
Research Project pursued under the Japan-Mexico Training Program for the Strategic Global Partnership JFY2013-2014 at the IP Graduate School Of the Osaka Institute of Technology


October, 2014.
And what, Socrates, is the food of the soul? Surely, I said, knowledge is the food of the soul.

Plato

To the three cornerstones of my life.

With special acknowledgement to the great work carried out by the Japanese International Cooperation Agency (JICA) as well as each one of the Professors, Lecturers and every member of the Osaka Institute of Technology (OIT) involved in the “JICA Project.”
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GLOSSARY (KEY CONCEPTS) AND ABBREVIATIONS

AO: Appellations of Origin;

CHUSHO: Small and Medium Enterprise Agency in Japan;

CLT: Collective Trademarks;

Collaboration Activities: used to refer to the activities carried out between Research Institutes, Universities and Transfer of Technology Offices with different industrial sectors;

CONACyT: the National Council of Science and Technology in Mexico;

CT: Certification Trademarks;

IMPI: used to refer to the Mexican Institute of Industrial Property as the Administrative Agency established in 1993, depending on the Mexican Ministry of Economy, in charge of developing the Industrial Property Policies and Actions Plans;

INADEM: the National Institute of the Entrepreneur in Mexico;

Innovation: the idea embodied as a process, product, marketing or organization owned by a person or group of persons that adds original value into a new field or into an existing one, regardless of the protection that it may obtain through Intellectual Property Rights;

Innovator: a person of group of persons who came up with an idea (embodied as a process, product, marketing or organization) that adds original value into a new field or into an existing one;

IP: used to refer exclusively to Industrial Property Rights (patents, designs, utility models, plan varieties, trademarks, slogans, appellations of origin and so on);

Intellectual Property Policy Outline: Ministerial Document issued in 2002 by the former Japanese Prime Minister Koizumi, establishing the general axis of the Japanese Intellectual Property Policy, with the goal of making of Japan a Nation based in Intellectual Property;
JPO: Japanese Patent Office;

METI: Ministry of Economy, Trade and Industry in Japan;

MSME: used to refer to Micro, Small and Medium Enterprises;

National Development Plan: the Mexican Federal Policy launched in 2013, in order to tackle and attend Mexico’s development. In summary, such Policy has as main goal make of Mexico a society based on rights, where everyone has effective access to the rights granted by the Constitution;

OVOP: used to refer to the One Village One Product Japanese initiative;

Protected Innovation Plan: the Action Plan issued by the Ministry of Economy and the Mexican Institute of Industrial Property containing the set of goals to be achieved during 2013-2018. This specific Plan contains goals like promotion and awareness of IP;

PTK: used to refer to Productive Traditional Knowledge as the type of Traditional Knowledge with commercial and industrial application and in consequence, with more possibilities of being protected through Industrial Property channels;

R&D: Research and Development;

Stakeholders: any related party, either and Individual or an Association, of Public or Private nature that (1) is/are or may be involved in the Intellectual Property Policy making; (2) is/are or may be affected by the IP Policy making process; (3) is/are or may be IP direct users, either as “consumers” or service providers;

TK: used to refer to Traditional Knowledge in accordance to the definition adopted by the WIPO within its White Papers (Intellectual and intangible cultural heritage, practices and knowledge systems of traditional communities, including indigenous and local communities. In other words, traditional knowledge in a general sense embraces the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols associated with traditional knowledge);

TLO: Technology Licensing Office;
Top-Bottom Policy Approach: policy making process by which, the involved parties draft specific plans and actions in a vertical scheme on which affected parties and final users may have a little or limited role;

INTRODUCTION

About the Intellectual Property Course of the Japan-Mexico Training Program for the Strategic Global Partnership JFY2013-2014

The Japanese International Cooperation Agency (JICA) along with the National Council of Science and Technology (CONACYT), under the framework of the Japan-Mexico bilateral relation, have developed the Japan-Mexico Training Program for the Strategic Global Partnership by which around 34 Mexicans are selected to be trained in their speciality field comprising at least 7 different training areas, including Intellectual Property Rights.

The main goal of the Intellectual Property Rights Course is to enhance the capacity of Small and Medium-sized Enterprises (SMEs) for Intellectual Property Rights protection in their corporate activities, aiming to nurture the personnel in order to engage in the policy/strategy making for supporting them. To achieve such goal, the JICA established an alliance with the Osaka Institute of Technology (OIT) which for the past 8 years has been receiving at its Graduate School of Intellectual Property, Fellow Researchers with Intellectual Property background. During 9 months, the JICA and the OIT make available for the Fellow Researcher a set of Lectures, Interviews, Conferences and Visits allowing him/her to obtain a general framework of the Intellectual Property status in Japan.

About the Research Project

As participant of the Japan-Mexico Training Program for the Strategic Global Partnership on its 42nd Edition and 2013 Intellectual Property Researcher at the Graduate Intellectual Property School of the OIT, the Research Project entitled Empowering Innovators within the Mexican IP Policy: heading towards a Knowledge-based Society. A comparative study with the Japanese experience, was developed with the goal of providing a general picture over the Mexican Industrial Property Policy and the way on which it connects with three of the main innovation nests: Research Centres-Universities, MSMEs and Productive Traditional Knowledge.

By taking a comparative approach with the Japanese experience and emphasising over the importance of creating communication tools between Policies, Plans and Actions to be aligned in the same sense and with the main goal, this Research covers a wide area of Stakeholders who seem to be in need of tools that provide them a clear understanding over Industrial Property and the way on which they can be benefited from its use.
To understand the status of the Mexican and Japanese IP Policy, the research was divided into 4 main Chapters and each one of them shares the same structure: Mexican Stakeholders Context; Mexican IP Policy interaction with the Stakeholders; Japanese IP Policy; Japanese IP Policy interaction with the Stakeholders and Lessons to be learned from the applied Policies.

With this in mind, Chapter One focuses on the General IP Policy Status of both countries and in the reasons that gave birth to such Action plans and how they have been working during these last years. From the Mexican side, the National Development Plan from 2013 to 2018 sets the general axis to which all Government Policies and Actions should be aligned, while the Protected Innovation Plan for 2013 to 2018 translates such National goal into the Industrial Property Sector, although due to its sectorial nature it may leave aside the important role of Research Institutes-Universities, MSMEs and Productive Traditional Knowledge. On the other hand, the Japanese context shows the importance of making out of Intellectual Property a National goal to which all sectors must be committed, as it was stated within their Intellectual Property Policy Outline, launched in 2002.

Mexican and Japanese IP Policies adopt a top-bottom approach which is natural and functional for their vertical societies. Nonetheless, if having a clear vertical axis is important, having a clear interaction channel between the Policies and the ones who will be using them is essential. In this sense, by going from the broader analysis (Chapter 1) into the analysis of three specific Stakeholders (subsequent 3 Chapters) comprehension of strengths and weaknesses of both systems is achieved:

-Chapter 2, entitled “The role of Research Institutes and Transfer of Technology Offices within the Mexican Industrial Property Policy”, runs a brief analysis over three main aspects: (1) the status of Mexican Universities and the relation they have with Industrial Property as a tool to promote and protect their research (this analysis is obtained from the National Survey of Collaboration Activities on Institutions of Higher Education), (2) the existing tools in the Mexican context in regard to Universities and Industry collaboration and (3) the way on which the Japanese policy has been interpreted and used by Japanese Research Institutes and Transfer of Technology Offices to enhance the Mexican practice. For this latter point, out of all the performed interviews and visits, two Japanese Model Cases were picked and included in order to understand the interaction between Policy-Actions-Stakeholders: the NAIST and the HITECH.

-Chapter 3, entitled “The role of Micro-Small and Medium Enterprises within the Mexican Industrial Property Policy”, runs a brief analysis over three main aspects: (1) the status of Mexican Micro-Small and Medium Enterprises and the use they made of Industrial Property, (2) the existing tools in the Mexican context in
regard to the way on which Micro-Small and Medium Enterprises can reach Industrial Property and (3) the way on which the Japanese policy has been interpreted and used by Small and Medium Enterprises to enhance the Mexican practice. For this latter point, out of all the performed interviews and visits, two Japanese Model Cases were picked and included in order to understand the interaction between Policy-Actions-Stakeholders: Engineer Co. Led, and the Japanese IP Education System.

Chapter 4, entitled “The role of Productive Traditional Knowledge within the Mexican Industrial Property Policy”, runs a brief analysis over three main aspects: (1) the status of Mexican Traditional Knowledge and Productive Traditional Knowledge, (2) the existing tools in the Mexican context in regard to the way on which local communities and original communities can reach Industrial Property and (3) the way on which the Japanese policy has been interpreted and used by these stakeholders to enhance the Mexican practice. For this latter point, out of all the performed interviews and visits, two Japanese Model Cases were picked and included in order to understand the interaction between Policy-Actions-Stakeholders: the Ainu Community and the Su-zuki craft.

Due to the fact that each Chapter has the same structure, the four of them may be read independently and without the need of going into the full research paper (although the reading of Chapter 1 is recommended to understand the key concepts).

Industrial Property Rights are often seen as one of the main tools for business units, however, as we may see along this Research Paper, many Policies and Action Plans have a top-bottom approach making difficult for the final users the clear understanding of how Industrial Property may maximize their benefits.

