

Influence of gender in the choice of professional career among university students

Influencia del género en la elección de carrera profesional entre alumnos universitarios

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Abstract

The choice of a University career has always been a very difficult and complicated decision for young people because it represents their future job. Since it is important to choose it correctly, they must be aware of the factors that influence and the weight it have on that choice. The present study examines the influence of gender in the choice of a career in the students of the Metropolitan Technological University, through a descriptive research with a quantitative approach. A survey was applied to a sample of 420 students, which are distributed in the four divisions of the University that offer their different careers: Administration, Industrial, Innovation and Strategic Development and Information and Communication Technologies. It was identified that, despite the fact that students openly stated that their gender did not influence their career choice, the analysis of the distribution of men and women in the different careers offered by the University, exposes inequality because careers related to exact sciences continue to be dominated by men.

Career, Choice, Gender, University

Resumen

La elección de carreras universitarias siempre ha sido una decisión muy difícil y complicada para los jóvenes ya que representa su futuro laboral, dado que es importante elegir correctamente deben ser conscientes de los factores que influyen y el peso que tienen estos sobre dicha elección. El presente estudio examina la influencia que tiene el género en la elección de carreras universitarias en los alumnos de la Universidad Tecnológica Metropolitana, a través de una investigación descriptiva con un enfoque cuantitativo. Se aplicó una encuesta a una muestra de 420 alumnos, los cuales se encuentran distribuidos en las en las cuatros divisiones de la Universidad que ofertan sus diferentes carreras: Administración, Industrial, Innovación y Desarrollo Estratégico y por último Tecnologías de la Información y Comunicación. Se identificó que a pesar de que los jóvenes manifiestan abiertamente que su género no influyó en la elección de su carrera y fue por gusto al hacer el análisis de la distribución de los hombres y las mujeres en las diferentes carreras que oferta la Universidad existe desigualdad ya que las carreras relacionadas con las ciencias exactas continúan estando dominadas por los hombres.

Carrera, Elección, Género, Universitarios

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Introduction

Choosing a university career is one of the most important decisions that a person has to make, since it is very likely that this depends on the path that the rest of his life will take. The present study that was carried out in the Metropolitan Technological University, tries to identify if the gender influences in the taking of that important and difficult decision.

The World Health Organization (WHO, 2015) indicates that gender refers to:

The characteristics of women and men defined by society, such as the norms, roles and relationships that exist between them. What is expected from one gender to another varies from one culture to another and may change over time.

This concept is transcendent to establish and define the different roles and roles that men and women occupy in the family, work and very important educational areas, especially when selecting a career to study, since in this election there is the future of the same.

In a study conducted in Honduras Universia (2015), published on the website La Prensa, about the preferences that young people have when choosing a university career, mentions that out of a total of 34,125 young people surveyed, it was observed that careers related to the administration are the most preferred by Hondurans, with 13%., of which prefer the business management.

In relation to engineering, they are the last in the preference of respondents with 6%, and it is men who are more inclined for this type of careers, in their preferences are the systems, industrial, civil or architecture, while women prefer, pedagogy, psychology, business management, medicine, surgery, marketing or law.

Another important factor when selecting the race is the payment they will receive in this, it is a reality that the remuneration they will have depends largely on the company we are talking about, since each one establishes their tabulators according to the activities to be carried out and the payment capacity that they have.

According to a study by occ. mundial.com in 2018 the ten highest paid careers are: Chemistry, Transportation Service, Physics, Mining and Extraction, Finance, Banking and Insurance, Statistics, Public Health, Pharmacy, Environmental Sciences and Medicine. These data were taken as a point of reference to enrich this article.

Hypothesis

The reason why they choose the career to study is influenced by gender.

Objective

Determine if gender influences the choice of professional careers in students of the Metropolitan Technological University, through a descriptive investigation that allows identifying the factors that motivate young people in their decision making process to propose actions that favor the balanced presence of men and women in the different professions offered by this house of studies.

