THE IMPACT OF UNIVERSITY CURRICULA ON FINANCIAL EDUCATION OF MILLENNIALS

José G. Vargas Hernández¹ y Daniela Iveth Méndez Zamora²

¹ University Center for economic and Managerial Sciences, University of Guadalajara. Periférico Norte 799, edificio G-201-7, Núcleo Universitario los Belenes. Zapopan, Jalisco, 45100 México.
jvargas2006@gmail.com

² Facultad De Ciencias Económico Administrativas De Mazatlán, Universidad Autónoma de Sinaloa Mazatlán, Sinaloa, 82089 México.
iveth_d16@hotmail.com

Abstrat

The objective of this research is to analyze the financial literacy knowledge of the Millennials generation. The research method is qualitative-quantitative of correlational type since it consists of identifying the relationship between the independent variable and the dependent variable. The general hypothesis is that limited financial education in curricula affects the financial education of the Millennials. Through the information gathered and the surveys applied it is evident that Millennials generation has no financial knowledge and university curricula’s have limited information on financial education.

Palabras clave

Financial Education.
Millennials.
Educational Programs.

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EL IMPACTO DE LA EDUCACIÓN FINANCIERA EN LOS MILLENNIALS EN LA CURRICA UNIVERSITARIA

José G. Vargas Hernández1 y Daniela Iveth Méndez Zamora2

1 University Center for economic and Managerial Sciences, University of Guadalajara. Periférico Norte 799, edificio G-201-7, Núcleo Universitario los Belenes. Zapopan, Jalisco, 45100 México.
jvargas2006@gmail.com

2 Facultad De Ciencias Económico Administrativas De Mazatlán, Universidad Autónoma de Sinaloa Mazatlán, Sinaloa, 82089 México.
Iveth_d16@hotmail.com

Resumen

El objetivo de esta investigación es analizar los conocimientos de educación financiera de la generación Millenials. El método de investigación es cualitativo-cuantitativo de tipo correlacional ya que consiste en identificar la relación entre la variable independiente y la variable dependiente. La hipótesis general es la limitada educación financiera en los programas de estudio afecta la educación financiera de los Millenials lo que a través de la información recopilada y las encuestas aplicadas se evidencia que la generación Millenials no tiene conocimientos financieros y la curricular de estudios de las universidades tienen limitada información sobre educación financiera. 

KEYWORDS

Educación financiera.
Millenials.
Programas educativos.
1. INTRODUCCIÓN

Currently, there are too many opportunities to have financial plans, mainly in banks, or to have a savings fund so that in the future there will not be financial problems. But the lack of knowledge in young people about financial education is a problem that affects many today, since they do not know how they should be administered. That is why the teaching of financial education in schools is very important for the future preparation of students.

Today it is seen that the Millennials generation does not have enough knowledge in personal finance. They are too involved in other kinds of things. But another important issue is that in universities they do not teach a subject related to financial education, which makes young people ignorant of that knowledge and they do not seek help on the other hand, or simply do not look for it. This causes them to have a bad administration in their life and that they do not have prepared a fund for their future.

In this research, we mainly see the issue of financial education and the limited information in the universities on this subject, in addition to other interrelated topics. The antecedents of the problem are presented which can be appreciated and learn more about Millennials generation and financial education background. In approaching the problem, it is explained more thoroughly and also what are the questions to this investigation, then in the justification that is where can be appreciated the advantages, why is the problem and who will serve them.

Then, in research hypotheses using table 1 which is the deployment of variables and indicators, it is seen the variables of this research and its dimensions and indicators, as well as the general hypothesis and the specific hypotheses, then the research objectives where are set the general objective and the specific objectives. Afterwards, the theoretical framework of the variables that is composed of the conceptual framework, the theoretical framework and the review of the empirical literature. It also shows the contextual framework where are more detailed information of both universities, as well as background and subjects of the career of business administration of both careers, and to finalize this, the point of research methods, the instrument of evaluation used which is a survey, as well as the graphs and finally the results and the conclusion.

2. BACKGROUND OF THE PROBLEM

Millennials are young people born between 1981 and 2000. Millennials are recognized for having problems in financial education, since their education systems have not taught them this subject. Between 1981 and 1995, technology was not as advanced as it is today, cell phones were just being created, and new advances in technology were being visualized. From 1996 until 2000, technology advanced too much. More advanced cell phones came out, technology made a breakthrough where it started to help the economy and thanks to that, the Millennials generation became an expert in technology.

But one of the characteristics of Millennials is that they have little financial knowledge, which makes them acquire unnecessary debts and according to a study by PriceWaterhouseCoopers (PWC) (Deutsch, 2016) only 24% of the generation has basic financial education and 8 % high financial education. The lack of financial education can put at risk the financial success of the generation, as well as the lack of research to find out what it is, is another problem handled by Millennials generation.
As Lucena & Repullo (2013) recall the need for a better financial education which is related first to the growing complexity of financial markets and products and to the convenience of offering all citizens instruments to make appropriate decisions in the market. Another characteristic is that they are not happy with the personal financial situation, the generation manages little money, and because do not know how to manage it, they begin to acquire debts where they owe more than they earn, and that makes them have little money. Also as it is not aware of the benefits offered by banks.

3. STATEMENT OF THE PROBLEM

At the Autonomous University of Sinaloa Mazatlán campus at the Faculty of Economic and Administrative Sciences of Mazatlán and at the University of Guadalajara at the University Center for Economic and Management Sciences, a questionnaire was prepared which showed the little knowledge of financial education of the Millennials generation, and the scarcity of information shown by the educational programs of these two faculties towards young people was also seen. And due to these two negative factors, Millennials attending these two University Centers have little knowledge which can cause problems in their future, since having a good administration of their own makes them have a better quality of life speaking economically.

This problem is really worrying, since as young administrators being of the generation Millennials are characterized by not knowing the world of finance, besides not having the support of the educational programs of the universities, they have a scarce knowledge in personal finances and therefore have problems. With a good education they will understand how money works in the world, how people earn it, how it is invested and what people or institutions do.

So in this research the following questions are posed: What methods should be used so that the Millennials generation knows more about financial education? What is the importance of financial education in personal life? The Millennials generation have any financial education plan?

