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Social responsibility: a challenge for university management

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Abstract

University social responsibility intends to create a newcriterion/paradigm for environmental protection management. It seeks to be recognized from an international perspective and oriented towards problem solving in different areas of the social setting where various interest groups related to Higher Education Institutions become involved in the care of natural resources mainly in their area of influence. We present a model proposal for a socially responsible university for the University Center of Economic and Administrative Sciences of the University of Guadalajara, which calls for the participation of the different branches of the Institution in order to achieve the protection of the environment, as well as continuous improvement stemming from bringing awareness, commitment, self-assessment, proposal implementation, training, follow-through and communication. The implementation of the proposal seeks to foster social, environmental and economic development. Therefore, it aims to analyze areas and aspects in need of improvement, in order to reach an appropriate synergetic course of action for the protection of the immediate environment within the campus, various housing areas of the university community or other surrounding areas that require it, starting from the plan design adequacy and social participation.

University Social Responsibility, Transparency, Accountability, Sustainable Development, Training, Continued Improvement

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Introduction

The interest to develop a model in the subject of university social responsibility, is associated with the need for a continuous progress that allows within the different areas of the university campus to consider advances in the social, environmental and economic field. As a result, the aim is to analyze areas and aspects susceptible to improvement, in order to achieve an adequate exercise of synergies for the protection of the university campus environment and various housing areas of the university community or other surrounding areas that require it, based on the adequacy of plans and social participation through applied research.

We consider that this type of proposal plays an important role in education, daily life and business, since they channel actions aimed at perfecting each day's work and allow to reach higher standards for human and sustainable development, with support in the socio, economic-environmental dimensions.

In the specific case of the University of Guadalajara, priority is given to the planning of adequate strategies to achieve university, life and social improvement, as part of the academic training of all those involved in order to achieve an awareness with an ethical, reflective and growing vision for the environmental care, health and well-being that make possible the transparency and accountability of such actions in order to extend the resulting university behavior.

In this context, based on the mission of CUCEA, it is possible to influence the actions that by nature train the stakeholders involved with a strong social commitment that meets the educational, scientific and technological research, extension and dissemination needs in the area of economic-administrative sciences, in local, regional and national sustainable development; with quality, guided by principles of social solidarity, respect for human dignity, care for the environment and citizen co-responsibility (POA, 2012).

From the vision of the University Center, this training also tends to generate entrepreneurs and researchers with leadership and innovation, capable of identifying, producing, transforming, disseminating and using the information they create and applying knowledge that contributes to the solution of administrative and economic problems to achieve human development, the environmental, economic, and social sustainability and well-being of the population of Jalisco and Mexico (POA, 2012).

As such, the CUCEA from its values (Honesty, Responsibility, Respect, Tolerance, Transparency and Solidarity) (POA, 2012), also has the ability to transform with a solid policy, important changes that through this proposal are consolidated and respect to establish themselves as goals, which in the same way the CUCEA promotes as part of the university strategies, among others that are seen to be necessary and pertinent (PDI, 2012). However, in practice this entails various difficulties, particularly a marked lack of knowledge and lack of interest in the care and preservation of natural resources as well as adopting behaviors or measures of continuous improvement inside and outside the educational establishment, with an urgent need for create and adopt an appropriate model of social responsibility that involves the staff, students and interest groups of CUCEA through actions preferably in a voluntary and progressive manner in order to encourage more sustainable ways of being and acting.

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University social responsibility seeks to develop knowledge, work and act to care for and preserve the sustainable environmental environment and immediately avoid damage and achieve benefits within the university community, motivate university social responsibility to become aware of institutional problems, but also community to achieve to establish the continuous improvement and quality of the environment of all the university students and their families.

A proposal of this nature is justifiable in itself, while the quality of higher education must be a priority in all areas and the idea of reaching higher, more competitive standards that exceed its own limits over time. The spirit of the implementation of a model of university social responsibility in the CUCEA, which responds to the needs of the university community, the State of Jalisco and the country, with institutional strategies and environmental proposals with the support of accreditations and certifications that allow the Center to achieve said quality for the welfare of all.

Methodology

The work is based on an intelligent sustainable development initiative initiated by some academics from CUCEA[1], as well as the information derived from The global green forum, organized by the Regional Chamber of the Transformation Industry of Jalisco (CAREINTRA), particularly the conference "Sustainable university centers, case CUCEA" where the problem of this university space was highlighted.

With a population of approximately 18,000 university students, to which more than 12,000 will be added from the University Center for Social Sciences and Humanities (CUCSH); and with this, the consumption of energy and water increases, generating about nine tons of waste per day, considering the surroundings.

Figure 1 Location of CUCEA and its area of influence

Source: Google maps.

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Our proposal also draws on various actions implemented in recent years, including reforestation activities, which allows to have one thousand 20 trees, separation of waste, generation of compost, reduce the use of unicel, have absorption wells (seven to consider about 14), make rational use of water, take advantage of rainwater to take it to the cistern, implement panels to capture solar energy, create green roofs, make the university campus a space free of cigarette smoke, tell with a new restaurant that offers organic food, generate organic vegetables and legumes, raise awareness among the university community, with training and the initiative of ecological Saturdays, as well as establish agreements to reduce pollution.

[1] In this initiative, the contribution of Dr. Roberto Jiménez Vargas and biologist Martín Martínez Olvera has been remarkable.

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It is desired to conduct a field investigation from a survey to the university community on and off campus to begin to implement a basic model of social responsibility. In the same way, a mixed descriptive documentary research based on the General Theory of Systems;[2] will be carried out; it will be qualitative with regard to the approaches taken from the specialized bibliography, the normative dispositions and those obtained from the members of the university community consulted; It will be of a quantitative nature from the resources, means available and the results observed, as well as the findings that can be achieved with the implementation of the proposal or models that are established and developed with the new policies, the positioning and the conditions implemented. Among the sources of consultation, it is relevant the analysis of legislation, authors' documents, some documentaries, films, videos, the Internet, Non-Governmental Organizations, societies and associations, researchers, collaborative networks for environmental protection, as well as articles related to the URS to achieve its execution, exhorting to the normative update, the development, strengthening and supervision of an environmental certification through the design and realization of an environmental management plan through a strategic plan for the improvement of the CUCEA.

Work will be done with environmental, social, economic and organizational development indicators since it will begin with the addition of university groups with the undertaking of a society or civil association that concentrates from the inside out the same proposal to extend it to companies in the immediate environment and also of national scope.

It also involves the implementation of workshops for training and personal, social, environmental development, without neglecting the economic to have greater scope with which will be disseminated formally and informally from flayers, triptychs, a manual and material for the knowledge and training of the university community, and the other interested.

Form a team of people committed to social responsibility through surveys and interviews to set objectives such as designing planning manuals in which the guidelines for change of the institution are channeled, policies and goals to be implemented with strategies favorable to the URS and work for the safety and continuous improvement of the campus (see Figure 1). Our proposal will be strengthened with an analysis of strengths, opportunities, weaknesses and threats (SWOT) to identify those possibilities and scope of CUCEA and the participating community; this will in turn help to examine the university and its environment to direct the proposal to success, that is, implement the URS.

Figure 1 University social responsibility model

Source: Own elaboration.

Discussion

Fundamentals of the proposal

[2] Desde una perspectiva holística e integradora, se consideran las relaciones y los colectivos que a partir de ellas emergen, ofreciendo un ambiente adecuado para la interrelación, el logro de objetivos y la comunicación entre los grupos de interés.

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The Institutional Development Plan with vision 2030 proposes a series of strategic axes in which university action is governed; Based on this and the requirements to protect our common environment, we think about the proposal to be developed within the framework of Social Responsibility. This, understood, as an organizational management model applicable within any organization, focuses on the impacts generated in the short and long term in the social and environmental field which affect an interest group or stakeholder (ISO 26000, 2011). It is inherent in a person who can be trusted, who keeps his promise, who respects his word, who is a just man, who does not take advantage, who thinks of the good of others rather than his own good (Harris, 1957).

The number of executives, directors and owners of companies that are committing to corporate social responsibility (CSR), also called corporate social responsibility (CSR), tends to increase steadily. This happens because these actors are increasingly aware that their actions and operations have a profound impact on the society that surrounds them and that something must be done to make this influence positive in order to build a better and more sustainable society (Rochlin , 2005).

Under this context, Responsible Management is defined as the activities carried out by the company in its social and environmental aspects and, in general, in all its areas. Socially responsible management seeks to assume a responsibility for success and sustainability in the future. It is an effective, profitable and coherent business management system that allows to approach the diverse possibilities that exist to develop social initiatives in the framework of companies (Fundación Atena, 2014).

In this process, Accountability means that individuals, institutions and organizations (public, private and civil society) are responsible for the proper fulfillment of their functions (Secretaría de la Función Pública, 2016) and also , to say of Vallverdú (2003)

"... the non-application of the correlation principle generates externalities: it transfers responsibilities from the private sector to the public, with the immediate or deferred consequences of the asymmetry involved in socializing (private) expenditures, which revert to society as a whole, and keeping revenues private, which is collected by the company".