Theoretical framework

At present we find a society formed by a group of people who have different interests and customs as mentioned in the Encyclopedic dictionary, op. Cit cited by Duran (2000) society is:

cGroup of men gathered in a single community because of the nature of the laws or a pact. State of the men thus grouped. Entity formed by two or more people who through a contract decide to put something in common, in order to distribute the benefits that may result. (p.85)

In it changes are experienced in their uses and customs; this is totally normal since it must always be open to improve and use various resources that emerge from it.

Among the trends that have emerged are the opportunities and spaces that women have occupied, we find an independent, determined female sex, occupying previously exclusive work spaces for men, concerned not only be a pillar in their home but that can grow in an academic level, studying higher academic degrees than those established as basic education.

However, there are certain decisions and behavior that society is taking based on gender, as mentioned by Ayales (1996) when defining it as:

Social characteristics defined by a specific society to regulate the behavior, aptitudes, roles and functions of women and men and the way they should relate and interact. That is, it refers to the social definition of the feminine and the masculine. "(P.14).

This concept becomes transcendent to establish and define the different roles and roles played in the family, work and very important educational especially at the time of selecting the race to study because in this election is the future of them, According to the Dictionary Larousse Basic Dictionary the word career is defined as "the set of studies that enables to perform a function". (p.116)

The Organization of the United Nations for Education, Science and Culture (UNESCO, 2012) cited by Ordorika (2015) mentions that the gender parity index (GPI) in tertiary education enrollment worldwide went from 0.74 to favor of men in 1970, to 1.08 - which is in the parity range, although it favors women slightly - in 2009. In 1970 only in Central and Eastern Europe there were more women than men in higher education. For 2009, in four regions (North America and Western Europe, Central and Eastern Europe, Latin America and the Caribbean, and Central Asia), the IPG was favorable to women. Most of Asia, the Arab countries and Sub-Saharan Africa still remained below parity in 2009. (p.7).

UNESCO (2012) cited by Ordorika (2015), mentions that female representation in tertiary education is higher than that reached at the basic level and in secondary level, points out that the greatest growth in female coverage in this period corresponded to Latin America and the Caribbean, which went from an IPG of 0.62 in 1970 to 1.21 in 2009. With respect to the distribution of enrollment by academic discipline or profession, in 2009 the percentage of women enrolled in Latin America by discipline was 41% in science (67% of health and life, 51% in physics, 53% in mathematics and statistics and 31% in computing), and 57% in social sciences, business and law (70% social and behavioral sciences, 61% journalism and information, 56% administration and business, and 52% laws).

In this distribution are not contained engineering, manufacturing and construction, largely dominated by men in all countries. (p.8)

After knowing these data, it is identified that the role that women occupy in an academic level has evolved considerably, as has already been mentioned, women worry about occupying different roles and roles in society, in which they have a more active and dynamic participation.

It identifies the tendency of women to study careers of a social nature considering that they may have more employment opportunity, it is notorious and it is almost a fact that women in the future will decide and study careers of a different nature to those of today.

Camarena, Saavedra and Duclox (2014), mention that in the six most attended courses in Mexico by the population of 18 years and over, there is that of every 100 people with at least an approved degree in Mechanical Engineering, 94 are men and 6, women; in Industrial Engineering the ratio is 75 men and 25 women; in Architecture there are 70 and 30, respectively, and in Computer and Computer Engineering there are 67 men and 33 women. On the opposite side is Psychology with more than three quarters of women and the rest of men; Education Sciences in primary school follows with almost two thirds of them and a third of them.

Burin (2001) Indicates that males are assured of permanence in the educational system at least up to the level at which their family can support it economically and considers it essential with a view to their subsequent insertion in the labor market; while girls are soon faced with the threat of being disconnected from the educational system to remain in the domestic sphere. This means going to the labor market with fewer educational credentials and supporting lower-paying jobs. Other studies reveal, on the contrary, that young people would be the most exposed to interrupting their studies due to the imperative need to enter the labor market, while girls would have more access to educational opportunities because their financial urgencies would be covered by third parties, their parents, husbands, etc. Quoted by Miranda (2007) (p.297)

With these data it was identified that there are still certain careers in which the influence of gender is notorious for selecting them, women still have a certain fear of selecting educational offers dominated by men, this occurs above all in the areas of engineering. It is important to continue disclosing the contents of the educational offers to achieve the selection regardless of the sex you have.