4. JUSTIFICATION

At present there are too many young Millennials who have large debts and this is because there is not enough knowledge in financial education, since in their study programs their universities do not impart the knowledge so they can understand how it’s the financial world. In addition, with the country's economy, they have more expenses and less profits, an important reason why it is necessary to analyze the external economic problems and see how they affect their own problems and also get a good handle on their personal finances.

The promotion of financial education programs where millennials can attend to know how to invest, or how to borrow or simply how to use a credit card can help them have a better quality of life, because thanks to this they will have a good administration. That not only help them in the present but also in the future, because when they leave the universities and have a job, they have to keep track of their money to keep a check on mortgages, or control in banks, know how the interest is managed for their benefit, etc.

5. RESEARCH HYPOTHESIS

Below in table 1 are shown the variables, dimensions and indicators used for this research.
Table 1. Deployment of variables and indicators.

<table>
<thead>
<tr>
<th>Types of variables</th>
<th>Identification of the variable</th>
<th>Description of the variable</th>
<th>Dimensions</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variable</td>
<td>Limited financial education in university study programs</td>
<td>This variable describes how the Millennials generation does not have sufficient knowledge in financial education, therefore they do not have good self-administration</td>
<td>Scarce knowledge</td>
<td>Lack of information in the study programs</td>
</tr>
<tr>
<td>Dependent variable</td>
<td>Millennials financial education</td>
<td>It is the process by which both consumers and financial investors achieve a better knowledge of different financial products, their risks and benefits, and through information or instruction, develop skills that allow them a better decision-making, which results in greater economic well-being (OECD, 2005).</td>
<td>Financial fragility</td>
<td>Debts</td>
</tr>
</tbody>
</table>

Source: Own elaboration

A research construct involving the relationships between variables, dimensions and indicators are shown below in figure 1.

Figure 1. Development of variables, hypotheses and dimensions
Source: Own elaboration

X0
Financial education

X1
Scarc knowledge

H1

X2
Financial culture

H2

Y1
Financial fragility

Y2
Saving

Y0
Millennials financial education
A. General hypothesis

\[ H_A = X_0 \rightarrow Y_0 \]

The limited financial education in the study programs affects the financial education of the Millennials.

B. Specific hypotheses

\[ H_1 = X_1 \rightarrow Y_1 \]

1) The limited financial education in the study programs affects the financial fragility of the Millennials.

\[ H_2 = X_2 \rightarrow Y_2 \]

2) The limited financial education in the study programs affects the savings of the Millennials.

6. RESEARCH OBJECTIVES

A. General objective

Analyze the financial education knowledge of the Millennials generation.

B. Specific objectives

1) Determine which methods should be used so that the Millennials generation knows more about financial education.
2) Analyze the importance of financial education in personal life.

7. THEORETICAL FRAMEWORK OF FINANCIAL EDUCATION

A. Conceptual framework

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial education</td>
<td>It is the education required to convert the money you earn from your profession into a wealth that lasts a lifetime and gives you financial security. The financial education that those 700,000 elderly citizens did not have. Financial education that will help you make sure your child does not end up with a financial failure late in life, or in poverty and loneliness after a lifetime of hard work and raising a family (Kiyosaki T., 2005).</td>
</tr>
<tr>
<td></td>
<td>With financial education, we develop crucial financial skills to improve our quality of life in the hectic modern times (Criollo &amp; de los Ríos, 2009).</td>
</tr>
<tr>
<td></td>
<td>It allows individuals to be self-sufficient in relation to their savings or investment decisions (Carrillo &amp; Lamamié de Clairac, s.f.)</td>
</tr>
<tr>
<td></td>
<td>It is a process of developing skills and attitudes and allows the generation of human capital but especially offers better life alternatives when making appropriate financial decisions (Ruiz Pérez, s.f.)</td>
</tr>
</tbody>
</table>

Source. Own elaboration.
Once reviewed some of the concepts of financial education, for this research work, the concept used is that financial education is through knowledge imparted the process by which people understand and become aware of financial risks, there is a way to improve their financial well-being and know which are the financial services that best suit their needs.

### B. Theoretical framework

#### 1) Financial education

Financial education has a great importance in Mexico. It is because of the crisis that the country is going through, and the ideal today is for all people to have knowledge of personal finances so that they do not face financial problems, either in the present or in the future. In addition, it could bring benefits in daily life, to perform better in the profession and for any goal wanted to be achieved. The objective of this research is to provide the necessary analysis so that students can learn and acquire the necessary knowledge to have excellent personal finances. It also provides tools and knowledge to access the pages or read the necessary books where the information can be found, in addition to make a claim and clarification, and learn with what kind of people to go or where to go (Renata Cabrera, 2012).

#### 2) Financial education in basic education students. A comparative diagnosis between urban and rural schools.

The key element of each country is its financial system, and it is important to know how it is managed and how people manage it. Every day countries handle crises and financial problems, therefore it is necessary to give knowledge of financial education to people, because they also help each other, help improve the economy of the country. This research reveals and compares the level of financial education of students in urban and rural primary schools (Huchín Flores & Simón, 2011).

##### a) Savings

The Millennial generation has little financial knowledge, besides that the study programs in the universities do not help since do not contain enough information to make students aware of the importance of financial information. Saving is very important in the economic cycle. It is saving a part of the available money which is not spent on any consumption and this can help from short to long term and can be used for some unforeseen event. In banks there are savings accounts where students can collect their money periodically and there are different ways to allocate that money to different causes.

Saving is fundamental for a country's economy. When depositing money in a savings or investment account, part of it is channeled to different economic activities, such as the production of goods and services and trade. Many banks offer more than one type of savings account, they are usually the savings book and the savings account statement. With a savings account with a passbook, the bank gives you a record book in which your deposits are printed or a withdrawal. With the savings account statement, you get a receipt for each transaction and the bank sends the account statement where it shows the withdrawal transactions of the month (Poisl, 2004).

##### b) Investment

Investment is another method that can be used to generate profits, this is a basic method and can be applied by young Millennials to obtain profits, but there are also risks at the time of investing, there can be both gains and losses. According to the author Aguirre (1981) the investment is the
commitment of resource in the hope of obtaining some benefits during a reasonable period of time.

