

University Consulting Program and its impact on the development of the MSMEs of the Region Valles of the State of Jalisco: case CUValles

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Abstract

The third substantive function of the universities (Linkage and Extension Programs) increasingly enhance its importance in the development of all its substantive functions, highlighting the application of the model of the Triple Helix (University - Industry - Government) with the development of programs of effective links between these actors in society. Such a link is considered an axis articulator in the professional training of students, having the opportunity to apply knowledge and skills acquired in their academic formation. The aim of this article is to expose the results of the University Consulting Program that takes place at the Los Valles University Center, of the University of Guadalajara, since 2006, through the analysis of the results obtained in MSMEs served in the Region Valles of the State of Jalisco, using the methodology of the Institute for the Development and the Innovation of Technology in the Small

and Medium Enterprise (IDITpyme), in order to increase their competitiveness. The methodology applied is non-experimental design with a descriptive analysis of the Data Base of the Programme. The main findings obtained from the analysis are strengthening and the improvements that manage to implement MSMEs served in the Programme, in the areas of administration, costs, implementation of technologies, marketing, human resources, among others.

Key words: higher education and research centres, behavior of the company, companies, objectives, organization and behavior of the company, company's performance.

EL PROGRAMA DE CONSULTORÍAS UNIVERSITARIAS Y SU IMPACTO EN EL DESARROLLO DE LAS MiPYMEs DE LA REGIÓN VALLES DEL ESTADO DE JALISCO: CASO CUVALLES

Resumen

La tercera función sustantiva de las Universidades (vinculación-extensión) realiza cada vez más su importancia en el desarrollo de todas las funciones sustantivas en las mismas, destacando la aplicación del Modelo de la Triple Hélice (Universidad-Empresa-Gobierno) con el desarrollo de programas de vinculación efectiva entre estos actores de la sociedad. Dicha vinculación se considera un eje articulador en la formación profesional de los estudiantes, al tener la oportunidad de aplicar los conocimientos y habilidades adquiridas en su formación académica. El objetivo de este artículo es exponer los resultados del Programa de Consultorías Universitarias que se lleva a cabo en el Centro Universitario de los Valles, de la Universidad de Guadalajara, desde el año 2006, mediante el análisis de los resultados obtenidos en las MiPYMEs atendidas en la región de los Valles del Estado de Jalisco, mediante la metodología del Instituto para el Desarrollo y la Innovación de la Tecnología en la Pequeña y Mediana Empresa (IDITpyme), con la finalidad de incrementar su competitividad. La metodología aplicada es de carácter no experimental con un diseño descriptivo del análisis de la Base de Datos del Programa. Los principales hallazgos obtenidos del análisis son el fortalecimiento y las mejoras que logran implementar las MiPYMEs atendidas en el Programa, en las áreas de Administración, Costos, Implementación de Tecnologías, Mercadotecnia, Recursos Humanos, entre otras.

Palabras clave: centros de enseñanza superior y de investigación, comportamiento de la empresa, empresas, objetivos, organización y comportamiento de la empresa, rendimiento de la empresa.

Introduction

The predominance of the knowledge in the field of production has led to the relationship of the Higher Education Institutions (HEI) with society to change, so have implemented several industrialized countries in which, based on a growing conviction of the importance of the link between Higher education and the productive sector, an approach is given with successful results, which means a challenge, but at the same time, an opportunity for educational institutions strengthen their social relevance, as mentioned by Lic. Lourdes Ruiz, general director of the Higher Education Foundation - Industry (Brunet *et alii* 2012).

Brunet *et alii* (2012) mentioned by referring to other authors, the Universities of México living today difficult transitions. Demographic and social pressures, the political requirements, budget anxieties, cultural and educational changes, and in particular, the challenges of the national and international economy, overwhelm them and face them to difficult decisions. Universities are required to have good quality, forced to modernize, to be efficient, to prepare pictures which requires the market to develop an entrepreneurial culture, to innovate in their teaching methods and its management processes, to be assessed and credited on solid foundations, also they have had “the information and knowledge society” offered as the required paradigm for the future. In fact, if knowledge is the hub of globalized economies, corresponds to the education systems and Universities in particular, generate, provide and distribute this indispensable knowledge (Latapí, 2007). Higher Education has become a large company or business tool. Is expected that university institutions become companies 24/7 with the aim that are maintained by their own means (Keane, 2008). In addition, with respect to the Industry-related careers and the business world, the University became during the 20th century into a source of administrators who covered managerial posts and operating companies, implementing the teachings they received over the years who were in academic classrooms.

