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Proposal of Postgraduate in Management to Collaborate with the Sustainable Regional Development in the State of Mexico

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Abstract

Regional Development of the countries depends of the relation and interaction between enterprises, government, education sector and society, and the strategies to take advantage of the available resources. In that sense, the education sector plays a very important role as a supplier of competitive human capital. This study is the result of a special research made for Technologic of Higher Studies of Ecatepec which is interested in launching a new postgraduate program that can respond to the new regional challenges. Nowadays it doesn't exist an educational program in the State of Mexico that collaborates in generation of specialized human capital to manage the productive and administrative process of the enterprises. This research is supported with the induction deduction, analysis-synthesis methodologies, moreover, the information gathering of different database scholars was reviewed, and it was also compare institutions within similar context and programs to get and analyzing previous research about tendencies of modern management.

Keywords: post grade, management, regional development sustainable, education, enterprise

1. Introduction

1.1 Context of the Posgrade in Mexico

Given the need to generate skilled at municipal, state and national level work, the initiative to create a postgraduate to cover the demand for labor in the public and private sectors arises.

The government, private, educational and research sectors have been given the task of designing instruments to assist in the economic recovery from the local to the national. In this sense, making a historical compilation, economic groups in Mexico during the seventies, eighties and nineties there was some economic readjustments, which did not affect the strong structure and practices had taken root during the post-revolutionary period. Thus, the main strategies of expansion of economic groups were: 1) the acquisition of companies in unrelated industries, becoming large conglomerates; 2) expansion related to readjust their production lines; and 3) the expansion of its production and distribution networks to dominate the home market industries (Castañeda, 2010).

However, large companies in the private sector have increased in size from trade liberalization and economic deregulation, the concentration of capital and economic control groups, prevent the benefit of the new economic environment conducive to the same impact small and medium enterprises who remain on the margins of economic growth, although they are the largest generators of employment. The latter is a determining factor in the need to collaborate with the encouragement and involvement with the sectors of society, strengthening the competitiveness and productivity of enterprises through training human resources of high level suitable to apply knowledge, develop technological solutions and ability to innovate. According to the Economic Census conducted by the INEGI (2014), the State of Mexico ranks 22 nationally in the indicator of average size of establishments with an average of 3.8 (people) by establishing a total of 533,846 economic units (companies), where micro enterprises account for 97.3%, 2.0% small, medium with 0.60% and big 0.10%. That means that their potential economic and employment growth is promising, whose symptom is like the presented in the State of Mexico. Due to the above, the need to propose the creation of graduate programs in Administration in the system of Mexico National Technology emerges so that the necessary links between business and academia are

generated to form labor quality that can way this sector, and through this we collaborate with the development and growth of small businesses in this sector with growth potential in the medium and long term.

2. Fields of Knowledge That Justify the Program Viability

It is important to know some definitions of Master in a national and international context for this, according to Undersecretary of Higher SES Education (2014) a Master are studies focused on expanding knowledge in a specialty field or discipline and, as appropriate, to enable students to start research or for the innovative application of knowledge. Moreover, the Education USA (2015) indicatesthat a Master is designed to provide additional education or training in the area specialized knowledge beyond the undergraduate level. In this sense, the business school of Washington State University, a master is that where specific expertise in a field of professional studies. The University of Guadalajara U. of G. (2015) indicates that a Master is one that provides knowledge in a discipline or interdisciplinary area, delving into the theoretical, methodological or technological aspects to implement them in professional performance. Such master's degrees, according to the Secretary of Higher Education SES (2014) are divided into two: professionalizing and research. The first consists in identifying lines consistent with the program objectives and areas of knowledge considered in the curriculum areas constituting feasible approach to professional activity for graduate students work. Furthermore, the research. It is the definition of lines of research consistent with the program objectives and areas of knowledge considered in the curriculum that constitute real spaces approach to scientific activity for graduate students. Finally, the Education USA (2015) indicates that professional master's degrees, are programs designed to guide the student to a profession. Professional Masters titles are mostly master's programs finish. This means that do not lead to doctoral programs. Regarding the suggested program of Administration, it is required to know some specific definitions administration. In support of conceptualizing some definitions are presented.

Administration: according Chiavenato (2004), is the process of planning, organizing, directing and controlling the use of resources to achieve organizational goals. For Robbins and Coulter (2005), coordination of work activities carried out so efficiently and effectively with others way and through them. Indicate Hitt, Black and Porter (2006), is the process of structuring and joint use of resources oriented towards achieving goals, to perform tasks in an organizational environment. To Koontz and Weihrich (2004), the process of designing and maintaining an environment in which, working in groups, individuals efficiently meet specific objectivesto this theory was introduced six functions and fourteen principles, these are:

Functions: forecasting, planning, organizing, directing, coordinating, monitoring (control).