An investment fund is a wealth formed by a portfolio of securities constituted with the contributions of many investors. For its precise functioning a Management Company, which manages the fund of and makes the decisions on the investment policy, and of a Depositary, to which the custody of the assets corresponds, exercising also functions of vigilance and guarantee before the unitholders (Escudero Prado, 2003).

There are two types of investment form to one known as fixed income and variable income.

<table>
<thead>
<tr>
<th>Fixed income</th>
<th>It is given in investments where the income flows generated are known.</th>
<th>Example of fixed income investments are: financial assets or securities such as: bonds, bills, real estate for rent, savings systems such as time deposit and savings accounts.</th>
<th>Fixed income generate less profitability than variable income investments but present a lower risk. Generally these investments are made in the long term.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities</td>
<td>It occurs in investments where it is not known which will be the fixed income that will generate and which can become negative.</td>
<td>Example of variable income investments are: the shares, the investment fund shares, the bonds and the converted bonds.</td>
<td>Equities generate higher returns than fixed-income investments, but they present a greater risk and are short-term.</td>
</tr>
</tbody>
</table>

Source. Own elaboration.

There are different ways of investing to obtain the required profits, many are long-term and others are short-term, depending on whether to invest the money. The ways in which money can be invested, but investing does not mean that a profit is always obtained, depending on different factors, for example, the economy of the country there can be both gains and losses. The costs of investing are the costs that result from looking for someone with whom to do business, to reach an agreement about the price and other aspects of exchanges and to ensure that the terms of agreement are met (Parkin, 2006).

To invest in costs in a profitable way, to make investment in costs, it is necessary to use the time to learn to invest and invest time in analyzing companies to select an investment and see which one generates greater profitability in the long term. To invest in transaction costs, a financial intermediary must be hired to carry out all the operations. This service entails a cost for the investor and it varies depending on the company where the service was contracted and this is given in the form of commissions.

Investing in the stock market is very accessible, fast and can be found at a relatively low cost. In Mexico there is the Mexican Stock Exchange (BMV) this is made up of companies and offer comprehensive services to facilitate the operation and post-trading of the stock market derivatives in Mexico supported by a modern technological infrastructure and cutting edge in all its companies (Gavaldon Arbide, nd).

A capital stock is a unit owned by a corporation (Stooker, 2014). There are two types of shares. There are the common or ordinary shares and the preferred shares. Where the common shares
have the true owners of the companies and they invest that money in the company for the profit that this generates. The preferred shares pay a dividend and the reimbursement of invested capital and these have a lower degree of volatility.

Investment in bonds is a fixed income instrument. It is known the profitability that is going to obtain and the companies emit them to obtain money and likewise finance new investments or perhaps renew those that already have (Gitman & Joehnk, 2005). The return on the bonds depends on the strength of the company. The return on a bond depends on the probability that the bond issuer will return the money. The safest and least profitable bonds are those issued by the state but the bonds issued by large companies are more profitable than those of the state. And this says that as the strength goes down the profitability is increasing and that’s where the junk bonds arrive and they are the ones that really have risk of default.

c) Credit card

The credit card is a contract by which a banking company or an authorized legal entity grants a revolving credit opening in favor of a client that can be a natural or legal person where a singular plastic card is used and where the holder can purchase goods or services from affiliated companies or establishments. The holder is charged in monthly, annual installments and charge with a certain interest rate depending on the banking company or legal entity (Rodríguez Velarde, nd).

Credit cards help a lot to pay somewhere when the holder does not have cash or is currently used to make purchases online and also create a credit history. The holder must have a good credit history to obtain a mortgage at home or business and for a loan it is necessary to take care of this history. There are different banking companies which offer different interest rates on credit cards. The holder has to know how to choose which the best is and which generates the best benefits. He or she needs to know several aspects of which credit card is appropriate; it is from the interest rate, commissions, and payment facilities, among others. According to (Pineda, 2014) there are five types of profiles where it is accommodated depending on the lifestyle and the needs of the people.

Students: that is focused on people who do not generate large debts and who will not commit to high debt. These cards are only for school emergencies and it is a great help for those students who study and work or just study. And there are different banks that have their credit cards with special programs for students.

Foot ballers: there are people where they personalize everything and especially with sports ideas. And taking advantage of the fact that Mexico is a soccer-playing country, the banks offer promotions on football matches and a credit is granted so that they can go to watch soccer matches in another state or country.

Home: that these are more for housewives who like to take advantage of the promotions that are in the supermarkets for the home and for those who like to buy the essential in large quantities such as in department stores. People take advantage of all kinds of promotions for home and family.

Specialized consumer: these are only for people who use the credit to purchase products in department stores whether those products use it for their own use or for sales. Pleasure businesses: these are for those business people who travel, where and when traveling if the credit card is used, a discount is made thanks to the alliance that exists between the bank and the airlines.
To know what type of credit card is appropriate is needed to know the personal consumption habits. If at the moment of acquiring a credit card it is going to be used infrequently, the holder must have to look for one with a low annuity rate so that at the time of using it, not much interest is paid. But if at the time of acquiring the credit card is used very often is also important to analyze the annuity and the commissions. Another important point is to know what and how the income is generated, if the holder works and has a high income at work at the time of using the credit card, he can pay the annuity fee in addition to when he registers at a bank branch for acquiring a credit card. He or she must put what the person's monthly income is and the bank grants the best credit card.