We note that to the extent of its possibilities and particular environment, the HEI have taken their educational responsibility adapting more and more to the particular dynamics that Globalization has generated around the world, stressing the need to engage actively and be a social actor which create conditions to allow development in the environment where it is located. In the case of this article, we expose the situation of the University Consulting Program of Los Valles University Center (CUValles) of the University of Guadalajara (UdeG) which is carried out since 2006 and takes care of the Micro, Small, and Medium Enterprises (MSMEs) of the the Region Valles of the State of Jalisco, México.

This program comes in the year 2006, from the Laboratory Analysis and Organizational Consultancy, as a program to strengthen the linkage of the University with the society, according to businessmen in the region to strengthen their businesses by applying a particular methodology in order to make them more competitive.

To analyze the information relating to the aforementioned Programme use as theoretical framework the institutional theory of Douglas North and the Triple Helix Model developed by various authors (Clark, 2004; Etzkowitz, 1998; González, 2009; among others).

The methodology applied is non-experimental design with a descriptive analysis of the Data Base of the Programme. The main findings obtained from the analysis are strengthening and the improvements that manage to implement the MSMEs served in the Programme, in the areas of Management, Costs, Implementation of Technologies, Marketing, Human Resources, among others.

Theoretical framework

Just for reference in this article, we show in Table 1 the three University models coexisting in practice.

Table 1. University Models.

Traditional University	Entrepreneurial University	Relational University
Teaching	Teaching articulated to entrepreneurship-oriented skills	Teaching articulated to competences, sense of initiative and entrepreneurship-oriented
Non-oriented research	Market-oriented research (Enterprises)	Knowledge oriented to the economic, social, cultural and regional context of implementation
University Management (hierarchical, bureaucratic and partitioned)	University Management (hierarchical, bureaucratic and instrumentalized by the business management)	Governance: horizontal and network management (social knowledge management: joint resources, individuals, organizations and local and global agendas of knowledge)
Evaluation with endogenous criteria to the Academy	Evaluation with endogenous and value for money-oriented criteria	Relational quality: process integrated multilevel (individuals, groups, and networks), Multicriteria (quality, connectivity and social relevance) and multiagent (academic peers, users and social pairs)
University Extension	Promotion of the University-Industry relationship	Building heterogeneous networks of knowledge and learning

Source: Castro *et alii* 2011.

We underline the importance of the promotion of relationship University - Industry in the so-called entrepreneurial University as a substantial part of the substantive function of the University extension.

Madrigal and Santamaría (2015), mentioned that one of the most common aspects to the study of Entrepreneurial Universities is the influence of the environmental factors, in this case as a reference, we rely on the institutional economic theory of North (1990). The main function of the institutions in society is to reduce the uncertainty, establishing a stable structure (not necessarily efficient) of human interaction (North, 1993, pg. 16). This says that the institutions can be formal, i.e., the written rules and laws, regulations and procedures, governmental and informal, that are not written, as the beliefs, ideas, and attitudes, standards therefore the effect of both institutions should be taken into account, since it can affect or influence the functioning of an Entrepreneurial University.

According to Guerrero *et alii* (2006) the formal and informal factors can be divided in the following way:

- ✦ Formal factors
 - Public policies.
 - The creation of businesses from Start-ups and Spin-offs models in collaboration with universities.
 - Entrepreneurship Education Programmes.
 - Organizational structure: liaison offices (Patent, licensing, strategic alliances, contracts, transfer of technology and know-how).
 - University Governance and organizational structure, diversified funds (public support mechanisms and incentive structures).
- ✦ Informal factors
 - Attitudes and perceptions on the entrepreneurship of students (factors of personality, family role, etc.).
 - Attitudes and perceptions of entrepreneurship professors / researchers (category of teacher, age, personality, experience).
 - Culture.