Not only in Mexico, but also in Japan, communication and understanding seems to be the main challenge and in order to tackle that point, placing the innovator (either a University Researcher, a General Manager or a local community) in the centre along with its innovation is completely necessary to understand which Industrial Property strategy fits better and, in consequence, may be of more benefit. To increase the level of understanding, three questions must be answered before transforming the Policy into concrete Actions: Who is the Innovator? What is the Innovation about? What does the Innovator want to do with his/her Innovation?

Finally, is necessary to acknowledge that the Federal Government along with the corresponding Agencies are responsible of creating the general axis and specific actions, though, if the Industrial Property Service Providers as well as the rest of the Stakeholders do not commit with such goal, very few will be reached in terms of Industrial Property use and understanding.
CHAPTER 1
MEXICAN INDUSTRIAL PROPERTY (IP) POLICY STATUS

1.1. Mexican IP Background

IP Theory may be approached from different areas. However, its undeniable economic nature has made of this field of Law one of the most explored tools when drafting Policies to promote the economic growth of a Nation.

Since 2000, Mexico has embarked in a number of Social, Economic and Political changes mainly seeking international competitiveness. Nonetheless and despite all the efforts, the existence of an enormous social and economic gap between Mexicans, place the country within the first places of inequality in the World:¹

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<tbody>
<tr>
<td>Population living in poverty</td>
<td>46.1%</td>
<td>45.5%</td>
<td>52.8</td>
<td>53.3</td>
</tr>
<tr>
<td>Population with at least one social deprivation</td>
<td>74.2%</td>
<td>74.1%</td>
<td>85.0</td>
<td>86.9</td>
</tr>
<tr>
<td>Population with income below the minimum welfare line</td>
<td>19.4%</td>
<td>20.0%</td>
<td>22.2</td>
<td>23.5</td>
</tr>
</tbody>
</table>

If we continue approaching to IP merely as an economic tool, we will continue limiting its scope of benefit especially in developing countries like Mexico, since as recognized by scholars and Government officials, the use of the same is limited to a very specific target that does not focus within the average Mexican business units.

Mexican experience over IP has a fairly long history and already enjoys the existence of several Intellectual Property Institutions, Policies and Regulations, therefore Mexico is not starting from scratch. With at least 153 Intellectual Property related Laws, Regulations, Decrees and Treaties\(^2\), both at National and International level, the Mexican Intellectual Property legal framework has a wide and stable structure:

**Mexican Intellectual Property Legal framework**

- Basic Laws: 4
- Related Laws: 50
- Appellations of Origin Regulations: 20
- Treaties: 79

Despite these figures, clearly some Intellectual Property Rights will have more relation with certain type of industrial business, while other will be more related to a different social and productive stratum. In consequence, no homogenous Policy can be applied to every business unit and instead a stratification would be needed, since in some cases the correct approach would be a top-bottom, while in some other cases the bottom-top approach would be more appropriate.

As mentioned by Kenneth C. Shadlen, “the principle problem with Mexico’s IP regime is that is geared to promote innovation and the commercialization of new knowledge as if the country were much more developed and therefore capable of generating and absorbing inventions at a rapid pace\(^3\) and naturally this seems reflected within the IP Policies as well as in the effective use of IP made by Mexicans.

As we will explore within this paper, Mexican IP Policy appears to be drafted as an inclusive tool but also as a tool to promote foreign investment. Additionally, the parameters established within Mexican IP Policies gave pre-eminence to the quantitative figures, leaving aside the main role of qualitative parameters.

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As mean of example, the number of patent applications made by residents of Mexico in the period comprised from 1991, when the new IP Law was introduced, until 2005 increased only a 4%, while the number of applications by foreigners almost tripled during the same period.⁴

Fortunately, Mexican Government is aware of this situation and has acknowledged its commitment to increase the use of Intellectual Property Rights as a tool to boost Mexican creation and innovation. In order to achieve such goal, the Federal Government, as the head of the policy making process, has applied two different strategies:

a) Amendments over the IP Law, Regulations and Policies in order to increase the level of innovation performed by Mexicans;
b) Amendments over the IP Law, Regulations and Policies in order to modify the IP framework to make it more suitable to the Mexican reality.

Whichever the way chosen by the Mexican Government, the effects of its Policy have been slowly reflecting within Mexican development, e.g. in 2013, Mexico jumped 16 places, into the 63rd place within the Global Innovation Index published from a collaboration among the Cornell University, INSEAD Business School, and the World Intellectual Property Organization (WIPO) of the United Nations (although in 2014, Mexico dropped to the 66th place).⁵

The role of public policies and the way on which the Government makes use of the same are extremely important to increase the impact of IP, particularly within three main players that have a relevant role in the innovation making-process:

Micro, Small and Medium Enterprises;
Research Institutes and Universities;
Traditional Knowledge

All over the World, the importance of these latter has been acknowledged by establishing specific Policies and Regulations directed to them and it seems that the Mexican IP Policy also recognizes such relevance. Nevertheless, acknowledgement does not translate into an effective recognition and inclusion into the practice of the Policy.

⁴ Ibid.
1.2. Current Mexican IP Policy

National Development Plan at Federal Level

Taking into account the above explained Mexican context, the Mexican Government launched on May 20, 2013 the National Development Plan from 2013 to 2018 in order to tackle and attend Mexico’s development. In summary, such Policy has as main goal make of "Mexico a society based on rights, where everyone has effective access to the rights granted by the Constitution"\textsuperscript{6}, divided into five national goals and three transversal strategies:

\begin{itemize}
\item \textbf{General Objective:} Bring Mexico to its full potential
\item \textbf{Three Transversal Strategies:}
  \begin{itemize}
  \item Democratizing the productivity
  \item Near and Modern Government
  \item Gender Perspective
  \end{itemize}

\item \textbf{Five National Goals:}
  \begin{itemize}
  \item Mexico in Peace
  \item Inclusive Mexico
  \item Mexico with Quality Education
  \item Prosperous Mexico
  \item Mexico with Global Responsibility
  \end{itemize}
\end{itemize}

Under the “Prosperous Mexico” goal, the Mexican Government established the following relevant facts over the current Mexican context:\textsuperscript{7}

1) There are geographical and historical factors limiting the development of certain regions in Mexico along with regulatory factors that have privileged established companies over newly arrived entrepreneurs;
2) The isolated communities in Mexico are also the ones with a larger index of marginalization and poverty;

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\textsuperscript{7} Ibid.
3) Many economic sectors suffer the lack of appropriate regulation or the lack of adequate implementation of the law, allowing “few companies” to block the entrance of new competitors;
4) Respect and understanding the delimitation between private sector and government does not mean bypassing the critical role the State should play in creating the conditions for creativity and innovation to flourish and to strength freedoms and rights of Mexicans;
5) Strategies and lines of action for a new and modern economic development policy are supposed to be established by this Plan, particularly in those strategic sectors that have the capacity to generate employment, which can successfully compete abroad, to democratize productivity among economic sectors and geographic regions, and generate high value through integration with local supply chains.

On the other hand, under the “Mexico with Global Responsibility” goal, the Federal Government established and confirmed the following facts:

1) The privileged geographical allocation of Mexico is one of its greater advantages since it provides a larger access to international trade through its littorals;
2) However, trade opportunities are often limited to specific sectors and regions taking into account the existence of fixed costs in foreign trade translating into barriers that are important for a broad productive sector;
3) Mexico needs to strengthen its presence abroad to enable the State to guard national interests and increase the projection of Mexicans abroad.

Until that stage of the National Development Plan, it would seem logical to make use of IP from its economic perspective. However, when looking into more detail, is possible to find out two additional points that give the opportunity of using the IP not only from its economic perspective but also as a tool of social inclusion:

Under the “Inclusive Mexico” goal, the Mexican Government acknowledges the importance of ensuring the effective exercise over the social rights of the citizens, but going forward from the usual paternalism and ensuring the creation of links between human resources and incentivising the citizens’ participation. Additionally, the National Development Plan expressly considers that national development is a shared goal to which all Mexicans must commit and that the Federal Government is the Head of the National axis that should be followed through the implementation of effective policies.

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8 Ibid.
IP Plan at Agency Level issued by the Mexican Institute of Industrial Property (IMPI)

As seen above, the National Development Plan is intended to contain general guidelines to be applied not only by Government Agencies at the Federal and State level, but also to be clearly understood by citizens. In the case of the IP at the Government level, the IMPI is appointed by Federal Law to be the Agency in charge of executing and applying the IP Laws and Regulations as well as creating the corresponding Action Plans in accordance to the general axis established by the Federal Government. In order to do so, the Ministry of Economy (to which the IMPI belongs as a decentralized Agency) issued on April 28, 2014, the Protected Innovation Plan for 2013 to 2018.