It is important to know very well the lifestyle that the holder is carried and he has to know how much is spent, how often and also know the personal credit history, as this says a lot, if the holder has a good credit history he has good opportunities in banks, for example at the time of borrowing. The Total Annual Cost (CAT) is an indicator that includes the interest rate, annuities and the emissions that are charged to the client by a card issuer. It is important to make known that a card is not extra money, it is a money that is borrowed and then pay it in installments with an interest rate that as mentioned above depends on the bank branch. Knowing how to use it is knowing how to take advantage of it and it is important not to borrow and not have too many credit cards, control payments.

i. Interest rate

According to Gaviria Cadavid (2006) the interest rate is the liabilities of the banking institutions, that is, the term or certificate of deposit.

ii. Credit Bureau

It is a company that provides its risk assessment service to know the credit information aimed at integrating data on credit behavior. Nowadays it is a frame of reference for the granting of credit in Mexico, since it has credit files of both physical and moral persons (Tovar, 2012). To be able to acquire a credit in any bank, this is fixed in the credit bureau to know what is the credit history. For this, when acquiring a credit, it is necessary to take a good history, which refers to pay and do not carry debts. Since having a bad credit history can lead to not getting more credit at other banks, or not getting financing.

d) Financing

There are two types of financing, external and internal financing. According to (Bodie & Merton, 2003) the internal financing arises from the operations of the company. When the company obtains profits, the owner has to implement them in the company to improve it. External financing is when the company's administrators have to request loans from banking institutions for the company. Having excellent credit health helps to get credit in different banking facilities. Here are three points to know if there is good credit health: Credit is available without problems, it is programmed with the payments and try to pay more than the minimum.

e) Mortgages

Another thing that young Millennials do not have contemplated is a house for their future, since buying or renting a house is something that is at a high price. There are opportunities to get a long-term loan to buy a house and likewise when leaving the university and have a safe place where they can plan their future. A good sign to buy a house is when they can allocate a quarter of their net salary to pay a mortgage and when they feel it is a time to take a step to the personal
According to (Tyson & Brown, 2007) a mortgage is nothing more than a loan that is obtained to cover the difference between the cash for the down payment of a home and the price of the home they are buying.

C. Review of the empirical literature

Table 5. Review of empirical literature on financial education.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title of work</th>
<th>Theory used</th>
<th>Method employed</th>
<th>Conclusions and results</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Huchín Flores &amp; Simón, 2011)</td>
<td>Financial education in basic education students. A comparative diagnosis between rural urban schools.</td>
<td>The variables CyD, PyP, HC, CyUPSF, CPyA, RyP and AE are present in the financial knowledge of the fifth and sixth grade students.</td>
<td>A quantitative scale was used through the Multiple Response Model (MRP) proposed by Vázquez Manassero and Acevedo, where each question had three response options represented by sentences.</td>
<td>The level of knowledge regarding PE was significantly influenced in the children participating in the study.</td>
<td>There were no findings found.</td>
</tr>
<tr>
<td>(Rodríguez Martínez, 2013)</td>
<td>Knowledge about planning and managing personal finances in university students.</td>
<td>Students who have taken a course in finance, economics, personal finance in the past get better scores and / or have more knowledge in the management and planning of finances.</td>
<td>A linear regression analysis was performed looking for the existence of different statistics, the level of importance or impact on the variables, and the magnitude of this impact.</td>
<td>The low percentage of correct answers could be as a consequence of the lack of financial education or of a better preparation on these aspects.</td>
<td>The findings suggest that there is a lack of knowledge about financial aspects among the students surveyed.</td>
</tr>
</tbody>
</table>
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8. CONCEPTUAL AND THEORETICAL FRAMEWORK OF THE MILLENNIALS GENERATION

**A. Conceptual framework**

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited financial</td>
<td>Millennials are accustomed to live naturalness with a series of paradoxes. They are reflected in previous generations in many aspects of their lives and would like to have enjoyed the same levels of social protection and security that they have enjoyed. However, they have tools of such magnitude that they have been able to advance in many years the moment of disenchantment and personal revelation that involves realizing that each individual life must be built when the moment arrives from scratch (Ortega, 2014).</td>
</tr>
<tr>
<td></td>
<td>Millennials are individualistic but very dependent on social networks. Information technologies are part of their lifestyle. They have grown since their early teens, with YouTube leaving Twits out, booking online and buying at low cost. Many of them have traveled alone and have even enjoyed Erasmus stays, forging their own</td>
</tr>
</tbody>
</table>
education in university study programs experiences in the virtual world (Recuero Virto, Blasco López, & García de Madariaga Miranda, 2016).

They are more opposed to risk, which leads them to have a more strategic thinking, making their decisions based on the benefits they will achieve in the long term as well as considering the effect that such decisions will have on the community (Hernandez-Sampelayo & Sánchez Andrés, 2013).

Source. Own elaboration

B. Theoretical framework

1) Types of generations

There have been different generations, and each person belongs to one depending on the year in which he was born. Each generation has its own characteristics that identify it. Next, the different generations that exist are presented:

a) GI Generation

They are born between 1901 and 1926, are the generation of the first and second world war, is noted for the crises they went through. In addition to economic crisis, they are recognized by teamwork, besides awareness of good and evil.

b) Silents

They are born between 1927 and 1945. They are known for being the generation with ideas of change and modernization. They began to assume themselves as peaceful people.

c) Baby boomers

They are born between 1946 and 1964 is the post-war generation, they began to lose the sense of the community and changed it to something more professional. They are the first television generation.

d) Generation X

Born in 1965 and 1980, this generation is characterized by individualism and they embarked on the path of the digital age.

e) Generation Millennials

Born between 1981 and 2000, this generation of youngsters known a globalized world, with a better digital age, since they were small, they were inculcated with computers and digital communication, although they are now characterized by being both in cell phones or social networks who do not care about the future, whether educational or financial.
f) Boomlets

They are born after 2001 they are the ones who know the most about technology, they know about computers, cell phones, they get immediate information.

9. Contextual framework

This research reveals the lack of knowledge of the Millennials generation in financial education and the limited information of the study programs of the universities. A questionnaire was made to the students of the University of Guadalajara at the University Center for Economic and Managerial Sciences and to the students of the Autonomous University of Sinaloa in the Faculty of Economic and Administrative Sciences of Mazatlán.

A. Faculty of Economic and Administrative Sciences of Mazatlán (FACEAM)
Autonomous University of Sinaloa

The Faculty of Economic and Administrative Sciences of Mazatlán is a faculty that belongs to the Autonomous University of Sinaloa. This faculty is made up of four careers, a graduate in business administration, a bachelor's degree in accounting, a bachelor's degree in human resources and a bachelor's degree in marketing where the financial knowledge is needed to graduate with a good degree. And the research is being done with the students of the Bachelor of Business Administration where they know their knowledge of financial education and limited information in the study programs of this career.