The elaboration of the memory implies to make more visible the efforts of the entity in social and environmental matters; the communication of its social responsibility policy to enhance relations with suppliers, customers, consumers, employees, discover opportunities for saving in energy costs, raw materials or environmental responsibility, and prevent violations or adjustments of labor or ecological aspects.

In all of this, the objective is to achieve Sustainable Development, that is, the satisfaction of the needs of the present generation without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987).

Since UNESCO (1998), in the World Declaration on Higher Education, it is pointed out that higher education in the 21st century is a treasure and, therefore, it is necessary to reinforce higher education systems based on the orientation and taking of decisions for responsible management. In addition, higher education is playing unprecedented roles as a key element in the strengthening of endogenous capacities, the consolidation of human rights, sustainable development, democracy and peace.

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UNESCO itself (2009), in the Declaration on Higher Education, establishes that higher education has a social responsibility to improve from the complexity of present and future global challenges, and has the responsibility to improve in economic, social, scientific, among others. In this way, the URS is an essential commitment and, therefore, for the CUCEA it is a goal.

Morín (2003) points out that University Social Responsibility from the holistic view, deals with the different projects of social participation based on ethical principles and sustainable development to carry out vocational training. Morín (2006) seeks to internalize externalities as a moral obligation not to limit organizational management to internal processes, and so that within the principle of the ecology of action, each action does not escape the will of the author and enters a game Inter-Challenge; in this field social initiative is located, where social responsibility remembers the transcendence of ethics and the moral obligations of citizenship. For the same author, the world is threatened by the complexity of social changes. Worldwide, this type of effects begin to show unsustainability both socially and environmentally and, consequently, we are in a "Planetary Titanic" (Morín, 2006).

On the other hand, Arizmendi (1993) affirms that education is an essentially human act whenever the student goes to school seeking guidance and guidance for its development. Palos (2010) states that environmental education arises from the need to involve all the parties that make up the organization, in which efforts must be added to modify the behavior patterns and where the culture of respect for nature is reflected. , achieving the participation of all from top management to employees, respect and harmony with the environment, reflected in policies, specific actions within a model to be implemented, waiting for positive results for all. For that same author (Palos, 2010), the change must be planned within the organization.

Social responsibility is related to the positive cultural formation of the entity and constitutes a combination of legal, ethical, moral and environmental aspects, which voluntarily, covering internal and external aspects, guides the collaborators or work team as well as the shareholders, customers, suppliers, families of workers, neighbors, opinion groups and authorities, among others, and the environment.

According to Gary (1997), success within organizations can be improved by having committed employees. For Arias (1985), the employee is a member of a family group for which the company must direct actions towards the family trying that this group provides favorable motivations that are reflected in the same work and that these groups become allies.

Thomas (1992) emphasizes the transformation towards quality and indicates that not only technology lives in a company but also the effective management of all its resources and subsystems, especially its human resources, from which social responsibility business strategies emanate. Consequently, it is necessary to have a good management of the educational establishments in order to achieve with quality the formation of capable and committed students in contributing for a better society; that starts from the research, teaching and the appropriate management linking the university with the dependencies, in the public and private sector, to offer continuous training to the university students, infrastructure, technology, environment and security, with a project of teamwork.

Under this context, it is intended that the CUCEA develop knowledge, work and commitment for sustainable environmental care and preservation to avoid damage and achieve benefits within the university community motivated by social responsibility derived from institutional and community problems to achieve continuous improvement of the quality of the environment of all university students.

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It also becomes essential that the university community of CUCEA establish links with graduates and civil society to carry out the scope of the proposal. It is also relevant to promote social responsibility for environmental care for accountability and continuous improvement and work to obtain environmental certification of the university center in the short term.

If we ask ourselves, why is it necessary to have university social responsibility and transparency and accountability for the continuous environmental improvement of CUCEA? We can say that a greater accountability obeys a continuous environmental improvement in the University Center from the exercise of a university social responsibility accepted by the community.

The University and the university students will be in charge of establishing the rules, the work agreements and the participants. The authorities will provide support and provide the necessary means and resources to support the proposal and civil society will collaborate with the opinions, media and collaborative work to implement and optimize the prototype.

As part of its policies, CUCEA should:

1. Have a regulation of good practices and professional ethics of the economic and administrative sciences that is put into practice on a daily basis.
2. Adopt a new model implemented based on environmental, social and accountability care to make it sustainable
3. Work with internal and external campus communities
4. To implement within the curricula the generation of social and environmental projects based on real experiences and successful results of higher education institutions.

Expected results of the proposal

What is intended with the proposal is to design a model to establish University Social Responsibility, therefore, it will be necessary to change habits and achieve the exercise of a responsible ethic in which university students work under a competence approach, in which must, first build a model and then an educational or training program in environmental care that has a vision aimed at human, social and environmental development (see Figure 2) and obtain environmental certification based on individual ethical commitment and leadership, with a view to transparency and accountability that, with short, medium and long-term goals, allows obtaining continuous environmental improvements in the different areas of the campus.

Figure 2 *Components of the URS Model of the CUCEA*

Source: Own elaboration.

The aim is to make a URS proposal with environmental management by and for the university students of the campus and their surroundings with the perspective of constant improvement, which, based on training, review and evaluation, proposes continuous advances for greater three-dimensional reaches of the URS model in benefit of the participants.

- It seeks to involve experts, academics and society
- Improve sustainability within the university community

• Seek recognition at the national level with certification and reach international recognition.

Responsible management must be implemented to meet the needs from training to teaching, administrative, security personnel, students and other interest groups to evaluate the continuous performance of the personnel involved in general and monitor the results to detect if they are satisfactory and adequate. (see Figure 3).

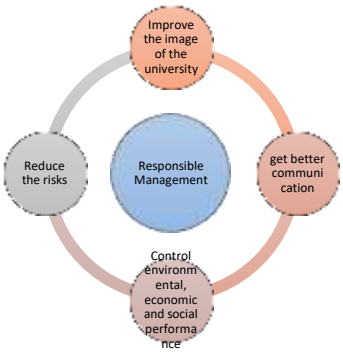

Figure 3 Benefits of Responsible Management of the URS CUCEA

Source: Own elaboration.

Under this same framework, responsible management within the campus should be promoted through the training of students with environmental quality, which are committed to solving social problems based on a better performance and communication. In the same way, research must be implemented from an interdisciplinary perspective that allows obtaining the best results by contributing to society in the different social, environmental and economic fields, in improving university action and the image of the university, as well as working with efficiency by adopting the URS proposal. To reduce the risks, training should be implemented for the surveillance personnel and at the same time, support brigades should be created (see Figure 4).

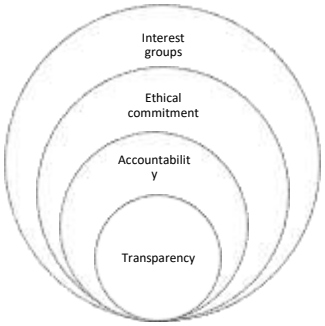

Figure 4 Areas of responsible management

Source: Own elaboration.

In the case of transparency, the main objective is to provide clear information within a certain period to the interested parties in order to make the best decisions, so that together with the Accountability, is responsible for carrying out such decisions, for the continuous improvement of CUCEA, both with the authorities and with society in general. All this with a strong ethical commitment that seeks to achieve honest behavior to meet the needs of the stakeholders that must be addressed.

Precisely in this sense, the stakeholders are those interlocutors with whom teamwork must be structured to achieve the common goal through appropriate synergies; for this reason, the premises of the Triple Results Account must be taken into account, since the linkage proposal will have to be built on them (see Figure 5).

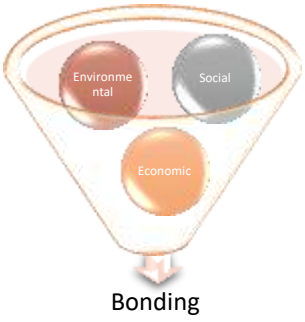

Figure 5 Dimensions of URS

Source: Own elaboration.

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The dimensions of Social Responsibility entail for university students the application of policies in which benefits are obtained for students, professors, graduates and the different interest groups to achieve continuous improvement of the campus (Social), the management from the economic transparency within the campus (Economic) and implement an environmental management plan within the institution that is applied in a responsible manner, achieving the participation of personnel in the different events related to environmental care (Environmental).

The mission of this model is to train quality students and implement research to achieve effective improvements. And the vision is to continually train university students, improve technologies to obtain a quality educational offer and achieve the commitment to adopt social responsibility conscientiously. It will seek to implement new values, honesty, responsibility, gender equity, environmental care, leadership and ethics. Table 1 shows the different educational, social, economic, environmental and organizational development impacts:

Educational impacts	Economic impacts	Social impacts	Environmental impacts	Impacts within the DO
* Teaching * Graduates * Exchange Students * Design of the study plans (with implementation of the URS	* Improve campus infrastructure * Change the computer equipment and improve on the subject of information technologies	* Link to the university with other dependencies * Participation of projects of students and academic staff * Workshops (topics of interest for social problems)	* Reduce the consumption of water, energy and waste. * Open more green areas * work under the 3R, reduce recycle and reuse * Create a society or civil association which is in charge of monitoring continuous improvements and having trained personnel * Promote environmental care through the performing arts * Workshops (environmental issues)	* Continuous training for university students * Personal development workshops * Continuous training for security personnel * Implement a safe university program in which all staff participate

Table 1 Impacts of the URS.