Within this 26 pages document, the Ministry of Economy intends to make the transposition exercise from the Federal Level into the Administrative and State Level of the National Development Plan, addressing only two out of the five National goals: Prosperous Mexico and Mexico with Global Responsibility. Throughout this specific Plan, the Ministry of Economy confirms that the IMPI is in charge of the protection and execution of the Policies related to IP and establishes that the goal of this particular program is to promote and facilitate the protection of IP as well as to increase the number of IP applications made by Mexicans as a key measure to increase “innovation”:

<table>
<thead>
<tr>
<th>Inventions</th>
<th>Protection</th>
<th>International</th>
<th>Promotion</th>
<th>Regional</th>
<th>Global Chains</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of Patent Applications</td>
<td>Increase the number of Injunctions</td>
<td>Increase International participation</td>
<td>Promote and Raise IP awareness</td>
<td>Decentralization</td>
<td>Facilitation of trade</td>
<td>Non-Traditional TM</td>
</tr>
<tr>
<td>Promotion of applications filed by Researchers</td>
<td>Increase communication</td>
<td>Negotiate International Agreements</td>
<td></td>
<td>Paperless trend</td>
<td></td>
<td>Appellations of origin</td>
</tr>
<tr>
<td>Strength the relation between Incubation Centres and Patentability Centres</td>
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<tr>
<td>Increase the number of applications from MSME</td>
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As we may conclude from the overview of such strategic plan, the IMPI recognizes the main challenges of today’s Mexican reality and takes into account not only the role of IP from the Larger Companies’ perspective, but also the role of Micro-SMEs, Universities and Research Institutes, although it leaves aside the great importance of traditional knowledge.

If the current IP Policy recently launched established such high goals, e.g. to promote the patent applications to incentive innovation or to promote and raise the society awareness over the benefits granted by the IPRs, then it is also time to look into other countries’ experience to seek the best strategy to be applied in order to fulfil such milestones.

1.3. Lesson to be learned: Japanese IP Policy Comparison

In the case of Japan, the so called “Japanese miracle” went through a rough path after its global acclamation in the 1980s due to the prolonged recession of the lost decade (1990), which made it rethink its strategy: the resources were there, the key step was to identify the correct places to allocate them. Then, country leaders and experts took a step back and after an in-depth study launched the itinerary for the reconstruction of the Japanese miracle route.\(^\text{10}\)

During the first months of 2002, the Japanese authorities globally announced that the destination to reach was the enhancement of the international competitiveness of its industries; the route was the protection and use of the Intellectual Property Rights while the resources were the research, innovation and creative activities of its industries.

The Intellectual Property Policy Outline, launched in June 2002, was an ambitious plan establishing as cornerstones: the creation of Intellectual Property Headquarters (IPHs) and Technology Licensing Organizations (TLOs), the creation of Universities’ Start-Ups, the improvement of the researcher’s conditions and the enforcement of the Intellectual Property Rights (expedition of patent process, protection of local branding and development of international cooperation).\(^\text{11}\) By means of such Outline, the Japanese Government set as target priority measures to make Japan a Nation built on Intellectual Property:

- Strengthening of Efforts to realize a Global Patent System;
- Establishment of a Patent court function;


- Reinforcement of Measures against Counterfeits and Pirated Copies;
- Reinforcement of Protection of Trade Secrets;
- Strengthening of Creation of Intellectual Property and Management thereof at Universities;
- Fostering of IP Experts.

Additionally, the Intellectual Property Policy Outline recommended passage of the Intellectual Property Basic Law as the basis of implementation of the Intellectual Property Policy Outline, by the 2003 ordinary, Diet session. At the same time, the Intellectual Property Basic Law provided for (i) making the activation of an intellectual creation cycle a national goal, (ii) establishing the Intellectual Property Headquarters which were meant to lead the reform in a cross-ministry manner, and (iii) preparing the Intellectual Property Policy Plan:

More than ten years have passed since the first glance of the Japanese Intellectual Property Policy and the achievements are numerous, although the same has been subject to several trials and mistakes as well as many critics from many sectors, however, this latter is not the subject of this paper. Instead, the long Japanese Intellectual Property Policy experience is extremely helpful for developing countries that find themselves in similar conditions as Japan was back in 2002.

As mentioned before, Japan established the goal of becoming an Intellectual Property based society and the features of its IP Policy establish a high standard that may be difficult to reach for Developing countries which still are in the industrialization process. Notwithstanding such fact, it is possible to establish the main differences between the Mexican Protected Innovation Plan for 2013 to 2018 and the IP Japanese Policy to conclude which of such cornerstones may be suitable for the Mexican IP Policy drafting and implementation:

1) Ministerial Nature of the Intellectual Property Policy Outline: in February 2002, during the annual address to the Diet, by the then Prime Minister Koizumi, made the first statement related to this document by recognizing that “Japan already possesses some of the best patents and other IP in the world. I will set as one of our national goals that the results of research activities and creative endeavours are translated into
IP [rights] that are strategically protected and utilized so that we can enhance the international competitiveness of Japanese industries."

By this particular statement, Japan adopted the Intellectual Property Policy not only as a sectorial goal but as a Policy to which all sectors should be committed. Conversely, in the case of the Mexican Protected Innovation Plan for 2013 to 2018, the same was issued by the Head of the Ministry of Economy making reference to economic goals and endeavours, limiting the number of role-players involved in the creation and implementation of the same as well as the public awareness of the common citizens, which naturally translates into promotion and understanding of the IP system.

2) Policy Nature of the Intellectual Property Basic Law: The Basic Law on Intellectual Property (Law No. 122 of 2002) has a particular nature generally unknown by the Mexican Law drafting practice. As already established, the Outline had a Policy nature and contained several recommendations and actions to be pursued, however, for the implementation and execution of high goals, the mere existence of an Intellectual Property Policy was not enough. In order to ensure the correct implementation and execution, the Japanese Government decided to approve the Law No. 122 that did not contain provisions related to Intellectual Property in the strict sense, instead a set of General Provisions, Basic Measures and Implementation guidelines were introduced as a way to raise the mandatory nature of the measures established within the Outline:

“The purpose of this Law shall be, for the objective of realizing a dynamic economy and society that is based on the creation of added values through the creation of new intellectual property and effective exploitation of such intellectual property in light of a growing necessity for intensifying the international competitiveness of Japanese industry in response to the changes in the social and economic situations at home and abroad, to promote measures for the creation, protection and exploitation of intellectual property in a focused and planned manner by stipulating the basic ideas on the creation, protection and exploitation of intellectual property and the basic measures to achieve the ideas, clarifying the responsibilities of the State, local governments, universities, etc. and business enterprises [emphasis added], establishing the Intellectual Property Policy Headquarters, and providing stipulations on the

development of a promotion program on the creation, protection and exploitation of intellectual property.”\textsuperscript{13}

Contrariwise, Mexico does not have a Basic IP Law covering Policy aspects, but a set of Laws and Regulations over the core matters, e.g.: IP Law, Copyright Law, IP Regulations, Plant Varieties Law:

“The purpose of this Law is to:
I. Lay the foundations to permit the country’s industrial and trade activities to have a permanent system for the improvement of their processes and products;
II. Promote and encourage inventive steps with industrial applications technical improvements and the dissemination of technological knowledge in production sectors;
III. Promote and support quality improvements of goods and services from the industry and trade in a manner consistent with the interests of consumers;
IV. Encourage creativity in the design and presentation of novel and useful products;
V. Protect industrial property by means of regulation and granting of invention patents; registration of utility models, industrial designs, trademarks and advertisements; publication of commercial names; actions to protect appellations of origin and regulation of trade secrets;
VI. Prevent acts against industrial property or acts that constitute unfair competition in relation to industrial property, and implement sanctions and penalties for such acts and VII. Establish legal certainty between parties in the operation of franchises, and guarantee non-discriminatory treatment of all franchisees from the same franchisor.”\textsuperscript{14}

From the above cited Articles it is clear that the objectives of those two Laws are different, corresponding to each country’s necessities, one being a developed Nation trying to overcome an economic crisis and the second one a developing Nation going through the industrialization process.

Nevertheless, the Law No. 122 incorporates within its Article 1 and throughout the whole document one of the most relevant and important characteristics to turn IP into an inclusive tool: the clarification of the responsibilities of the State, local governments, universities, etc. and business enterprises. This particular


element is not exclusive of developed countries and since Mexican IP Policy aims to increase Mexicans’ use and awareness of IP, building tools for such undertaking is crucial:

<table>
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<tr>
<th>Role-player</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Japanese State</td>
<td>Formulation and implementation of measures for the creation, protection and exploitation of IP.</td>
</tr>
<tr>
<td>Japanese Local Governments</td>
<td>Formulation and implementation of autonomous measures attending to the distinctive features of the specific territory.</td>
</tr>
<tr>
<td>Universities, etc.</td>
<td>Developing human resources, carrying out research and diffusion of the results, assuring proper treatment of researchers, formulation and implementation of IP strategies respected by the State and local governments attending to the characteristics of the research.</td>
</tr>
<tr>
<td>Business enterprises</td>
<td>Make efforts for positive exploitation of the IP that is created by themselves or by other business enterprises and the IP that is created by universities.</td>
</tr>
</tbody>
</table>

3) Intellectual Property Policy Plan as a Special Purpose Vehicle: Article 24 of the cited Japanese Law establishes the creation of the Intellectual Property Policy Headquarters that has, among others, the responsibility of developing a promotion program as well as the implementation of the same. Additionally, the Head of the Headquarters is at the same time the Prime Minister who is assisted by the Vice-Directors (State Ministers) and Members.

