Classification Of The Use Of Money Of University Students According To Maslow's Hierarchy Of Needs

Gustavo Guerrero Gómez ¹, Javier Alfonso Cárdenas Gutiérrez ², Nelson Javier Cely Calixto ³

¹ Faculty of Engineering, Francisco de Paula Santander University, Ocaña, Colombia, https://orcid.org/0000-0002-4316-7113 ,
² Faculty of Engineering, Francisco de Paula Santander University Cúcuta, Colombia, https://orcid.org/0000-0002-6935-2413
³ Faculty of Engineering, Francisco de Paula Santander University, Cúcuta, Colombia, https://orcid.org/0000-0002-2083-6978 ,

Abstract

Today, globalization and changes in social behavior have made consumerism turn money into a transversal element and of the utmost importance to survive, and in a particular way to young people, who are more influenced by the media and what they it is a trend in the world (Sánchez, Céspedes, & Vallejo, 2019, p. 3, 4). This social phenomenon occurs mainly in young people based on the fact that money and communication are means for interaction and the exchange of goods and services. Consumer behavior, particularly people in higher education, is determined by various factors such as income; however, some students do not earn their own income, but rather through financial support from relatives or close friends. That is why it is essential to understand the different processes of a student of the engineering faculty of the Francisco de Paula Santander University (UFPS), to determine their consumption behavior, which is also related to their socioeconomic status.

Keywords: Maslow's needs, Use of money, Classification

Introduction

Uses of money in the University. According to Olivella (1992), cited by Rebellon & Salcedo (2014), over the decades, people have demonstrated the development of cash and paper money, plastic money, why money currently corresponds to the exchange of other economic moments for goods and services. Furthermore, it is capable of creating relational communication only through human actions; they are the sources, uses and importance of money for university students (p. 36).

Classification of the uses of money in the university. To describe this classification, an approximation to the Human Motivation Theory proposed by Maslow (figure 1) is initially made, in which a hierarchy of needs and factors that motivate people is proposed; in it, he identifies five categories of needs, considering an ascending hierarchical order according to their importance for survival and motivational capacity.
In a university environment, students need money to cover the expenses and needs of academic activities, such as transportation, food, lodging, guide fees and photocopies, supplies, books or special materials for internships and seminars; then goods Services and consumption of services is an ancient human fact that evolved from barter through supply and demand to modern markets in response to the fact that people must consume to survive. (Rodriguez, Bernal, & Urpí, 2005, p. 2; Rebellon & Salcedo, 2014, p. 37).

University students at an academic level need tools such as computers, calculators, tablets and mobile phones, which refers to the cost of buying, renting or maintaining these tools, because although they are necessary for development, they can be borrowed by university students who do not they can possess them, to satisfy the security, protection and stability needs of the College (Maslow, 1991, p. 26 - 28; Rebellon & Salcedo, 2014, p. 38). “The use of tools responds to the economic benefit that teams give to competitiveness among students in universities” (Bok, 2010), cited by (Rebellon & Salcedo, 2014, p. 38).

Among the needs found in Maslow's hierarchical pyramid, recreation and leisure are classified as belonging needs or social acceptance, among these needs are how is money for students, friendship, love and affection are universal in society, how peers feel, what is the reason why . . then we are talking about choosing courses of action that involve the collective making of collective decisions (Elster, 2014, p. 434, 435). Each individual has preferences, which means that these come from their fundamental preferences, together with a series of causal beliefs about relationships, means and ends; That is why the basic objective of collective decision-making is to add individual preferences as action plans, through mechanisms that help to fulfill them (Elster, 2014, p. 435).

Figure 1. Maslow's Hierarchy of Needs

Source: Authors, adaptation of (Quintero, 2006, p. 3)
On the other hand, solidarity is found in the use of money, and then, according to the fourth category of Maslow's hierarchical pyramid (Figure 1), money is aligned with the need for respect, where money responds to what is desired and/or searched. Purpose To achieve personal satisfaction, recognition, respect for oneself and others, consider and create the same level as employees to achieve specific goals to achieve personal stability with others (Maslow, 1991).

Socialization groups. Regarding the norms that exist in society, some of them are social norms, which include formal norms, revenge and regulation of the use of money; such as the one that limits the money to make purchases, respecting someone's place in the bus queue, the rules of education or the rules on tipping (Elster, 2014, p. 123, 402).