Source: Own elaboration.

Conclusions

The implementation of an adequate and participatory URS model, which allows for the training of university students and other CUCEA interest groups, demands the analysis of the problem of the same. A proposal in this sense implies the training of the different actors to face the requirements of the same and to extend the knowledge and knowledge in environmental matters to reach an optimal evaluation aimed at making the best decisions.

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Considering the actions for the welfare of the community, it is necessary to bear in mind that greater university social responsibility demands more preparation and an ethical and service vision that seeks a responsible environment in the different areas of knowledge in constant improvement.

By having more training, knowledge tends to be extended to others and, consequently, the proposal enunciated in the present work may have greater scope in other campuses, schools and instances of the University Network in the three dimensions of social responsibility, execute, socialize, communicate and share with the stakeholders.

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Development of a strategy to turn your name into a Brand

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Abstract

We present in this work an investigation concerning personal branding or personal branding, brands as intangible allows to associate names with products or services, however in this case the association refers to a brand name with a person, an investigation was carried out Of documentary type, descriptive with qualitative approach, based on books and magazines, with which it is possible to propose a strategy of creation and development of a personal brand, which must be continued to achieve the objective that is a good reputation over time , As well as brand name value. There are surveys of characters who have excelled in different areas such as singers, sportsmen and writers, whose name is synonymous with quality and prestige and how these characters have managed to make their brand name allow them to earn high income. It is mentioned the importance that, once the brand name is created, it is important to continue to give it maintenance.

Personal brand, strategy, development

Citation: NERI-VEGA, Jovita Georgina, CORTÉS-ÁLVAREZ, Yolanda, QUEZADA-MORENO, Maribel and ESTRELLA-VELÁZQUEZ, Rafael. Development of a strategy to turn your name into a Brand. Journal-Law and Economy 2017. 1-1; 12-18

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Introduction

In this work we present an investigation related to the brand name, this is the name as a brand, a subject known as personal branding, it may seem nothing new, however, in the business or institutional world it becomes a very important element.

By thinking of the personal name and associating it with a specific person, the mind automatically relates images, experiences or feelings. Mentally an image is made with which one can know what to expect from a person.

Brands allow us to associate products or services, and in this case the brand consists of the association of a name with a person. The perception we have of a person is sometimes based on a first impression, and later we get to know more about the person, with which we can know that his name is associated with his behavior or performance in an organization or business sector.

Justification

The concept of Personal Branding or Personal Branding is a concept that has emerged in the business literature of the United States in recent years. The precursors of this concept were Tom Peters, with his work "The Brand Called You", in 1997, and Dan Schawbel, with his work "Me 2.0: Build a Powerful Brand to Achieve Career Success" that, in addition to a tour of The concept of personal branding, develop tips on how to improve the presence of this through the 2.0 tools. (Flemings, 2006).

In the business environment values are fundamental, and if trademarks weaken, it is because they are not clear or have lost them. If the values of a company are defined, they will be shared by all its members

Develop a strong personal brand, requires courage and courage, you have to risk controlling the fears and limitations to work on the personal brand.

Problem

As a result of the high impact that social networks represent nowadays, some people present themselves in such social networks with a profile very different from what they really have, so knowing people as they really are presents a difficulty, hence important the development of a personal brand that truly reflects what a person is.

Objectives

General Objective

Develop a strategy that allows to obtain a brand name or personal branding, as a fundamental part of a professional, regardless of the area where the person unfolds.

Specific objectives

Take care of the personal name as a brand.

Achieve a good reputation, which can be sustained over time, with ethics and values.

Generate value in the brand name seeking to maintain good relations with others.

Theoretical framework

A brand can be defined in different ways:

- A way to identify and associate a product or service with a commitment to satisfaction and quality.
- A set of perceptions in the mind of the consumer
- A promise of value

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– A set of characteristics, or qualities, associated with a symbol or brand name that increases, or reduces, value to a product or service.

However, the authors agree that a brand is more than just a name. A brand is the sum of all the expectations and associations that it creates in the minds of its audience.

What makes a brand valuable, personal or commercial, are the intangibles: quality, trust, the brand is the sum of the expectations it generates, customers are more comfortable when they know what to expect, safety and consistency, if a brand is well consolidated and has been behaving in a consistent manner for years is able to overcome any crisis or error.

In addition, a brand is the opposite of the notion of commodity (undifferentiated product, in bulk) makes us different, allows us to position ourselves and differentiate ourselves from similar products.

When someone has a strong brand, they are able to keep their promises. When there is a strong brand, the perception of customers is a higher quality product, even if this applies to people. The objective of the personal branding is the same but applied to people or groups of people, departments, teams or entire companies, (Pérez, 2008).

The Reader's Digest Magazine carries out a survey called "Trusted Brands", where a prize is awarded to brands that, according to the people surveyed, determine which are the main brands:

Speaking of brands, there is a huge difference between being popular and being reliable. It is useless for everyone to know our name if it is linked to a questionable reputation. But being worthy of the trust of others attracts much more than fame: it means that people who trust a brand will seek it throughout their lives and will tend to "bequeath" it to their children.

Hence, many of the names recognized in this award are companies that have a considerable time in the market. Of course, there are young brands that have made a great effort during their short life; this award allows us to recognize them and hope that in the next few years they will continue giving us pleasant surprises (The Reader's Digest Magazine, 2016).

The personalities that were awarded the 2016 Trusted Brands Award, which have obtained the public's trust thanks to their dedication, their permanent commitment and the constant effort to satisfy the needs of their clients, were: Leticia Calderón, Denise Maerker, Yuri, Jacqueline Bracamonetes, Jesus Ochoa, Pepe Aguilar, Sergio Sarmiento, Mariano Osorio, Toño de Valdés.

According to Forbes magazine, These are the highest paid athletes in the world (between June 2015 and June 2016):

Cristiano Ronaldo, Footballer. Lionel Messi, Footballer. LeBron James, Basketball player. Roger Federer, Tennis Player

Kevin Durant, Basketball player. Novak Djokovic, Tennis Player Cam Newton, American football player. Phil Mickelson, Golfer. Jordan Spieth. Golfer. Kobe Bryant, former basketball player. Lewis Hamilton, Pilot. Tiger Woods, Golfer.

Eli Manning, American football player. Joe Flacco, American football player. Tom Brady, American football player. Floyd Mayweather, Boxer. Rory McIlroy, Golfer. Russell Wilson, American football player. Sebastian Vettel, Pilot. Philip Rivers, American football player. Rafael Nadal, Tennis Player

Neymar, Footballer Zlatan Ibrahimovic, Footballer. Fernando Alonso, Pilot. Gareth Bale, Footballer.

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This is the list of the 14 best paid writers of 2016, according to Forbes Magazine:

Rick Riordan. Dan Brown. George RR Martin. Paula Hawkins. John Green Veronica Roth EL James. Nora Roberts Danielle Steel Stephen King. John Grisham. JK Rowling. Jeff Kinney James Patterson.

These categories of characters show us how the brand name allows people to stand out in the area to which they are dedicated, in addition to obtaining high income in recognition of that name. Although it is well known that once you have a known name, the income is not only the result of the activity to which the person is dedicated, but also received by other aspects such as advertising and product announcement, that is: a brand staff is attractive for entrepreneurs to advertise a product brand.

Methodology

Kind of investigation

We carried out a documentary, descriptive research with a qualitative approach, based on books, magazines and surveys conducted by prestigious journals.

Results

At present the professionals do not stay many years in the same company, but they look for alternatives that benefit them both economically and personally, this makes them have the need to develop a name (brand) that allows them access to these new positions with a economic benefit, due to the Curriculum that they present.

Scholars in the subject, have developed some steps that can be followed to develop a personal brand of prestige.

Define the greatest strength in a few words.

An account should be made of the main skills and abilities and determine which of them represents the greatest strength. For example, "I'm good at convincing people," or "I'm good at discovering the key aspects of any problem," or "I fully understand the behavior of people when choosing brands," or "I'm very sociable" or "I'm very funny "or" I find it easy to relate to people".

An important part is self-knowledge, only in this way can the goal to be conquered be established. Only knowing ourselves will we know how far we can and want to reach. Knowing what our abilities, talents and competencies are in order to strengthen them; and our weaknesses to minimize them, this is vital in the process of building a personal brand.

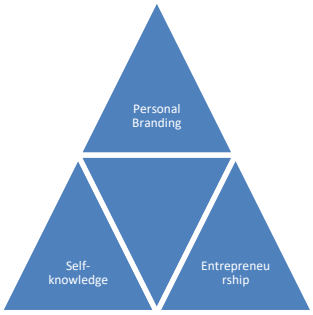

Figure 1 Fundamental parts that sustain personal balanc

Source: Own elaboration based on Costa (2015)

Self-knowledge consists in making an analysis of oneself, it's time to get to know each other a bit and know what I want to do with my life. Personal branding refers to what I can do to convince people. Entrepreneurship refers to putting into practice either a knowledge or a business (Costa, 2015).

