

## Investigación sobre las oportunidades de empleo para los profesionistas recién egresados utilizando BSC

*Research on employment opportunities for newly graduated professionals using  
BSC*

*Pesquisa sobre oportunidades de emprego para profissionais recém-formados  
usando BSC*

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## Resumen

En años pasados, existían en la región centro del estado de Coahuila pocas universidades. Con el paso del tiempo, el gobierno ha creado otras tantas que ofertan, en algunos casos, las mismas carreras ya existentes en la región, lo cual genera una competencia “sana” para reclutar aspirantes a carreras profesionales. El objetivo es realizar un análisis para fortalecer una Facultad y permitir continuar en dicha competencia. Dentro de los problemas que aquejan a los recién egresados de las universidades destaca la falta de conocimientos amplios para el buen desarrollo. En este sentido, una de las bases importantes que todo alumno debe de tener es la práctica, ya que ello fortalece sus conocimientos y acrecenta las ganas de investigar y proponer. Debido a la alta cantidad de egresados y la gran demanda por ocupar puestos dentro de la sociedad e industrial, los sueldos se han minimizado de manera considerable. Por esta causa muchos de los egresados se ven obligados a trabajar en diversas áreas que ofrece la empresa, aunque estas no sean las más adecuadas para su perfil profesional. Se llevó a cabo un análisis en base a la estructura del BSC para el apoyo al fortalecimiento de la Facultad, para así identificar las áreas de oportunidad en donde se puede mejorar.

**Palabras Clave:** Egresados, Oportunidades, Educación, BSC.

## Abstract

In past years, there were few universities in the central region of the state of Coahuila. With the passage of time, the government created many more that offer some of the same careers already existing in the region, which generated a "healthy" competition to recruit aspirants to professional careers. Our objective is to elaborate an analysis that will strengthen our faculty and allow to be in the competition and not be left out. Among the problems that afflict the recent graduates of universities, are the lack of extensive knowledge for good development. One of the important bases that every student must have is practical experience, in order to strengthen their knowledge, to increase their desire to investigate and propose. The amount of people graduating College combined with the high demand for positions within society and industry has strained the salaries which have lowered

considerably. Because of this, many of the graduates are forced to work in various areas offered by the company, although these are not the most suitable for their professional profile. An analysis was carried out based on the structure of the BSC to support the strengthening of the faculty, revealing the areas of opportunity where it can be improved.

**Key words:** Graduates, Opportunities, Education, BSC

## Resumo

Nos últimos anos, havia poucas universidades na região central do estado de Coahuila. Com o passar do tempo, o governo criou uma série de outros que oferecem, em alguns casos, as mesmas carreiras já existentes na região, o que gera uma competição "saudável" para recrutar candidatos para carreiras profissionais. O objetivo é realizar uma análise para fortalecer uma faculdade e permitir continuar nesta competição. Entre os problemas que afligem os recém-formados das universidades, há uma falta de conhecimento abrangente para um bom desenvolvimento. Nesse sentido, uma das bases importantes que cada aluno deve ter é a prática, pois isso fortalece seu conhecimento e aumenta o desejo de investigar e propor. Devido ao elevado número de diplomados e à grande demanda para ocupar cargos dentro da sociedade e industrial, os salários foram minimizados consideravelmente. Por esta razão, muitos dos licenciados são obrigados a trabalhar em várias áreas oferecidas pela empresa, embora estes não sejam os mais adequados ao seu perfil profissional. Uma análise foi realizada com base na estrutura do BSC para apoiar o fortalecimento da Faculdade, a fim de identificar as áreas de oportunidade onde pode ser melhorada.

**Palavras-chave:** Graduados, Oportunidades, Educação, BSC.

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## Introduction

The end of a professional career does not ensure that the graduate obtains a good job, or worse, that he has a job. Unfortunately, the current situation in the country and the world does not provide a guarantee of employment for all new graduates. In addition the work area demands an endless number of characteristics such as solving problems, working under pressure and above all thinking in a critical way, but how are these qualities achieved ?, only with the practice that the work experience develops you, but if not is given the opportunity, then the road to the work is very distant. According to the newspaper Excélsior, who cites the Undersecretariat of Higher Education of SEP and the National Survey of Employment and Employment in the third quarter of 2012, only 40 out of 100 professionals in Mexico have a job related to their university education.