With regard to the gender gap in employment, the authors Cebrián and Moreno (2018) indicate that women are concentrated in low-skilled occupations, adding another factor such as the glass ceiling, as are social and cultural barriers, that prevent them from accessing a better paid position and greater responsibility, adding that in many cases they have to combine work, with their role as mother in the family, which also limits their job growth; They earn 15% less by doing the same activities.

Materials and methods

The research that was carried out is descriptive, a quantitative approach was determined and the design was non-experimental transversal, since the data collected from the study subjects that make up the sample was carried out at a specific time, sharing all the same temporality.

The data was collected through the application of an instrument to a given sample, for which a simple random probabilistic sampling was carried out on a finite population. The Metropolitan Technological University currently has an enrollment of 2,661 students which are distributed in the four divisions that offer their different careers, these are: Innovation and Strategic Development Division, Administration Division, Industrial Division, and the Division of Information and Communication Technologies.

To calculate the sample size the following formula was used:

$$n = \frac{Z^2 pq N}{NE^2 + Z^2 pq} \quad (1)$$

Where:

n = is the sample size

Z = is the level of confidence

p = is the positive variability

q = is the negative variability

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N = is the size of the population

E = is the precision or the error

A value was applied for Z = 97% confidence, p = 0.50, N = population size by stratum and E = 0.05, obtaining a minimum sample of 400 students. It was decided to apply 420 surveys to try to minimize the errors or null answers by the study subjects in order to have in each section a response according to the minimum required for the sample.

As already mentioned, the study was applied to 420 students of the Metropolitan Technological University who study the third, fourth, eighth, ninth or tenth four-month period of the different races of the 4 divisions for which the university's enrollment is composed. The survey was carried out randomly, both for women and men, with the purpose that perception gives us results about the position of both sexes.

An instrument was designed to collect the information from this study. The instrument is made up of 35 items divided into four sections, the first section was general data, in which we can find their gender, age, marital status, academic training of their parents and if they understand or speak any indigenous language. The second section is about school aspects, such as the career you are studying, why you chose, if you have any type of scholarship, if you work, your seniority, your salary and the amount of money you have to support yourself. The third section addressed is the family-school environment, with questions about whether you have children, how much time you spend with them, etc. and finally in the fourth section that covers the school environment, you have questions such as whether you have had unequal treatment, if he has felt discriminated against, etc.

In order for the investigation to be carried out, each of the directors of the four divisions was asked for authorization to carry out this investigation, once this authorization was obtained, the coordinators of the different careers were informed to access to the students so that the survey may be applied during the school hours. Once organized as the program would be with schedules and groups authorized for the application of the instrument was carried out favorably.

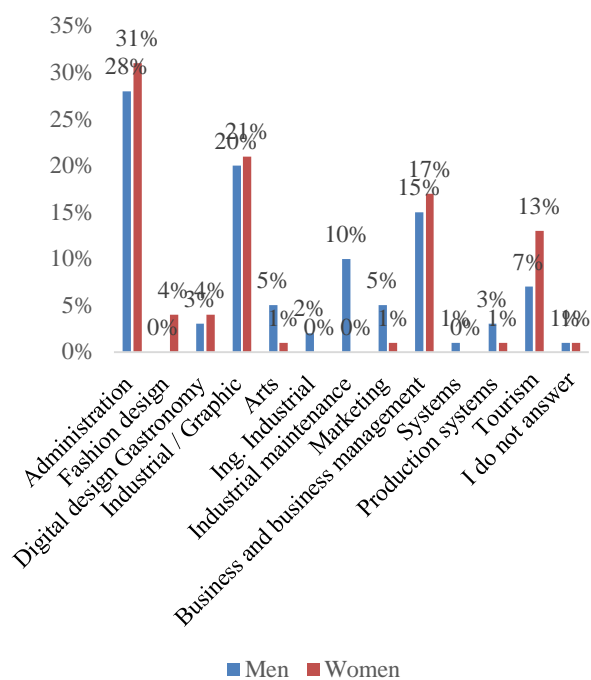
For the process of filling the instrument, we entered the classroom where the students were instructed to respond objectively, without consulting anyone and anonymously, the instrument was self-filled by each participant. It was indicated that there were questions that could have more than one answer and any doubts that arose at the time were clarified. At the end of the filling each of the instruments was lifted and after that the capture was made to generate the database with Excel spreadsheet support.