For the particular case of University Consulting Program, as formal factor noted that it is an entrepreneurial education program and is part of an organizational structure within CUValles; as informal factors we look at the attitudes and perceptions of entrepreneurship by Junior Consultants (students), Consultants (professors or professionals), employers and employees, as well as culture.

In accordance with Storper (1995), the learning process focused on continuous innovation and the knowledge economy, aims to sustain competitive advantages, by deploying a spatial logic that links to crowds based on the development of dynamics that occur and provided through business or entrepreneurial capital, that becomes a key mechanism for innovation, and hence for the economic development and competitiveness of a locality or region (Audretsch, 1995; Audretsch and Callejón, 2007; Acs *et alii*, 2005, 2006).

Methodology

Listed below is the methodology used in the present study of the elements of the entrepreneurial ecosystem of the Region of West Area Center of Mexico, resulting from the University Consulting Program of Los Valles University Center (CUValles) of the University of Guadalajara, in Ameca, Jalisco, through the analysis of information result of diagnosis applied to a number of companies and their respective representatives, owners or managers.

For this purpose, as already mentioned, it is timely to examine and dispose of a series of interviews and questionnaires, formats and diagnoses, in other words, multiple instances, depending on the results obtained from the analysis of each of the elements included in the Data Base of the University Consulting Program of CUValles, in which are collected each experiences expressed here, with its own characteristics for each of the business and participant companies. So it was convenient to analyze a number of elements by which, regardless of the results obtained for each of them, is more appropriate to the implementation of the study of multiple instances with respect to a likely implementation of the unique case design, since the manifold is more appropriate, since there are a number of different cases that allow to strengthen the result (Yin, 1984). It allows, to a large extent, obtain different results or where appropriate, similar results, are one or the other, eventually get a literal replication or a theoretical replication.

In this section, information is consulted results a Database that brings the total number of enterprises and businesses which were interviewed by two separate surveys and the respective diagnoses resulting from each of the interventions through the University Consulting Program, in order to meet the need of economic indicators of quality and by the Programme were carried out. Such information was appropriately consulted, containing the results of each of the companies, a total of 152, diagnoses that are located in 9 communes of the Region Valles of the State of Jalisco, México. The aforementioned interventions were carried out during the period between 2006 and 2016, such interactions involved around 520 students belonging to 9 programs of studies of the CUValles.

In each one of the companies were reported more than 1000 persons trained in the generation and training of management skills, among other techniques shared in various workshops and events.

If we consider the number of elements that are contained in this document, it is appropriate to consider each of the available elements and thereby apply the methodology of multiple instances (Yin, 1984), having 152 different experiences.

This research is a descriptive analysis of the Database of the University Consulting Program, having the following indicators:

Table 2. Participant Companies 2006-2016.

Year	Companies	Services	Commercial	Industrial	Agro-industrial
2006	10	3	5	2	
2007	5	2	2	1	
2008	15	8	5	2	
2009	12	7	3	2	
2010	10	3	5	2	
2011	26	12	10	2	2
2012	20	6	9	5	
2013	10	2	5	3	
2014	20	3	11	6	
2015	19	4	8	6	1
2016	8	3	2	2	1
Total	155	53	65	33	4

Source: CReCE 2017.

- Municipalities of the Region Valles of the State of Jalisco program participating in the program through its companies: Ameca, Ahualulco de Mercado, Cocula, Etzatlán, San Martín de Hidalgo, Tala, Teuchitlán, San Marcos, Arenal.
- 520 students from the CUValles participating in the Programme as Junior Consultants. Educational Programmes: Administration, Accounting, Agribusiness, Law, Information Systems, Mechatronics, Psychology, Social Work and Tourism.
- More than 1,000 trained people in the Management Skills Training Program.