In addition, Manpower's research indicates that of ten vacancies, four are not covered because aspirants lack specific experience or skills, among other characteristics that would allow them to stand out from the rest. Of the total number of unemployed professionals, 56 out of 100 are under the age of 30, the highest percentage in the last four years, according to the National Employment and Employment Survey for the third quarter of 2012. Data of the Secretariat of Public Education ( SEP) indicate that each year 450 thousand young people complete their university studies and of them, who have never previously worked in their career fields are the ones that are the most late in being hired. "The labor market charges them with their inexperience, compared to those who already have it," said Undersecretary of Higher Education Rodolfo Tuirán Gutiérrez. "The recent graduates always concentrate the problem of unemployment and underemployment, with very low incomes and no benefits," he said. (HERNANDEZ, 2012).

Undoubtedly, investment in universities is indispensable for the good development of a country. Without a solid infrastructure of higher education, which has its livelihood in the university, national growth and quality of life are doomed to failure. In Mexico, about 7% of GDP is invested in education. Despite this, the average educational level of the

economically active population is nine years, ie a country of secondary education (REYNA, 2015).

It is stated that in Mexico there are "3.1 million young people with a university degree, but not all have jobs". The lacerating reality is that two out of five college students are unemployed; and 41% of university students under 30 years of age have no job or have entered the informal sector, which in this country is close to 60% of the total number of workers. It is frequent to find a university student who earns his living as a taxi driver, or as a seller of anything. An academically prepared youth has, in short, an uncertain future (REYNA, 2015). According to ANUIES in Table 1 it is shown that a large number of graduates are those from Universities.

**Table 1.** Relación de Egresados Periodo 2015-2016

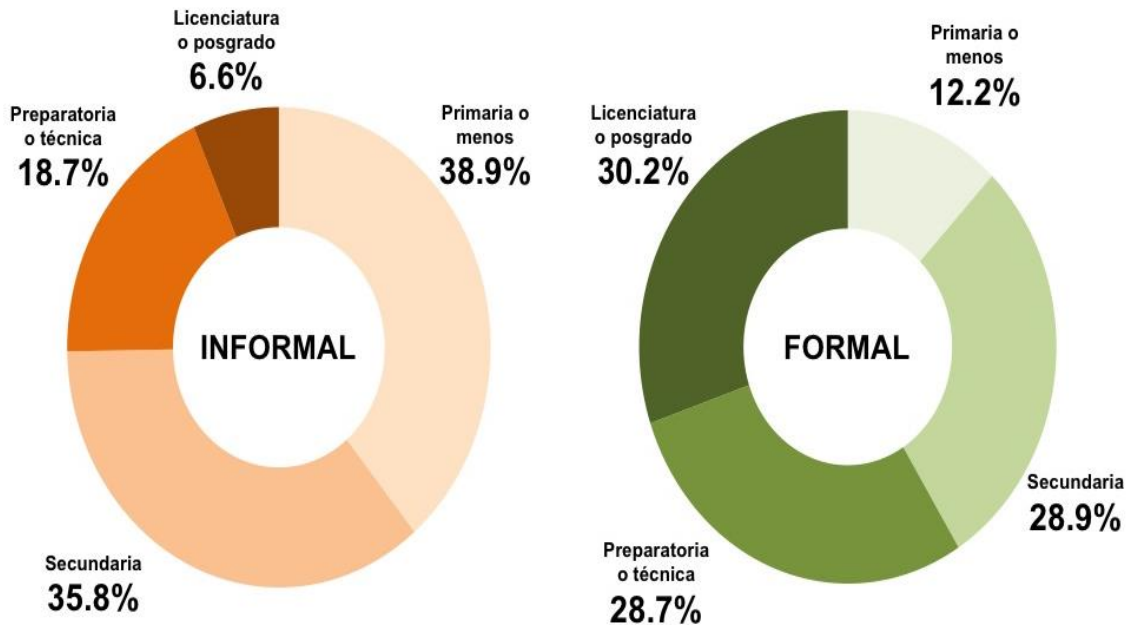
EGRESADOS	HOMBRES	MUJERES	TOTAL
<b>PARTICULAR</b>	93,787	122,522	216,309
<b>PÚBLICA</b>	153,322	163,816	317,138

Fuente: ANUIES

A synergy has been generated by the government between the universities and the Private Initiative, such examples are the Conacyt, Prodep, Science and Technology Council in the states, etc., however the results are still far from satisfying society and entrepreneurs.

