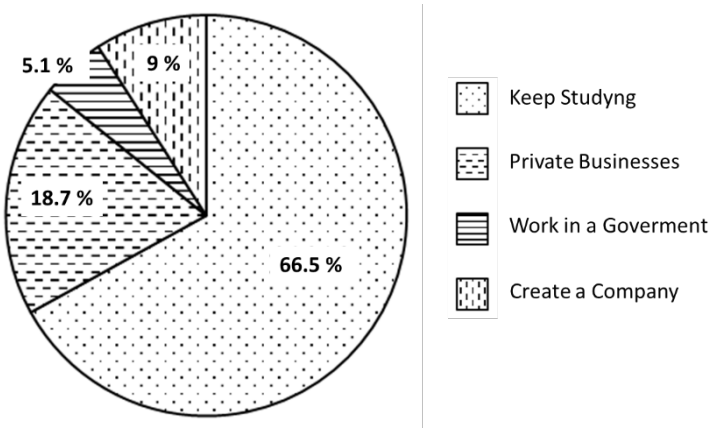
6. Results

Association of socio-cultural and institutional factors in the generation of an entrepreneurial intention.

At the beginning of university preparation as a TSU, 76 university students affir-

med at that time that they had an entrepreneurial intention when they wanted to "Create a Company" when they graduated from the university, which corresponds to 9% of the total of the respondents. (Figure 2)

Figure 2: Entrepreneurial intention in the TUH



Source: own elaboration with data of the survey applied to students of the TUH 2016.

According to Ajzen (2010), the *intention* is an indication of the disposition of a person to carry out a certain behavior, in this sense the results of the previous graph indicate that the students of the analyzed generation of the TUH have a very low disposition to Create a company being 76 individuals corresponding to (9%) of the respondents students with a strong entrepreneurial intention, data similar to that found in Spanish students at the University of Cantabria which corresponds to 42 young people which corresponds to 8% of the sample used (Rueda *et al*., 2012).

If we compare the above information with data from university students from Colombia and France who have a firm entrepreneurial intention, which correspond to 55% and 25% of their sample respectively (Rodríguez & Prieto, 2009), the above data express a very notable difference that indicates that the entrepreneurial intention that is held in the TUH and the University of Cantabria is very low, making latent the need for various strategies that encourage and increase the entrepreneurial intention in young university students.

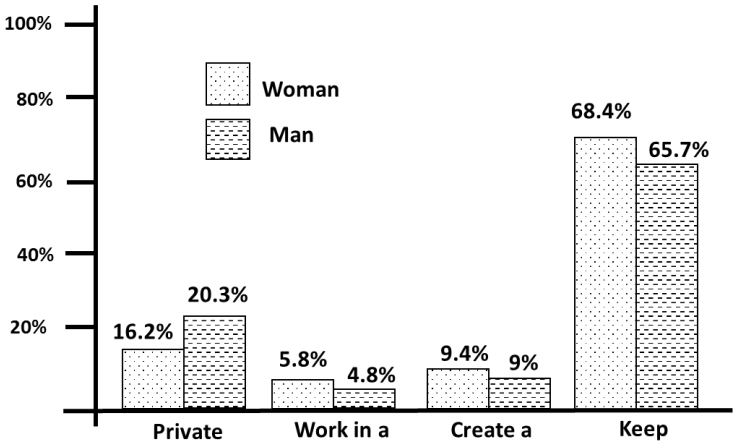
The data on "Continue Studying" is the variable most accepted by the university students, which is interesting if we contrast it with Liñan, Rodríguez and Rueda (2005) they affirm, in relation to individuals with high entrepreneurial intention, which at the moment of being analyzed do not have

much attraction for being entrepreneurs, which could apply or not apply for the context of the TUH, interesting topic for future research would be to longitudinally analyze this phenomenon to confirm this assertion.

The variable sex has been studied in various investigations. Liñan *et al.* (2005); (Rodríguez & Prieto, 2009), the first authors emphasize that men tend to have a greater entrepreneurial intention since they consider themselves more capable than women to carry out a business activity, a fact opposed to the results shown in the Figure 3.

In Figure 3, women are those that show a slightly higher interest compared to men, it is worth mentioning that men are a majority in the TUH, which correspond to more than 60%. The option of alternative of employment corresponding to "continue studying" is the one that registers the greater preference on the part of the students with more of 65% between men and women, which indicates that the majority of the students visualizes like better option the follow preparing academically.

Figure 3: Percentage of students by sex and their employment alternatives



Source: own elaboration with data of the survey applied to students of the TUH 2016.