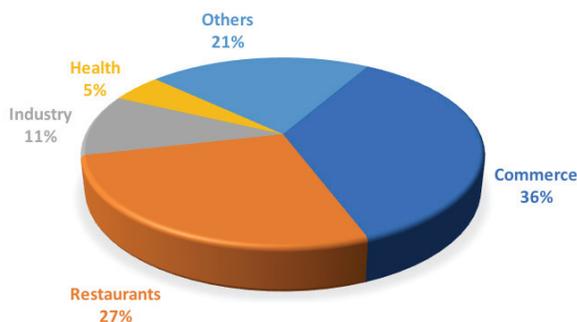
Development

The University Consulting Program of Los Valles University Center of the University of Guadalajara since its inception it sought to incorporate a series of experiences, theories, techniques and application of tools which was conceived (by the employers) the need to prepare, educate and reconcile plans and achievements that ,to the extent possible, each one of those who participated, participate and that at a given moment are going to participate in the Programme, benefit to increase your sales, increase your production capacity or offer services and gradually, apart from a minimal investment, can reveal that indeed the fact of having participated allowed them to observe encouraging results in their respective companies.

On the other hand, an essential part of the Programme is, without a doubt, the participation of students, which, in a stage of several comprising the programme allows them to see first hand the existing methodological tools, as well as of previous experiences, both already implemented Consulting and a Senior Consultant guidance, who takes them by the hand in order to know and witness each step to intervene one or several companies in order to encourage changes or adjustments, to increase profits, production or the range of products and services that a company takes into account based on that diagnosis at the time known only the interested party, who determines to incorporate them or not in their daily work.

Whereas the above, for the authorities of Los Valles University Center of the University of Guadalajara, located in the Municipality of Ameca, Jalisco, It turned out to be highly appropriate to document each and every one of the experiences that had been conducted in a given period, it was decided to collect each of the interventions, therefore, with the aim of having effectively and efficiently the total information of what hitherto had occurred, with the effort of students assigned to the Social Service Programme of the Center for Entrepreneurship and Incubation of Los Valles University Center, that until then served as administrator and collector of the efforts here exposed, it is possible to express what is presented as summary below. With the aim of presenting the main ideas and information existing of the University Consulting Program.

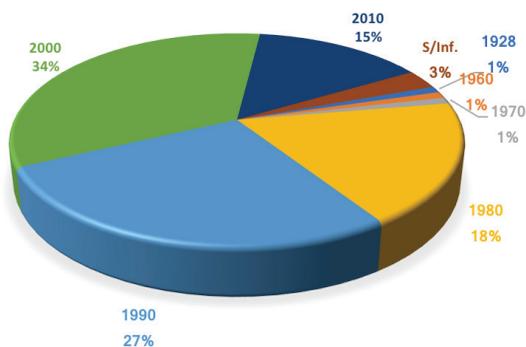
Figure 1. Industry Group of the Participant Companies.



Source: Authors.

The highest percentage of applied Consulting was in the sector dedicated to Commerce, with 36% of the interventions, followed by activities of the Restaurateur Industry and related services, with more than 27%. The item that stands out for the number of implemented consultancies in the municipalities that were visited by the Junior and Senior Consultant (a Professor of proven ability and with sufficient experience), was the one related to Manufacturing, with 11%. Finally, with fewer mentions include those companies or Industries dedicated to the Health Care Sector and many others with minimal mentions.

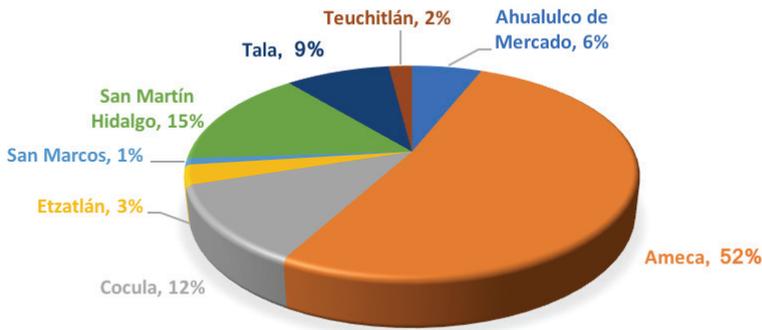
Figure 2. Year of foundation.



Source: Authors.

It turned out extremely timely to consider the number of years from the beginning of operations, in other words, the number of years since its foundation. Any company stands out by the number of years that remains in operation, and the quality and loyalty of its customers and services. A company is highlighted, founded in 1928, so it is very important to know the facts, evidence and determine the way in which this company advises as promoter of jobs. Two companies were founded in the Decade of the '60s and one of them in the '70s. In the '80s were founded 19, a decade after a total of 28, and in 2000 started operations a total of 35 companies. Finally, since 2010 and until the end of the consultations, a total of 15 companies that began operations, there is no information of 3 of them, the reason why is not reported the year of its Foundation is unknown or if omitted by the interviewee.

