Original Research Article

Factors That Intervene In Students of First Semester in the Choice of Top Studies Carrera: Engineering in Business Management

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Abstract

The present project constitutes an investigation about the factors that intervene in first semester students when choosing a university. The study employs a 95% reliability in the first semester of the Engineering in Business Management degree. The results obtained in this research were various factors that are involved in the choice of a university environment such as family, economic or skills.

Keywords: Factors, choice, business management, family, economic.

INTRODUCTION

Until before the French Revolution, the choices of children's occupations were made by parents. The man was born in the occupation and profession of the family: the peasant's son would be a peasant, the son of the craftsman would continue the trade of his father; On the other hand, those who belonged to the upper class were dedicated to public administration and inherited the position to their children. It was not until the 19th century that the possibility arose for some groups of young people to choose the profession or occupation they would perform during their adult life. However, even today in the 21st century, the process of professional selection continues to be a somewhat difficult and even conflictive situation for those who have to choose a career or trade [1].

The process of choosing a university among students is not easy, since it is necessary to know the factors that influence this process and take into account the importance of recognizing that the student has difficulties when making a decision regarding the University to choose future. These factors can be family, friends, the marketing of the same universities or even the social environment in which it is located, among others.

For students nowadays it is difficult for them to have a clear vision about a clear and precise life project of what they really want to do since at the stage they are in adolescence and present a series of changes that prevent them from making that decision so important for your future life.

It is increasingly difficult to have a place in a public university because day to day these are more saturated due to the high demand they have.

It was possible to apply a survey to 35 students of the Engineering Degree in Business Management of the first semester of the Technological Institute of Milpa Alta in order to know what factors influence the students when choosing a University. This survey has 36 items of multiple choice evaluated on a Likert scale, from this a graph was obtained to show the results of the research of the most influential factors in the students as a priority is considered the consideration of the University and the social consideration since they do not take much into account the factor on the influence of the environment in which they find themselves and the vocational aspects.

Factors that intervene in the election of universities

Montero [2] mentions that one of the issues that most concern young people who are in high school is to choose the career. For some it may be easy, since they are very clear about what they want to do. Others may be vacillating among several options, without being able to determine which one is best for them. For some, making a decision of this kind is simply and simply frightening.

Estrada [3] mentions in his work that there are differences between the factors that intervene in the career choice of the students of the Public and Private

Schools, mainly in relation to the perception of the difficulties they visualize to study the career they chose.

On the other hand Arteaga [4] mentions that there are internal and external factors to consider in this topic, among which stand out:

- **Internal factors.** The internal factors refer to the personal characteristics that influence the decision of a professional career. In short, vocational choice is also an expression of personality, which is related to the student's identity and depends on the realistic recognition of one's own abilities and interests.
- **External factors.** The external factors are those related to the environment in which the student develops, conformed by certain social, economic and cultural structures.