In the university, nine socialization groups are identified according to the pedagogue and philosopher José Maria Quintana Cabanas (1997) cited by Rebellon & Salcedo (2014), To confirm that the student knows and accepts the norms belonging to different groups in the first stage, in the second, the culture is transmitted to him, he develops behavioral habits, restores the social dimension, participates in the social welfare of society, helps to understand the community, life, takes responsibility in front of others, does a good job professionally. Get ready for the Ultimate Meet personality development (p. 40). This is related to what Rodriguez et al. (2005), who say that "The human being as a social being does not exist, but rather co-exists with other people." (p. 7), whose groups are described in Table 1.

<table>
<thead>
<tr>
<th>socialization group</th>
<th>Type of activity where the cohesion factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sports</td>
<td>● University sports participation and representation in sports.</td>
</tr>
<tr>
<td></td>
<td>● Accompaniment or animation of the students or sports teams of the university that practice a sport.</td>
</tr>
<tr>
<td>cultural</td>
<td>● Participate in university arts, theater, folklore, music, dance, bands, tinkers, craft groups, and anything that involves cultural aspects</td>
</tr>
<tr>
<td>solidarity</td>
<td>● Participation in social work groups, literacy, visits to social protection centers for the elderly or children, donations to the needy, help among colleagues and any other activity related to giving or receiving solidarity at the university</td>
</tr>
<tr>
<td>academics</td>
<td>● Participation in peer study groups, teaching or supervision, counseling and guidance, university exchange studies</td>
</tr>
<tr>
<td>religious</td>
<td>● Participate in campus religious activities consistent with free worship or transcendental beliefs, such as prayer groups, camps, worship services, or religious classes</td>
</tr>
<tr>
<td>friendship or fun</td>
<td>● Go to group meetings, movies, walks, outings, go out for a drink or hang out with your classmates or from the university.</td>
</tr>
</tbody>
</table>

Source: (Rebellon & Salcedo, 2014)

Method

Depending on the type of research that is chosen, it defines the course in which an investigation begins as: exploratory and descriptive. The state of knowledge on the research topic revealed by the review of the literature and the focus that the researcher intends to give to his study (Hernández Sampieri et al., 1997).

Taking into account the objectives set by this paper, the research will be descriptive, since "descriptive studies seek to specify the important properties of people, groups, -communities or any other
phenomenon that is subjected to analysis” (Hernández Sampieri et al., 1997)

Population and sample

The population It is the group that includes all the elements whose characteristic or characteristics we want to study; In other words, it is the entire set that you want to describe or from which you need to draw conclusions (Salazar & Del Castillo, 2018), which will be the university students of the Francisco de Paula Santander University, taking the students as a sample. of the Faculty of Engineering of the Francisco de Paula Santander University, the number of students for each program of the faculty is shown below in detail.

Table 1 . Students of the Faculty of Engineering to 2020-2.

<table>
<thead>
<tr>
<th>FACULTY OF ENGINEERING</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Students</td>
<td>Career</td>
</tr>
<tr>
<td>109</td>
<td>534</td>
<td>ELECTROMECHANICAL ENGINEERING</td>
</tr>
<tr>
<td>111</td>
<td>1,346</td>
<td>CIVIL ENGINEERING</td>
</tr>
<tr>
<td>112</td>
<td>557</td>
<td>MECHANICAL ENGINEERING</td>
</tr>
<tr>
<td>115</td>
<td>635</td>
<td>SYSTEMS ENGINEER</td>
</tr>
<tr>
<td>116</td>
<td>538</td>
<td>ELECTRONIC ENGINEERING</td>
</tr>
<tr>
<td>118</td>
<td>486</td>
<td>MINING ENGINEERING</td>
</tr>
<tr>
<td>119</td>
<td>920</td>
<td>INDUSTRIAL ENGINEERING</td>
</tr>
<tr>
<td>142</td>
<td>3.4</td>
<td>TECHNOLOGY IN CIVIL WORKS</td>
</tr>
<tr>
<td>192</td>
<td>521</td>
<td>TECHNOLOGY IN CIVIL WORKS</td>
</tr>
<tr>
<td>198</td>
<td>173</td>
<td>TECHNOLOGY IN INDUSTRIAL PROCESSES</td>
</tr>
<tr>
<td>242</td>
<td>295</td>
<td>TECHNOLOGY IN CIVIL CONSTRUCTIONS</td>
</tr>
<tr>
<td>Total</td>
<td>6,039</td>
<td></td>
</tr>
</tbody>
</table>

Source: UFPS Admissions.