Figure 3. Consulting by municipality.

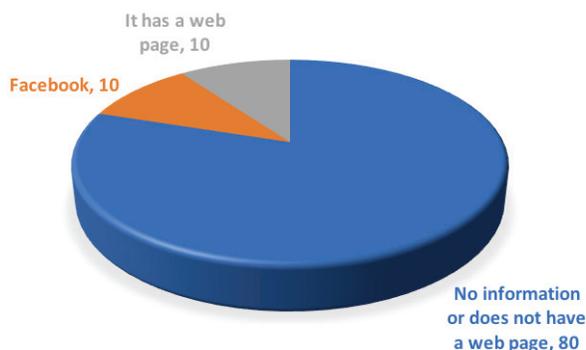


Source: Authors.

The University Consulting Program of Los Valles University Center of the University of Guadalajara is an enhancer agent of change in all and each one of the Participant Companies. The above graphic shows that due to the proximity to the CUValles the largest number of consultancies correspond to the municipality of Ameca with more than half, happened the same with the municipalities of San Martín Hidalgo, Cocula and Tala, near the facilities of the University. However, it is important to note that regardless of the linear distance between the company and the University, interventions responded to the need that they observed the Junior and Senior Consultant, the distance is not an appropriate indicator, nor that existed in the companies interest in particular of be intervened. However it should be noted that in practice, for municipalities with fewer exercises as

Etzatlán, San Marcos and Teuchitlán, some Junior Consultants were the ones that enhanced the intervention due to the proximity between them and the respective companies, it is to be expected that some of the consultants considered it appropriate to intervene companies by proximity to their home, avoiding incurring costs for transport and food.

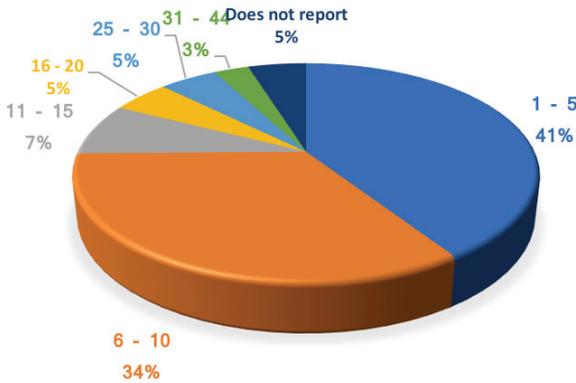
Figure 4. Companies with web pages.



Source: Authors.

One of the main documentary evidence was the large percentage of companies that lack of media and advertising, do not have enough information to decide to use the goods or services that exist in the market. It is appropriate to point out that it is possible to advertise the products or services offered without incurring expenses, it is question of which all existing social networks should be considered. Unfortunately the majority of companies does not have plans of advertising, marketing or intensive use of social networks, regardless of the nature of the company, only 10% of the companies incorporated to provide information of their products and services through web pages expressly contracted in order to access a greater number of potential customers. At the same time, another 10% of firms reported using an account on Facebook to maintain a direct link with the customer. Unfortunately, almost 80% of enterprises did not have any means of those already described. Social networks as a means of information offer broad coverage at a low cost and are highly efficient.

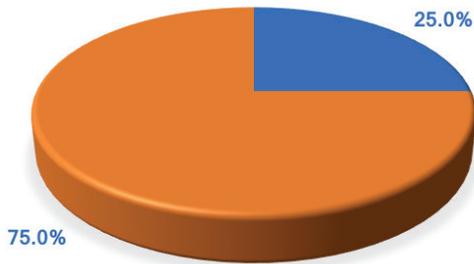
Figure 5. Number of employees by company.



Source: Authors.