As a professional, what enables us to distinguish ourselves from others and how can we help others to solve their problems? talent is not everything, the key is to put all the potential at the service of others.

Determine what benefits that strength brings.

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When a person shows up to apply for a job, he is not hired for his strengths, but rather for the benefits that these strengths can produce, however, these benefits must meet a distinguished need in the lives of the people or institutions.

For example, if the strength consists of being good at convincing people, then there will be a vacancy that can be filled in some area that requires negotiation or sales, where people need to relate to each other face to face. The benefit that will be offered consists of a better level of performance in closing sales or concluding negotiations.

If the strength is to understand the behavior of people when choosing brands, then you could acquire a good position in an advertising agency, benefiting the company to understand the potential customer.

Explain how this benefit can be exploited.

It must be borne in mind that today there are many people who have the same academic training and who have held similar positions.

Therefore, it must be explained in a simple and brief way why this benefit can be delivered and exploited. The training, experience and results can be argued.

The other key is in the planning of the goals. Life can not be something left to fate or destiny, you have to begin to trace the objectives and reach them one by one so that the image you want to transmit is consistent and sustainable. There are adjustments that can be made along the way, but there definitely has to be a plan (Temple, 2015).

Make a summary in a sentence

A person who has been working on their personal brand for several years can be defined as "The best negotiator" or "Image consultant". When establishing this phrase, it will depend on the occasion when it will be convenient to use it, mention it or communicate it in different ways, what is important is to have defined that phrase that will identify the personal name.

Describe the personality

It is very important that the personality is in accordance with the strength or benefit of the name, however, there are times when this does not happen, as an example some artists whose name is synonymous with prestige, but their personality does not reflect the same.

This is where you must work so that both personality and strength are related.

A person who considers himself a good negotiator can not afford to lose his temper at a certain moment, in which an important negotiation is taking place and from which good results are expected.

When talking about making adjustments while constructing the image, there is an aspect that can not be negotiated, those moral values that distinguish a person. At this point the specialists are clear: values and principles are not flexible, we can not have them today and tomorrow. Here there is no room for the saying that "the end justifies the means." The moment our objectives take us down dark paths, we have to be able to go back and rethink the way we want to reach our goal (Temple, 2015).

This series of steps do not constitute the totality, but if they are followed, it is possible to establish the foundations to build a strong personal brand capable of reaching where you want, according to the capabilities of each person.

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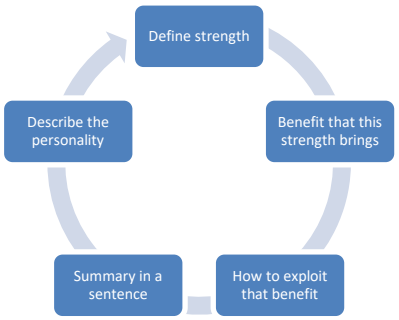

Figure 2 Strategy Model to develop a personal brand

Source: Own elaboration, based on: www.complices.mx

When planning a strategy for a personal brand, it will be important to direct it towards the niche we want to reach and focus our strengths in that sector, and to be clear that positioning will be achieved by working on the development and strength of the personal brand..

Conclusions

Day by day we present ourselves in different organizations, we represent our brand daily, that is why we have to be worthy representatives of our brand and this not only in the professional environment.

Personal branding is what they say about each one when it comes to the world, be it business or personal. It is what people see when they look for a name.

"Everything we do communicates. How we dress, how we act, the quality of our work, how we speak, what we say and what we stop saying, all transmit a message. It is important that we work to adapt that message to the way we want it to be received "(Temple, 29015).

The personal branding is nothing more than building our own stamp to highlight our professional and personal value in the market, projecting the talents, values and knowledge we possess.

The personal brand can not be obtained at random, it is necessary to follow a process of strategy, creation and maintenance.

When people come to lose their jobs, they really wonder who they are, in order to become attractive for the labor market. This is the end of the employees and the beginning of the professionals. Professionals who do not look for work, but offer their services and work for projects.

In this way the newly graduated students will have to design their own brand that helps satisfy a need in the market. The graduates will have to show their personal brand and communicate it effectively.

The challenge is to detect which of our attributes can help us differentiate ourselves. Once detected we must use any opportunity to put it in value, to make it known.

"Your name is your brand, take care of it" (Temple, 2015).

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Major causes of death in children under five years by sanitary jurisdiction. Yucatán 2010-2014

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Abstract

Under-five deaths are a public health problem in the world. In 2012, 6.6 million children died and 44% during the first 28 days of life. The main causes were prematurity, suffocation or trauma in childbirth, pneumonia and diarrheal diseases. In Mexico the infant mortality rate is 14.3 per 1000 births. In Yucatan the causes of mortality by Sanitary Jurisdiction are unknown. This study reports the main clinical causes of death in children under five, occurring in each of the three Sanitary Jurisdictions in Yucatan, from 2010 to 2014.

Causes, Deaths, Under-five

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Introduction

Under-five mortality is a public health problem and is considered a fundamental indicator of health and well-being in society. According to the WHO, 44% of deaths occur in the neonatal period. The majority of neonatal deaths are due to premature births, asphyxia during childbirth and infections. After this stage, pneumonia, diarrhea and malaria are the main causes in children under five years of age. In Mexico, infant mortality has registered an important decrease in recent decades: in 1970, 68.4 children under one year of age died for every thousand births; currently, 14.3 children die, mainly in localities with less access to health services. In Yucatan, the general causes that occur in the State are known, but they have not been regionalized by Sanitary Jurisdiction. The purpose of this work is to describe the main causes of death in children under five years of age in the State of Yucatán by Sanitary Jurisdiction.

Justification

Mortality in children under five is an indicator of quality of life and risk, fully reflects the socioeconomic panorama of a country; measures the care maintained during pregnancy, childbirth and child care, its interrelation with the environment, with the degree of socio-economic and cultural development of a community; It is directly related to the levels of poverty and quality of free medical care.

The inequalities are so wide between the different regions of the planet, which has led the United Nations to include the reduction of infant mortality, as one of the eight Millennium Development Goals.

In different countries around the world, actions have been taken to reduce the mortality rates of this age group.

However, despite the efforts made, some countries have not reached the established goal, as is the case with Mexico, and Yucatán has been one of the states that has not been able to keep down the number of deaths in children under five, representing 1.54% of the total deaths of this population at the national level.

Currently in the state of Yucatan there is only general information about the main causes of death in children under five years of age; even with this type of information, no documents have been found that describe the behavior of under-five mortality in the state of Yucatán, by health jurisdiction. The importance of the contribution of this study through the identification of causes by Sanitary Jurisdiction, provides basic information to continue with risk studies by geographic area, in order to prioritize preventive strategies.

Problem

Early childhood, from 0 to 5 years of age, represents a decisive stage in the development of the physical, intellectual and emotional capacities of each child, and is the most vulnerable stage of growth.

In the world in 2012 6.6 million children died before reaching the age of five; almost all of these deaths (99%) occurred in low and middle income countries. The main causes were prematurity, asphyxia or traumatism of childbirth, pneumonia, and diarrheal diseases. Malaria remained a leading cause of death in sub-Saharan Africa, accounting for 15% of under-five deaths. Worldwide, in 2012, 44% of deaths of children under five occurred within the first 28 days of life, that is, the neonatal period. The most important cause was prematurity, which caused 35% of deaths in this period.

UNICEF mentions the mortality rate of children under five as a key indicator of children's well-being, including health and nutritional status.

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It is also a key indicator of the coverage of child survival interventions and, more broadly, of social and economic development. Millennium Development Goal 4 (MDG 4) is to reduce the under-five mortality rate globally by two-thirds between 1990 and 2015, the world has made substantial progress, reducing the 49% rate of 90 (89, 92) deaths per 1,000 births to 46% (44, 48 deaths) in 2013. The world is also reducing under-five mortality faster than at any other time during the past two decades. The global rate of reduction has steadily accelerated since 1990-1995 - more than triple from 1.2 percent to 4.0 percent in 2005-2013.

Despite these achievements, child survival remains an urgent concern. The number of deaths of children under five in the last two decades is staggering: between 1990 and 2013, 223 million children worldwide died before the age of five, more than the current population of Brazil, the fifth most populous country of the world. Progress has been insufficient, and MDG 4 risks losing itself globally.

In the new agenda, MDG 4 is a priority again. At the national level, historical trends show that progress in the reduction for most countries has been too slow and that only 12 of the 60 countries with high mortality rates under the age of five (at least 40 deaths per every 1,000 live births) are on track to achieve MDG 4 if current trends continue. Every day, 17,000 children die before the age of five, most of them from preventable causes and treatable diseases, even though knowledge and technologies for life-saving interventions are available.

In Mexico, infant mortality has registered an important decrease in recent decades: in 1970, 68.4 children under one year of age died for every thousand births; At present, the estimated rate for the triennium 2011 to 2013 is 14.3; being the smallest localities where infant mortality occurs to a greater extent.