On the other hand, globalization is testing all the countries in the world, and especially universities. It is clear that we will encounter important threats that can end the economic viability of all those who do not adapt, but simultaneously we will find opportunities that will bring great advantages to those who with surprising intuition know how to take advantage of them. (JIMENEZ EGUIZABAL, 2005).

**Figure 1.** Empleados en sector informal y formal por nivel educativo.



Fuente: ENOE IV-2013

Fuente: (ESTRADA, 2013)

According to Estrada, Figure 1 shows that within formal employment, 30% of contractors have a Bachelor's degree. That is, a university career is required to compete for a job, unlike the situation in informal employment where it is 6.6% who has a bachelor's degree, which indicates that academic preparation for personal growth is important and professional of each person.

Nowadays there are innovations, new technological and ecological changes, new commercial, labor and organizational challenges that will only be possible to face if universities are taught the students the right knowledge, as well as the correct assignment of subjects. It should also take into account the way in which the student's performance is evaluated, and the practices that the student performs to reinforce his knowledge. (CHIHUAHUA, 2010).

In Mexico conclude a professional career, it is not a guarantee to get a job. According to INEGI data for the first quarter of 2015, there are 884,237 people in our country who have a higher education degree, but are unemployed and without an immediate opportunity to get a job. Being a university graduate, at least for the job and income issue, is not very important. One of the challenges facing recent graduates of Mexican universities is finding employment in such a competitive job market. The reality in Mexico is very clear: the unemployment rate is higher for university graduates than for young people who only have a bachelor's degree. (MAXIMILIAN, 2015).

A third of the labor market professionals carry out activities that have no academic relationship with their training. Those who manage to insert themselves receive a salary below personal and professional expectations. According to official figures, unemployment among professionals is three times higher than unemployment among the general population. Faced with this situation, representatives of international organizations warn that this is a trend that will not change unless the higher education institutions commit themselves to include the private sector in the design of their educational strategies (REYES, 2014).

There are three hypotheses that may explain this labor market abnormality in Mexico. The first is related to the gap between competencies learned in universities and those demanded by employers. Many of the difficulties faced by young people entering the labor market have to do with a lack of skills during the university years. According to the Manpower Group's "Talent Shortage 2015" survey, "54% of Mexican companies find it difficult to find talent" to fill vacant positions.<sup>7</sup> Of these companies, 58% mention lack of experience and / or a profile which does not adapt to the company as the main obstacles to fill the post. This may suggest that universities need to teach competencies applicable in the world of work. (BARCELO, 2015)

### **Objective.**

Analyze the situation of a particular faculty, to see the academic behavior in favor of the students so that they can live up to the great competitions generated by other universities.

### **MODEL**

One way to measure results is through the Balanced Scorecard (BSC) that monitors all the important elements, from continuous improvement and alliances, to teamwork and global scale, this will allow companies or institutions to achieve excellence.

Through this methodology, the indicators of each area are analyzed and allows the managers of the organization to verify the fulfillment of the goals without losing the general objective. If any of the indicators is not met, it may affect the proper functioning of the institution.

### **What is Balanced Scorecard?**

In 1992, Kaplan and Norton of Harvard University revolutionized business management by introducing a fairly effective concept to align the company to the achievement of business strategies, through tangible goals and indicators. The main innovation was the introduction of measurements on intangibles as indispensable requirements for achieving financial objectives. (TIEDCOMM)

"The Integral Scorecard is a very useful tool for the management of companies in the short and long term. First, because combining the financial and non-financial indicators allows to advance trends and to make a proactive strategic policy. And second, because it offers a structured method to select the key indicators that guide the steps to be taken by the company."(VALDA, 2009).