Nearly 75 percent of companies have at least 10 employees (40.8% 1 to 5 employees; 34% 6 to 10 employees). The majority of companies or businesses of the Region Valles are classified as MSMEs, Small Businesses with a certain number of employees, usually less than 10 members. More than 10% reported a workforce over 16 employees and less than 45. It was not possible to consider companies with a higher number. It was not possible to intervene some companies because of the cost that this should cover. Understanding the above as an effort tripartite: the first part was an investment by the main applicant and why not say, the main beneficiary, the company; the second part was provided by government authorities, in this case the business incubation fund to (FOJAL by its name in Spanish) of the Government of the State of Jalisco; finally the effort carried out by the Junior Consultants of Los Valles University Center. Notwithstanding the foregoing, some of the companies or businesses by omission or ignorance did not allow the participation of their companies. Which allows to conclude that regardless of the size of the enterprise and the number of elements that make it up, the resources they need or can invest are more determinants. Finally, the greater enterprise, it was more difficult to convince managers to agree to a probable intervention Programme.

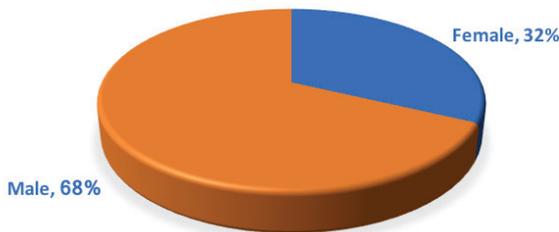
Figure 6. Labour Force.



Source: Authors.

Regardless of the size of the company and its number of employees, nearly $\frac{3}{4}$ parts are operators, employees, workers or workers in general and the remaining 25% on average respond to middle management, leaders, entrepreneurs, owners or decision makers.

Figure 7. Gender of entrepreneurs or representatives.



Source: Authors.

There are 3 women for every 7 men as founders or representatives of the companies.

Only 17% of those polled responded to the question related to their age. Only the ranges of age with the largest number of mentions are listed: 4 people at the age between 31 to 35 year range; 3 people ranges between 41 and 45, and the range between 51 and 55; 2 mentions to the following three ranges between 36 to 40, between 45 and 50, and two entrepreneurs with 25; 1 person said to be between 56 and 60; 1 other person said to be more than 70.

Another indicator is the level of studies of each Company Representative: level elementary 1 person, secondary 6 level people, high school level or equivalent 8 people, Bachelor or engineering level 24 people, graduate or diploma 1 person, 2 people credited the doctoral degree, a total of 61 people have no degree or in their case, they decided to not express their academic degree.

Previous experience indicator says that the average years of experience you had at the time of initiating operations in their respective businesses was 20 years, the greatest number of years said was 1 with 40 years experience and the largest number of mentions the years ranged between 25 to 35 years of experience.

Short-term objectives most often mentioned:

- ✦ Increase sales and clientele, and to publicize their services.
- ✦ Expand the business or opening new branches.
- ✦ Improve the company image.
- ✦ Find new investments and marketing.
- ✦ Develop Patents.
- ✦ Reengineering and improve efficiency in the Organization.
- ✦ Search for self-sufficiency and restructuring.
- ✦ Improving leadership.
- ✦ Training and consolidation of Workforce in Place.
- ✦ Improve the quality and customer satisfaction.

The Patent or Copyright indicator says that 29 people or companies have own brand, either by the name that was registered by the company or any product in particular that with the respective registry, instead, a total of 74 people do not.

Indicator offers express if they had considered in his daily economic activity or considered the offers or promotions, more than 70% said no.

Most mentioned strengths of their respective companies or businesses:

- ✦ Our company is 100% family.
- ✦ The experience of having only one owner or decision maker.
- ✦ The strategic location of the company.
- ✦ The communication inside the company is optimal.

Most mentioned threats in the daily work of their respective companies:

- ✦ Unfair competition in place.
- ✦ Absence of investments, crisis economic, lack of Government support for economic activity in particular.

- ✦ Lack of knowledge of the activity or poor decision making.
- ✦ Workforce in Place outside the mission and vision of the company.

Employers mentioned as threats to new competitors, the likely emergence and/or consolidation of new markets or business capacity transfer to other municipalities and cities, the absence of liability on employees. The most prominent threat was the presence of competitor with better organization and solidity. Even some commented and agreed to have a not so beneficial organizational climate for your organization and found threatening that it might be transmitted to the customer. Some of those polled expressed the long dwell time of the authorities or owners, in a nutshell, the person who takes the decisions has been for many years, what provoked that innovations or incorporation of new tools or techniques is not filed in the development of the activity, conversely, the constant modification of persons who direct or rule the roost in certain company has produced that miss out on the direction of the company.