Currently in the state of Yucatan there is only general information about the main causes of death in children under 5 years old, which can be found on the website of the National Institute of Statistics and Geography (INEGI), however, there is no detailed information of the behavior of the causes in the municipalities, by Sanitary Jurisdiction. That is why the following question has been asked: What are the main causes of death in children under five in each of the three Sanitary Jurisdictions of the State of Yucatan from 2010 to 2014?

Objectives

General Objective

Describe the main causes of under-five mortality in the State of Yucatan from 2010 to 2014.

Specific Objectives

1. Identify the municipalities that belong to each of the three Sanitary Jurisdictions in Yucatan.

2. Describe the main causes of death in children under five years of age during the period from 2010 to 2014.

Theoretical framework

Newly born

Approximately 3 million infants die each year during their first month of life, and the number of stillbirths is similar. During the first month, almost half of the deaths take place in the first 24 hours of life, and 75% during the first week. The 48 hours after birth is the most important time for the survival of the newborn. It is in this period when the mother and the child must be followed up to avoid and treat diseases.

Before delivery, the mother can improve the chances of survival and the health of her child by attending prenatal care consultations, vaccinating against tetanus and avoiding the use of tobacco and alcohol.

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At the time of delivery, the chances of survival increase considerably with the presence of a qualified midwife. After delivery, essential care for the newborn should follow the next steps:

- ensure breathing;
- immediately start exclusively breastfeeding;
- keep the child warm; Y
- Clean your hands before touching it.

It is also very important to recognize and treat diseases that the newborn may suffer, as it can become seriously ill and die quickly if the disease is not detected and treated properly. Sick infants should be referred immediately to a qualified health care provider.

Children under five years old

More than 70% of deaths of children under the age of five occur in the African and South-East Asia Regions. In sub-Saharan Africa, the probability of children dying before the age of five is 16 times higher than in developed regions. Nearly half of under-five deaths occur in just five countries: China, India, Nigeria, Pakistan and the Democratic Republic of the Congo.

Children are at higher risk of dying before they reach their fifth birthday if they are born in rural areas or poor households or if their mothers have been deprived of basic education.

More than half of the deaths of children under the age of five are due to preventable and treatable diseases through simple and affordable interventions. Strengthening health systems so that all children can access such interventions will save the lives of many young children.

Malnourished children, especially those with severe acute malnutrition, are more likely to die from common diseases in childhood such as diarrhea, pneumonia and malaria.

Various factors related to nutrition contribute to approximately 45% of the deaths of children under the age of five.

Global response: Millennium Development Goals 4 and 5

ODM 4: reduce by two thirds, between 1990 and 2015, the mortality of children under five years. The achievement of the MDG of reducing infant mortality will mean reaching universal coverage with effective and affordable crucial interventions regarding: mother and newborn care; feeding of the infant and young child; vaccines; prevention and treatment of cases of pneumonia and septicemia; fight against malaria; and HIV / AIDS prevention and care. In countries with high mortality rates, these interventions could reduce the number of deaths to less than half.

To carry out these interventions, WHO promotes four main strategies:

- Appropriate home care and timely treatment of complications in newborns;
- Integrated attention to childhood diseases in all children under five years of age;
- Expanded immunization program;
- Infant and young child feeding.

ODM 5: To improve maternal health. These strategies related to children's health are complemented by interventions aimed at maternal health, particularly qualified care during pregnancy and childbirth. More than half of the deaths of children under the age of five are due to preventable and treatable diseases with simple and affordable interventions. Strengthening health systems so that these interventions benefit all children will save many young lives.

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Mortality in Children under five in Mexico

In Mexico there are different programs that address determinants that negatively affect child welfare such as poverty, poor education, lack of access to health services as well as risk conditions such as adolescent pregnancy, sexually transmitted infections, addictions and interpersonal violence. However, in the country the monitoring and surveillance of indicators of child welfare is still inconstant and insufficiently systematic. Given the above, it is necessary to promote population monitoring strategies of the relevant indicators in order to position child welfare in the political agenda and promote evidence-based decision-making to impact the quality of life and well-being of children from Mexico.

As for the mortality of children under one year, between 1990 and 2011, the rate is reduced overall by approximately 46% (from 2,800 to 1,520 deaths per hundred thousand births), even though 90% of this reduction occurs between 1990 and 2000. The mortality rate remains almost stable in recent years. From 2007 to date, the reduction in the number of deaths is just 1,653 deaths, with the figure for 2011 being 28,772 deaths, only 93 less than the previous year.

A similar situation occurs with the group of 1 to 4 years, whose mortality drops by 66% between 1990 and 2000 (the rate decreases from 221 to 76 deaths per hundred thousand inhabitants of that age). However, it only decreases 4% in 2000 and the current figure (the rate goes down from 76 to 73 deaths per hundred thousand, with a slight increase in 2009). The number of deaths in 2011 is 5,574, that is, 77 fewer than those registered in 2010.

In all cases, the distribution by sex is maintained over time.

The deaths of men are more frequent, in such a way that the male mortality rate is approximately 127 per 100 deaths of women. In terms of general mortality, the relative weight of children under five is almost 6% to date. This means that out of every 100 deaths that occurred in the country during 2011, six were children under the age of five. This figure contrasts with the 20% that occurred 20 years ago and the 48% that was observed in 1940.

Among the 5 leading causes of death in our country, according to data from INEGI 2012, the following stand out:

• In children under one year:

1) Conditions originated in the perinatal period.
2) Respiratory difficulty of the newborn and other respiratory disorders.
3) Congenital malformations.
4) Influenza and pneumonia.
5) Accidents.

• In children from 1 to 4 years old:

1) Accidents.
2) Congenital malformations.
3) Malignant tumors.
4) Influenza and pneumonia.
5) Intestinal infectious diseases.

Neonatal Mortality (deaths under 28 days)

A universally accepted behavior is that neonatal mortality is proportionately greater as the infant mortality rate is lower.

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This happens because, as mortality decreases, some risks, especially those linked to congenital factors, are concentrated during the first four weeks of life. Such is the case of problems related to pregnancy, childbirth and congenital diseases or malformations of various types. For 2011, among the most frequent causes of death - according to the International Classification of Diseases (ICD-10) - appear asphyxia and trauma at birth, low birth weight, prematurity and congenital malformations of the heart, followed by defects of the abdominal wall. Addressing these problems implies greater difficulties in terms of intervention, both programmatic (reinforcement of birth control programs, timely detection of perinatal risk), training (neonatal resuscitation courses) and investments of a technological nature, as well as more specialized facilities.

Postneonatal Mortality (deaths of children between 28 days and one year of age)

Regarding deaths during the post-neonatal period, these depend mainly on exogenous factors related to the environment in which the child develops (such as hygiene and nutritional status). In this sense, and according to the same ICD-10, among the main causes of mortality in this age group are respiratory diseases, intestinal infections, certain congenital anomalies (in a large proportion malformations of the heart and nervous system) and deficiencies in nutrition, among others. The control of these diseases is relatively simpler, since it directly depends on the improvement in the child's living conditions, environmental sanitation and health programs, such as vaccination and control of diarrhea and acute respiratory infections. The prevention actions currently undertaken by the main health institutions in Mexico are very valuable instruments in this process.

Mortality children from one to four years

Accidents

These are often the leading causes of death in children and adolescents. Motor vehicle traffic accidents, those occurring in the home (related to falls, burns, and poisonings) and the "other accidents" make up the analysis material of this contribution. Considering the year 2000 as a starting point, during the last 14 years, on average, a little more than 4,500 accidental deaths have occurred annually in the population under 15 years of age.

In this sense, the group of children from 1 to 4 years old stands out (with an average rate of 17.4 per hundred thousand) for a double reason: first, because they are the ones who concentrate most of the deaths, representing close to one third of deaths of children under 15 years of age; and second, because it is the trend that shows the lowest percentage of decrease (31% between 2000 and 2013).

Regarding the classification of accidents, the most relevant are those of traffic in motor vehicles, grouping about one third of the deaths in the period (31.3%). They are followed by those related to drowning and submersion (13.8%), accidental falls (3.7%) and poisonings and accidents related to fire, smoke and flames, with very similar percentages (2.4%, approximately). The remaining 46.5% of deaths correspond to the residual category "other accidents" that group multiple causes with different disaggregation.

Finally, it should be taken into account that the number of deaths only shows a small fraction of the real magnitude of the problem, since it has been calculated that "for every child who dies due to an accident, 45 children require hospitalization, 1,300 children are treated in an emergency service and 2,600 children are treated at home".

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Infectious diseases

Diseases fortunately today preventable by vaccination such as whooping cough, tuberculosis, meningitis, measles, diphtheria and smallpox were always among the leading causes of infant mortality. Smallpox was not only preventable through vaccination, but eradicated in Mexico since 1950 and in the world until 1980.

Respiratory and intestinal diseases

As for the diarrheas and pneumonias that although they are still present among the leading causes of death, the current figure does not compare with those of previous decades. In 2008, 725 children died, now classified as intestinal infectious diseases. In 1980, the infant deaths charged by this same condition was of the order of 20,877, with a rate of 862.9 for every 100 thousand live births, the rate of 2008 corresponded to 37.1, also, for every 100 thousand births.