For the calculation of the sample, the sampling equation will be taken

\[ n = \frac{z^2pqN}{e^2(N-1) + z^2pq} \]

Where
- \( n \) = Sample size
- \( N \) = Population or universe (6039)
- \( Z \) = Confidence level (90% = 1.65)
- \( P \) = probability in favor (0.8)
- \( q \) = Probability against (0.2)
- \( e \) = Sampling error (6%)

We apply the formula for the previous values and the total sample results in 184 students to be surveyed.

Analysis of research information

Typology of the use of UFPS student money.

People are associated with using things like money to satisfy their various needs. For students, transportation, food, photocopies, technical material, leisure, free time, etc. exist with friends and colleagues because it is good to have relationships where money is important. During the development of this section, students were asked about the different uses for which university students have allocated money, considering that aspects related to academic activities, food, transportation, and housing were
considered urgent and important by students, even though they felt it was relevant, they would not prioritize aspects related to vacations, the purchase of clothes and technology, and although they provide comfort, the most urgent situations can wait. (Reus et al., 2018).

![Figure 2. Use of money.](http://www.webology.org)

**Classification of the use of money according to Maslow's hierarchy of needs.**

Based on the information collected, a classification was made according to the hierarchy of needs proposed by Maslow where the physiological, security, social, esteem and self-realization needs of the expenses that were asked in the survey are recognized, of which was obtained (see figure 2):
Based on the previous classification, in the first instance we talk about the needs that are vital for the survival of the human being and are of a biological order (Quintero, 2006, p. 2), which in relation to the classification that the author exposes, for this study the variables of food outside the home, market, public services and rent were selected, obtaining the results shown below:

**Food away from home**. In this case, the dispersion of the information collected, according to the histogram (see Figure 3), the trend behaves with a normal distribution, for this case, the value with the highest frequency of food expenses away from home is between $5,000 to $10,000 pesos, followed by not consuming food outside the home, which can be inferred that these students have the opportunity to have food at home, such as a student who only studies in the morning, he has breakfast at home and when he finishes his day lunch at home; As well as this example there are others. Those who eat food away from home have a range of expenses between $3,000 to more than $20,000 pesos. According to the analysis and as shown in the histogram, we find that the range most frequently is between $3,000 to $20,000 pesos, on this cost it can be determined that each range of money has different characteristics that may be due to their academic journeys, understanding that the ranges with the lowest value are those who attend short days, while those with the highest value are those who can spend a long academic day and even the whole day, for which they buy all their meals (Figure 3).
market. Another vital need for people is the family basket market for household food, which in this case refers to those students who make economic contributions in this regard, for which it was found that the majority do not make contributions, on the other hand there are those who are forced to work to help their families, with between $50,000 and $100,000 being the most frequent among those who contribute. The behavior of the distribution of this variable according to the histogram presents an asymmetric normality to the right (see Figure 4).

lease. The majority of students do not make contributions regarding the rental payment, being 65.69% respectively of the amount of the sample; the remaining population who do make these contributions do so in low amounts of money (less than $200,000) up to $500,000 pesos, which is characteristic of people who do not have their own home or foreigners who come from other places and rent rooms or apartments to stay in his college study season.
Public services. In this variable, a binomial trend can be seen since it has peaks between the ranges of $50,000 to $100,000 and $200,000 to $300,000, due to the fact that there are those who make contributions to the payment of these services and those who pay in full based on income; It should be noted that in this case there is also a greater frequency of those who are not responsible for these expenses (Figure 6).

wardrobe. In higher education institutions, the use of uniforms is not common, which is why their students wear their casual clothing, which is why they must have a variety of it since they always seek to be well presented (Rebollon & Salcedo, 2014). In this case, UFPS engineering students agree that they make purchases of clothing at least every semester; where the highest frequency is between $50,000 to $200,000.
Figure 7. Wardrobe.

Security needs. They are present when the physiological needs are largely satisfied, these arise in a second step of needs aimed at personal safety, order, stability and protection (Quintero, 2006, p. 2). In this case, the transportation, medication and health of the students are recognized with the results shown below:

Transportation. In this case, the majority of UFPS engineering students spend between $4,000 and $8,000 pesos daily, this explains that most of the respondents make between 2 and 4 daily trips, each valued at $1,800 pesos (Res. 542 Of 05 12 2019, 2019) if they did it in the metropolitan public transport. In this case, the frequencies present a Normal distribution asymmetric to the right as shown in Figure 8.

Health. As has been shown in most of the previous variables, the population of this study is not responsible or does not make health payments in 75.58%, it can be inferred that students have Sisbén or subsidized EPS, and even make part of the contributory regime of their parents; the remaining population who do so, their payments or contributions go mostly up to $50,000 pesos; a lower percentage pays up to $500,000 pesos per month as shown in figure 9.