PREVIOUS INVESTIGATIONS

Rosales [5] conducted a study of: Factors that influence the choice of career in high school students. The study of human abilities refers to the reflection about the abilities that allow any person to advance in their development. These skills can facilitate or hinder that growth process even when you are not aware of them. In terms of skills, Thurstone [6] mentions in his multifactor theory that from the inclusion of the tests and their increasing application in the measurement of intelligence appear different skills that result with high or low grades. The multifunctional theory of Thurstone [6] is the basis of many tests due to the suitability to make judgments about the aptitudes of people for the study or exercise of various professions and even jobs. Hence the importance of keeping in mind the skills and abilities it is important to know in the students what skills they have developed and what they are capable of doing in their life, such is the case of the skills mentioned above, and from there to start to give a good vocational guidance in the adolescent. Piñero [7] conducted a study with the title: Factors associated with career selection: an approach from the Theory of Rational Action. The careers requested by the population of aspirants to 64 conventional academic programs 5 of the UV degree level in 2010 (25,133 individuals) were analyzed. The design was observational and cross-sectional. Two registers raised by the UV were used during the process of entering online with demographic, school, family and economic data of the applicants [8]. These records were combined and the data was transformed to construct the dependent and independent variables, but not before selecting the items with conceptual content according to the theoretical approach assumed. The expected utility in the career choice was used based on three dimensions: its academic cost, the risk of rejection and the economic return perceived by the applicants. Silas [9] conducted a study called: Study on the perception of upper secondary students about higher education. Two cities and five institutions. It is an exploratory study conducted in the cities of Monterrey and Zacatecas to find out how high school students perceive and interpret higher education. 329 students from five institutions participated (two public and three private). It was found that young people have a pragmatic and slightly idealized vision regarding the uses and benefits of higher education. De Garay [10] conducted a study called: The academic and cultural integration to university of university students. A model of analysis and the implementation of institutional policies. From the application of a questionnaire since 2003 to all new students, as well as another questionnaire applied to one year of studies in all the degrees taught at the Universidad Autónoma Metropolitana, Azcapotzalco Unit (UAM-AZC) in Mexico City, an analytical model has been developed. In this way, three levels of student integration to the university were built, namely: High integration, Media integration and Low integration, which correspond to the type and frequency of academic and cultural practices carried out at the university. The results obtained between 2003 and 2005 show that, on average, 60.5% of the students were located within the areas of Media integration, 21% High integration and 18.5% Low integration. Pérez, Talavera, & Ramos [11] carried out a study called: analysis of the abandonment, of the election process and the change of career in university students. The present study shows the analysis of different variables associated with school dropout, professional choice and career change of university students. During the study procedure, structured interview protocols were developed and piloted in order to address issues previously defined by a panel of experts. The participants belonged to different careers, three of them processed their leave of the common trunk of engineering, one of the third semester of mechatronics, one of medicine, one of international business and another one of computer science. Mainly, elements that constitute the psychopedagogical model that currently operates the UABC Campus Tijuana were explored. Montesano & Zambrano [12] conducted an investigation with the title: Factors that influence the choice of a university degree at the Andrés Bello Catholic University. The research seeks to analyze in depth the factors that participate in the choice of the university in which the individual wishes to study. Some of the factors that influence decision-making are: the cost of enrollment, the socioeconomic level of the individual, the distance between the place of residence and the place of study, the financial aid offered by the university, the perception of prestige of the institute, among others. Pérez [13] conducted an investigation with the title Analysis of the factors associated with the choice of university studies using grouping techniques. The study consisted of analyzing what factors influence the decision of the students, studying what student profiles exist with respect to the influence of some factors or others and see where the promotion, guidance and recommendation efforts should be focused so that the students choose one degree or another. This analysis is descriptive and interpretive so that students can

understand what is influencing when making their decision. Soriano [14] conducted an investigation with the title of a structural model for the analysis of the factors associated with the choice of university studies. The objective of the study is to propose a multivariate and partial model that can account for the weight of the different variables and factors identified that influence the decision about the choice of studies and university. This proposed model is specified based on a series of structural relationships involving a set of variables and context data that have been grouped into the following factors:

- **Individual factors.** Linked to aspects related to the student and their personal interests, some of an academic nature and others clearly not.
- **Social factors.** Related to aspects that have to do with the social perception of the degree, its employability, the perception of the prestige of the University, the degree, or the profession to which it gives access.

Santos & Porto [15] conducted a study called: gender, values and vocational guidance in a university context for health, a challenge of our time. The purpose of this research was to link the decision-making process, in relation to the University studies, to two variables that the authors consider significant because of their explanatory contribution of the different choices made by the students and the students when considering the entry into higher education. The results show an appreciable similarity in terms of the instrumental and final values that indicate men and women of the different university careers.

MATERIAL AND METHODS

The methodology used in this research involves the participation of the students who are studying since it will allow to obtain, collect and analyze data and identify the factors that they took into account before choosing an institution in which to study at a higher level.

First Stage

The factors that are considered vital for the election of some university to itself in the adoption of the instrument to carry out the analysis were identified. According to the article obtained García and Moreno, they carried out an investigation where the first result obtained from a publication of 10 authors could classify the factors according to a research study, the first factor that leads to this decision making in the students it is the economic situation, since not all have the

possibilities to be able to continue with their academic studies. The second factor is the location and development of the community where the university is located, the third factor investigated was the structure with which the university has.

Reliability and Validation of the instrument. According to the information obtained, the questionnaire was used (Anezo 1). The questionnaire has 38 items and has a reliability of 0.930 using the Cronbach Alpha Index (IAC). The instrument was applied in the facilities of the Technological Institute of Milpa Alta. The study sample was the students of the first semester of the engineering career in business management.