The duty established within Article 24 is materialized through the Intellectual Property Strategic Plan that has a dynamic nature allowing the same to be adapted and modified in accordance to the context of the time on which the Plan is supposed to be executed. Since the first Strategic Plan launched in July 8, 2003 until the last one, launched the last July, 2014, a continuous review and adjustment has been made consolidating the Japanese IP Policy as a long-term strategy:
The 2014 Strategic Plan initiates a new stage over the Japanese IP Policy, moving from the mere IP Institutions into other knowledge related items, like Digital network society and soft power through the content industry.\textsuperscript{15}

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Concrete goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building up a global intellectual property system for enhancing industrial competitiveness:</td>
<td>Realization of the world’s fastest and highest quality patent examinations; Fundamental review of the employee invention system; Comprehensively strengthening the protection of trade secrets; Efforts for international standardization and certification; Enhancing the functionality of industry-academia-government collaboration; Preparation of the place for development of human resources for intellectual property.</td>
</tr>
<tr>
<td>Support for enhancing intellectual property management by SMEs and venture companies:</td>
<td>Support for overseas intellectual property activities by SMEs, venture companies, and universities.</td>
</tr>
</tbody>
</table>

Improving the environment for adjusting to the digital network society:  
Improvement of infrastructure; Acceleration of development towards promoting the use of archives.

Strengthening soft power focusing on the content industry  
Promotion of overseas development of content and cooperation with incoming business; Countermeasures against counterfeits and pirated goods; Human resources development in the content industry.

As mentioned before, it is not the goal of the present paper to determine whether or not the Japanese IP Policy has been successful enough to be considered as a model to apply overseas. Ultimately, it is the duty of each Nation, aware of its own particularities, to draft and execute an appropriate IP Policy, which in the case of Mexico must take into account its developing nature. The analysis and comparison of the Japanese IP Policy and practice allows to recognize three elements that are essential, no matter the nature of the country:

- The role of Universities and Research Institutes;
- The importance of Business units (not specifically SMEs);
- The relevance of soft power and culture strategies.

When exploring the Japanese experience, it is important to acknowledge that Mexico cannot intend to apply the same strategies but to use the Japanese path, especially for the above three fields, as a guideline. Therefore, in the case of Mexico a combination of bottom-up and top-bottom approach would seem more suitable to improve the conditions of those three key stakeholders, depending not only on the field of IP, but also on the users of the system and the needs of the same, otherwise the same will be condemned to a very limited success.
CHAPTER 2
THE ROLE OF RESEARCH INSTITUTES AND TRANSFER OF TECHNOLOGY OFFICES WITHIN THE MEXICAN IP POLICY

2.1. Mexican Status over Academia-Industry relationship

2.1.1. National Survey of Collaboration Activities on Institutions of Higher Education

Within the Protected Innovation Plan for 2013-2018, the Strategy 3.2 reads as follows:

“Strategy 3.2. To promote the protection of productive knowledge:
3.2.1. To encourage patenting in order to incentivize innovation;
3.2.2. Promote national patenting among members of the national research system;
3.2.3. Strengthening the relationship with Incubation Centres and Centres of Patenting [emphasis added];
3.2.4. Increase the development and registration of IP from entrepreneurs and Micro and SMEs.”

In 2007, the former Mexican Government launched the National Development Plan for 2007-2012, containing as one of the main goals improving the distribution of educational opportunities and establishing as one of the strategies the implementation and improvement of the relation between Academia and Industry. With such aim in mind, the Ministry of Education along with the Centre for Economic Research and Teaching (CIDE) performed in 2010, the National Survey of Collaboration Activities on Institutions of Higher Education (Universities). From such Survey, five relevant points were highlighted:

a) Frequency or Intensity of the Collaboration Activities: Almost 90% of the interviewed Institutions confirmed that they had presence of Companies or other Organizations participating in the education of their students. However, only 18.36% confirmed having Companies or other Organizations with activities strengthening the Academic personnel. Finally, only 16.31 confirmed having Start-up Companies.

b) Strengths and Weaknesses to implement collaboration activities: in regard to the poor research and development (R&D) activities, 35.28% of the interviewed Institutions stated as main reason the lack of promotion while in regard to Start-up companies, 12.98% considered as main obstacle of implementation the lack of budget.

17 The Survey included a sampling frame of 352 Institutions of Higher Education.
c) Incentives to promote collaboration activities: three main incentives were mentioned by the interviewed Institutions in order to establish collaboration activities with Companies and other organizations. A total of 84.9% considered that by establishing these kind of activities, the Institution could achieve a higher local, regional and national impact; while, 67% considered that the same would help in achieving the Institutional goals and 72% believed that such activities would have a positive impact over the applied research and innovation.

d) Institutional Collaboration Capabilities: three factors are extremely relevant for an Institution to be able to establish these kind of activities: formal structure of the organization, collaboration programs and plans as well as human resources and available infrastructure.

e) Results of collaboration activities: despite the fact that at least 98% of the interviewed Institutions recognized these activities as an Institutional goal, when it comes to R&D activities, the figures are extremely low.

From the above cited results is possible to confirm that the Academia-Industry relationship focuses within the Employment Sector and many resources are used in order to strength this specific type of relation.
### 2.1.2. Current efforts: CONACYT, TTO Network and INFOTEC

Within the Protected Innovation Plan for 2013-2018, the Sector Goal 1.6 makes explicit reference to the Academia-Industry relationship, stating as milestone the promotion of innovation under the scheme of academia, private sector and government collaboration scheme (Triple Helix).

In the same sense, several efforts and mechanisms have been established not only from the Government side but also from the private sectors side. In an effort to gather all the available information related to Public Programs, the Scientific, Technological and Advisory Forum ([Foro Consultivo, Científico y Tecnológico, A.C.](#)) launches on a yearly basis Catalogue of Programs for Industrial Development and Collaboration Activities and for the 2013 Edition, around 213 Programs were located and divided into the following fields:

<table>
<thead>
<tr>
<th>Category</th>
<th>Programs/Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Development</td>
<td>24 Programs / 5 Agencies</td>
</tr>
<tr>
<td>Public Banking for Industrial Development</td>
<td>54 Programs / 3 Agencies</td>
</tr>
<tr>
<td>Linking Programs</td>
<td>15 Programs / 10 Agencies and Organizations</td>
</tr>
<tr>
<td>Local Programs</td>
<td>156 Programs / Spread among States</td>
</tr>
</tbody>
</table>

Such wide network, offers several examples of Programs and Actions taken not only by the Public but Private Sector, like the following:

a) Progress Program ([Programa Avance](#)) of the National Council for Science and Technology (CONACYT):

It is a program designed to promote the identification and creation of opportunities based on the exploitation

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of scientific and/or technological development business however, the same is not in operation and the only call was launched in 2008. The program aims to achieve such goal through 9 different types of support, of which the following are relevant for the Academia-Industry relation:

### New Business

<table>
<thead>
<tr>
<th>Goal</th>
<th>Benefits</th>
<th>Support areas</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making scientific and/or technological developments tested in pre-commercial stage to achieve the integration phase of the business prospectus.</td>
<td>Creating new businesses with high added value; Technical and Economic feasibility studies.</td>
<td>Associated costs over the IP Strategy; Costs of consultants and/or advisors specializing in Business;</td>
<td>Companies related to the scientific, technological and/or technological development research listed in the National Register of Scientific and Technological Institutions</td>
</tr>
</tbody>
</table>

### Patents

<table>
<thead>
<tr>
<th>Goal</th>
<th>Benefits</th>
<th>Support areas</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster and detonate intellectual protection of inventions in Mexico following the application of scientific knowledge and/or technology.</td>
<td>Encourage scientific and business community to patent inventions with commercial potential.</td>
<td>Associated costs over Government and Experts fees over the prosecution of National IP Rights (Patents, Utility Models and Industrial Designs).</td>
<td>Independent inventors; Higher Education Institutions, Research Centres and micro-small Companies related to the scientific, technological and/or technological development research listed in the National Register of Scientific and Technological Institutions.</td>
</tr>
</tbody>
</table>

**TTO**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Benefits</th>
<th>Support areas</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote the design, integration and implementation of methodological offices.</td>
<td>Develop academic projects and collaboration projects.</td>
<td>Initial Legal Advice; Successful adoption of tested models of technology marketing, technology transfer and licensing; Consultants Fees specialized in the integration stage of TTO.</td>
<td>Higher Education Institutions; Research Centres; Start-ups based on technology listed in the National Register of Scientific and Technical Institutions.</td>
</tr>
</tbody>
</table>

b) TTO Network: One of the recent efforts undertaken by the Mexican Government along with Private and other Public Organizations was the creation of the Technology Transfer Office Network. The same has as main purpose becoming a forum for the exchange of best practices in technology transfer offices. In this specific initiative the role of the CONACYT and the INFOTEC is essential and currently the network includes more than 80 Institutions.

c) INFOTEC: is a public research and technological development Centre part of CONACYT. Their approach is aimed at business enterprises, through which they support public and private organizations in the implementation of Information and Communication Technology for the benefit of their objectives.20

The main services offered by the INFOTEC are related to the Information Technology field: IT Strategy, Business Model, Website Building and Managing, Project Management, Technological strengthening, Software, Infrastructure (Telecommunication, Information Security, Databases, Monitoring, and E-mail), Systems and Applications, Digital Library. Although the INFOTEC is designed to supply services and offer technology not only to the Public Sector but also to the Private one, its main service projects are related to Government Agencies:

Projects Portfolio

<table>
<thead>
<tr>
<th>Client</th>
<th>Service</th>
</tr>
</thead>
</table>

From the three above cited examples is possible to confirm that Mexico is not a beginner in the field of Academia-Industry relation. However, the work performed by these three specific organizations is rather a sectorial effort and it has not yet reflected within the Innovation Index or the Patent figures.\textsuperscript{21}

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Centres</td>
<td>53</td>
<td>56</td>
<td>66</td>
<td>79</td>
<td>107</td>
<td>121</td>
<td>160</td>
<td>642</td>
</tr>
<tr>
<td>Universities</td>
<td>71</td>
<td>70</td>
<td>103</td>
<td>105</td>
<td>138</td>
<td>178</td>
<td>292</td>
<td>957</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>126</td>
<td>169</td>
<td>184</td>
<td>245</td>
<td>299</td>
<td>452</td>
<td>1,599</td>
</tr>
</tbody>
</table>

The current global trend shows that Universities have adopted a new mission through the incorporation of Transfer of Technology. In the Mexican case, as well as in many Latin-American Universities, the production of “academic patents” is rather a recent fact which has been favoured by recent Government Policies, Law Amendments as well as Private efforts.