For Ramos & Gonçalves (2002), the BSC teaches where to compete, which clients to conquer and what needs to be done to create value for them. According to the same authors, it is a tool that implants the organizations a clear vision on the internal and external economy. (RAMOS, 2002)



## Benefits

The Balanced Scorecard induces a series of results that favor the management of the company, but to achieve this it is necessary to implement the methodology to monitor and analyze the indicators obtained from the study. Among others we can consider the following advantages:

1. Alignment of employees towards the vision of the company
2. Communication to all staff of the objectives and their fulfillment
3. Redefinition of the strategy based on results
4. Translation of vision and strategies in action
5. It favors the creation of future value in the present
6. Integration of information from various business areas
7. Ability to analyze
8. Improvement in financial indicators
9. Job development of project promoters

**Table 2.** Matriz FODA del BSC.

FORTALEZAS	DEBILIDADES
Consenso organizacional en relación con la estrategia. Facilita el consenso de toda la organización al aclarar y traducir la misión y la estrategia en términos manejables para toda la organización	Falta de compromiso por parte de la dirección, responsable fundamental de definir la visión del negocio y de generar un clima de compromiso. Falta de equilibrio entre las funciones de control y comunicación del BSC: filosofía negativa de gestión.
Traducción de la estrategia en términos operativos. Comunica en términos prácticos los objetivos estratégicos y permite vincularlos entre sí mediante relaciones causa-efecto.	Enfoque generalista de la estrategia sin orientación hacia las unidades de negocio; inoperancia del modelo en la gestión diaria.
Relación presupuesto-estrategia. Permite conectar el presupuesto a la estrategia, mediante la asignación de los recursos adecuados para el logro de los objetivos.	Exceso o defecto de los indicadores seleccionados; información confusa e irrelevante, o ausencia de información.
Herramienta de aprendizaje, mediante la comparación entre los planes y los resultados con el objetivo de reevaluar y ajustar los objetivos estratégicos, los indicadores y los planes de acción.	Estaticidad del BSC; puede no existir dinamismo en el seguimiento de la estrategia, lo que provoca una obsolescencia de los elementos del diseño.

Fuente: (MEDINA, 2012)

How to implement the Balanced Scorecard?

1. Carry out the strategic definition
2. Establish short, medium and long term strategic objectives
3. Generate Balance Scorecard format for the General Directorate
4. Assign the objectives to the next hierarchical level
5. Have reliable sources of information to obtain the data
6. Do the BSC or goal performance reviews
7. BSC System Improvement Cycle

Practicing the seven steps of Balanced Scorecard will lead to building an objective-oriented organizational culture, incorporating a virtuous circle through which the company will achieve its strategic objectives. (PEREZ, 2014)

This methodology is being implemented by a significant number of companies as a best business practice for their strategic planning and execution. The Harvard Business Review writes it as one of the 75 most influential ideas of this century. Although there are four perspectives that traditionally identify a BSC, it is not essential that they all be; these perspectives are the most common and can be adapted to the vast majority of companies that are not an indispensable condition to build a business model. (MORALES, 2013)

### **Financial perspective.**

Historically, financial indicators have been the most used as they reflect what is happening with investments and economic added value. In fact, all measures that are part of the cause-effect relationship, culminate in the best financial performance. The Educational Reform included amendments to the Law on Professional Teacher Service, the General Education Act, and the National Institute for Education Evaluation Act (INEE), among which the most significant changes are the rules for entry and stay of teachers in service. As part of the strategies focused on students is the Educational Reform Program that provides support to schools so they decide on what to invest resources based on their needs. Of the 7 billion 858 thousand pesos approved in 2016 for the program, this year the Ministry of Finance

proposes to allocate only 2 billion 141 thousand pesos, or 72% less budget. Among the actions included are improvements in sanitary facilities, construction and basic equipment, development programs for reading, writing and math skills; and prevention of disapproval and dropping out of school.

In this way, one of the key reforms of the current administration, such as education, will be affected by a 72% cut by 2017, which will harm the educational quality so publicized by the President of the Republic. (ROLDAN, 2016)

### **Customer perspective.**

As part of a business model, the market and the customer are identified; in this analysis the client will be the society and the businessmen, towards which the service or product called professionals is directed. The customer perspective is a reflection of the market in which it is competing. The focus will be on what industrialists or entrepreneurs think about graduates. This provides important information to generate, acquire, retain and satisfy customers, obtain market share, profitability, etc.

"The customer perspective allows business unit managers to articulate the market-based customer strategy, which will provide superior financial returns for the future." (Kaplan & Norton).

### **Perspective internal processes.**

In order to reach the clients and financial objectives, it is necessary to carry out with excellence certain processes that give life to the company. In the school matter, administrative, academic and work processes must be in a pleasant environment, as well as achieve a continuous comparison with the industry to know the needs. On administrative processes, these should be as efficient and rapid as possible, as maladministration would hinder them.