As for the section on the corporate culture that has to do with the threats as entrepreneurs face, we present only the most mentioned:

- ✦ The entrance of new competitors or unfair competition in the same municipality.
- ✦ New competitors are better organized, they feature solidity with consumers and lower prices.
- ✦ Not having discounts on invoices from its suppliers.
- ✦ Leakage of responsibilities in the activities of employees.
- ✦ Staff do not feel part of the company and there is better organizational environment in competition (other companies).
- ✦ There is no evidence of evolution in the company, the above shows that competition is suited best.

On the other hand, considering the weaknesses that the interviewees stated, the following were emphasized:

- ✦ No involvement by employees to their daily activities.
- ✦ The existing limitations in order to assimilate new elements in the company or business.
- ✦ There is no interest in incorporating or receive financial support from any company or person outside the business.
- ✦ Absence of capital, which prevents the opening of new branches and business expanding.

- ✦ Demotivation by partners or employees by not showing any return of capital in the short term.
- ✦ No existence of objectives in the short term, or not having them reflected. In some companies there is no vision or mission.
- ✦ Decision making is centered in the owner.
- ✦ Technological backwardness.

Below we list the most mentioned opportunities:

- ✦ Increase the supply of goods or services to customers, or improve and provide better service in general.
- ✦ Incorporate a vision and a mission to its standards of quality as a company.
- ✦ Optimize the Organization and be attractive to customers.

Finally, the recommendations are an essential part of the feedback that allow consultants:

- ✦ Labor, business and decision-making training.
- ✦ Reengineering, in order to optimize the resources and experiences in the enterprise or under its responsibility.
- ✦ Incorporating short-term media control for more information about activities inside the company, either with employees or with the economic activity that takes place every day.
- ✦ Train and motivate employees.
- ✦ Invest in advertising and media in order to socialize the activity they perform.
- ✦ Search for credits or investments that allow them to expand.
- ✦ Expansion and renovation of its companies.

Conclusions

The main motivation of University Consulting Program is to raise awareness among all entrepreneurs and intervened in the Region Valles business, through the analysis, interpretation and diagnosis, to determine which parts of the wide range of tools and solutions, it would be appropriate to incorporate into their daily work in order to increase their sales and optimize existing resources.

Most of the businessmen in the Region Valles considered does not have a timely business culture. More than 50% is engaged in activities related to the services sector, sales of food and trade in general, only 10% is engaged in activities directly related to the industry.

As to the permanence of the business over time, the consulted information shows that there are few companies that have remained within the market, Although the bulk of the companies, on average, have more than 15 years of existence. On the other hand, by the closeness of intervened business and due to the greater number of students interested in joining the activities that take place inside the University Consulting Program, it is remarkable that more than half of the companies are located in Ameca, Jalisco.

One of the indicators that showed less intention to be used is that of social networks, the majority of companies interviewed expressed zero interest, Maybe because most of the businesses are family administration features. On the one hand, they don't use it for business purposes and on the other hand, assume that it will consume more resources.

In most businesses and enterprises a constant was no intention by the Workforce in Place to feel part of the company. In some cases this prevented the company took off. On the one hand void participation by employees and on the other, the inexperience to solve conflicts and situations that were presented by the employer or owner.

In the majority of businesses and companies, regardless is its characteristics, a greater percentage of decisions decision-making persons are male. The above only shows as a result of the information available, without being a situation that allows to draw conclusions.

Short term objectives mentioned, regardless of the size of the company, including increasing sales and clientele, enhance the image, look for investment or expand. We found a lack of preparation for an efficient and timely management in most of the businesses included in this sample. The consultants issued recommendations so that they join workshops and/or receive timely preparation for the best performance of their Workforce in Place. All broadly, with the basic objective of increasing your sales, increase your income, but above all, to meet the needs of its customers and offer good quality and service.