Table 7. Subjects taught in the career of Business Administration in FACEAM.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td>Introduction to the theory of administration</td>
</tr>
<tr>
<td></td>
<td>Financial accounting</td>
</tr>
<tr>
<td></td>
<td>Financial mathematics</td>
</tr>
<tr>
<td></td>
<td>Research methodology</td>
</tr>
<tr>
<td></td>
<td>Constitutional law and administration</td>
</tr>
<tr>
<td><strong>Second semester</strong></td>
<td>Administrative process I</td>
</tr>
<tr>
<td></td>
<td>Financial accounting workshop</td>
</tr>
<tr>
<td></td>
<td>Financial mathematics</td>
</tr>
<tr>
<td></td>
<td>Computing</td>
</tr>
<tr>
<td></td>
<td>Corporate law</td>
</tr>
<tr>
<td><strong>Third semester</strong></td>
<td>Administrative process II</td>
</tr>
<tr>
<td></td>
<td>Microeconomics</td>
</tr>
<tr>
<td></td>
<td>Intermediate accounting</td>
</tr>
<tr>
<td></td>
<td>Business statistics I</td>
</tr>
<tr>
<td></td>
<td>Fiscal law</td>
</tr>
<tr>
<td><strong>Fourth semester</strong></td>
<td>Fundamentals of business management</td>
</tr>
<tr>
<td></td>
<td>Organizational communication</td>
</tr>
<tr>
<td></td>
<td>Macroeconomics</td>
</tr>
<tr>
<td></td>
<td>Accounting workshop</td>
</tr>
<tr>
<td></td>
<td>Business statistics</td>
</tr>
<tr>
<td><strong>Fifth semester</strong></td>
<td>Social psychology of the administration</td>
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<td></td>
<td>Production administration I</td>
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<tr>
<td></td>
<td>Costs management</td>
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<td></td>
<td>Quantitative methods applied to business</td>
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<td>Labor law</td>
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<td><strong>Sixth semester</strong></td>
<td>Administration of human resources I</td>
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<td></td>
<td>Marketing</td>
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<td>Public relations</td>
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<td></td>
<td>Production management II</td>
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<td>Finance I</td>
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<tr>
<td><strong>Seventh semester</strong></td>
<td>Human resources administration II</td>
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<tr>
<td></td>
<td>Marketing II</td>
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<tr>
<td></td>
<td>Entrepreneurs development</td>
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<tr>
<td></td>
<td>Finance II</td>
</tr>
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<td></td>
<td>Tax aspects in companies</td>
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<tr>
<td><strong>Eighth semester</strong></td>
<td>Electives</td>
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<td></td>
<td>International trade</td>
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<td></td>
<td>Administrative audit</td>
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<td></td>
<td>Administrative accounting</td>
</tr>
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<td></td>
<td>Social ethics</td>
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</tbody>
</table>

Source. Own elaboration
a) Background

It is a story of 35 years of work and success. In 1979 the maximum house of studies authorized the extension of Accounting and Business Administration in Mazatlán. Five years later the University Council gave registration to the already large ECAM. Today, it is a community of 112 professors and 32 administrative colleagues who serve, with great affection, more than 2400 students that attend the Common Core and the Bachelor's degrees in Public Accounting, Business Administration, Human Resource Management and Marketing (FACEAM, sf).

2) University Center of Economic and Administrative Sciences (CUCEA) University of Guadalajara.

The Center for Economic and Administrative Sciences is one of the many centers of the University of Guadalajara, this center has 10 careers which are, Bachelor of Business Administration, Bachelor of Finance and Systems, Bachelor of Public Accounting, Bachelor of Economics, bachelor's degree in environmental management and economics, bachelor's degree in marketing, bachelor's degree in international business, bachelor's degree in human resources, bachelor's degree in information technology and bachelor's degree in tourism. The research will be conducted in the bachelor's degree in business administration to know what is the financial education that young people have, and the limited information of the study programs in the center.

<p>| Table 8. Subjects taught in the career of Business Administration in CUCEA. |
|---|---|---|---|---|---|---|
| Semester | subjects |
| First semester | Administration I | Mathematics I | General accounting | University and XXI century | Economy I | Oral and written expression | Information technology |
| Second semester | Administration II | Mathematics II | Administrative accounting | Fundamental legal concepts | Economy II | Professional ethics | Sustainable development |
| Fourth semester | Strategic Management | Statistics II | Fundamental fiscal concepts | Tax Law | Endowment and induction of human resources | Market research | Development of entrepreneurs |
| Fifth semester | Leadership and managerial skills | Investigation of operations I | Administrative audit | Quality management | Training and development of personnel | Promotions and publicity | Simulation and business techniques |
| Sixth semester | Organizational development | Administration of production and technology | Financial administration | Specialist I | Promotion and evaluation of productivity | Methodology and practice of research | Administration of SMEs |</p>
<table>
<thead>
<tr>
<th>Seventh semester</th>
<th>Administration of decision making</th>
<th>Formulation and evaluation of projects</th>
<th>Professional practices for administration</th>
<th>Specialist II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eighth semester</td>
<td>Elective open I</td>
<td>Elective open II</td>
<td>Elective open III</td>
<td>Specialist III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Developments and technological innovation</td>
<td>Managem ent qualification seminar I</td>
</tr>
</tbody>
</table>

Source: self-made.

a) Background

The University Center of Economic-Administrative Sciences (CUCEA) arose in 1995 from the integration of four faculties: Accounting, Economics, Administration and Tourism; and four academic units dedicated to research: The Research Center in Economic Theory, the Center for Social and Economic Research, the Center for Tourism Research and the Institute of Economic and Regional Studies. With the departmental model of the University Network of Jalisco, the Accounting, Economy and Society Divisions were created; and Business Management, which has contributed to greater academic collaboration and to the enrichment of educational programs.