Nonetheless, many challenges are being faced since the generation of patents depends on several external and internal factors, like the research capacity and quality, the adequate mechanisms and bodies to be in place as well as the existence of flexible and adequate guidelines to deal with university-industry links.\textsuperscript{22}

\textsuperscript{22} Calderón-Martínez, María Guadalupe; García-Quevedo, José Knowledge transfer and university patents in Mexico Academia. Revista Latinoamericana de Administración, vol. 26, núm. 1, Mexico, 2013, pp. 33-60, available at \url{http://www.redalyc.org/pdf/716/71629937003.pdf} visited on September 18, 2014.
2.2. The Japanese Approach: success and failure exercises

In many countries the main players of IP are companies. However, in Japan ¼ of the researchers are working at Universities and as we know, Japan holds more than 14 Nobel Prizes out of which 2 were granted to Tokyo University researchers. In consequence, Japanese Government realized about the importance of establishing a strategy in this field and determine: how to deal with researchers’ inventions?

2.2.1. Japanese Innovation Policy

As a response to that question, in 1995, the Basic Law for Science & Technology Policy was issued and on 1996, the five year Science and Technology (S&T) Plan was also launched:

1st plan (96-00)
2nd plan (01-05)
3rd plan (06-10)
4th plan (11-15)

Additionally, as already explained, in 2002 the Intellectual Property Basic Law was enacted and in 2003 the Intellectual Property Strategy Headquarters were established. Finally, the strategy to deal with researchers’ inventions had 3 stages:

First stage: Promotion of human interchange through Technology Licensing Offices (TLO);
Second stage: Revolution of structures for technology transfer through University Venture’s plan of 1,000 and the Incorporation of National Universities;
Third stage: University-Industry-Government collaboration as an important measure to create innovations through invigorating regional potential making use of New Science and Technology Act on Enhancement of R&D Capacity, the Amendment of Act on Special Measures for Industrial Revitalization and the establishment of High-Tech Innovation Centers.

Such long-term and specific strategy had to deal with the previous Academia-Industry relation that proved to be complicated to effectively promote and incentivize the exploitation of their inventions, since before 1998, the Researchers had two options to transfer technology:
After 1998, a new Technology Transfer scheme was established, making use of the TLO’s that could be established either as private or public corporation (like the case of Tokyo University on which the TLO was established as a private corporation outside the University funded by the same professors). However, after the incorporation of National Universities in 2004, this scheme changed to include TLO as part of the Universities, although some of them kept their previous private and independent nature:
From the perspective of Professor Katsuya Tamai, technology transfer became a big issue in Japan due to three main factors, which definitely differ from the Mexican case:

a) Increasing demand for accountability on National Universities from Japanese taxpayers;
b) Increasing competition among National Universities, and
c) The importance of University-based innovation acknowledged in the public opinion.

Additionally, critical voices have raised the question if University based inventions failed to be economically utilized in Japan. Notwithstanding this situation, Japan has a strong and rich experience in establishing Transfer of Technology projects and it is a fact that Universities and Public Research Institutes are actively engaged in a variety of areas that lead to creative inventions that are difficult for private companies to develop by their own resources. Moreover, there are plenty of transfer models explored within the Japanese Institutions, depending on the pursued interest:

(i) Licensing,
(ii) Collaborative research or contract research, and
(iii) Technical assistance.

2.2.2. The Japanese Innovation Policy in Practice

The implementation of this particular Policy is still suffering several changes and an ongoing evolution, however, in the practice is possible to find several examples on the way on which Universities and Research Centers apply the Japanese existing Policy as well as take an active role into the application of the same using not only the mechanisms provided by the Policy and the Government Plans, but also the knowledge acquired through years of experience and through the continuous trial and mistake practice.

In the Japanese case, several Research Institutes and TLOs are engaged in the innovation process and in the development of communication mechanisms between Industry-Academia. The following two examples offer a clear picture on how the Japanese Innovation Policy has been used by the stakeholders to connect it with IP:

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Model Case 1 – NAIST*

Background

The Nara Institute of Science and Technology (NAIST) is a National University based in the Nara Prefecture with three different Graduate Schools: Information Science, Biological Science, and Material Science.

As a national university integrated solely by graduate schools, the NAIST conducts advanced research and educates accomplished individuals to support the development of society through science and technology.

The NAIST has the highest income from patents per faculty member of any Japanese university, obtained by licensing technology transfers to private companies in diverse areas, and is also creating new university ventures to exploit research achievements. The University intends to engage in the further promotion of international industry-government-academia collaboration, with particular emphasis on the training of personnel capable of playing an active role in the international community, as one of the universities’ founding objectives.

The main objectives of the NAIST are established within the policy:

(1) Assistance to enable faculty members to collaborate with overseas companies, universities, and other entities
(2) Promotion of international industry-government-academia collaboration
(3) Risk management during the promotion of international exchanges
(4) Developing human resources who can facilitate smooth, appropriate, and energetic international collaboration

including technology, legislation, languages, negotiating, and contracts.

Finally, one of the most important roles of this Center is related to the evaluation of the invention in order to determine if the same has not only technical merit but also business feasibility.

Interview Findings

The NAIST allows researchers to change their venue (form one University to another) and in such scenario, is very important to determine who the inventor is:

<table>
<thead>
<tr>
<th>Invention</th>
<th>University A</th>
<th>University B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed before changing</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Completed after changing</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Registered before changing</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Registered before changing but promoted and used after changing</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

In regard to royalties, the general rule applied by most universities, is the 1/3 rule:

![Inventor 1/3 University 1/3 Laboratory 1/3]

By the same, if the invention has no technical merits but a great business feasibility, they encourage the researcher to commercialize its invention without IP.

Under the NAIST practice, no litigation case has arisen from their IP license experience. The main aim of the NAIST is the creation of knowledge; therefore, if they have to compromise some of their interests in order for their technology to be used, they do so.

Conversely, the NAIST has a large number of IPRs licensed overseas to foreign companies. In consequence, they do make use of the PCT with specific destinations, like US, China, Korea and EU. Additionally, is possible to make use of a subsidy granted by the JAIST for the fees of the overseas applications.

One of the most difficult tasks of the NAIST is to communicate with the faculty members (researchers) that will want to obtain their patent right, therefore, when the invention does not meet the patentability standards stated by the NAIST policy, they are unhappy. Luckily, this has changed during the last years since the NAIST applies a dual elements evaluation:

![Technical merits Business Feasibility]

However, in the case of the NAIST, since the laboratories have a large budget granted by the Government, they apply a different rule:

*The contents of this case were gathered during an interview performed to Mr. Kubo as Head of the Transfer of Technology Department at the NAIST on August 21, 2014.
**Model Case 2 - Hokkaido Industrial Technology Centre – HITECH**

**Background**

In Japan each Prefecture has a technological Centre, but usually this institutions' support limits to the R&D stage. However, the activities of the HITECH are slightly different trying to offer a full service (going from the very first contact to the mere commercialization).

The HITEC was established in 1986, as the core research and development facility in Hakodate community. This organization is managed by the Hakodate Regional Industry Promotion Organization.

**Interview findings**

The work of the HITEC is focused in the fields of: Food Technology, Biotechnology, Mechanical and Electronic Technology, Process technology, Material technology and Project promotion.

The advantage of covering this wide area is that it allows the Centre to combine technologies developed inside widening the effect of the research.

The HITEC supports these fields through the following activities: Research and Development, Test and analysis, Cooperative research (in this stage, IPRs are considered), Technical experience, Technological consultation, Commercialization support and Industry-Academia-Government collaboration.

The main work of the Centre is carried out through 37 staff members, with 18 departments related to R&D, divided into the following 6 stages:

-Technical advice and consulting: attending around 400 cases per year and the first contact is usually established through e-mail.

-Research and development: this is the second step of the relationship and the main function of this centre is this step. Joint research average number is 40 cases per year. Besides this, there are tests and analysis stages performed.

-Financing: since SMEs have not enough resources, the Centre provides 2/3 of the research cost (around 5 cases per year and 3 million yen per case, since the Centre has a limited budget of 300 million yen).

-Market development: after making the new product, the next stage is also problematic since they have no specific strategy. This Centre also provides support during this stage by paying the costs of exhibitions, with 20 cases per year.