Principles: division of labor, authority, discipline, unit command, address, subordination of individual interests to group interests, remuneration, centralization, chain of command, order, equality, stability (personal stability) initiative, team spirit.

On the other hand, it is presented in summary form in Tables 1 and 2, schools and administrative management approaches as part of the state of the art of government.

Table 1. Administrative schools

School	Author	Year
Scientific management	Taylor, Gantt, Emerson, Ford	1903
Bureaucratic theory	Weber	1909
Classical theory	Fayol, Guilk, Unwick, Sheldon	1916
Theory of human relations	Mayo, Follet, Munstenberg, Maslow, McGregor	1932
Structuralist theory	Weber, Etzioni	1947
System theory	Von Bertanlaffy, Beer, Ackoff, Forrester, Checkland	1951
Neoclassical theory	Druker, O Donnel	1954
Behavioral theory	Simon	1957
Organizational development	McGregor, Arguris	1962
Contingency Theory	Chandler, Skinner, Burns	1972

Source: Solís (2008), Comparative analysis of administrative process and contribution in project management.

Table 2. Management approaches

Management Approaches	Authors	Year
Organization Management	Druker	1969
Smart organizations	Senge	1990
Strategic planning	Porter	1990
Empowerment	Senge	1993
Benchmarking	Boxwell, Norman, Kears	1997
Reengineering	Hammer	1980
Total quality	Crosby, Deming	2005

Source: Solís (2008), Comparative analysis of administrative process and contribution in project management.

3. State of the Art in the Fields of Knowledge That Justify the Program Viability

3.1 Challenges of Modern Management

This section domestic and international challenges and trends on the direction you are taking the administration, called "modern management", Figure 1 are presented. According Certo and Certo (2012), challenges and trends of modern management (Modern Management) are:

- Social responsibility of the company.
- Ethics.
- Sustainability (Sustainability and Sustainability).
- Encouraging creativity and innovation.
- Control.
- Information Technology (use to enhance administration).

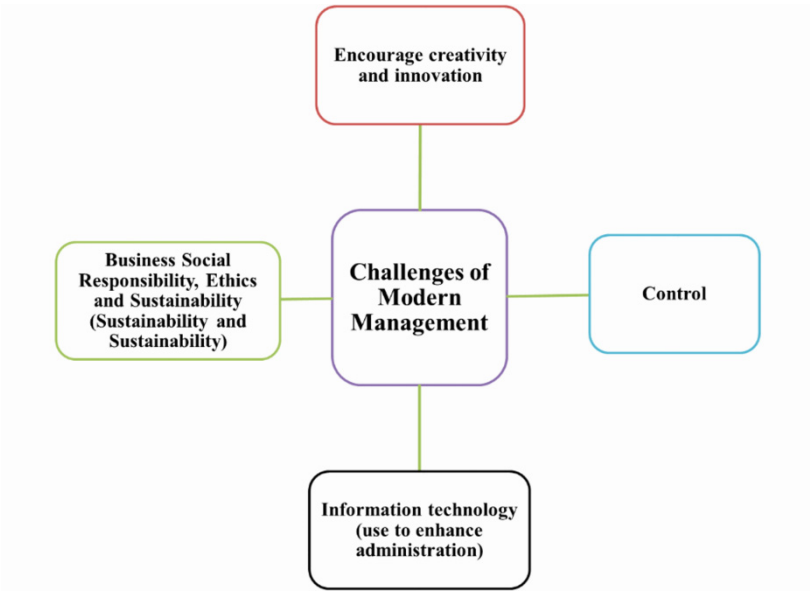

Figure 1. Challenges and trends of modern management

Source: Owner (2016), taken from Certo & Certo (2012), Modern Management.

In this sense, studies on the administration point to a few requirements regarding the construction of new conceptual and methodological foundations to address current market needs, so the new requirements imposed by the contemporary market dynamics practices administrative can be summarized in five trends that mark the evolution of markets Certo and Certo (2012):

- The transition from industrial society to post-industrial.
- The globalization.
- The entrance of the new era of information society.
- The application of the principles of sustainable development.
- The emphasis on innovation and knowledge.

3.2 Trends in Training Administration

In Mexico, trends in training Administrators are consistent with international trends and present some peculiarities. In 2014, the National Coordination Graduate of the National Association of Colleges and Schools of Accounting and Administration (ANFECA) conducted a study with the following objectives: a) know the state that keep the postgraduate courses of higher education institutions affiliated the ANFECA; b) know the vision of the different stakeholders of higher education institutions affiliated to the ANFECA. The results showed that the Master in management is offered in 69% of Institutions of Higher Education (IHE), followed by the Master of Finance given in 42% of the IHE and the Master of Marketing; that imparts 36% of IHE and occupy the last places the Masters of International Business (18%), Administrative Computing (13%) and Accounting 18%. In addition to this, the additional offering that constitute a minority of existing programs in higher education institutions, among which are: the taxes and tax contributions, technology management and information systems, public administration, Senior Management and Technology Management found. Moreover, the number of master's degrees in Social Sciences found in the National Program of Quality Graduate (NPQG/PNPC), according to System Consulting SC-CONACYT (2015) in the State of Mexico totaling 18, of which 4 of them relate to administration:

1) Master degree in social sciences with specialization in municipal development.