The transformation of CUCEA in these 20 years has been remarkable and is now at the forefront of the University Network for the quality of its facilities, infrastructure and academic facilities. The educational offer was expanded to achieve an increase of 22% in its bachelor's degree from 1995 to date. In the field of research, the number of professor's members of the National System of Researchers increased, going from 6 in 1995 to 70 in 2014. Likewise, postgraduate enrollment went from 180 students in 1995 to an average of 969 students in the last three years (CUCEA, sf)

9. RESEARCH METHODS

The present investigation has the purpose of providing truthful information where the knowledge of financial education in the Millennial generation of FACEAM and CUCEA is analyzed and also to know the limited information of the study programs that they offer. And knowing that data through a questionnaire that was applied to 40 students of the degree of business administration. As well as describing the impact of variables.

This investigation is a qualitative-quantitative investigation of correlation type since it consists of identifying the relationship between the independent variable and the dependent variable. This research is given by a case study that consists in analyzing the knowledge of financial education of the Millennials generation where surveys were carried out to Millennials generation students in order to know what their knowledge about financial information is, besides the limited information of the study programs in the aforementioned universities.
Table 9. Research design

<table>
<thead>
<tr>
<th>Variable Name of the variable</th>
<th>Definition of the study variable</th>
<th>Dimensions</th>
<th>Indicators</th>
<th>Instrument</th>
<th>Operationalization of the variables</th>
<th>Data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Limited financial education in university study programs</td>
<td>The limited financial education in the university study programs This variable describes how the Millennials generation does not have sufficient knowledge in financial education therefore they do not have a good administration of their own</td>
<td>Scarcity of knowledge</td>
<td>- Lack of information in study programs</td>
<td>Survey</td>
<td>Bibliographical and hemerographic analysis</td>
</tr>
<tr>
<td>Y</td>
<td>Millennials financial education</td>
<td>It is the process by which both consumers and financial investors achieve a better knowledge of different financial products, their risks and benefits, and that through information or instruction, develop skills that allow them to better take decisions, which results in greater economic well-being (OECD, 2005).</td>
<td>Financial fragility</td>
<td>-Debts</td>
<td>Survey</td>
<td>Bibliographic and hemerographic analysis</td>
</tr>
</tbody>
</table>

Source: Own elaboration.
The theoretical-methodological construction is constructed through the relationship between independent variable and dependent variable and indicators.

**Figure 7.** Research construct.

<table>
<thead>
<tr>
<th>X0</th>
<th>Financial education</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Scarce knowledge</td>
</tr>
<tr>
<td>X2</td>
<td>Financial culture</td>
</tr>
<tr>
<td>H1</td>
<td>Financial fragility</td>
</tr>
<tr>
<td>H2</td>
<td>Saving</td>
</tr>
<tr>
<td>Y1</td>
<td>Financial education</td>
</tr>
<tr>
<td>Y0</td>
<td>Millennials education</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

**Research instruments**

**Millennials financial education questionnaire**

**Gender:**  
**Age:**  
**Career:**

1. How do you define your project or life plan?  
2. What is financial education?  
3. From whom have you received knowledge about the management of your personal finances?  
4. Are there any subjects in your university study plans that give you knowledge about personal finances?  
   A) YES  B) NO  
5. What is the name of the subject?  
6. How do you use a credit card?  
7. How do you keep track of your income or expenses?  
8. Where have you sought financial help?  
9. In what do you spend most of your money?  
10. Do you have life insurance?  
   A) YES B) NO  
11. How are your habits to save?  
12. If you receive personal income, what percentage do you invest in saving? From 1-100%

Operationalization of variables are based on the application of surveys to students in the career of business administration of the University of Guadalajara and the Autonomous University of
Sinaloa. The research has acquired the necessary information and has been done with different sources of information and thus complete this work. The surveys for the students of the Autonomous University of Sinaloa, were made by email, and the students of the University of Guadalajara were applied personally. From these surveys the information was gathered and tabulations were made with their respective figures, to then make a comparison.

The information in this research is obtained from two universities through surveys that were applied to students. In this research it is known that there were 20 students surveyed from the Autonomous University of Sinaloa and 20 students from the University of Guadalajara. Some surveys took a few days, since many students worked and did not have time to complete it, but the students provided the information without any inconvenience and this type of sampling allowed to verify the hypotheses as well as the objectives and obtain basic data for this research.

The data analysis is done through graphs and data collection, as well as tables and figures and to show the information of the forty students surveyed from the University of Guadalajara and the Autonomous University of Sinaloa in order to know what their knowledge of financial education is, in addition to knowing what their study programs are and if in those study programs teach subjects related to personal finances. Through an extensive process, the independent and dependent variable are better known.

The first limitation for this investigation was the application of the surveys to the students. The university students of the University of Guadalajara most worked or had pending school where sometimes took two or three days to deliver the survey answered. The university students of the Autonomous University of Sinaloa took longer since the survey was sent via email and lasted between 4 or 5 days to send it already answered. Another limitation was that sometimes the information was very scarce, or sometimes there was not enough information from the authors to make contact with them.

10. ANALYSIS OF RESULTS

Through the application of a survey to the students of CUCEA and FACEAM, the results obtained were made known. 20 CUCEA students and 20 FACEAM students were interviewed.

Figure 8. Analysis of students surveyed.

Students surveyed

<table>
<thead>
<tr>
<th>Cucea students</th>
<th>Faceam students</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source. Own elaboration.
Analysis: as can be seen in the previous figure, the sample was fair for both institutions.

University of Guadalajara
Center for Economic and Administrative Sciences
Career: Business Administration
Group: J-208
Total students interviewed: 20

Students of CUCEA

From the classroom J-208 20 students were tested both men and women. It was a total of 13 men and 7 women surveyed.

Figure 9. Students surveyed in CUCEA.

Analysis: as can be seen in the previous figure, there were more men surveyed than women.

1. How do you define your project or life plan?

90% of CUCEA students have their life project defined, while 10% just want to work.

Figure 10. Definition of student life project.

Analysis: as can be seen in the previous figure, most of the students in CUCEA have their life project defined, although they were not sure about it.
2. **What is financial education?**

90% of CUCEA students know the concept of financial education, while 10% do not know it.

*Figure 11. Students who know the concept of financial education.)*

![Financial education concept](image)

*Source: Own elaboration.*

**Analysis:** the previous figure shows the limited information that most students have about financial education.

3. **From whom have you received knowledge about the management of your personal finances?**

35% of CUCEA students have been taught personal finances by their parents, 25% by themselves, 20% by school, 15% by online courses, and 5% by financial advisers.