Second stage: Application of the questionnaire

The executives of the Tecnologico de Milpa Alta were contacted, in order to obtain the authorization to carry out the application of the questionnaire to the corresponding students at the time established by the institution in turn. The sampling will be carried out in a stratified and simple random way, seeking to maintain a balance between the number of students with the institution count, as well as the careers given and the semester in which the student was enrolled with respect to the other schools within the analysis of data.

Third stage: Capture information and analyze data

In this stage the data capture was done as well as its analysis of the negative affirmations and positive affirmations resulting through the application of the applied questionnaire, where values between one and five are understood where the one indicated that this attribute was not important for the student when choosing a university and the five represents the maximum level of importance.

Fourth stage: Presentation of results

In this stage the results obtained from the surveys applied to the students of the first semester of the engineering career in business management will be presented.

RESULTS AND DISCUSSION

The results obtained are obtained from the aforementioned stages in the methodology, which are divided into sub-sections, that is, which is a composition of the students surveyed.

Formula of the sample. For the calculation of the sample, the formula proposed by Murray & Larry [16] was applied:

$$n = \left[\frac{(z)^2(N)(p)(q)}{(i)^2(N-1)+(z)^2(p)(q)}\right] = \left[\frac{(1.645)^2(62)(0.5)(0.5)}{(0.10)^2(62-1)+(1.645)^2(0.5)(0.5)}\right] = \mathbf{34.6545}$$

Sample Composition

A total of 36 items that were integrated and identified in the application of the final questionnaire; which was applied to 35 students who study the first semester of the Engineering in Business Management degree. The following table shows the total gender of the students enrolled in said career.
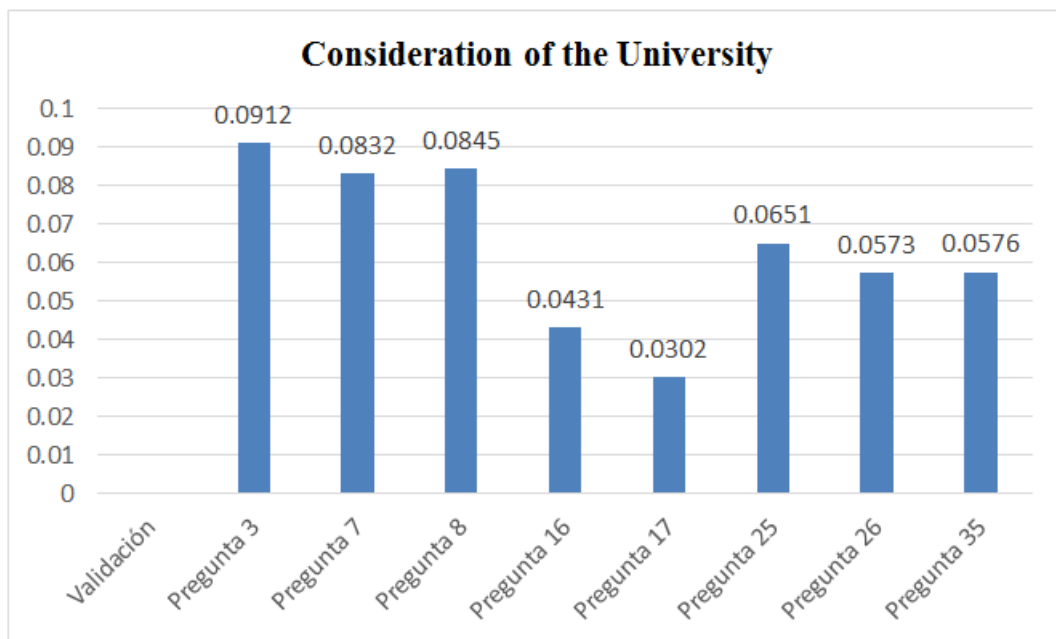
Table-1: Description of the study sample

Gender	Total
Female	12
Male	23
Total	**35**

Source: Own elaboration (2019)

In the previous table, it can be seen that the male gender had a greater number of people.