For this new millennium, accidents and malignant tumors among children under 5 years of age occupied and occupy a preponderant place. Congenital malformations, deformities and chromosomal abnormalities, as well as certain conditions during the perinatal period remain a constant among the leading causes of infant death to this day.

Methodology

Quantitative methodology was used to describe the five main causes of death in children under five years of age.

Kind of investigation

- The design and type of the study was observational, descriptive, transversal, and retrospective.
- Universe: Children under 5 years of age who died between the years 2010-2014 in the State of Yucatán.
- Population: Children under 5 registered in the database of the Ministry of Health, deceased between 2010 and 2014 from the State of Yucatan.
- Inclusion criteria:
- Children under 5 years of age who died between 2010-2014, residents of any of the municipalities of the state of Yucatan, registered in the database of the Ministry of Health.

Theoretical Methods

The 106 municipalities of the state of Yucatan were included.

To determine the number of children who died in the state, and to which age group they belonged (<1 year or 1-4 years), the INEGI page was used in the query of basic tabulated results. The data of causes of mortality of children under 5 years of age in each municipality were obtained from a database provided by the Ministry of Health, in which we were informed about the causes of death in each of the municipalities, which occurred in the years 2010-2014, as well as the number of deaths of each municipality per year.

The deaths in the database were in accordance with the ICD-10, subsequently each disease was grouped according to an encoding forming a group of similar diseases, these codes are used by the International Statistical Classification of Diseases and Related Health Problems. In this way the main causes of death per year of each of the municipalities of the State were obtained.

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Results

- There were 2,668 deaths in children under five years of age, in the 106 municipalities of the state of Yucatan, from 2010 to 2014, of which 1,660 (62.2%) occupied the first five causes of death. Jurisdiction 1 presented the highest number of cases (Figure 1).

----1085 ----341 ----234

Figure 1 Number of first five causes of death of children under five years of age by Sanitary Jurisdiction. 2010-2014.

Fuente: Base de datos SSY. 2010-2014

- Perinatal conditions and congenital malformations were the main causes of death in the three jurisdictions (Table 1).

Jurisdicción 1		*Jurisdicción 2*		*Jurisdicción 3*	
Afecciones perinatales	*499 (46%)*	*Afecciones perinatales*	*146 (43%)*	*Afecciones perinatales*	*118 (50%)*
Malformaciones congénitas	*372 (34%)*	*Malformaciones congénitas*	*101 (29%)*	*Malformaciones congénitas*	*74 (32%)*
Desórdenes relacionados con el embarazo	*101 (10%)*	*Enfermedades infecciosas intestinales*	*36 (11%)*	*Enfermedades infecciosas intestinales*	*17 (7%)*
Otras enfermedades bacterianas	*68 (6%)*	*Gripe y Neumonía*	*34 (10%)*	*Gripe y Neumonía*	*13 (6%)*
Caídas y accidentes	*45 (4%)*	*Otras enfermedades bacterianas*	*24 (7%)*	*Desórdenes relacionados con el embarazo*	*12 (5%)*
Total	*1085 100%*		*341 100%*		*234 100%*

Table 1 First five causes of mortality in children under five years by Sanitary Jurisdiction. Yucatán 2010-2014.

Source: Mortality database. Secretary of Health of Yucatán, 2010-2014.

Conclusions

The first cause of mortality in children under five years in Yucatan in the period studied were the conditions of perinatal origin, so that the population should be made aware and the information should arrive in a timely and efficient way about the alarm data of these diseases in particular. The information to pregnant women and relatives must be a key point for prevention.

It will be important to study not only the biological causes, but the social determinants that influence the prevalence of these causes in order to build preventive strategies. Access to quality care will be another point of study in the various communities of the State.

We must take into account that in Yucatan, the customs and traditions of the Mayan people towards reproduction prevail; and although many of them are not a risk for perinatal conditions, the community should have the opportunity to know that there are warning signs that can warn when a risk is present to prevent them. There are still populations where many customs and traditions are carried out to make "remedies"; there are beliefs about the "evils of the eye" that "lurk" children at their young age, so the population should be made aware of when and at what time they should seek help from a medical service. Emphasis should also be placed on the importance of prenatal check-ups and the age at which the municipality's reproductive life begins, since the main group affected and where there is a high number of deaths is in children under 1 year of age, and as Main causes are perinatal disorders and congenital malformations could be related to problems of nutrition, lack of vitamins and minerals during pregnancy, high-risk pregnancies due to the age of the pregnant woman, lack of prenatal control, among other factors. Although more studies are required.

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The goal for child welfare should not only be physical survival, but also the development of the physical, social, emotional and cognitive potential of Mexican children, from a wide range of sectors including health, nutrition, stimulation, protection and education. It seeks to achieve a broader and more detailed understanding of the level of well-being that exists among Mexican girls and boys to allow the implementation of improvements in prevention and care actions that are carried out as well as ensuring the quality of life for all children from Mexico.

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The promises and risks of nanotechnologies: regulation in Mexico

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Abstract

Nanotechnologies have been placed at the forefront of scientific knowledge. Their uses and applications have generated a wide range of technoscientific advances with impacts in different industrial fields. Research and development achieve unprecedented investment figures around the world. From the Optics, materials science and Biotechnology, to Medicine, the food industry and the military industry, the fact is that this new technological package has placed at the table of discussion the social repercussions that will bring with it. In addition, various organizations have raised their voices to discuss the consequences for human health and the environment that are already beginning to be seen. For this reason, the regulation of its use and its possible applications in the different stages of the value chain of products is playing a fundamental role in this debate, so this article seeks to present a panorama of the regulation of nanotechnologies in Mexico .

Nanotechnologies, regulation, value chain, environmental impacts, human health

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Introduction

The nancosciences and nanotechnologies have revolutionized the way in which the human being has made use of matter until a few years ago. The potential of the use and applications of this new technological package is, in fact, still uncertain.

Nanosciences are understood as that set of sciences that study, understand and manipulate matter at the nanoscale (10-9). At this scale, the material acquires novel characteristics and that it does not possess on a larger scale (hardness, adsorption, flexibility, conductivity, etc.), a fact that made them immediately attractive for an endless number of industrial spheres. Around the world these new sciences began to receive unprecedented amounts of investment from governments, private capital, international organizations and public-private investors. One part of the discussion focuses on this point, since each of these different actors have particular interests, interests that give a certain direction to the direction of research and the possible applications of this new knowledge.

Nanotechnologies, meanwhile, are the applications that these new sciences began to develop in different industrial spheres, either by manufacturing new components with nanoparticles, or by incorporating them into some materials to enhance their properties or make them more efficient (nano-polyporation). At this point, the debate has been presented by the few studies that have been developed around the effects of the use of nanoparticles, since some of these materials on a normal scale are toxic and highly toxic, so it is thought that their use can have serious repercussions for both human health and the environment.

Some organisms have raised their voices to stop their use before the investigations that conclude that the toxicological science does not possess the necessary knowledge or the sufficient technology to determine still in what way the nanoparticles, the nanomaterials or the nanoincorporations will impact.

These voices direct their attention, then, to the need to establish strict regulatory frameworks that balance the applied research of nanotechnologies with the pertinent nanotoxicological studies, in such a way as to ensure that from their manipulation in research centers, universities and laboratories Until its commercialization it has under control the risks and impacts of those who manipulate them and potential consumers. We are talking, then, of safety and hygiene controls in those who study them, up to a control and surveillance in the labeling of those articles that contain nanoparticles, nanomaterials and nanoincorporations.

In this research, current issues regarding the state of regulation around nanotechnologies in Mexico will be presented, under the idea that in our country there is no government agency that manages the course of nanotechnologies.

Context: the promises and risks of nanotechnologies

In 2010, Stephen McGrail (2010) ensured that nanotechnologies (NT) could simultaneously project techno-scientific advances in the field of science fiction, or become scientific nightmares due to the scenario of potential risks that lie behind them. In his article, McGrail debates about the position of the "nano-optimists" and the "nano-pessimists", concluding that the development of these technologies would be marked, on the one hand, by the political-economic weight of the investors and, on the other hand, for the debate on the controls that can be established and their regulatory frameworks.

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The position of the nano-optimists rests on a solid platform of applications with high impact. By manipulating matter at the nanometer scale, new materials and devices can be created that are used in sectors such as electronics, robotics, telecommunications, energy or medicine. Currently, devices are being developed capable of exponentiating the human capacities themselves. However, in the development of the same devices, the potential risks are always perceived as well as the foreseeable impacts for both human health and the environment.