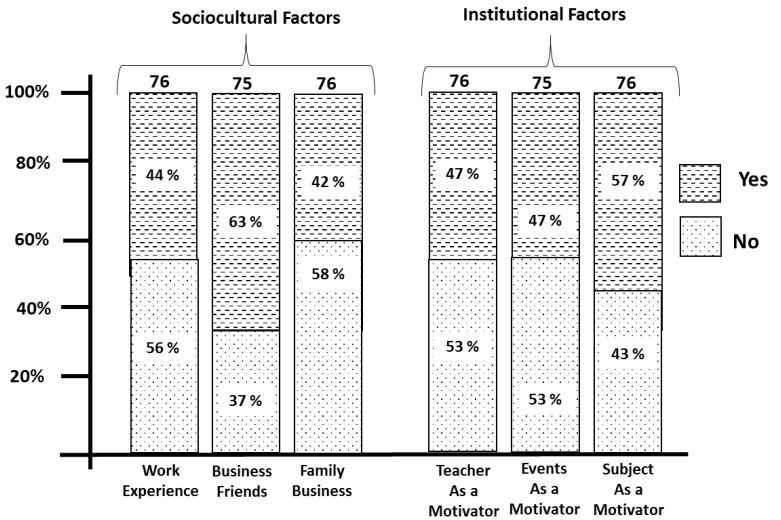
6.1 Sociocultural and institutional factors in the entrepreneurial intention

The factors analyzed in this document belong to the social and academic environment of university students; this first approximation in a descriptive way shows an apparent very close struggle in the two groups of factors (sociocultural and institutional), in the influence of the entrepreneurial intention, Figure 4.

The sociocultural factor "Friends and well-known entrepreneurs" is the one that

obtains the highest percentage, where 63% of young people who want to start a business have friends or acquaintances; in this sense the friends help to shape what Herrero, (2005) calls self-concept of the individual which serves to direct their behavior based on the behaviors, feelings and attitudes of the people with whom they relate and so Both your approval or disapproval is of the utmost importance.

Figure 4: Sociocultural and institutional factors in the entrepreneurial intention



Source: own elaboration with data of the survey applied to students of the TUH 2016.

A second factor stands out, but in this case belonging to the institutional group which corresponds to "Matter as a motivator" which shows that 57% of young people with entrepreneurial intention if they consider that some subject they have taken in the TUH have influenced your preference for being an entrepreneur.

The remaining four factors share a close relationship obtaining almost similar percentages, being difficult to know their influence on the entrepreneurial intention, which is why we require a more rigorous statistical analysis, for which the following analysis is carried out.

6.2 Association of entrepreneurial intent and socio-cultural and institutional factors

In order to analyze to what extent the employment alternatives of TUH university students are associated with institutional and sociocultural factors, the Chi square tests and the Phi coefficient were performed. The square Chi is a nonparametric inferential statistical method, which tests the differences between the categorical variables; for this particular work, bidirec-

tional Chi square was estimated, taking as reference the contingency tables constructed by the sociocultural and institutional factors of the students and the alternatives of employment that the students would prefer when leaving the TUH. (See summary in annex 1)

The asymptotic significance of Chi square for sociocultural factors (work experience, business friends and family business) were less than 0.05 (Table 4), therefore Ho is rejected and there is a difference between the proportion of students' preferences for alternatives of employment, apparently implying a dependency so it is determined that if the socio-cultural factors influence (work experience, having business friends or having a family business) in these preferences.

The previous results on work experience differ from the results that Ali *et al*. (2012) found in their research on entrepreneurial intention where this factor in China and Pakistan plays no significant role in shaping the entrepreneurial intention of young people students, a phenomenon that develops differently in the TUH.

Table 4: Results of the Chi-square test and Phi in the analysis of the employment preferences of the TUH students according to the types of factors

Factors		Chi-square (value)	Chi- square (bilateral asymptotic significance)	Phi (nominal value)
Sociocultural	Work experience	11.847	0.019	0.119
	Business friends	11.407	0.022	0.117
	Family business	14.193	0.007	0.130
Institucional	Institutional Teachers of the TUH	4.806	0.308	0.076
	Academic events at the TUH	3.360	0.499	0.063
	Subjects in the TUH	5.420	0.247	0.080

Source: own elaboration with data of the survey applied to students of the TUH 2016.

The opinion of the friends is important for the subjects of comparative study between the countries of Colombia and France focusing on the decision to undertake (Rodríguez et al., 2009), empirical evidence that coincides with that of the youth of the TUH, where university students consider that having friends or acquaintances influence their alternative employment and consequently entrepreneurial intention.