With the database of proceeded to perform the statistical analysis of descriptive nature, in which the responses of the different categories were summarized according to frequency counts and percentages.

Results

The results found from the application of the research instrument to four hundred and twenty students are the following, 48% of the respondents are men and 52% are women, the ages of the students are between 18 and 33 years, and the 76% of students are between 19 and 22 years old.

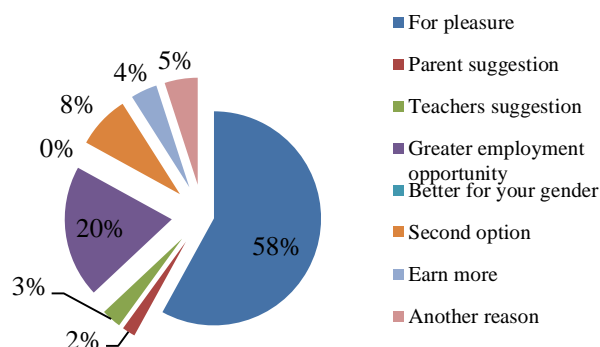
The analysis was made regarding the career they study according to gender and the results indicate that 49% of women study careers related to administration, this percentage is divided by 31% that specifically studies administration plus 17% studying business and business management and 1% studying marketing, 21% of the students surveyed study gastronomy and 13% tourism, careers in which they have a smaller participation representing 4% of the respondents in each of them are: Fashion design, digital design, Industrial / arts and production systems, 1% of respondents did not answer. The careers in which the women surveyed have no participation are industrial engineering, industrial maintenance and systems. The above is seen in graphic 1.



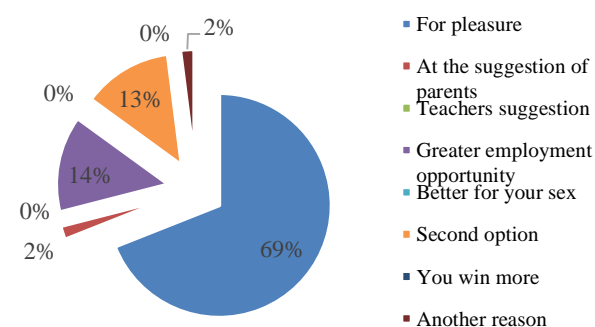
Graphic 1 Participation of men and women according to the careers they study at the Metropolitan Technological University
Source: Self Made

In contrast, men have a presence in all careers, however when analyzing the percentages per race, 48% of men surveyed study careers related to administration, of these 28% study specifically administration plus 15% study business and business management and 1% study marketing, when comparing these percentages with women who study the same careers it was observed that they are very similar, the same happens in the gastronomy degree, since 20% of men surveyed study this race, on the contrary in the tourism career if there is a difference since only 7% of men study this race compared to 13% that women represented. Another comparison that is important to analyze is that 10% of men study the career of industrial maintenance, career in which women have no participation, 5% of men study Industrial / Arts, 3% study digital design, 3% study productive systems, 1% study systems and also 2% study industrial engineering, 1% of students did not answer.

The students were also asked the reasons why they chose the career they are currently studying, the answers were analyzed according to gender with the intention of differentiating the motives of men and women, the results can be seen in the following Graphics.



Graphic 2 Reasons for men to choose a university career
Source: *Self Made*



Graphic 3 Reasons for women to choose a university degree
Source: *Self Made*

As seen in the graphics, the main reason why young university students choose a career, both men and women, is for pleasure, since 58% of men answered that and 69% of women, the second cause most important for both is the employment opportunity, 20% of the students surveyed chose this motive and 14% of the women said the same, the third important reason is that the career they are currently studying was their second option, this was the reason for 8% of men and 13% of women.