### **Perspective of formation and growth.**

It is the perspective where you have to pay more attention, especially if you are looking for constant results. It identifies the infrastructure needed to create long-term value. To achieve this, training and growth must be achieved in three areas: people, systems and organizational climate. They are usually intangible, because they are identifiers related to training people, software or developments, machines and installations, technology and everything that needs to be strengthened to reach the objectives of the previous perspectives. (CARLO)

### **IMPLEMENTATION OF THE METHODOLOGY.**

The research was divided into different phases, which are identified below:

**Figure 2.** Fases aplicadas en la Metodología.



#### **Analysis of the Current Situation.**

Since in the past years the federal and state governments have installed new universities within the same city, the enrollment of the faculty analyzed has gone down, as competition for infrastructure and economic resources have been created that strengthen the laboratories that make the curricula even more attractive (which are similar to those offered by this institution), as well as various extracurricular activities. According to academic and managerial officials, it is of the utmost importance to continuously maintain the company-faculty link, for the incorporation of students into projects that strengthen their knowledge.

Also, it is important to note that the faculty analyzed is almost 60 years old and the trainer of several teachers of the new universities in the locality, therefore it is considered that with more reason should be the main option when choosing of aspiring university graduates.

### Objective

Identify the areas of the faculty that can be reinforced and improved for the sake of the students to locate it as one of the first options of high school graduates to enter the careers that are offered.

### Indicators

To achieve the objective it is necessary to identify the areas of opportunity that are considered important points for the graduates to be competitive professionals.

**Table 3.** Detección de indicadores.

	Indicadores	Metas
Áreas importantes a considerar	Programas actualizados	Asesoría profesional
	Docentes actualizados	Capacitación especializada según la necesidad del entorno industrial
	Laboratorios equipados	Tener laboratorios con los requerimientos mínimos establecidos por las organismos acreditadores
	Desarrollo de nuevos proyectos	Proyectos de investigación con las empresas que incluyan la participación de estudiantes
	Estancias internacionales de estudiantes	Fomentar la participación de los alumnos en otras universidades
	Convenios con empresas	Incrementar el número de convenios útiles para lograr un mejor fortalecimiento de enseñanza-aprendizaje con los alumnos

Fuente: (Elaboración propia)

For each goal in Table 3, it is necessary to create a strategy that results in a system that explains how to implement each item.

The strategy is the basis for determining the corresponding actions to carry out the activities that will result in excellence in each one of the indicators, giving them an adequate follow-up, taking timely decisions and, above all, assessing the specific failures if the mints do not work.