*Figure 12. Knowledge about the management of personal finances of students.)*

![Knowledge about the management of personal finances](image)

*Source: Own elaboration.*

**Analysis:** the previous figure shows how the parents are the ones who have taught the students the most about financial education, while there are few who learned in school.

4. **Are there any subjects in your university study plans that give you knowledge about personal finances?**

   A) YES          B) NO

85% of CUCEA students do not provide them with knowledge about financial education, while 15% say they have subjects where they have been given but with little information.
Figure 13. Students who impart knowledge about personal finances.

![Pie chart showing 15% Yes and 85% No](image)

Source: self-made.

**Analysis:** it is shown in the previous figure that their university does not teach them any subject where they are informed about financial education.

5. **What is the name of the subject?**

Of that 15%, 67% take the subject of Financial Administration, while 33% take the subject of financial analysis.

Figure 14. Subjects where they have given knowledge of financial education.

![Pie chart showing 67% Financial administration and 33% Financial analysis](image)

Source: Own elaboration.

**Analysis:** it can be seen in the previous figure that the little information they have about financial education are in general finance matters.

6. **How do you use a credit card?**

45% do not have a credit card, 30% use it for their own purchases, 15% use it only for emergencies, while 10% use it but do not use it.

Figure 15. How students use the credit card.

![Pie chart showing various uses of credit card](image)

Source: Own elaboration.

**Analysis:** the previous figure shows that almost half of the students surveyed do not use the credit card because they do not have it.
7. **How do you keep track of your income or expenses?**

40% of CUCEA students do not keep track of income or expenses, 30% keep a record through account statements they make themselves, 15% through the Microsoft Excel program, 10% keep the vouchers, while than 5% through an application.

**Figure 16.** Record of income or expenses of students.

![Record of income or expenses](image)

**Source:** Own elaboration.

**Analysis:** it is shown in the previous figure that a large number of students do not control their expenses.

8. **Where have you sought financial help?**

40% of CUCEA students have not sought financial help, 25% have searched the internet, 15% in financial consulting, 10% in the family, and the other 10% in school.

**Figure 17.** Search for financial aid.

![Search for financial help](image)

**Source:** Own elaboration.

**Analysis:** as shown in the previous figure, the students have not sought financial help, they decide to make the transactions themselves.

9. **In what do you spend most of your money?**

40% of CUCEA students spend most of their money on their own matters, 30% on food, 20% on entertainment, 5% on clothes, while the other 5% on gas.
Figure 18. Expenses of most of the students' money.

![Expenses of most of the money](image)

Source: Own elaboration.

**Analysis**: the previous figure shows how students manage their income.

10. Do you have life insurance?

   A) YES            B) NO

80% of CUCEA students do not have life insurance, while 20% do have life insurance.

Figure 19. Students who have life insurance.

![Life Insurance](image)

Source: Own elaboration

**Analysis**: the previous figure shows that most students do not have life insurance.

11. How are your habits to save?

55% of CUCEA students have bad savings habits, while 40% save a percentage of their income, and 5% make a contribution to AFORE.

Figure 20. Habits to save students.

![Habits to save](image)

Source: Own elaboration.

**Analysis**: as you can see in the previous figure, it shows the habits to save students.
12. If you receive personal income, what percentage do you invest in saving? From 1-100%

35% of CUCEA students save 40% of their income, 30% save only 10%, 25% save 60%, while 10% save 30%.

**Figure 21.** Dedication of the students in savings and investment of their income.

![Dedication to saving and investment](image)

Source: Own elaboration.

**Analysis:** in the previous figure it shows the dedication in percentages to savings and investment of the students.

**Autonomous University of Sinaloa**
**Faculty of Economic and Administrative Sciences of Mazatlán**
**Career: Business Administration**
**Group: 3-17**
**Total students interviewed: 20**

**FACEAM students**

From room class 3-17, 20 women and men were interviewed. It was a total of 11 women and 9 men.

**Figure 22.** Students surveyed by FACEAM.

![FACEAM students](image)

Source: Own elaboration.

**Analysis:** as can be seen in the previous figure, compared to CUCEA, in FACEAM, more women surveyed than men.
1. How do you define your project or life plan?

100% of the students of FACEAM have their life project defined.

**Figure 23.** Definition of students’ life project.

![Defined the life project](source:Own elaboration)

**Analysis:** it is shown in the previous figure that all the students surveyed have their life project defined, compared to CUCEA, which only 90% has defined it.

2. What is financial education?

25% of students do not know the concept of financial education, however, 75% know the concept of financial education.

**Figure 24.** Knowledge of financial education.

![Financial education concept](source:Own elaboration)

**Analysis:** as can be seen in the previous figure, there are fewer FACEAM students who know the concept of financial education than in CUCEA.

3. From whom have you received knowledge about the management of your personal finances?

50% of the students have managed their personal finances on their own, while 40% have advised their parents, 5% has been their own experiences and the other 5% have been for conferences that have gone.
4. Are there any subjects in your university study plans that give you knowledge about personal finances?

A) YES       B) NO

100% answered that they do not have a subject where they impart knowledge of financial education.

5. What is the name of the subject?

100% have a subject currently in general finance, but they do not provide personal finance knowledge.
Analysis: in the previous figure it is appreciated that where they have given the few knowledge of financial education has been in general finances, as in CUCEA.

6. How do you use a credit card?

45% of FACEAM students use the credit card for purchases, 30% do not have a credit card, 15% do not use the card, while 10% use it to acquire loans.

**Figure 28.** How students use the credit card.

Analysis: in the previous figure it shows how they use their credit card.

7. How do you keep track of your income or expenses?

35% of FACEAM students keep track of their income or expenses on their cell phone, 20% have no record, 15% in their mind, the other 15% in a personal notebook, 10% account statements, while 5% in Excel.

**Figure 29.** Recording of income or expenses of the students.

Analysis: we can see in the previous figure what the students record their income.

8. Where have you sought financial help?

30% of FACEAM students have not sought financial help, the other 30% seek help in their family, 20% in Internet, 10% in the bank, 5% in conferences, while the other 5% in online counseling.
Figure 30. Search for financial aid.