-Human resource development: by holding training courses and paying the tuition fees.

As to the Centre’s IP Policy, they have three major rules depending on the type of work to be developed:

**a) Joint Research Guideline**

-Inventor’s contribution rate: the same is decided between the Centre and the Company or researcher. According to the rate they determine the amount to be paid by each party over the patent application fee and the annuities.

-Royalties: after getting patent and licensing, they request the amount according to the amount of the contribution.

**b) Contract or Funded Research**

-Contribution rate: The Company covers all the costs.

-IPRs: The IPRs belong to the company.

**c) Employee’s invention**

-A Committee for Employees’ Inventions is the one deciding the policy to be applied.

-After reporting the invention, they decide whether the same is under the Centre’s scope or an employee invention.

-The Centre becomes the applicant and the employee the inventor.

-After granting the patent, the employee receives 1/3 remedies.

-Non patentable rule: the Centre has many examples of technology, mostly related to food that is not suitable of patent protection. However, if it is not suitable to patent protection but is a good business, they still commercialize the invention.

* The contents of this case were gathered during an interview performed to the Planning Director of the HITEC, Mr. Hiroyuki Yoshino on September 11, 2014.
2.3 Lessons to be applied from the practiced Policy

The success of any Policy not only lies in the fact that the drafters understand the interests and needs of the stakeholders to which the Policy will be applied, but also in the constant trial and mistake exercise. As previously stated, the success or failure of the Japanese Innovation and IP policy related to Academia-Industry Relationship is out of the scope. However, through the above cited cases is possible to confirm that there are at least 5 relevant characteristics playing an important part in the creation of a communication channel between Academia-Industry relation and since Mexico is beginning its trial and mistake stage, the same may be used as example path:

a) Key Staff with Industry Links

One of the most successful measures applied by TLOs as well as Research Centres has a pragmatic origin: the strategic recruitment of Key Staff with previous working experience in the Industry Sector has proved to be one of the best schemes to start building a fruitful relationship. Many Heads of TLO Departments as well as Research Centres had a strong Industry background and this allows to have a direct channel with Companies as well as to increase the trust of this latter to opt for R&D activities developed through these types of partnerships. Naturally, this measure does not come from any Policy, but instead from the mere practice and acknowledgement that Researchers are not Businessmen and their task is to produce innovations using the available resources.

b) Definition of the Hands on or Hands off approach

TLOs and Research Centres should have a delimited task, otherwise they might end up trying to cover assignments outside of their ordinary scope. As seen through the selected case studies, some Institutions limit their scope to the Licensing activities, while some others try to cover not only the evaluation of the invention but the commercial and marketing strategies. Although some sectors may criticize this latter, if the Institution has the necessary resources to be involved in that stage, there is no reason why they should not. However, in order to determine the correct approach, each Institution must assess the kind of resources they have and align them with the Institutional target.

c) Clear and Comprehensive evaluation channels

Japanese endeavours are well-known for having very specific procedures and the Academia-Industry relation is not the exception. Before the invention reaching any commercial channel, the same will have to
pass the first filter and for such evaluation the TLO or the Research Centre establishes clear communication mechanisms with the Researcher/Professor. Such kind of difficult task must take into account two relevant characteristics:

First, Professors are focused in their research/invention which for them has not only a possible commercial purpose, but is also a factor usually considered when the University or Institution evaluates their performance. In some cases, not only the number of published papers but of filed patent applications plays a great role in their internal evaluation. Consequently, the estimation of the invention should be made with extreme care and without limitation to the IP assessment.

Secondly, the evaluation process should have a specific embodiment: communication will be the main challenge not only between Academia and Industry, but inside the TLO or the Research Centre. Therefore, establishing a specific Division in charge of the evaluation of the invention is one of the key success factors, either as an Evaluation Committee or as Permanent Body, but with the capacity of providing an earlier and multidisciplinary evaluation.

d) Combination of business and technical merits test

Related to the above highlighted points, one of the main tasks of the TLO or Research Centre would be the evaluation of the invention in regard to IP protection. However, as already explained, the evaluation cannot be constrained to the IP area and Japanese TLOs as well as Research Centres already have incorporated a double test considering the patentability of the invention as well as the business feasibility. By having this two-tier test the TLO and Research Centre is securing not to drop a good business because it has no possibility of obtaining a patent.

e) Reasonable IP and Transfer policy

As seen in the Mexican Policy Approach over Academia-Industry relation, many Universities incorporate within their Institutional goals the creation and strengthening of Academia-Industry relation however, when it comes to IP and Transfer Policies, the ground is unclear. The existence of a set of specific guidelines is indispensable to learn how to manage the inventions made either independently or in collaboration with the Industry. Such set of guidelines may vary from Institution to Institution but one permanent characteristic should be the flexibility, since in many cases they will have to compromise (usually at the financial level) in order to close a deal.
The Japanese Academia-Industry relation confirms a global trend: Companies are seeking for Knowledge Partners, since R&D activities are becoming more and more expensive and risky. Assessing for the right partner is now the goal of the Industry and having a clear policy related to IP, Licensing and Partnering will be one of the main reasons to pick or not certain TLO or Research Department.

The Japanese IP and Innovation Policy was effective in the sense that it achieved the establishment of TLOs as a measure to establish a channel of communication between the Academia and the Industry however, it was flexible enough to allow them to establish their own measures attending to their own needs and previous experience, confirming that the role of the Policy was being the main axis which delegated within the stakeholders the success, evolution and modification of the same.

On the other hand, it is also a fact that Mexico has acknowledged the relevance of the relation between Academia-Industry, although there is no comparable Policy. Additionally, Mexican Universities and Research Centres are producing inventions but the stage of the Mexican Academia-Industry relation is not the same as the Japanese one and the first steps in building such clear axis may take advantage of the Japanese example stressing into the above five points that empower the role of the stakeholders. Both, Mexican and Japanese Policies are built through a top-bottom approach and this corresponds to the nature of their vertical organization. However, in the Japanese case this has not been an excuse for the stakeholders, like Researchers and Professors, to not take an active role into the application and improvement of the tools provided by the Policy.

In the Mexican case, taking into account that the National Development Plan considers that national development is a shared goal to which all Mexicans must commit and that Innovation and IP are regarded as a development tool, building bridges of communication between Policies, Government Actions, Programs and Plans and the Stakeholders is completely necessary. Such communication bridges may take several forms: Guidelines, White Papers, Manuals, Rules, among others. However, the proposed common characteristic between these types of documents are the following:

1) Drafted with a bottom-top approach, in order for the stakeholders to clearly understand their position and role in the complex world of the Policies;
2) Placing the Innovator with the Innovation at the middle to determine what the innovation is about and what does the Innovator wants to do with it;
3) Acknowledging the fact that Universities and Research Centres’ interest over IP (usually) is to foster innovation and dissemination of their researching work.
Finally, as a remaining point for both countries, is essential to recognize that Policies and Government Actions may have a limited effect if the stakeholders do not commit to apply and improve through the practice of the existing mechanisms. In this point the role of IP Service Providers (General Law Firms, IP Law Firms, Marketing Agencies, and Patent Pools) is crucial, therefore, if both Governments have a differentiated Policy when it comes to Universities, TTO and Research Centres, these IP Service Providers may start to develop specific strategies for these IP users, otherwise, they will continue providing services designed for a different user and losing a potential and increasing market.
CHAPTER 3
THE ROLE OF MICRO, SMALL AND MEDIUM ENTERPRISES (MSME’S) WITHIN THE MEXICAN IP POLICY

3.1. Mexican MSMEs Status over IP

3.1.1. Mexican Institute of IP 2013 Report

The World Intellectual Property Organization (WIPO) within its Strategic Plan at medium term from 2010-2015, published in 2010, establishes that during 2007 the companies based mainly in “knowledge” and “technology” were responsible for the 30% of the world’s economic performance, equivalent to 15.7 billion USD. However, that figure does not include any type of company, but only those that (1) understand the importance and value of Intellectual Property Rights and (2) have enough resources to prosecute and exercise the value granted by Intellectual Property Rights.

In the case of Mexico, it is not possible to determine with certainty if a patent or trademark application has been filed by a Micro, Small or Medium Enterprise (MSMEs), since Mexico does not require to disclose such type of information when filing an application before the IMPI.

Notwithstanding this situation, the Mexican Institute of Industrial Property (IMPI) issues on a yearly basis an Annual Report containing the main numbers of IPRs filed attending to the type of right and nationality of the right holder. Between the years comprised from 1990 to 2000, the number of patent filings from Mexicans considerably decreased with an Average Annual Growth Rate (AAGR) of 4.6%, while the AAGR of patent applications coming from Foreigners was of 12.4%, almost doubled.