2) Master in public administration and government.

3) Master sustainable regional and metropolitan studies.

4) Masters in management.

This creates opportunities to strengthen the region directly in the state of Mexico, with the formation of qualified human resources, collaborate with linking with sectors of society as well as strengthening competitiveness and productivity of enterprises.

3.3 Impact on the Education Sector, Result of Studies of Supply and Demand

The labor demand largely determines the requirements of supply is expected that to be attended by various educational institutions. First, of the enterprise structure that need the laboral offer has a shift towards the tertiary sector that has manifested itself globally. According to Hernandez (Laos, Bordonaro, & Huitrón, 2000) in countries like the United States it has been significant growth in the tertiary and secondary sectors to the detriment of agriculture. In Mexico, for 1997, employment in the tertiary sector reached 53.3%. Also, for the Mexican case, the trends point to lower absorption of labor supply in formal employment and sustained growth in informal jobs, a trend that has continued since 1987 until today. However, the economic future of the country depends on the combination of factors of production, it is estimated that by 2020 the future will be strongly influenced by the growth in the investment made in both physical and human capital, in this regard, factor "work", plays a primary task, not only because of the amount required but the quality of it (Hernández & flames, 2006). Expectations aspire to formal employment with fair remuneration the emergence of considerably reduced in a scenario in which unemployment and lack of economic growth have been the main features of the Mexican economy over the last thirty years, however, new partners of the global cultural exchange markets have allowed the generation of new opportunities for those who can be inserted into the era of knowledge and information with higher levels of education and specialized of previous generations. However, the economic future of the country depends on the combination of factors of production, it is estimated that by 2020 the future will be influenced by the growth in the investment made in both physical and human capital, in this regard, factor "work", plays a primary task, not only because of the amount required but the quality of it (Hernández & flames, 2006). Expectations aspire to formal employment with fair remuneration the emergence of considerably reduced in a scenario in which unemployment and lack of economic growth have been the main features of the Mexican economy over the last thirty years, however, new partners of the global cultural exchange markets have allowed

the generation of new opportunities for those who can be inserted into the era of knowledge and information with higher levels of education and specialized of previous generations.

About the offer and demand of professionals for career and education, graduates of graduate jobs manage to engage in professionalizing a percentage greater than 50%, which is the most characteristic feature of this educational level. This is most graduates include: Mathematics, Physics and Astronomy, areas where the net supply of professionals is below demand, and there is a significant shortage that should be taken as a stimulus to expansion. After careers in natural sciences and mathematics, there are three areas relatively well placed in the labor market: Chemical Sciences, Architecture and Design and Administrative Economic Sciences, which manage to drop nearly 70% of its graduates graduate in professionalizing occupations. About income level depending on the level of education, the magnitude of the wage premium is significantly higher for graduates of graduate (109.6%) than for graduates of degree (67.2%) resulting in an improvement in quality of life. With respect to employment projections to 2020, realizes the remarkable concentration of productive jobs for professionals with graduate degrees in insofar as 4 out of 5 of those jobs correspond to the following areas of knowledge (see Table 3 and Figure 2).

Table 3. Concentration of productive jobs in Mexico for graduates

Area	Percentage
Economic Management	23.60%
Education and Pedagogy	17.60%
Health sciences, nutrition and biomedical	17.30%
Social and political sciences	12%
Engineering	8%
Others	21.50%
Total	100.00%

Source: Owner taken of Hernández, Solís & Stefanovich (2012).