Figure 8. Transport.
Medications. 52.91% of the population in this study does not spend or make purchases on medicines, followed by those who do on a monthly basis that are between the ranges of less than $50,000 pesos (38.37%), $50,000 to $100,000 pesos (6.39%) and from $100,000 to 300,000 pesos (2.32%) as shown in Figure 10.

Social needs for love and belonging. When the security and physiological needs are moderately satisfied, the needs that are subject to love, affection and belonging or affiliation to a certain social group and are oriented to overcome feelings of loneliness and alienation (Quintero, 2006, p. 2).

digital entertainment. According to the information collected, the majority of UFPS engineering students (68.02%) do not spend on digital platforms such as multimedia services, video games or streaming platforms, on the other hand, those who do spend on these services, mostly they spend between $10,000 and 20,000 pesos a month; In addition, the normal behavior of this asymmetric distribution to the right between the ranges of less than $10,000 up to $50,000 pesos.
Cultural or musical events. As in most cases, in this variable the majority of UFPS engineering students do not attend this type of event, only a few (6.97%) attend these events where they spend up to $100,000 per month as shown in Figure 12.

Figure 12. Cultural events.

discos. Similarly, it is not very common for a UFPS engineering student to attend discos, since, as in other places, students in this area spend the least on fun and leisure (Rebollon & Salcedo, 2014, p. 73). In this case, it is 76.74% who do not make these expenses, on the other hand, those who attend these places who mostly spend between $30,000 and $50,000 pesos per month (see Figure 13).
Solidarity and help with others. According to the information collected, the majority of UFPS engineering students tend to make solidarity expenses (donations), with 47.67% of the study population being those who do not make these expenses; on the other hand, there is a representative number of students who do contribute to these causes which represents 52.33%, being from this part, the expense of less than $50,000 with 39.53%.

Esteem needs. When the first three needs are satisfied, the needs that are linked to self-esteem, self-care, recognition of the person, particular achievements and respect for others are born (Quintero, 2006, p. 2).

Stationery and prints. UFPS engineering students have the responsibility of fulfilling their duties, this leads them to make expenses that help fulfill said responsibility. In this case, it is found that the majority (40.12%) of the students spend between less than $5,000 to $10,000 pesos with a weekly frequency, although, those who do not make this type of expense are 13.37%.

Cleaning products, makeup, among others. For the most part, the students surveyed are men, therefore, it can be inferred that female students are the ones who make this type of expense, since 41.28% are those who do not make expenses, it should be noted that in the same way, there are students that they can assume this type of expense to give it to their partner and/or use it as personal care. It is found that the most frequent expense is $10,000 to $30,000, in which the spending trend is biweekly.
Data plan and/or home internet. The internet today has become necessary, since the communication of information and the easiest access to science itself is essential, therefore the internet has become a necessity to fulfill daily responsibilities as students. Thus, the variation in frequency has a normal behavior with asymmetry to the right, where the highest frequency is between $30,000 to $100,000 pesos, for those who are responsible for this payment, since 34.5% do not make this expense, since either because they do not acquire it or because their parents pay for it.

tools. For this study, tools were understood as all those technological and non-technological instruments that contribute to student spending for their day-to-day activities in fulfilling their responsibilities as a student. Here it is observed that no student is oblivious to this expense, since the entire study population stated that they did make this type of expense. Since the spending trend is annual, the majority of students gathered high-frequency spending in different options, where the most frequent is more than $500,000 with 19.2%, this can be interpreted as those people who purchased cell phones or that they bought computers in that period; followed by the range of $100,000 to $300,000 with 18% and third position $50,000 to $100,000 with 15.1%, this other group of students can be inferred that the acquisitions focused on not as expensive tools as backpacks, USB, or non-device cell phones. high end.
Academic trips. Although academic trips strengthen and nourish the professional experience of students, it is found that 85.4% of the population studied does not make these trips, and that only 14.6% are students who spend on academic trips; The frequency of spending ranges from $500,000 to $2,000,000 pesos, taking into account that the highest frequency is exactly $500,000 to $700,000, understanding that some engineering majors make regional trips where the expense is not so high.