For example, contact lenses with augmented reality are already on the market. The company Innovega is developing contact lenses (Ioptik) through eMacula, which allow to simultaneously visualize virtual content with real vision; it works by projecting virtual images onto the retina that pass through the lens's central optic and, by joining with the real vision, it will be perceived as one. Its manufacture contains nanocomponents that do not interfere with vision. These lenses have also been designed to improve the vision capabilities of the eye and can correct and enhance the sharpness of real-world vision.[3] Although these lenses are still experimental, they are already being tested on elements of the US Army. However, the lenses are made with nanoclays that help increase the range of colors perceived, nanoclays that, through the retina, can penetrate ocularly capable and settle in the brain, enabling the formation of tumors and cancer; The medical debate, moreover, lies in the opinion about the ability of the human brain to be able to perceive and manage two simultaneous realities without causing any kind of disorder, under the idea that human vision is designed to perceive and manage only a reality to the time

Water is life, an international non-profit organization, is already commercializing water purification filters (Nano Water Filter), which work with carbon nanotubes; Activated carbon has the ability to filter contaminated water and is used in traditional water treatment methods for many years. The nanoscale carbon has the ability to accelerate the process and sanitize the water in just a few minutes.[4] However, the medical sector is still debating about the indiscriminate use of carbon nanotubes since, on a nanometric scale, coal is much more toxic, so its use and consumption should be normalized and moderate. While it is true that NTs could potentially offer a social benefit of enormous impact by offering drinking water, especially in those populations where climate change has caused a huge shortage of the vital liquid, it is also true that sufficient knowledge must be available make its use sensible and not generate a greater evil than it is fighting.

The Bayer Company, on its own, is already producing and marketing a transparent plastic film capable of blocking oxygen, carbon dioxide and moisture before they can reach food. The plastic contains silica nanoparticles in a polymeric compound that also makes it lighter, stronger and more resistant to heat. Some types of plastic can triple the shelf life of some products. Intelligent containers have also been developed. They are integrated sensors, which detect food pathogens and cause the container to change color and alert the consumer if the food has become contaminated.[5] Laboratory studies on food and beverages packed with silica nanoparticle coatings show that of the analyzed subjects (mice and rabbits), a high percentage (close to 90%) developed various diseases of the heart, liver and lungs, as well as Cutaneous type (Mahmoudi, 2012).

[3] http://www.emacula.io/

[4] http://waterislife.com/clean-water/filter-systems

[5] http://www.nanotech-now.com/columns/?Article =421

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Scientists from the nanotechnology department of Tel Aviv University have created a battery capable of recharging in 60 seconds. The battery called Flos Batery that works with nanocrystals formed by amino acids and endures thousands of charge / discharge cycles; this system combines fast charging with a higher energy accumulation than the Lithium battery, and a special charger has also been developed. This battery has the potential to become a standard in the market for fast charging and the possibility to use it in electric vehicles is also open.[6] In addition to this, batteries the size of a grain of sand are being developed. They have been built with a 3D printer that deposits a lithium oxide (LiO) paste, forming two comb structures with tiny electrodes that are less than 100 μm in size. Its loading and unloading capacity and life cycle are comparable to any current battery. These batteries are designed to be used in multiple existing devices, and will also allow the manufacture of new, even smaller ones.[7]

To conclude this section, we will analyze how one of the products most used by the industry, carbon nanotubes, exemplifies this duality of the NT. Carbon nanotubes (buckyballs) are used for a variety of applications. Nanomedicine has suggested its use to fix them in cancer cells to attack one by one, avoiding current medical techniques for the treatment of cancer such as radiation treatments. Some others are studying their properties to make them react with stem cells and achieve regenerative effects on human cells. Due to their high conductivity, they are used recurrently in everyday electronic devices such as lap tops, television screens, cell phones and computers.

Thanks to their strength, they are 1000 times more solid than steel, the construction industry is making use of these for the construction of superstructures and projects unthinkable constructions with existing materials.

However, we have already studied the environmental effects that carbon nanotubes (NTC) have brought with them; thus, these can be observed from the same production of the NTC, since these are achieved only at high temperatures with the technique of vapor deposition, a fact that generates both benzene and graphene, both greenhouse gases (GHG) that attack directly the ozone layer and are proven generators of global warming. And although the NTC production industry has not reached significant levels, the growth of this premium nanomaterie has been exponentially in recent years,[8] doubling the production potential in less than 10 years (Brian Wang, 2016).

In various laboratory tests, it has been proven that they can be stored in high amounts in the abdominal cavities of mice as if they were asbestos fibers, killing them with cancer (Takagi et al., 2008); it is reported that once the carbon nanotubes enter the interstitial spaces they are captured by the alveolar cells, inducing toxic effects due to the formation of reactive oxygen species, which results in alterations in the DNA and inflammation, generating, between other things, fibrosis and pneumoconiosis (Galera, 2016).

When inhaled, certain fractions of size are deposited in the respiratory tract.

[6] http://www.understandingnano.com/ batteries.html

7 http://www.sciencemag.org/news/2016/ 05/how-build-better-battery-throughnanotechno logy

[8] *https://www.nextbigfuture.com/2016/12/ water-can-freeze-at-105-to-151-degrees.html# more-841*

Due to their size they can be captured by the epithelial and endothelial cells and reach the bloodstream where they are transported to organs such as the bone marrow, lymph nodes, spleen or heart (Oberdörster et al, 2007).

The extent to which the central nervous system and the ganglia are translocated along axons and dendrites of neurons have also been observed. This phenomenon is the result of the biokinetics of the nanoparticles, which is different from the larger particles (Galera, 2015).

The particles accumulated in the alveolar region can be eliminated through three important routes. The first is through the mucociliary system along the tracheobronchial tract, the second route through the lymphatic system and, finally, from the dissolution of the nanoparticles; this last route, however, has the consequence of incorporating these nanoparticles into the bloodstream (Takenaka et al., 2000; Ávalos, 2013).

It should not be overlooked that the lungs send oxygen to the blood and the nanoparticles can travel there, reaching the cardiovascular, hepatic, renal and nervous systems, thus multiplying their impact factor.

Despite this series of evaluations, regulation around the value chain of carbon nanotubes is poorly regulated. This example can be expanded for the NT world in general, where its regulation, regulation, labeling, etc., is in an incipient stage.

Although there are countries where this concern is reflected in increasingly stringent laws, regulations and regulations, the truth is that products of all kinds circulate on the market (food, beverages, cleaning products, sunblocks, clothing, dyes, medicines and in extensive etcetera) with nanoparticles and nanoincorporations without knowing for sure what their impacts will be.

We will briefly describe how this regulation is found in our country.

The regulation of NTs in Mexico

In 2002, the Mexican government approved a new Science and Technology Law (LCyT), which redefines decision making in the sector, affecting the Organic Law of the National Council of Science and Technology (CONACyT) and the creation of Branch 38 that sectorizes the support of this organization to the Research Centers.

The new government line was aimed at supporting projects that promote the country's technological innovation. The areas considered as strategic were information technologies, biotechnology and materials science. The NT are not mentioned explicitly, since they were included in the energy section, although, as we have already mentioned, the NT participate in a large number of sciences.

This model of support is corroborated in 2008 in the Special Program of Science, Technology and Innovation (PECiTI 2008-2012). It is within the framework of this program that NTs enter fully as a priority area and are incorporated as a strategic area capable of influencing various industrial branches.

Economic support has increased, although the figures continue to appear lower compared to those of other nations with economies similar to ours.

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The Ministry of Economy, in collaboration with the Center for Advanced Materials Research (CIMAV), conducted a study on nanotechnologies in Mexico, where he illustrated that between 1998 and 2004 the Mexican government, through CONACyT, supported a total of 152 projects of research worth $ 14.4 million (CIMAV / SE, 2008). Takeuchi and Mora (2011) estimated that the total funds for research and development in the field, between 2006 and 2009, amounted to about 60 million dollars.

On the other hand, as a subsection of the National Development Plan 2007-2012, the National Expenditure on Science, Technology and Innovation (GNCTI) was established with the aim of supporting the development of new technological platforms, including nanotechnologies (CONACyT, 2014); but there is no disaggregated data for the NT.

Monica Anzaldo (2014), meanwhile, estimated that from 2002 to 2011 the total amount allocated to the NT in our country amounted to 1,800 million pesos (128 million dollars)[9].

We are interested in highlighting these amounts since most of them were allocated to Research and Development and to the support of research centers, that is, to the implementation of applied technology. This corroborates the hypothesis of Edgar Záyago, who asserts that the public policy of NT development in Mexico has been concentrated in three areas: the creation of research networks, national laboratories, and industrial clusters (Záyago et al., 2014).

It stands out the almost null support to the investigation on the repercussions of the NT and to nanotoxicological studies in our country.

In addition to the economic support and the visualization of the NT as a strategic governmental sector, the way in which the activities are regulated is framed by what is presented in the international context.

The regulation of NTs at the international level is no longer an issue that obeys those that governments only mention. In multilevel governance frameworks, there are international organizations that establish standardization criteria that, little by little, each nation has the obligation to incorporate into its national and / or regional criteria. This new feature of scientific regulation frames the production and commercialization activity of new technologies, including, of course, the NT.

In this framework, in 2005, the International Organization for Standardization (ISO, for its acronym in English)[10] formed the Technical Committee 229 for the standardization of the NT (ISO/TC 229)[11], which is made up of the international metrology institutes. Through these standardized norms, the basic measures for NT are established, essential concepts, rules of use and management, incorporation, etc. The member countries commit themselves to translate these standards into the specific context.