The results of the factor considered by the university are shown in figure-1. These results were obtained once the formula described above was performed.
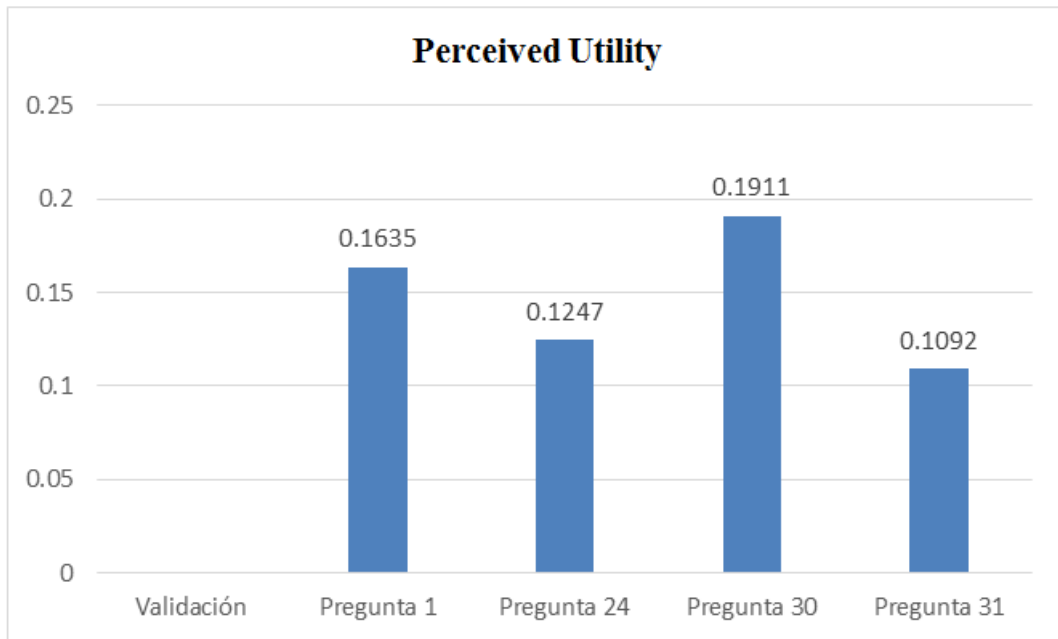

Fig-1: Validation of the consideration of the university factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global variability index of this factor is 0.0640, which shows a low result.
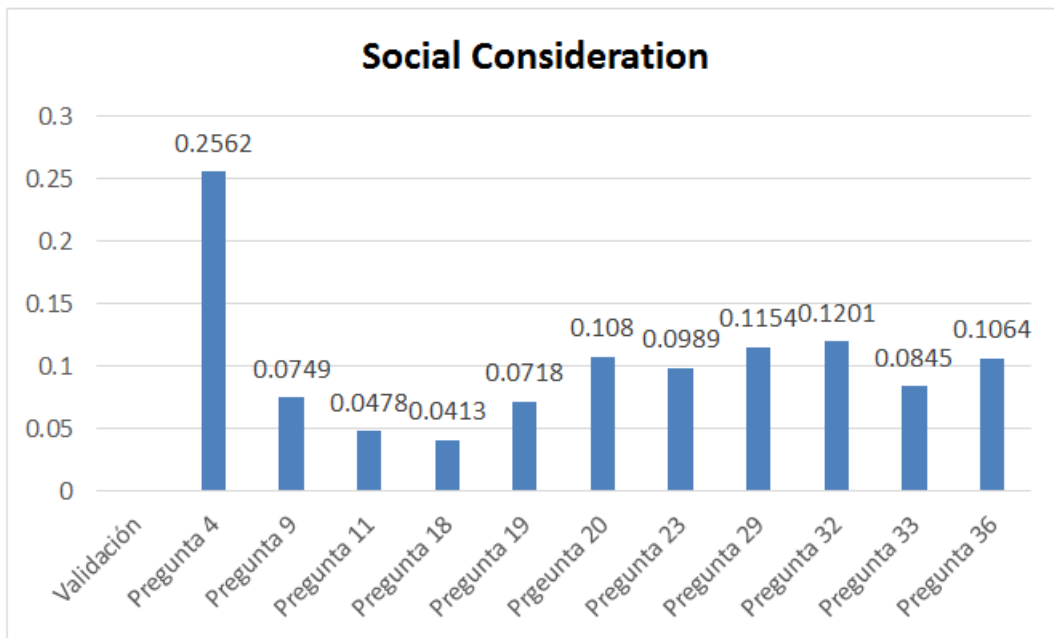
Figure-2 represents the perceived utility factor. These results were obtained once the formula described above was performed.