Most of those interviewed agreed to write down their strengths, being the most mentioned permanence due to being a family business, in which the passage of the years continues to work the same way and it objects to incorporate new techniques or tools in order to give a new image or offer new and better products to its clientele.

Employers agreed that quiet remain before the incursion of new companies and competitors. Lacking experience and innovative knowledge they are exposed to threats posed by new entrepreneurs, with more capital and better trained personnel.

On the one hand it is essential that entrepreneurs of the Region Valles incorporate tools, techniques, and experiences that will enable them to enhance their skills, their knowledge and of course its indicators of productivity, efficiency and quality on the basis of economic activity they perform, which will allow to increase sales, expand their range of opportunities as well as the products and services offered, on the other hand, they may also keep employees trained, with a more encouraging business scenario and a greater and better sense of belonging to their sources of employment.

Therefore, it is convenient to convince these entrepreneurs and anyone else who does not have information related to the topic of the advantages that involves investing in University Consulting and the importance of attending training and socialization workshops of various tools and techniques that allow to increase the opportunities for their respective businesses and companies in the Region Valles and everywhere else.

Limitations

Since all research work denotes limitations, in our case also there since we only analyze the case of the University Consulting Program of Los Valles University Center of the University of Guadalajara.

As a future line of research approach, comes the option of performing a particular analysis of each University Consulting Program at State of Jalisco level, to later perform a comparative analysis of the results of the various programmes that operate in the State.

Bibliography

- ACS, Z.; P. ARENIUS, M. HAY y M. MINNITI (2005). *Global Entrepreneurship Monitor. Executive Report 2004*, Babson Park, Babson College and London Business School.
- ACS, Z.; D. AUDRETSCH; P. BRAUNERHJELM y B. CARLSSON (2006). "Growth and entrepreneurship: An empirical assessment", *Centre for Economic Policy Research Discussion Paper*, 5409: 1-32.
- AUDRETSCH, D. y M. CALLEJÓN (2007). "La política actual: conocimiento e innovación empresarial", en *Economía Industrial*, 363: 33-47.
- AUDRETSCH, D. (1995). *Innovation and Industry Evolution*, Cambridge, mit Press.
- BRUNET, I.; SANTAMARIA, C. y CALDERÓN, E. (2012). *La vinculación en el sistema de educación superior de México*. Fundación Educación Superior Empresa-ANUIES, México.
- CASTRO, J.; BARRENECHEA, J. & IBARRA, A. (2011) Cultura emprendedora, innovación y competencias en la educación superior. El caso del Programa GAZE. *ARBOR, Pensamiento y cultura*. Vol. 187 – Extra 3 – diciembre 207-212.
- CLARK, B.R. (2004). *Sustaining Change in Universities*, Society for Research into Higher Education, Londres, Open University Press.
- ETZKOWITZ, H. (1998). "The norms of entrepreneurial science: cognitive effects of the new university-industry linkages", en *Research Policy*, 27: 823-833.
- GONZÁLEZ DE LA FE, T. (2009), "El modelo de Triple Hélice de relaciones universidad, industria y gobierno: un análisis crítico", en *Revista arbor*, vol. 185, núm. 738.
- GUERRERO, M.; KIRBY, D. & URBANO, D. (2006). *A Literature Review on Entrepreneurial Universities: an Institutional Approach*. Document de Treball núm. 06/8.
- KEANE, J. (2008). *La sociedad civil global y el gobierno del mundo*, Barcelona, Editorial Hacer.
- LATAPÍ, P. (2007), Conferencia magistral al recibir el doctorado Honoris Causa de la Universidad Autónoma Metropolitana, en *Perfiles educativos*, vol. xxix, núm. 115: 113-122.
- MADRIGAL, B. & SANTAMARIA, C. (2015) "Universidad emprendedora, factores formales e informales: discusión teórica". En MADRIGAL, B. (Coord) *Cuatro ejes para conformar una cultura emprendedora*. Prometeo editores.
- NORTH, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge: University Press.

NORTH, D. C. (1993). *Instituciones, Cambio Institucional y Desempeño Económico*. México: Fondo de Cultura Económica.

STORPER, M. (1995). "The resurgence of regional economies, ten years later: The regions as nexus of untraded interdependencies", en *European Urban Regional Studies*, 2: 191-221.