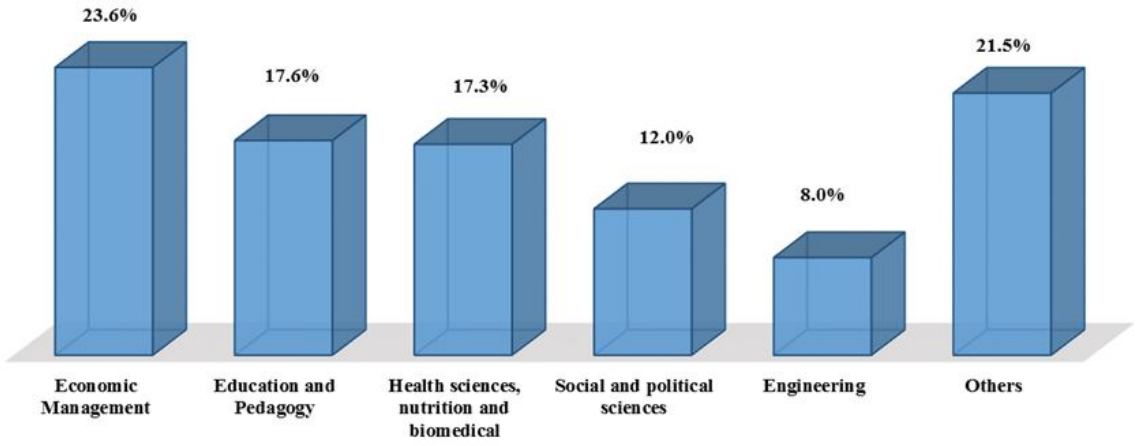

Figure 2. Concentration of productive jobs for graduates

Source: owner (2016), taken of Table 3.

The projections also suggest that the relative importance of quality jobs for graduates with professionalizing graduate jobs will remain largely unchanged rising from 85% in 2009 to 83.2% in 2015 and 81.2% in 2020. Globally, graduates of some areas of knowledge retain high proportions of quality jobs (equal to or greater than 90%), as in the case of postgraduates in areas such as education and pedagogy, chemical sciences and health

sciences, nutrition and biomedical. Meanwhile, graduates of other study areas must face a higher proportion of regular jobs and poor quality (Hernandez, Solis, & Stefanovich, 2012).

In absolute terms, the creation of new quality jobs for postgraduates with professionalizing jobs during the decade, in courses will be 312 thousand jobs and over 80% are open to graduates of the study areas already mentioned: economic sciences-administrative (between 90 y 108 mil); social and political sciences (between 560 y 720 mil), health sciences (45 to 59 mil), engineering (between 35,000 and 49,000), humanities, philosophy and psychology (30 to 37 mil). Thus, the number of jobs for postgraduates will be more dynamic, suggesting the growing preference of employers by professionals with more training than they graduate degree level only. Jobs for graduate will expand at higher rates in the order of 5.6%, 5.9% and 6.7% annually on average between 2009 and 2020. In addition to its dynamism, the profile expected for jobs that graduates play graduate, would tend to maintain high relevance of quality jobs in which 9 out of 10 would continue working in occupations that demand the knowledge acquired in university classrooms even though, in this case also opportunities focus on the same (few) areas of knowledge (Hernandez, Solis, & Stefanovich, 2012). As healthy the educational offer postgraduate courses that are in the field of administration, the public sector reported in 2014 a total of 1473 places offered to graduate students level while the private sector served a total of 3150 in the same period, which means that the public sector serves only 32% of demand, while the private sector provides coverage to 68% of those interested in studying a master's degree in some field of management (ANUIES, 2014). Of the 1473 students who entered a master's degree in the field of administration, in public institutions, 326 were treated in the State of Mexico that is 22% of domestic demand entering the public education system. There are four institutions that serve this demand and stands out from them the Autonomous University of the State of Mexico (See Table 4 and Figure 3).

Table 4. Public institutions that attend the demand to pursue a master's degree in the field of administration 2014 in the State of Mexico

Institution	Students
Autonomous Mexico State University	273
Polytechnic University of the Valley of Mexico	40
Technological Institute of Tlalnepantla	9
Technologic of Higher Studies from Coacalco	4
Technologic of Higher Studies from Ecatepec (new creation)	In process

Source: Owner (2016) taken of ANUIES (2014), Higher Education Statistical Information, and basic statistic of Technologic of Higher Studies from Ecatepec (2016).

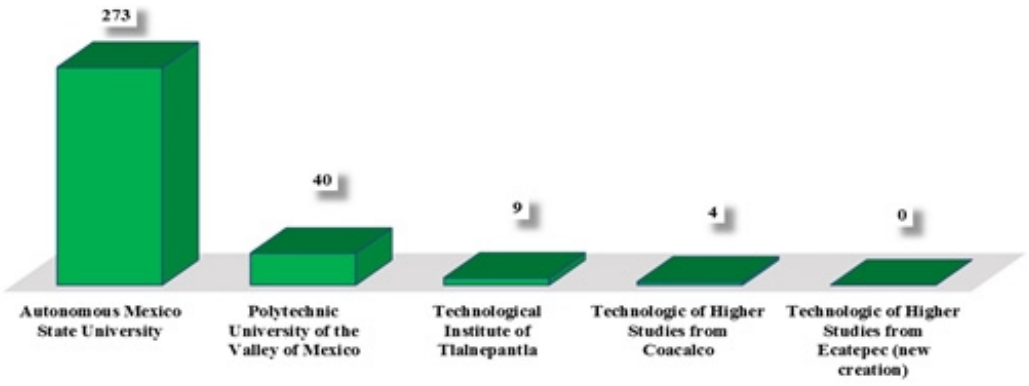

Figure 3. Public institutions that attend the demand to pursue a master's degree in the field of administration 2014 in the State of Mexico

Source: Owner(2016), taken of Table 4.