[9] In this same period, the US agencies invested in NT a figure around 1.666 billion dollars. *http://nanodashboard.nano.gov/*

[10] ISO is an international non-governmental and independent organization made up of 163 nations whose objective is that, through its members, it brings together experts to share knowledge and develop voluntary international standards, based on consensus and relevant to the market, that support innovation and provide solutions to global challenges. *https://www.iso.org/ about-us.html*

[11] *https://www.iso.org/committee/ 381983.html*

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The NT regulation focuses on four aspects: 1, the enormous variety of nanomaterials and their potential applications; 2, the creation of data on the toxicological properties of nanomaterials, as well as their effects on the environment and on living organisms; 3, barriers in accessing information about these new materials, since copyright often interferes with toxicity studies; and 4, the lack of nomenclature and terminology.

In this regard, in 2006 the Organization for Economic Cooperation and Development (OECD) created the Working Group on Manufactured Nanomaterials (WPMN), which is one of the first efforts to establish regulation in the Manufature of nanomaterials internationally. Until 2017, this body has established 59 direct responsibility standards on NT and 37 are under review and development process; It has 37 participating members, as well as 14 observer members.

In our country, it is the National Technical Committee for Standardization in Nanotechnologies (CTNNN) that is responsible for incorporating the parameters established by these organizations into the Mexican reality. The CTNNN was established in 2007 by order of the Mexican Institute for Standardization and Certification (IMNC), leaving the National Metrology Center (CENAM) as technical president in charge of the agency.

Its operation is, in turn, supervised by the Directorate General of Standards (DGN), which belongs to the Energy Secretariat, and is the coordinator of the provisions of the Federal Law on Metrology and Standardization (LFMN). According to this law there are three types of standards: the Official Mexican Standards (NOM), the Mexican Standards (NMX) and the Reference Standards. (NRF).

At the same time, the CTNNN acts as the International Standardization Committee Mirror of ISO / TC 229, whose function is to respond, in a collegial way, through the DGN, to the documents issued by ISO / TC 229. The Committee is made up of 33 institutions (13 from the academic sector, 11 from the industrial sector, 5 from the government sector, two national standardization bodies and a mirror committee).

Six are the fields of action: 1, terminology and nomenclature; 2, measurement and characterization; 3, health, safety and environment; 4, specifications of the materials; 5, social and consumer dimensions; and 6, relationship between nano and biotechnology.

To date, the CTNNN has already started 10 Mexican Standards (NMX)[12]:

1. NMX-J-699-ANCE-2014

Nanoscale electrical contacts and interconnections;

2. NMX-R-10867-SCFI-2014

Nanotechnologies Characterization of single-layer carbon nanotubes (NTCUC) using photoluminescence spectroscopy in the near infrared (EFL-IRC).

3. NMX-R-10929-SCFI-2015

Nanotechnologies Characterization of multilayer carbon nanotube samples (NTCMC).

4. NMX-R-12901-1-SCFI-2015

Nanotechnologies Occupational risk management applied to manufactured nanomaterials. Part 1. Principles and approaches.

5. NMX-R-13830-SCFI-2014

[12] http://www.economia-nmx.gob.mx/normasmx/consulta.nmx

Nanotechnologies Guide for the labeling of manufactured nano-objects and products containing manufactured nano-objects.

6. NMX-R-27687-SCFI-2014

Nanotechnologies Terminology and definitions for nano-objects, nanoparticle, nanofibre and nanoplate.

7. NMX-R-62622-SCFI-ANCE-2014

Nanotechnologies Description, measurement and description of dimensional quality parameters of artificial grids.

8. NMX-R-80004-1-SCFI-2014

Nanotechnologies Vocabulary. Part 1: basic concepts.

9. NMX-R-80004-3-SCFI-2014

Nanotechnologies Vocabulary Part 3: carbon nano-objects.

10. NMX-R-80004-5-SCFI-2015

Nanotechnologies Vocabulary Part 5: nano / bio interface.

There are also 4 NMX projects for different NT branches:

1. PROY-NMX-J-699-ANCE-2014

Nanoscale contacts and interconnections.

2. PROY-NMX-R-10798-SCFI-2016

Nanotechnologies Characterization of carbon nanotubes of a scanning electron microscopy layer and X-ray energy dispersion spectrometry.

3 PROY-MNX-R-12901-2-SCFI-2016

Nanotechnologies Occupational risk management applied to manufactured nanomaterials. Part 2: Use of the band control approach.

4. PROY-NMX-R-80004-6-SCFI-2015

Nanotechnologies Vocabulary. Part 6: caracerization of nano-objects.

While it is true that the effort to incorporate the standardization chain that ISO / TC 229 provides globally, so is the fact that in Mexico it is progressing at a very slow pace and with a smaller scale. Only ¼ of the technical standards published by this agency in the NT branch have been adapted by the CTNNN, and it should also be considered that of the 10 already stipulated in the Official Gazette, 5 are of terminology, and only 5 they are applicable to some stage of the NT value chain.

We would like to highlight, finally, that of the 11 members belonging to the industrial sphere within the CTNNN, 3 are business groups: the National Chamber of the Cosmetic Products Industry (CANIPEC)[13], the Society of Cosmetology Chemists (SQC) and the Nanotechnology Cluster of Nuevo León, A.C. The first two have such a global economic power that they have stopped the legislation regarding the use of chemical materials in beauty, cosmetics and hair products. It is striking that no Mexican Standard, nor any project, touches those issues.

[13] Quien agrupa a poderosas empresas del ramo como Procter & Gamble, Frabel (L´Óreal), Avón, Revlon, entre otras.

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Conclusions

NTs are a technological package that has been placed at the forefront of modern scientific knowledge. Being a knowledge of the matter at a still unknown scale, its uses and applications have generated amazement for its innovative devices until a debate for the repercussions that can cause both human health and the environment.

The R & D in this field of science is mainly inclined towards applied science, where the amounts of investment from national governments and international organizations, to private investors and large capitals. However, this R & D does not address the repercussions that nanoparticles and the series of incorporations made with nanomaterials are known to bring.

Nanotoxicology has raised its voice to make public alarming results in laboratories about the use of nanotechnologies in animals, so it is expected that its indiscriminate use in humans will have large-scale repercussions. Some even claim that we are the generation samples of the NT.

At the international level, organizations such as ISO, OECD, Friends of the Earth, PETA, etc., have managed to put the issue on the table, in such a way that some national governments and international standardization systems are already taken into account by governments to implement policies and production standards with respect to the NT.

However, these only reach the level of partial obligations or voluntary implementations, so the ground to follow remains broad.

The discussion should focus on making an analysis of the value chains where the NTs are involved in order to accurately locate in what stage it is involved, in what degree and in what way it can affect human health and the environment.

In Mexico there are already 10 Mexican Standards that try to establish production and management standards for those industries that manage and incorporate NT; there are 4 more that are in draft Standards. There is a Committee specialized in the field where they meet, in an interesting exercise of governance, governmental entities, academics and industry, where these issues are discussed in diverse analysis tables. This Committee serves as a body / mirror of what ISO / TC 229 points out internationally, although until now it has only managed to implement 1 of every 4 norms that this organism has stipulated for its member countries.

The professionalization, as well as the incorporation of knowledgeable members in the subject, are two priorities that this Committee must take into account, since, according to data from the ETC, every day four new products with NT are incorporated into the market without necessarily having been tested. its possible effects, without proper labeling and without precise knowledge of its benefits.

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A. Submission of papers to the areas of analysis and modeling problems of the:

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- Objectives, organization and behavior of the company
- Non-profit organizations and public enterprises
- Politics of defense of the competition
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General explanation of the subject and explain why it is important.

What is your added value with respect to other techniques?

Clearly focus each of its features

Clearly explain the problem to be solved and the central hypothesis.

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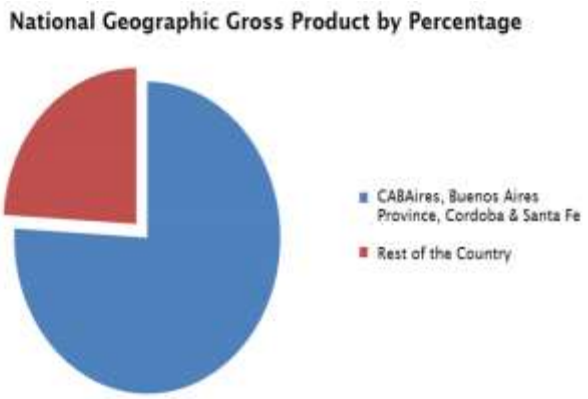

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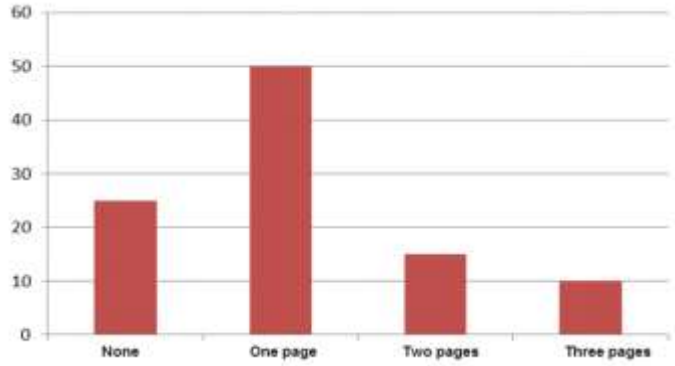

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