Fig-2: Validation of the perceived utility factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global variability index of this factor is 0.1471, which shows a low result.
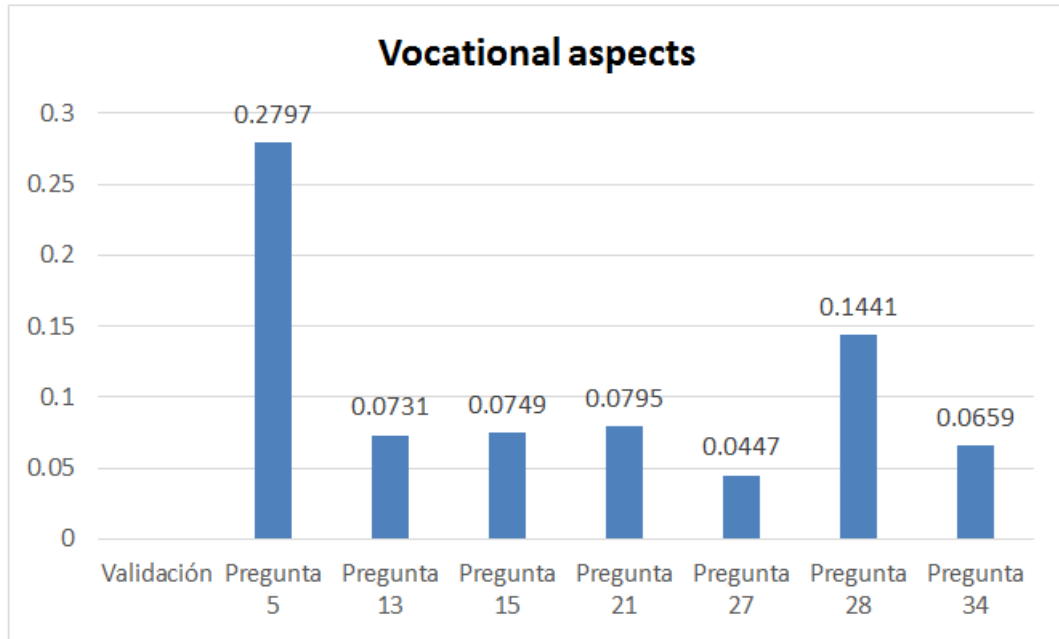
Figure-3 represents the social consideration factor. These results were obtained once the formula described above was performed.

Fig-3: Validation of the social consideration factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global variability index of this factor is 0.1023, which shows a low result.
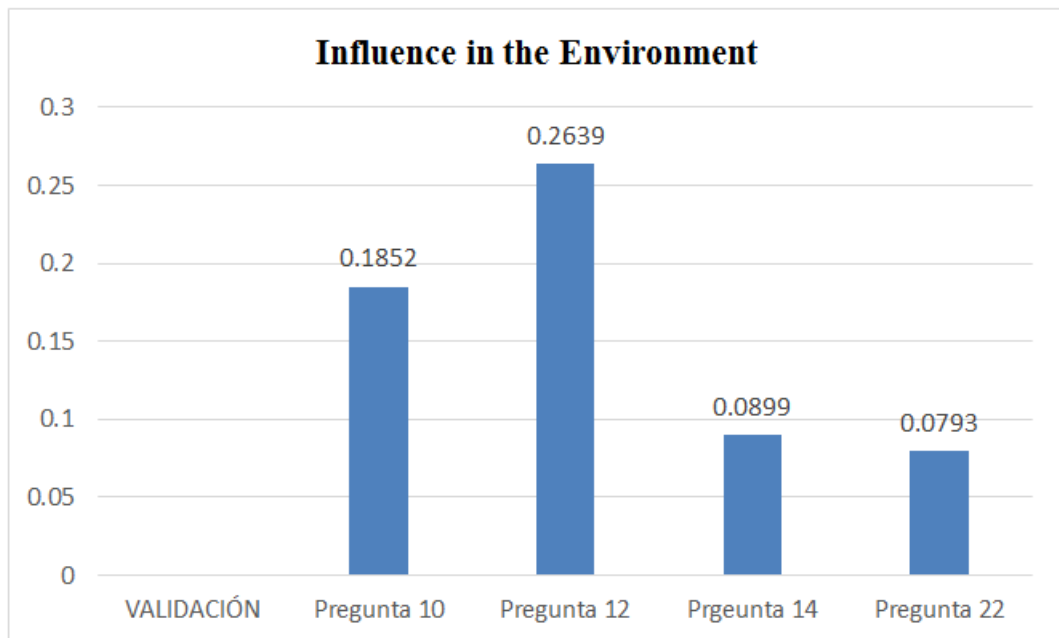
Figure-4 represents the vocational aspects factor. These results were obtained once the formula described above was performed.