In general, of the total national demand for graduate studies in the field of administration, which amounts to 4623 new students, 923 are served in the State of Mexico, which accounts for 20% national and of the 20%, 35% is attended by public institutions and 65% by private institutions, a proportion that is consistent with national number (ANUIES, 2014). The scenario above raised to visualize that although growth expectations in Mexico are discouraging, there is a niche market for graduates of master programs allowing them to aspire to better job opportunities and a better standard of life than those who attend bachelor degree. Add to this the demand for professionals trained in the field of qualified management to meet the challenges that reality has imposed administrative sciences is the highest among the other areas and finally the failure of public institutions in the State of Mexico to provide graduate programs in the field of administration can contribute to the formation of human capital in this area. Reasons considered relevant the management program.

3.4 Impact in the Sustainable

Sustainability and sustainability from the IHE are aspects that must be understood from two perspectives. On the one hand, it refers to sustainable management of higher education institutions that must do specifically with their contribution to sustainable development as agents of social inclusion and development with all elements of education policy and management transparency involving such responsibility and on the other, as producers specializing in emerging topics that have arisen because of environmental and social problems of the late twentieth century human capital. The first perspective is specifically related to the social responsibility of higher education institutions as catalysts for change, innovation, growth, and local development cooperation was discussed in the previous section. The second perspective refers mainly to curriculum design that allows satisfying the demand for professionals aimed at solving problems related to sustainability and whose variety and complexity has led to new fields of knowledge and has led to the emergence of groups of interdisciplinary, multidisciplinary and transdisciplinary. So that the variety of disciplines that have been linked to problems associated with the notion of sustainability covering both natural sciences and social sciences. The five major fields in which the first emerging topics were organized in the year 2000 are:

1) Culture of sustainability
2) Management and Government
3) Sustainable communities
4) Industrial sustainable production

The Industrial production, another key transit towards sustainability and towards a healthy environment. That is an area that must be addressed because it is clearly identified and accepted that the direct causes of the accelerated deterioration of the ecosphere in recent decades have been new technologies emerged from the scientific and technological revolution in the mid-twentieth century. In this field are topics such as industrial ecology; urban industrial pollution; cleaner production and sustainable mining. As you can see the number of issues that fields proposed Medellin (2015), it is indicative of both the complexity involved in the study of sustainability as the need exists to generate specialists in these new fields from institutions higher education where vision is much more interdisciplinary and from where can emerge breaking paradigms and generating proposals for innovation around sustainability as one of the most important drivers of change for society as a whole.

4. Context That Guides the Creation of Graduate Programs That Contribute to the Educational Link with the Micro Small and Middle Enterprises (MSME) Sector

4.1 National Context

When you start this section, it is worth starting this context with the National Development Plan (2013). In which the proposal is founded. In the national goal III, "Mexico with Quality Education" to ensure comprehensive development of all Mexicans and prepared the best human capital, which will a source of innovation and bring all students to their highest human potential. This goal aims to increase the quality of education so that people have the tools and write your own success story. Moreover, to collaborate with the aim of this project and reaffirming indicated in the NDP, the Law on Science and Technology—CONACYT (2013). Article 2 fractions I to VII, in which are indicated among other things promote the development and linkage of basic science, technological development and associated with updating and improving the quality of education and expanding the frontiers of knowledge innovation and make science, technology and innovation in a key component of the general culture of society. In this sense, the National Quality Graduate Program (PNPC) aims to recognize the training capacity; the methodology is qualitative and quantitative and assesses compliance with standards of relevance and quality. The program, according to the (SC-CONACYT, 2015), is a joint effort

between the Secretariat for Higher Education of the Secretariat of public education and the National Council of Science and Technology (CONACYT), which accumulates experience in the evaluation of graduate in Mexico during the past 23 years and takes into account international best practices in the field. In relation to the State of Mexico Government-Plan of development of the State of Mexico (2011) in the section of Government solidarity (Pillar 1), instruments of action and education, draws attention in relation to higher education, the State Government must work together with federal agencies responsible for conducting education in the country, to improve the quality and depth of the knowledge imparted to Mexiquenses. This is because the contents and structural characteristics of the national educational system are predominantly established at the federal level, which confirms the work of CONACYT and the Secretariat of Higher Education of the SEP, as guidelines for the evaluation of graduate programs in Mexico. In addition to this, Objective 1, point 1.1 PDSM indicates the interest of diversifying the supply of graduate programs, as well as the line of action of the progressive state, which aims 11.6 indicates that requires fostering the development of a society of knowledge. All of this confirming and collaborating with the National Development Plan.