Analysis: the places or people where the students seek financial help are shown in the previous figure.

9. In what do you spend most of your money?

52% of FACEAM students use their money in college, 24% in debt, 16% in transportation, while 8% in personal things.

Figure 31. Expenses of most of the students' money.

Analysis: can be seen in the previous figure where students spend most of their money.

10. Do you have life insurance?

A) YES B) NO

100% of FACEAM students do not have life insurance.

Figure 32. Students who have life insurance.
Analysis: As shown in the previous image, no student of the respondents has life insurance.

11. How are your habits to save?
50% of FACEAM students do not have habits to save, 35% save one percent of their income either weekly, biweekly or monthly, while 15% have a savings account.

Figure 33. Habits to save students.

Analysis: as seen in the previous image you can see how good or bad are the habits of the students of FACEAM.

13. If you receive personal income, what percentage do you invest in saving? From 1-100%

30% of FACEAM students save nothing, 25% save 10%, 20% save 40%, the other 20% save 20%, while 5% save 60%.

Figure 34. Dedication of students to savings and investment.

Analysis: it can be seen in the previous figure by means of percentages, which is the students' dedication to saving.

11. HYPOTHESIS TESTING

A. General hypothesis HA = X0 → Y0

The independent variable which is limited financial education in university study programs has a relationship with the depend variable which is Millennials financial education because in the
generation Millennials, especially university students have no knowledge about financial education, because they are not interested to investigate about it. Even the university programs do not teach about personal finances, and it is important that the universities teach about it or to have more information in internet or books because university students need it now and they are going to need it in the future for their companies, or in their jobs. Financial education is a big tool for the administration.

The limited financial education in the study programs affects the financial education of the Millennials. By the surveys carried out to the forty students of both universities, in addition to the information gathered, it was possible to verify that there is limited financial education in the Millennials generation, besides that the educational programs do not teach them to carry good personal finances in their life. This situation creates serious problems in the generation of Millennials since they do not have a good administration, which causes that they have many debts and do not have savings for their future.

B. Specific hypotheses

\[ H1 = X1 \rightarrow Y1 \]

The limited financial education in the study programs affects the financial fragility of the Millennials. According to the results of this research, it is proven that the Millennials generation does not have a financial education, which is why this affects their financial fragility. As they do not have a correct administration, their generation has many debts and generates many unnecessary expenses.

\[ H2 = X2 \rightarrow Y2 \]

The limited financial education in the study programs affects the savings of the Millennials. The results of this research prove that the generation of Millennials has no knowledge of financial education, which is why it has no savings in their personal finances, therefore, since they do not have savings, they have the possibility that in the future do not have good personal finances.

The results of this research prove what was said by Rodríguez Martínez (2013) in his findings that there is a lack of knowledge about financial aspects among the students surveyed. Therefore, comparing the results of this research with those of Rodríguez Martínez, the students, in this case of the Millennials generation, have limited knowledge about financial education. The results of this research verify what has been said by Renata Cabrera (2012) that it is very important to know about financial education. Also that nowadays accessibility is easy to know about this subject compared to the past. Therefore, compared to the results of this research, the Millennials generation does not know about financial education but they have the tools to know more about this topic, an example would be technology.

The results of this investigation prove what was stated by Huchán Flores & Simón (2011), since he mentions that according to his conclusions, some children may get to know more about financial education than others, depending on how much information they have acquired. Therefore, compared to the subtractions of this research, some students of the university know more than others, even if the information is minimal.

C. Findings

The Millennial generation of the Faculty of Economic and Administrative Sciences and the University Center for Economic and Managerial Sciences of the career of business administration, do not have knowledge about financial education. The universities have limited information on financial education. The subjects that the universities teach do not help the students to know
about personal finances, which, this means that they do not have the knowledge, some also look for information on the other hand or simply not looking for.

D. Contributions

The theoretical-practical approach allows to combine the documentary research required by the conceptualization and the theoretical framework of this research, so that once the empirical review was made, there are no studies on Financial Education and the limited information in the study programs of the universities in the Millennial generation. In this sense, this research is original and innovative and has a complete and reliable analysis report, supported by graphics, in addition to the surveys applied to students.

The results of this research prove that the generation of Millennials studying the career of business administration do not have the knowledge of financial education, in addition to the study programs of the universities where the research was conducted; the information on financial education is limited.

E. Implications

Universities, careers, and study programs must offer more financial education to all students, but especially to those in the administrative-economic areas. The design of public policy where institutional programs of public bodies should be proposed that they should offer free advice to young people who can acquire the necessary knowledge in their personal finances management.

The banking and financial institutions of the country should prepare brochures where they adequately explain the proper use of credit cards, in addition to disclosing more about the interest rate, how it is handled, etc. And also make known about their investment funds or savings plans. Young Millennials should take advantage of technological advances to improve their knowledge, since within the technology they can research a lot about financial education.

F. Future research lines

The continuity of this research should be carried out, not only for the career of administration but for the other careers, to find out what their knowledge of financial education is, and also to know if in their study programs they promote financial education. Also, it is important to investigate in depth why the university academic programs do not provide knowledge of financial education, as it is a knowledge that students require as being part of the generation Millennials. It is a generation focused on entrepreneurship, and lacking this knowledge, they do not know about investment or other things that can help them in the future.

G. Limitations of this research

The application of the surveys to the students of the University of Guadalajara and the Autonomous University of Sinaloa was limited as being a sample for the whole program. Also, there is limited information from some sources.

H. Recommendations

1) It is important to have an expense control: make a personal budget, know how much to spend both in cash and debt payments, as well as for own expenses.
2) Reduce debts: when already paid the debts, an amount of money should be saved.
3) Look for a bank where to open a savings account: when saving in a bank, this can generate profits.
4) Start saving for the old age: this is a very important fact since in very few cases the pension is insufficient to ensure an income that is similar to the salary.
REFERENCIAS BIBLIOGRÁFICAS


CUCEA. (s.f.). Obtenido de Universidad de Guadalajara: http://www.cucea.udg.mx/es/acerca-de-cucea/historia


FACEAM (s.f.). Obtenido de Universidad Autónoma de Sinaloa: http://www.faceamus.net/inicio.php