Non-academic trips. Non-academic trips comprise those expenses that are directed mostly to those who do not live in the city, therefore the most frequent expenses are less than $500,000 with 16.3%, however, with a very low percentage value are those who have the possibility of having recreational trips to other cities for values between $500,000 to $3,000,000. Now, the highest data with 72.1% of those who are not foreigners and who do not have the possibility of traveling.
Maintenance of computer, telephones, transport vehicles. The behavior of the information has a normal trend, where the value with the highest frequency within the curve is $50,000 to $100,000, where it is inferred that with an annual frequency of expenses, these do not represent a large amount with respect to other expenses. In addition, the highest frequency is led by those who do not make this type of expense, either because they do not have vehicles and technological tools, these with 29.8%.

Household items. These expenses correspond to all types of props, both electronic and furniture. These types of expenses are those that represent those who somehow contribute to their homes with money from work or additional money from foreigners who, little by little, are acquiring this type of utensils, to have a better quality of life within the city. Here it is found that 72.1% of the students do not assume these expenses, this coincides statistically with those who express that they do not have a permanent job, so the statement that they are foreigners and those who work are the ones who make these expenses the most.
Self-actualization needs. Self-actualization needs: they are the highest and are at the top of the hierarchy; Maslow describes self-actualization as the a person's need to be and do what the person was "born to do", that is, it is the fulfillment of personal potential through a specific activity; thus a person who is inspired by music should make music, an artist should paint, and a poet should write.

Savings. This section refers to whether engineering students tend to have the habit of saving, an area that is highly recommended financially. It can be seen that a large percentage of students, approximately 74%, have this habit of saving, they have different savings averages, where an average of less than $5,000 up to $10,000 becomes more concentrated with approximately 42%, only a small percentage save more than $10,000 and also close to 25% state that they do not save.

Exercise and sports. The students of the UFPS engineering faculty have a tendency not to make expenses for exercise and sports, which 64% of the study population mentions not making this type of expense, although it is unknown if it is due to lack of realization of these activities or because they do not take into account the true cost of exercising. On the other hand, those who do report expenses, mostly spend between less than $10,000 up to $100,000, being 34.9% of the study population.
Gym. It is evident that UFPS engineering students do not have among their expenses or do not have the habit of going to the gym, since 79.65% affirm that they do not make this expense, but those who do make these expenses do not exceed $70,000 pesos per month, being the range between $30,000 to $50,000 the most frequent, with a normal distribution.

Other courses. UFPS engineering students show that they do not make investments, mostly in paid courses, academic consultancies and diplomas, since among the study population 57.6% mention not making this type of expense. On the other hand, it is reflected that the frequencies of those who do spend on this item have an average trend under the selected or surveyed criteria. The expenses where the highest frequency of those who do make these expenses are concentrated is between less than $50,000 up to $300,000, here it can be inferred that these expenses are aimed at short-term courses and academic consultancies with a frequency of semester expenses.
School supplies. Although it would be understood that this should be the largest expense of the students to pay for their degrees, it was possible to show that they do not spend more than $100,000 on a semester basis, of which the highest concentration of data is between less than $20,000 up to $50,000 with a 71.6% of the total responses.

conclusions

The use given to money by UFPS engineering students, as shown in the results of this research, is for academic use, according to the majority of those surveyed, among them the most relevant or with the greatest participation are eating out from home (46.91%) and transportation (35.18%); which are closely associated with what Maslow indicates in his pyramid of the hierarchy of needs.

It is respectfully recommended to the university and its students that more knowledge about economics and work be imparted, since during the information collection and development processes of the project it was possible to show deficiencies in the data collected in terms of knowledge and concepts of the aforementioned topics.

References
1618 http://www.webology.org
educacion-superior_86046

https://www.ridaa.unicen.edu.ar/xmlui/bitstream/handle/123456789/135/8111.pdf?sequence=1&isAllowed=y


http://www.redalyc.org/articulo.oa?id=203332667019


https://books.google.com/books?id=8wpdj2Jzqg0C&pgis=1

https://dadun.unav.edu/handle/10171/9489

http://www.fuac.edu.co/recursos_web/documentos/publicaciones/descargalibros/TOMO1ELDINEROWP.pdf


https://books.google.com.co/books/about/TEORIA_Y_POLITICA_DEL_DINERO.html?id=QFXgEACAAJ&redir_esc=y

Quintana Cabanas, JM (1997). For a humanistic pedagogy (Dykinson: Narcea (ed.)).
https://dialnet.unirioja.es/servlet/libro?codigo=1225


https://intellectum.unisabana.edu.co/bitstream/handle/10818/10132/Maria Fernanda Rebennon Aldana %28TESIS%29.pdf?sequence=1&isAllowed=y