As for choosing the race at the suggestion of parents represents only 2% in both men and women, 4% of men said they chose the race because they earn more, in contrast to women this is not a reason to choose the race 3% of men took into account the suggestions of their teachers to choose a career; on the contrary, women do not consider this a reason. 5% of men said they had other reasons and 2% of women said the same.

A specific cause or reason related to gender was included in the research instrument because they were asked if they had chosen the race because it was better for their sex, which neither men nor women said they had taken into account this reason.

Discussion

Given the need for specialization required by the current labor market, choosing a university degree to study is not easy, it is a complicated task because the decision is influenced by a series of factors, be they extrinsic, intrinsic or a combination of both. It has been proven that the intrinsic factors that affect decision-making with respect to the career being studied include the individual personality, the interest in the subjects, the self-concept, attitudes and cultural identity.

On the other hand, the main extrinsic factors include role models that determine the society, friends or social contacts you have, the availability of resources such as financial, globalization, ethnic origin, differences in the characteristics of the work. (Kerka, 2000)

Hewitt (2010) says that, in terms of the choice of university career, most people are highly influenced by either professionals or their parents, there are also those whose educational achievements have opened another panorama, other individuals are influenced for professional careers that offer high benefits, including salary, allowances and vacations. However, there are also those who choose a career because of the passion they have towards it regardless of the benefits they may have. (Quoted by Nyamwange, 2016)

Young people usually choose the career to study when they are in their last year of high school. Before making this decision they are generally informed about the different careers that are offered so that they can choose correctly.

The universities are given the task of organizing fairs, visiting high schools to invite them to know their facilities, in Yucatan, even a University Expo-fair is organized by the State Government, in which universities are invited to Participate and show the careers they offer so that young people who are interested can go and inform themselves and clarify any doubts they may have, in order to support them in their decision process.

Despite the various ways they have to inform themselves, many young people lack the necessary and sufficient information to choose the university career to study.

When analyzing the reasons that the students of the Metropolitan Technological University had for the decision making of professional career factors were considered as the taste that they had for the race, that is to say, the interest, the suggestion of parents and teachers, the perception of a greater opportunity of employment, the perception that they earn more, that is to say the perception of higher salaries, they were also asked if they considered that the career they study is better according to their gender (sex), or if they had some other reason.

The results of the study coincide with Kerka (2000) and Hewitt (2010), since both men and women said that some of the reasons they had correspond to intrinsic and other extrinsic reasons; since the main reasons to choose a career are, on the part of men, 58% said it was for pleasure, which can be attributed to the interest they have in careers (intrinsic factor) and 20% said it was because there is a greater employment opportunity in the studied career (extrinsic factor), women had a similar pattern 69% said they chose their career for pleasure and 14% because it represents a greater employment opportunity. It is gratifying to see that most of the young people were not influenced in their decision by their parents or teachers, which means they made the decision for themselves.

The distribution of students according to gender in different careers drew the attention of the study, since it was observed that 49% of women study careers related to administration, they also have no representation in careers such as industrial engineering, industrial maintenance and systems, in this regard (Geyfman, Force and David, 2015) comment that although there are several authors who have done various studies trying to determine the factors that determine the choice of university careers, these decision factors will vary depending on the group studied, however no study explains why women study business careers.

Several studies have identified that interest is a very important factor for students in the career selection of the different disciplines (Beggs et al., 2008; Kim, Markham, & Cangelosi, 2002; Malagwi et al., 2005; Roach, et al., 2011; Wiswall & Zafar, 2011; Wiswall & Zafar, 2014), cited by (Geyman et al., 2015).