Caceres and Cohene (2010) state in their research that the family environment

does not influence the entrepreneurial intention of the young people of the National University of Itapuá, Uruguay; in the case of TUH, it is different from the fact that the family business factor obtains the greatest asymptotic significance of Chi square, confirming its influence on entrepreneurial intention.

However, when we analyze the values of Phi (a measure of association in contingency tables), these are lower than 0.14, which implies a low association between the preference of employment alternatives and sociocultural aspects, which implies that it does not confirm the results and forces to take these affirmations with due precautions. Even before making any decision, these results must be further analyzed.

The significance of the Chi square test for institutional factors is higher than 0.05, so that Ho is not rejected, there is no difference between the preference proportion for any occupation, apparently implying that institutional factors do not influence (teachers, academic events and subjects of the TUH).

The results on the factor "Events as a motivator" of this research, where it obtains an asymptotic significance of square Chi very far from zero, denoting its total independence from employment alternatives, this coincides with what Benavides *et al*. (2004), raises about the events as informative talks where evidence that these events alone are often insufficient to encourage entrepreneurial intention in university students.

The results on the "Matter" factor in the TUH are similar to what according to Maluk (2014) found in the Polytechnic School of the Litoral in Ecuador, where the subject of Entrepreneurship does not significantly influence the entrepreneurial intention, statement that allows to visualize the development of entrepreneurial intention does not only depend on a subject but depends on strategies articulated during professional training of the university student.

When we analyze the Phi values, they are lower than 0.09, which implies a very low association between the preference of the employment alternatives and the institutional factors, which confirms the results. Therefore, the professors, academic events and subjects of the TUH do not influence the preference of employment of the students when leaving the TUH.

7. Conclusions

Projections of unemployment of professionals in Mexico are not encouraging. In the most optimistic scenario, it is expected that by the year 2020 there will be a balance of 3.2 million unemployed among university technicians, undergraduate and postgraduate. Regarding this situation, the fact that when the students graduate creates their own company, it seems a viable alternative. However, the majority of the students surveyed (66%) indicated that when they graduate from the TUH they will continue studying, so apparently they are betting on a better training to be more likely to access a job.

The percentage of students surveyed who prefer to create their own company

upon leaving the TUH was only 9% and most are those who:

a. They study the career of Business Development in the Marketing area and the Career in Design and Industrial Fashion Production Area.
b. They are of the masculine gender.
c. They do not have work experience.
d. They are between 21 and 24 years old.
e. They have business friends.

The Chi Square tests provide evidence that apparently influences sociocultural factors (work experience, having business friends or have a family business) in the preferences of employment of students to graduate from the TUH; being the Factor "company at home" the most influential. However, the Phi coefficient does not confirm the results and forces us to take these statements with caution and carry out a greater analysis of the information. On the other hand, the Chi Square tests and the Phi coefficient show that the institutional factors (teachers, academic events and subjects of the TUH) do not influence the employment preferences of the students when leaving the TUH.

The findings show that at the moment the majority of the students surveyed do not have in mind to create a company upon leaving the TUH; who agree that entrepreneurial behavior is not an instantaneous reaction to the impressions received during life, but influences a series of factors, the availability of resources and the identification of opportunities.

The fact that a large minority of students recently admitted to the TUH do not choose to start a business at the moment, gives evidence that they probably already know that there is a lot of unemployment among professionals, but at this school level with the knowledge and resources they have, they do not see viable to create a company; that is to say, the decision has a logical reasoning, the decision making to create a company requires more reflection and maturing a planning process.

The analysis of the results of this survey only gives us an overview of how the students of the TUH generation 2015 enter the same and how many of them have an entrepreneurial intention. This represents a first monitoring, to which will be added others that will be carried out at the end of 2015 and 2018, which will allow for a more complete longitudinal study.

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Annex 1: Summary of the number of students according to employment preferences upon graduation from the TUH

Factors			Number of students according to employment alternatives contemplated upon graduation					
			Work in private companies	Work in government institutions	Create a company	Continue studying	Other	Total
Sociocultural	Work experience	No	68	22	33	195	4	322
		Yes	89	21	43	363	1	517
	Business friends	No	82	15	47	256	3	403
		Yes	73	27	28	298	2	428
	They have a family business	No	52	11	32	135	2	232
		Yes	105	32	44	424	3	608
Institucional	Teachers of the TUH	No	96	24	40	358	3	521
		Yes	61	19	36	199	2	317
	Academic events at the TUH	No	90	24	40	347	3	504
		Yes	66	19	35	209	2	331
	Subjects in the TUH	No	83	21	33	314	2	453
		Yes	74	22	43	245	3	387

Source: Own elaboration with results of the first monitoring in the TUH 2014.

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