Fig-4: Validation of the vocational aspects factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global index of variability of this factor is 0.1088, which shows a low result.

Figure-5 represents the influence factor of the environment. These results were obtained once the formula described above was performed.
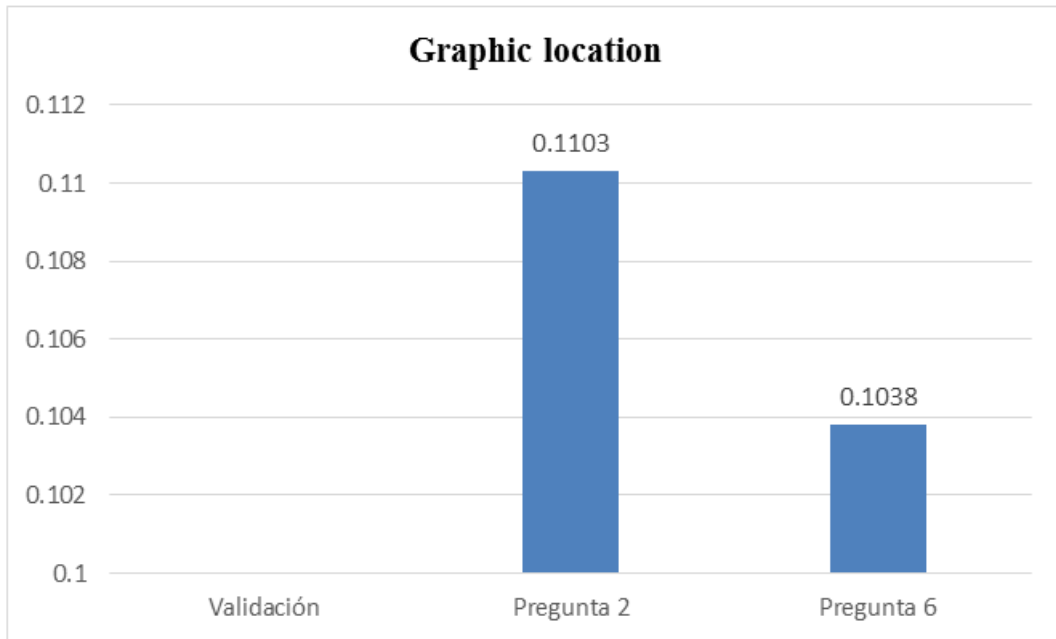

Fig-5: Validation of the influence in the environment factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global variability index of this factor is 0.1546, which shows a low result.

Figure-6 represents the graphical location factor. These results were obtained once the formula described above was performed.


Fig-6: Validation of the questions of the graphic location factor
Source: Own elaboration (2019)

As shown in the previous figure, all the questions present a low variability, which describes that the number of samples is sufficient to carry out the study. In addition, the global index of variability of this factor is 0.1070, which shows a low result.

Figure-7 represents in an integral way the percentage of each factor.
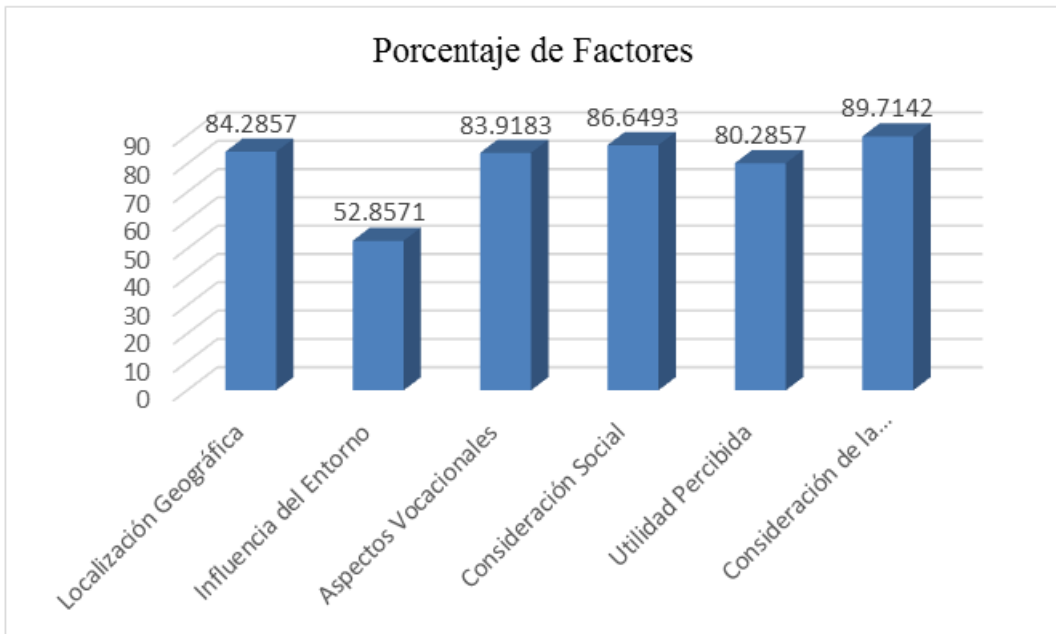
Fig-7: Percentage of each factor
Source: Own elaboration (2019)