The results obtained coincide with this statement, since 58% of men and 69% of women said that the reason for choosing the race is for pleasure, this can be interpreted as choosing the race because of the interest it arouses in them.

c According to (Kumar and Kumar, 2013) women tend to be more influenced by the family and vocational counselors of the baccalaureate, while men tend to give more value to the opinion of friends and teachers than to the family. The results found do not coincide with Kurman and Kurman in that women tend to be more influenced by the family, since men and women, only 2% of both, said that they felt influenced by their parents in the decision of the career to study. However, if the authors agree with the fact that men tend to be more influenced by their teachers, since 3% of male students declared this option as a decisive factor of choice, while for women teachers did not they had no influence.

Another factor that is important in the choice of careers is salary, according to (Malgwi et al., 2005, Wiswall & Zafar, 2011), cited by (Geyman et al., 2015), the salary that is expected to be received the professional career studied is a more important factor for men than for women, this is confirmed by the results obtained since in the survey that was applied one of the factors considered is more earned, to which 4% of the men said that this reason is the reason why they are studying the university career, while no woman said she considered this reason as a decision factor. According to these authors mentioned, the perception of opportunities is a decision factor that influences both men and women, the results show that for men, students of the Metropolitan Technological University this is a more important factor than for women, since 20% of men said that the reason for career choice is greater employment opportunity, for 14% of women this factor was decisive.

However, the gap in relation to the salary that men receive in relation to women in Mexico, is still significant, which presumes that improvements have to be made to achieve that economic equality. Pérez (2018) indicates that in Mexico a professional woman earns on average 3 thousand pesos less than a man in the same job and in management positions the difference can reach up to five thousand pesos.

Conclusions

With the results obtained from this research it is concluded that there are several factors that affect the decision making regarding the university career to be studied, these factors can be internal (intrinsic) or external (extrinsic), for example, as part of the factors of internal motivation are the interest or taste they may have for a certain career, one of the external factors is the influence that young people could have on the part of their family, teachers or friends, there is also the perception they may have of a future salary and the job opportunity offered by the studied career. The young people surveyed from the Metropolitan Technological University, men and women, said that the main reason why they chose the professional career is the interest or taste for it, as the second factor is the perception of greater employment opportunity. No young person said that he chose the race because it is the best one according to his sex or gender, reason for which it is concluded that gender by itself is not a determining factor in the choice of professional career among university students, nevertheless the motives of choice if they vary between men and women.

The influence exerted by the family, in this case the parents, affects men and women equally, while men are more influenced by teachers than women. The expected salary with the professional career is a more important factor for men than for women, while the perception of greater employment opportunity is an equally important reason for choice for men and women. It is suggested to carry out a study on an annual basis with new women to analyze the reasons why they are more inclined for careers of an administrative nature.

Similarly, it is recommended to carry out an analysis of pertinence in the business sector, to identify which careers they request according to the needs they present in their different organizations; According to a study prepared by OCC Mundial and the Universidad Tecnológica Latinoamericana en Línea (UTEL) (2018).

Graduates in Administration, Accounting and Industrial Engineers are the most requested employees by Mexican companies, according to the Trends in Employability 2018 study, prepared by OCC Mundial.

The fourth place is occupied by Systems Engineering or Computer Science, followed by Marketing and Psychology.

Graduates in Finance, Law, International Trade and Human Resources are also included in the top ten of the most requested employees.

The positions for graduates in International Trade have the highest average monthly salary in the list, with an amount in labor perception of between 27,000 and 41,000 pesos per month, according to the study and data from the Mercer Salary Index.

It is followed by vacancies offered to graduates in Human Resources with perceptions of between 23,000 and 34,000 pesos; the graduates of Marketing, with an average monthly salary of between 23,000 and 30,000 pesos and Industrial Engineering between 18,000 and 27,000 pesos; and the engineers in Systems, Electronics or IT perceive on average 17,000 to 27,000 pesos.

Graduates in Business Administration, who earn on average from 14,000 to 18,000 pesos; accountants, with perceptions of between 16,000 and 21,000 pesos; the psychologists, with salaries of between 16,000 and 19,000 pesos; who study finance, between 18,000 to 24,000 pesos; and Law, with 19,000 and 25,000 pesos.

Universities have the challenge of increasing the competitiveness of professionals by designing curricula that respond to the needs of labor competition.

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