As seen on the following charts, the average percentage of Patent Applications filed by Mexicans during the period comprised from 2010 to 2013, amounts to 7.1% and even when the number of Mexican patent applications have increased year by year, the AAGR is of 0.4%. Additionally, Mexican MSMEs focus within the consumer field which holds the highest number of patent applications. Conversely, Mexicans tend to opt for the trademark protection, either because the application and granting procedure is easier to achieve or simply because this type of right fits better to their business necessities:

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In the Mexican case, MSMEs represent, at least, 99.8% of the registered business units, providing more that 70% of employment and that generate 52% of gross domestic product (GDP). If we pay enough attention to the National Development Plan as well as to the strategy developed by the IMPI, MSMEs may be one of the key players in the successful implementation and use of the same. However, the goals intended to be achieved through the same may set the bar extremely high (e.g.: increasing international trade, increasing innovation level), if we take into account the general features of most MSMEs in Mexico:

a) Increasingly informal sector: Mexican MSMEs originate in two different ways (1) enterprises with an act of incorporation, wherein is easy to identify its internal organization, including the relation between its members, recognized as part of the “formal sector” and (2) business units, generally with a family base and most of the times within the “informal sector.” Additionally, the informal sector plays a relevant role when talking about MSMEs and their main features are:

- Small scale work;
- Rudimentary organization in which there is little or no distinction between labour and capital;
- Employment relations, if they exist, rely more on casual employment or kinship;
- Without legal incorporation and usually out of the Tax system.

Regrettably, there is no official census offering data as to the amount of informal business units established in Mexico, however, the National Institute of Statistics and Geography (INEGI) offers a public survey containing official numbers related to informal employment, considering that this concept includes not only informal MSMEs but also: unprotected work in farming, unpaid domestic household workers and employees in formal economic units but without social security service.

Under such context, the results of the survey indicated that during the first semester of 2014, all forms of informal employment totalled 28.7 million people, of which 13.7 million where in the informal sector, 2.2 million were paid domestic service, and 6 million were in the agricultural industry and 6.8 million at enterprises, government and other institutions:

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b) Familiar Component: most of small business units in Mexico have this element, since the same were established by some family member. One of the main features of family companies is that the emotional and business elements are combined, playing a relevant role within the functioning of the company. Also, social capital in the family business is the result of the intersection of the personal estate, therefore, succession of business has become a great problem over these kind of business.

c) Relevant Micro Sector: the role of the Micro sector in Mexico is fairly relevant when comparing with any other country. During the 2008 census performed by the INEGI, from a total of 1,858,550 business units, 97.1% were micro business units (up to 10 workers), out of which 48.9% corresponded to food sale business, 12.9% to stationary and other articles sale business and 11.9% to clothing and footwear.28

The results herein cited may offer several interpretations:

a) Mexican MSMEs offer a mixed picture and in consequence, no homogenous strategy may be applied;

b) The statistics of use of IP Rights may suggest that Mexican MSMEs do not have innovations to explode, however, such affirmation would be just a mere possibility;

c) The main characteristics of these business units combined with the statistics of use of IP Rights may offer a different conclusion: MSMEs do have innovations and knowledge that may be protected through IP Rights, however, the lack of experience and information in that field may be the key as to why the use of IP Rights mechanisms is relatively small in comparison with the use made from larger corporations.

3.1.2. Current Mexican IP Policy Efforts over MSMEs: INADEM and IMPI

Within the Protected Innovation Plan for 2013-2018, the Strategy 3.2 reads as follows:

“Strategy 3.2. To promote the protection of productive knowledge:
3.2.1. To encourage patenting in order to incentivize innovation;
3.2.2. Promote national patenting among members of the national research system;
3.2.3. Strengthening the relationship with Incubation Centres and Centres of Patenting;
3.2.4. Increase the development and registration of IP from entrepreneurs and Micro and SMEs [emphasis added].”

In the case of Mexico, as in many other countries, MSMEs are in need of a full support strategy including not only financial aid but management training, and this latter includes the Knowledge Assets Management skills. Nowadays, many modern theories point out that IP is considered to be a category within the universe of Knowledge Assets or Intellectual Assets and in order to maximize their benefit, the first step is the location of the type of knowledge and then, as a second step, to seek for its protection (if possible) through IPRs.29

In an effort to gather all the available information related to Public Programs, the Scientific, Technological and Advisory Forum (Foro Consultivo, Científico y Tecnológico, A.C.) launches on a yearly basis the Catalogue of Programs for Industrial Development and Linking Activities and for the 2013 Edition, around 213 Programs were located and divided into the following fields:30

29 During the Dynamic Theory of Organizational Knowledge Creation, Ikujiro Nonaka makes a clear distinction between two different types of knowledge that is applicable to the scenario herein studied: a) Explicit knowledge understood as Accumulated intellectual capital, with a tangible embodiment, usually identified with data, and documents; b) Implicit knowledge understood as Accumulated intellectual capital, without an intangible embodiment, usually identified with experience, know-how, values and beliefs. From the above explained, it is possible to confirm that IPRs are Knowledge Assets that contain implicit and explicit knowledge and that the same are commonly used during the functioning of any business unit. However, its benefit depends on the type of business unit that is making use of such tool. Nonaka, Ikujiro. A dynamic theory of organizational knowledge creation. Organization Science, Vol. 5, No. 1, U.S.A. pp. 14-37, available at http://www1.uni-hamburg.de/ami/lehre/Veranstaltungen/WS_0607/Innomarketing/Rueckschau/Nonaka_OS_1994.pdf

Such wide network, offers several examples of Programs and Actions taken not only by the Public but Private Sector, like:

1) INADEM: The National Institute of the Entrepreneur was created in 2013 through a Decree as part of the Ministry of Economy\(^{31}\), with the main goal of implementing, executing and coordinating a national policy of inclusive support for entrepreneurs and MSMEs, fostering innovation, competitiveness and projection in the national and international markets to increase its contribution to the economic development and social welfare, and contribute to the development of policies that promote the culture of business productivity.

The INADEM has established as method of work “public callings” through which it grants a set of supports divided into four different categories\(^{32}\), if the applicant fulfils the established conditions as well as the corresponding evaluation. During 2014, the INADEM launched 25 different callings divided into 4 fields, out of which the support was spread into 6 main categories: \(^{33}\)

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\(^{32}\) The INADEM divides its work into four main categories: Regional Development and Strategic Sectors Programs, Business Development Programs, Financing and Entrepreneurial Programs and Micro and SMEs Programs.

\(^{33}\) For the specific breakdown of each Calling, please go to [https://dl.dropboxusercontent.com/u/103460515/Annexes.pdf](https://dl.dropboxusercontent.com/u/103460515/Annexes.pdf) and see Annex 1.
By analysing the results herein mentioned, it is possible to confirm that the INADEM Programs have the following main characteristics:

a) They consider as main priority the modernization of the existing MSMEs and in consequence within the 25 different Callings, financial support for Transfer of Technology as well as General Training and consulting (mainly in Business Management Skill Building) are the most common ones;

b) The approach that the INADEM gives to IP is ancillary, i.e. the INADEM has a specific Division dealing with Financial Programs but when it comes to deal with IP related issues, the support provided in this field is inserted within the General Training and Consulting. Additionally, in the area of Specific IPRs, the INADEM offers three different types of aids:

   - Trademark and Patent Registration (no mention of any other type of IPR);
   - International Patent (the INADEM offers this support only in one calling);
   - Management Strategies of Intangible Assets, including IP (the INADEM offers this support only in one calling).

c) One of the main advantages of the working method of the INADEM may be the fact that they consider IP to be a support method included within the Management skills of any Company, since particularly for MSMEs, their main interest when approaching to IP is not to enforce their IPRs against third parties, but instead, to use them as a marketing tool as well as a mechanism to attract investors into their endeavour.

2) IMPI: The IMPI, as the Agency in charge of IP in Mexico, has two main goals when talking about MSMEs. On one hand, the IMPI has set as goal to increase the number of patent and other Industrial applications as a quantitative method to boost innovation in Mexico. However, in order to do so is completely necessary to
set a previous step: reaching to MSMEs in order to promote and explain why IPRs may be useful for their business activities and this latter seems to be a more difficult goal since it requires a qualitative method.

According to the 2013 Annual Report published by the IMPI\textsuperscript{34}, the Divisional Direction of Promotion and Technological Information Services (in charge for promoting and disseminating the IP knowledge in Mexico), informed having a total of 1,398 promotion activities including: workshops, seminars, exhibitions, among others.

Several mechanisms have been established by this Government Agency, but among the ones that have as target the second goal, the role of User Guides, Training Courses and Transversal Programs with other Government Agencies are essential to reach that qualitative goal:

a) User Guides: the IMPI makes available to the public a set of \textit{8 different User Guidelines} (Distinctive Signs, Formal Examination of Distinctive Signs, Patents and Utility Models, Technology Information, Industrial Designs, Enforcement Procedures, Integrated Circuits and PCT).\textsuperscript{35} Such Guides are not specifically drafted to be used by MSMEs but by anyone interested in reaching such type of information, in fact, in some cases the Guide may be used only by experts or at least audience with a higher level of IP Knowledge (like the case of the Formal Examination of Distinctive Signs Guide). The two main characteristics of these User Guides are:

- The approach given by the IMPI through these documents is a top-bottom method, since they depart from the explanation of the legal scheme of protection, e.g.: the contents of the Guides are divided into the definition of the IPR, the legal requirements to obtain such specific IPR and finally the legal procedure to obtain the IPR.