4.2 International Context

In a study conducted by ECLAC (2014), it is evident that the situation of education in Mexico, although it has grown in recent years, is still below the average of the OECD countries in important indicators. The educational coverage in Mexico is universal in children between 5 and 14 years old. Tuition fees are like those of the OECD in pre-primary and primary as well as survival rates in primary and lower secondary, overcoming regional averages.

However, in secondary enrollment is below the regional average. In gross rate of 29% is below the average of 42% for the region and 71% for the OECD, Mexico is below the level of the OECD in the school life expectancy, approaching the regional level (13.4 years) (ECLAC, 2014). Indicators show, however, expanded the coverage of education at basic levels, but failed expanding access to secondary and higher education. As noted by Marquez & Mayer (2010). The lag in educational provision in these levels had an impact on those who lacked preparation to increase productivity and therefore get better paying jobs.

5. Study of Public Universities with Graduate Programs Similar Program Administration

To collaborate with relevant information of the Master of Administration, it is carried out a review, analysis of institutions affiliated to ANUIES with master's programs in the field of administration as well as its programs and research for identify those that have a similar offering this educational program. In this study a total of 66 programs management offered by public institutions which serve various demands in the field of management, but none of them in the field of the Administration. The master's programs were reviewed in soft engineering belonging to the national standard of quality graduate CONACYT and found that they cater mainly processes and issues related to quality, but are not oriented to management. However, the Technologic of Higher Studies from Monterrey (new creation), has a graduate of this cut, while the Autonomous University of Hidalgo, the Polytechnic University of Pachuca, the National Polytechnic Institute, the Autonomous Metropolitan University and the National Autonomous University of Mexico have already initiated the necessary actions to offer such graduate programs or implement programs that enable them to link their production of human capital and technological innovation with the productive, social sector and government. In this vein and in response to the demand for managers linking the various economic sectors for the transfer of knowledge and technological innovation are presented below to universities with similar programs Administration according the Table 5.

Table 5. Public universities with graduate programs related to management program

State	University	Prograde program
Aguascalientes	Technological Institute of Aguascalientes	Master of Science in Management
	Autonomous University of Aguascalientes	Master in administration
Baja California	Autonomous University of Baja California	Master in administration
	Technological Institute of Tijuana	Master in administration
Baja California sur	Technological Institute of Peace	Master of Science in Management
Campeche	Autonomous University of Campeche	Master of management innovation
Chihuahua	Technological Institute of Chihuahua	Master in administration

	Autonomous University of Chihuahua	Master in administration
	Technological Institute of Ciudad Cuauhtémoc	Master in administration
	Autonomous University of Ciudad Juarez	Master in administration
Coahuila	Autonomous University of Coahuila	Master in administration
	National Autonomous University of Mexico	Master in administration
Distrito Federal	National Polytechnic Institute	Master in administration
Guanajuato	University of Guanajuato	Master in administration
Guerrero	Autonomous University of Guerrero	Master in administration
Hidalgo	University Autonomous of the State of Hidalgo	Master in administration
	University of Guadalajara	Management and regional management
	University of Guadalajara	Master in administration
Jalisco	Superior Technological Institute of Puerto Vallarta	Master in administration
	Technologic of Higher Studies from Coacalco	Master in administration
	Technological Institute of Tlalnepantla	Master in administration
	Autonomous University of the State of Mexico	MBA (business, marketing, human resources, supply chain system
Estado de México	Polytechnic University of the Valley of Mexico	Master in administration
Michoacán	Michoacana University of San Nicolás de Hidalgo	Master in administration
Morelos	Technological Institute of Zacatepec	Master in administration
	Autonomous University of Nuevo Leon	Master with a concentration in (general administration or international trade
Nuevo León	Autonomous University of Nuevo Leon	Master with a concentration in (public administration or marketing or international business
	Technological Institute of Oaxaca	Master in administration
Oaxaca	Benito Juárez Autonomous University of Oaxaca	Master in administration
	Autonomous University of Puebla	Master in administration
Puebla	Technological Institute of Tehuacan	Master in administration
Querétaro	Autonomous University of Queretaro	Master in administration
San Luis Potosí	Autonomous University of San Luis Potosi	Master in administration Expertise in strategic planning and innovation
	University of the West	Master in administration
Sinaloa	Autonomous University of Sinaloa	Master of Strategic Management
	Technological Institute of Sonora	Master in administration
	Higher Technological Institute of Cajeme	Master in administration
	Technological Institute of Hermosillo	Master in administration
	University of Sonora	Master in administration
Sonora	Technological Institute of Nogales	Master of Science in Management
Tabasco	Autonomous University of Tabasco	Master in administration
Tamaulipas	Autonomous University of Tamaulipas	Master in administration
Tlaxcala	Autonomous University of Tlaxcala	Master in administration
Veracruz	Veracruzana University	Master in administration
Yucatán	Technological Institute of Merida	Master in administration

	Autonomous University of Yucatan	Master in administration
	Technological Institute of Zacatecas	Master in administration
Zacatecas	Autonomous University of Zacatecas	Master in administration

Source: (ANUIES, 2014), public universities with graduate programs related to master in management.