ANNEX

Annex 1: Sample Questionnaire

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Encuesta para alumnos de 1er. Semestre de nivel superior, Delegación Milpa Alta, CDMX

Nombre (opcional): Eduardo González

Edad: 20   Género: F ___ M X   Trabaja: Si X No ___
Vive con: Sus padres _v_   Pareja ___   Solo ___   Otros ___

La siguiente encuesta tiene como objetivo conocer las razones principales por las que usted decidió ingresar a una Universidad, por lo que solicitamos de la manera más atenta, que lea con calma los aspectos o puntos presentados, e indique con una 'X', en la columna correspondiente, el nivel de importancia que tuvo para usted ese aspecto para tomar la decisión de ingresar a una Universidad.

Marca con una 'X' el nivel de importancia de cada aspecto que consideres para ingresar a nivel superior.

a) Completamente de acuerdo
b) De acuerdo
c) Ni en desacuerdo o en acuerdo
d) Algo desacuerdo
e) Totalmente desacuerdo

¿Qué tan importante es para ti?	A	B	C	D	E
1. ¿Es de vital importancia el costo y la disponibilidad de ayuda financiera que te otorgue la Universidad para realizar tu elección?		X			
2. ¿La ubicación y comodidad que ofrezca la Universidad es importante?	X				
3. ¿El contar con la infraestructura, así como el de laboratorios te brinda seguridad para garantizar tu desarrollo académico?	X				
4. ¿Consideras que existe diferencia entre las escuelas de nivel superior privadas o públicas?		X			
5. ¿Consideras que los requisitos de admisión a la Universidad deben ser más flexibles?			X		
6. ¿Es de vital importancia la cercanía de tu vivienda con respecto a la Universidad?			X		
7. ¿Es un factor importante el nivel académico de la Universidad de tu elección?	X				
8. ¿Consideras importante la reputación de la Universidad a la que pretendes entrar?		X			

Source: Own elaboration (2019)

According to the results shown in the graph, it can be seen that the most influential factor in the students of the first semester of the career in Engineering in Business Management is the consideration of the university since it occupies a percentage of 89.7%, another important factor and Considerable consideration taken by students is the social consideration with a percentage of 86.6%, in the same way with a percentage of 84.3% is the geographical location since for students it is an important factor where the university is located. They tried to enter, as well as the vocational aspects occupy a percentage of 83.9% and for the students the influence of the environment is very considerable since it consists of 52.3%.

CONCLUSION

The main objective was to identify the factors that influence the students of the first semester of the career in business management engineering when choosing a university.

The process of choosing a university in the students is taken in a stage of changes called adolescence that is why it is not easy for the students to make this decision, for this way the help of other people, be they friends or family, is affected. They give their opinion on which university they should choose, since they may have studied at that university and have served as example students to contemplate it.

It is also necessary that the student know how to identify what their skills and abilities are so that in this way he knows which university he should lean on because certain careers are not taught in all the institutions. In this way the students also address the prestige of the University, the cost, whether or not it has a job pool, the social environment, academic exchange among others, so they leave aside the part of educational content as many Students rely more on the promotions offered by the university.

The most influential factor in the students of the first semester of the Engineering in Business Management career was the consideration of the university, and as a factor not so demanding but considerable on which the students are based was the influence of the environment in which the university is located.

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