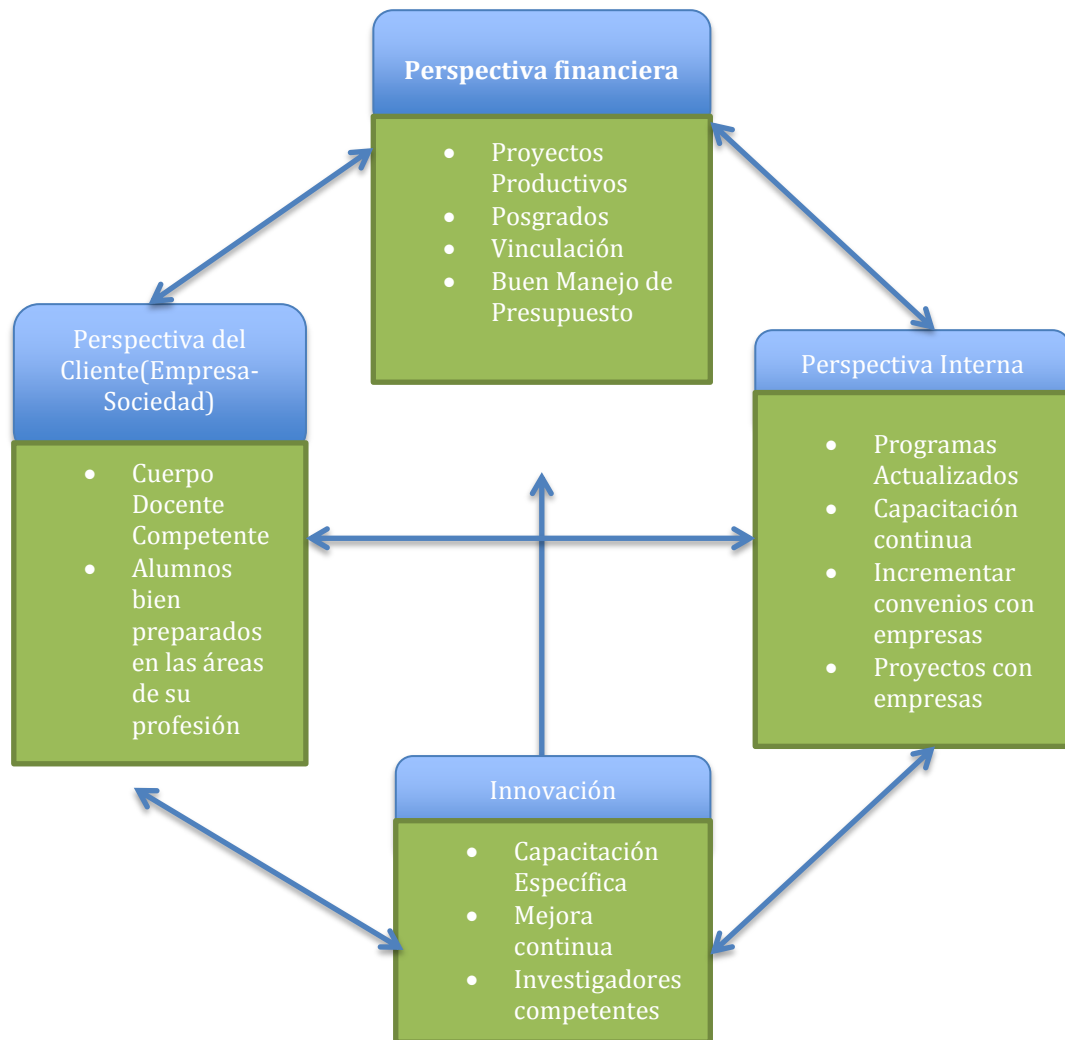
## **RESULTS.**

Among the activities that were carried out are:

- Consultation forums and opinions between entrepreneurs-school
- Exhibitions of graduates around their feelings when facing the world of work.
- Academic meetings
- Search for projects in the industry
- Promotion of postgraduate courses
- Promotion of frequent visits to the faculty to publicize facilities and curricula to high school students.

The following are the items that need to be strengthened, oriented to specific objectives, so that value can be created for the clients, in this case the industrial ones, and for the executives of the faculty.

**Figure 3.** Tablero de Mando BSC de la Facultad.



Fuente: (Elaboración propia)

### Action plans

Within the areas of opportunity detected, a responsible person is assigned to follow up the activities, which can be measured at any time to act accordingly. These should belong to institutional goals, otherwise the goal will not be met.

**Table 4.** Formato de seguimiento

Concepto de uno de los cuatro rubros			Área a la que pertenece (Redes, Software)	
Indicador	Meta	Estrategia	Responsable	% Avance
Objetivo a alcanzar	El resultado y el tiempo que transcurrirá para el logro	Cómo lo va a lograr	Nombre del Responsable	Avance

Fuente: (Elaboración Propia).

With the use of the table in Table 4, it is possible to monitor each activity that is being performed and to clearly see the achievements obtained according to the elapsed time of each stage.

The success or failure of this model is determined in two aspects:

- 1) The strategy to reach each indicator
- 2) The right staff and really committed to the institution.

## CONCLUSIONS

Once the model was established and implemented, the areas of opportunity were found and strengthened, which increased the continuous updating for teachers, achieved the signing of company-faculty agreements, and the renovation of some laboratories.

For the managers of each faculty it is important to be in constant search for continuous improvement for your institution. This model used to achieve excellence in the industry, is also applicable to public entities. With this method individual measurement or performance may be possible as well as putting the results put into an institutional model to achieve excellence. It is also necessary to consolidate projects where students, teachers and industry personnel actively participate, in order to apply all the knowledge learned in the faculty and



at the same time to know the areas of opportunity for the student and the faculty to reinforce their programmatic contents education.

In addition, with better study programs and greater practice within industries, the area of opportunity for graduates will be greater which will allow them to quickly enter the labor area, and apply what has been learned in the university.

After the realization of this research it was possible to increase the enrollment for the reception of students of new income.

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