From this relationship, it is presented in Table 5, the National Program of Quality Prograde (NPQP) seven universities in six states of the Mexican Republic (See Table 6 and Figure 4). It is resulting in an urgent need to generate Masters with the guidance proposed in this work.

Table 6. Programs of management master recognized by National Program of Quality Prograde of CONACYT

State	University	NPQP
Aguascalientes	Autonomous University of Aguascalientes	1
Baja California	Autonomous University of Baja California	1
Chihuahua	Autonomous University of Chihuahua / Autonomous University of Ciudad Juárez	2
Ciudad de Mexico	National Polytechnic Institute	1
Hidalgo	Autonomous University of Hidalgo	1
Estado de Mexico	Autonomous university of state Mexico	1

Source: SC-CONACYT (2015), Consultations system, Programs of Management master recognized by National Program of Quality Prograde of CONACYT.

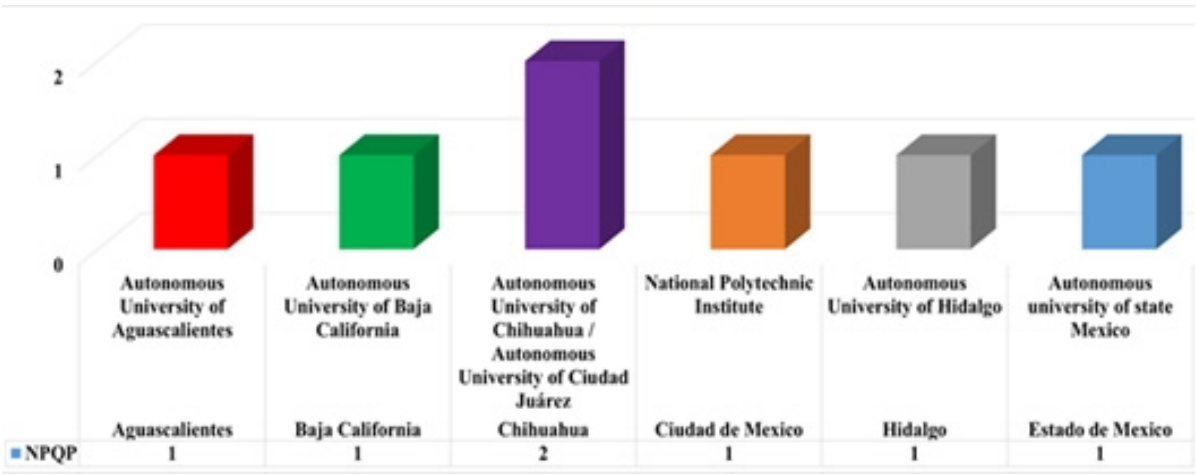

Figure 4. Programs of management master recognized by National Program of Quality Prograde of CONACYT

Source: SC-CONACYT (2015), Consultations system, Programs of Management master recognized by National Program of Quality Prograde of CONACYT.

6. The Management and Its Collaboration with the National Productive Development

Following the integration of historical, conceptual and contextual information of the administration in the national and international, poured into the above context, be must analyze, synthesize and link knowledge to align to pursuing government authorities and agencies directly involved in strengthening collaboration with the productive and development of the country. In this sense, the "Forum contributions to strengthen innovation in sectors and regions" held in April 2015, provides three of them contribute directly to this research, which are:

1) It is necessary to strengthen the link between academia and industry to generate skills and knowledge to achieve impact on competitiveness, respond to needs and opportunities.

2) Building innovative capacity in specific sectors to interconnect the relevant actors to increase the social economic value added and productive organizations in the country. Taking advantage, especially those in industries with higher economic growth to benefit from faster way of policies and investments.

3) The effective articulation between academia and productive through strategic common agenda with dual education that holistically across the main challenges and opportunities.

This means that the administration has a direct impact on the interconnection to increase economic value added actors, and very specifically the CONACYT has identified the priority demands of the country based on the National Development Plan to which it has targeted financial support to help achieve national goals.

The National Technologic of Mexico in accordance with CONACYT, oriented with the Development National Plan to guide educational programs offered by technical institutes with the four strategic sectors (see Figure 5) that were derived from this reform: these are: Aeronautics, Agribusiness, Automotive and Energy and transversely: Information Technology and Communication, environmental science and sustainability, Nanotechnology and New materials (Angulo Guerrero, 2015).

Figure 5. Strategic sectors for technological development

Source: Owner (2016) taken of Guerrero (2015).

Technological innovation in strategic sectors is a task that is driven through hard engineering and graduate studies in these areas. However, the generation of scientific knowledge aimed at strengthening strategic sectors, also involves a number of activities Administration which necessarily generates a demand for specialists in the field of management of technological innovation, according to Medellin (2015), amounts to some 48,000 knowledge workers and innovation.

7. Proposed Graduate Program in Management

In this section the result of analysis and interpretation of the collected data is captured, all collaborate in its structure and foundation. From the above results and proposed program is presented. To presented below matrix congruence where the proposal to integrate the program MBA National Program of Quality Posgrade (NPQP) is based, this conditioning, to monitor this and execution proposal, and monitoring and evolution of this program, as recommended by the CONACYT. In this matrix (see Table 7), it is positioned as a central part one of the objectives according to program administration and contributions and guidelines expressed in the conference "National Day of Innovation and Competitiveness" and Forum "contributions to strengthen innovation in sectors and regions", on "Challenges of technological convergence for regional development" and "strategic sectors for technological development" themselves which added to previous research of this paper, throw the rationale for the program in administration, this collaborate with of the objective of the Special Program of Science, Technology and Innovation (SPSTI - PECiTI).

Table 7. Matrix congruence to incorporate a master in administration in the State of Mexico

SPSTI-PECiTI objectives related to the program administration	Challenges of technological convergence for regional development	Strategic sectors for technological development	Proposed program	Lines of investigation (Proposal)
Strengthen regional development	Scientific and innovation capacities Innovation capabilities in Electronics and Information Technology Innovation capabilities in automotive sector. Innovation capabilities in biotechnology Innovation capabilities in aerospace industry Pharmaceutical innovation capacities	• Aeronautics • Energetic • Agroindustry • Automotive Transversals Information Technologies Social and environmental sciences Nanotechnology and new materials	Management	Management of Technological Innovation applied to Productive Regional Structures

Source: Owner (2016) taken of Law on Science and Technology-CONACYT, (2013) y Guerrero (2015).

On the other hand, is presented in the Table 8, the theoretical conceptualization of the research proposed.

Table 8. Conceptualization of the research line

Program	Research line	Concept
Master in Management	Management of Technological Innovation applied to Production Regional Structures	**Management.** Search through people (as institutional directors, managers, producers, consultants and experts) to improve productivity and thus the competitiveness of enterprises. Optimal management does not seek only to make things better, the most important thing is to do things better and in that sense, it is necessary to identify the factors that influence the success of management (León, 2007) **Technological innovation.** The first application of science and technology in a new direction, followed by a commercial success (OECD, 1971), transformation of an idea into a salable product or new or improved equipment; in an operating process in industry or trade, or a new methodology for social organization (Medisan, 2000) **Regional Productive structures.** They are those branches or companies closely related, that produce a good or service within the borders of a region that surpasses the needs of local consumption, in addition to those branches or sectors it maintains relations with public or private institutions, these involved in some phase of product development or provision of services, and whose activity affects results related sectors (Semitiel & Noguera, 2004) (Bravo, 1977)

Source: Owner (2016).

The preved results in the proposal postgraduate are the next:

- Collaborate with specialized demand in the productive sector human resources
- Management link between companies
- It seeks to improve the productivity and competitiveness of enterprises
- Develop and promote sustainable management, through the Information Technologies

- Collaborate with research investigations
- Publication of articles and books, derived from scientific research projects and technological
- Transfer of knowledge and contribution to regional development
- Business Incubation
- Incorporated employment sectors in both academic and professional
- To promote leadership by graduates and their contribution to social development
- Participation in academic and professional societies
- Participation in networks of knowledge and training of qualified human resources in non-academic environments

8. Conclusion

The link between the business sector of Small and Medium Enterprises with the education sector are a way to stimulate the economy of regions, however, it is necessary that studies the context be made to create strategies between the two sectors and can generate a virtuous circle in which wealth is generated and this is distributed between society, business, educational and governmental sector. This is done through a process of identifying the needs of the business sector, and through these skilled, generate innovation in production processes of the companies, and achieve collaborate with its development, growth and permanence. As shown in the statistics according the INEGI (2014) the MSME includes over 90% of the total number of companies in Mexico, which represents a potential for economic growth, however, until now they have not generated strategies to increase their participation in the economics of the country, which means that the education sector is in a situation of opportunity as it can generate proposals that contribute to the growth and permanence of this sector.

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