- Due to this, there is no interaction between the different existing IPRs, i.e. if the innovator has a specific innovation that may be protected not only through a patent but also through any other IPR, the Guide does not offer such perspective, since they explain each separately.

b) Seminars, Training Courses and Exhibitions: one of the best methods to reach a wider audience in a more direct way are the Seminars, Training Courses and Exhibitions and with this in mind, the IMPI informed that during 2013, about 58 different Courses were held and that the same gathered around 2, 345

\textsuperscript{34} IMPI EN CIFRAS 2014, Op. Cit.
\textsuperscript{35} IMPI Outline, available at \url{http://www.impi.gob.mx/QuienesSomos/Paginas/Publicaciones.aspx}, visited on October 1, 2014.
participants.\textsuperscript{36} As mean of example, during the months of October to December of this year, 11 different Courses will be available at the IMPI’s Headquarters, out of which 2 are of particular relevance for MSMEs since they relate to Innovation and IP Management skills: Technological Innovation Workshop and Strategy Development for Technology Commercialization and IP Protection Workshop.\textsuperscript{37}

c) National Network of the Entrepreneur (Transversal Programs): as mentioned before, the newly established INADEM as Head of the Policy axis related to MSMEs, launched as a transversal initiative the National Network of the Entrepreneur that has as main purpose the coordination of the different Government Agencies’ support policies directed to Entrepreneurs and MSMEs.\textsuperscript{38} Hopefully, the results of this specific initiative will be reflected within the next years and since the IMPI, as well as the CONACyT are part of this Network, more coordination will translate into the maximization of the benefit for MSMEs.

The two above examples show that Mexico is changing its former approach over MSMEs and recent efforts, like the creation of the INADEM are supposed to have a positive impact into their evolution. As well as in many other parts in the World, the approach given to the relation between IP and MSMEs is evolving to be considered as part of the Management Skills as well as part of the Knowledge Assets owned by any type of business. In consequence, the INADEM, the IMPI as well as IP Law firms providing advice to MSMEs may look into this new trend to foster the use of IP made by them.

3.2. The Japanese Approach: success and failure exercises

3.2.1. The Japanese SMEs Policy and its relation with IP

The configuration of current small business units in Japan has had a long history, affected by the isolation and self-sufficiency, as well as by the modernization and liberalization of Japan’s commercial policies. As mentioned by Kenichi Ohno, Japan’s identity has been the product of dynamic changes, some of them, strongly influenced by external forces.\textsuperscript{39} The “modernization” of Japan began at the end of the Edo Period and then found a wide nest of development during the Meiji Era and is even possible to affirm that during such stage, the clothiers were the equivalent to the small scale business as understood nowadays.\textsuperscript{40}

\textsuperscript{37} IMPI Training Courses, available at \url{http://www.impi.gob.mx/Paginas/cursos2014.aspx}, visited on October 1, 2014.
\textsuperscript{38} INADEM Outline, available at \url{https://www.inadem.gob.mx/red_nacional_del_emprendedor.html}, visited on October 1, 2014.
\textsuperscript{40} Within the cotton weaving sector, the production was made mainly by two different types of producers: weaving mills attached to cotton spin companies and small producers (clothiers), which were concentrated in districts and later on
Throughout the end of this period, a series of public policies were established by the Government with the main purpose of increasing the level of specialization and among these strategies, Jitsugyō Gakkō (industrial schools) played a relevant role over the training and specialization as well as the fact that the private sector also began to organize associations called Dōgyō Kumiai that had as primary goal, the regulation of the activities carried out by traders.\textsuperscript{41}

In accordance with Doi Noriyuki, SMEs operated as an independent rival of larger companies within the same industry but, at the same time, through a vertical inter-firm scheme. Under this system, SMEs sold bulk to the big companies functioning as Shitauke (subcontractors) and they participated within the productive chain by supplying outputs.\textsuperscript{42} After the lost decade, due to the boom of the entrepreneurship culture that since then has been rising dramatically all over the World, attention started to focus again over small business units. Nevertheless, as mentioned by Kiyoshi Hori, not every SME is destined to succeed\textsuperscript{43} and not every big company establishes the Shitauke relationship over a vertical scheme.

Along Japan’s history, the role of small business units has been of great importance. First as local markets producing what was sold at the main markets through the Han authorities, then, as suppliers and members organized under the clothiers’ force and finally as proper suppliers under the Shitauke scheme moving from one industry to another, initially under a clear vertical scheme and now with a more independent role.

There is no doubt that Japanese General Policy over SMEs has a strong ground, since it has been developing for more than 100 years, in fact by 2006 there were about 40 different specific laws (sub-laws) and various types of rules (time limit laws) regulating the SME sector in Japan, probably one of the highest SME legal text production among all OECD economies.\textsuperscript{44} However, when it comes to the IP matters, the

\begin{itemize}
\item became part of the industry through the putting-out system as wage-weavers supplying raw materials to big factories, which by then were already established. This putting-out system was the foundation of the current subcontractor scheme that is often seen between SMEs and large corporations in Japan. The modification from the kaufsystem, wherein producers directly sold their products, to the putting-out scheme clearly modified the structure of business along with the modernization of the tools and procedures used during the production. K. Maegawa, “The continuity of cultures and civilization: an introduction to the theory of translative adaptation,” Comparative Civilization vol.10, 1994, Japan, p. 4.


\item Noriyuki, Doi; Cowling, Marc. Determinants of Small Business Presence in Japanese and UK Manufacturing, Discussion Paper Series, Kwansei Gakuin University, Japan, 1995, p. 3.


\end{itemize}
attention paid to this issue was reassessed when the Japanese IP Policy Outline was launched and they began to be considered as innovation nests. Among the efforts applied by the Japanese IP Policy, the role of the CHUSHO (Small and Medium Enterprise Agency) has been crucial in the development and application of specific Policies targeted to SMEs. Under the scope of such Agency, 4 different major Policies are offer:

<table>
<thead>
<tr>
<th>Management Support</th>
<th>Financial Support</th>
<th>Fiscal Support</th>
<th>Commerce and Regional Support</th>
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</thead>
<tbody>
<tr>
<td>Start-ups and Ventures</td>
<td>Safety-net guarantee program</td>
<td>Taxation</td>
<td>Revitalization of commerce</td>
</tr>
<tr>
<td>Business Innovation</td>
<td>Safety-net loans</td>
<td>Accounting</td>
<td>Regional industries</td>
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<tr>
<td>New Collaboration</td>
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<td>Companies Act</td>
<td>Collaboration between Industry, Commerce and Agriculture</td>
</tr>
<tr>
<td>Technological innovation, IT</td>
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<td>Business succession</td>
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<tr>
<td>Intellectual Property</td>
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</table>

Like in the Mexican case, the approach given by the CHUSHO to IP is ancillary and considered to be part of the Management Support provided to SMEs, however, the main aim of the IP Support is by implementing measures to protect intellectual property and measures to combat damage caused by counterfeiting.

One of the mechanisms on which CHUSHO offers direct support in the IP field was built through the **General IP Help Desks** that were established in each prefecture in the Fiscal Year 2011, as a centralized channel for advising people with concerns or problems regarding intellectual property rights. The help desks have

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45 Article 12 of the Small and Medium-sized Enterprise Basic Act establishes that In order to promote business innovation at SMEs, the State shall promote research and development related to technologies for developing new products and services; promote the introduction of plants and equipment to substantially improve the efficiency of production and sale of products; promote the introduction of new methods of business management for integrated control of product development, production, transportation and sale; and take any other necessary measures. Available at: [http://www.chusho.meti.go.jp/sme_english/outline/08/01_02.html#01](http://www.chusho.meti.go.jp/sme_english/outline/08/01_02.html#01), visited on October 2, 2014.


47 Idem.

links to a range of experts and support organizations, providing a one-stop intellectual property service,\textsuperscript{49} along with a specific subsidy for trademarks, patents, utility models prosecution, trademarks infringement prevention and international patent prosecution.

On the other hand, the Japanese Patent Office (JPO), unlike what happens in Mexico, has a specific Policy and Action plan over SMEs. For example, through its Prefectural SME support centres, provides support to SMEs and micro-enterprises and partially subsidizes the costs of filing overseas patent applications. This is intended to strategically promote overseas applications by regional SMEs and micro-enterprises who are planning to develop businesses overseas.

It would seem that the Japanese strategy over SMEs is steps ahead than the Mexican strategy, since they are seeking the strengthening of the SMEs internationalization process. Notwithstanding this fact, the 2\textsuperscript{009} White Paper on Small and Medium Enterprises in Japan issued by the Japan Small Business Institute (JSBRI) along with the Ministry of Economy, Trade and Industry (METI) confirmed that a great number of patent applications are filed in Japan year by year, however out of that amount of applications, only 12\% were filed by SMEs.

Additionally, the results obtained from the Japan Patents’ Office Survey of Intellectual Property-Related Activities and Mitsubishi UFJ Research and Consulting Co., Ltd., Questionnaire Survey on Market Capture and Intellectual Property Strategies, cited during the 2009 White Paper\textsuperscript{50}, concluded that SMEs does not have a specific policy regarding patent applications keeping them at the minimum level, choosing protection through trade secrets:


Despite all the efforts, in accordance to the JPO reports, that 12% has remained as the AAGR and during 2013 around 270,000 patent applications were filed by Japanese citizens out of which only 30,000 were filed by SMEs (equivalent to 12%).

3.2.2. The Japanese SME-IP Policy in Practice

The implementation of this particular Policy is still suffering several changes and an ongoing evolution, however, is possible to find in the practice several examples on the way on which SMEs apply the Japanese existing Policy as well as take an active role into the application of the same using not only the mechanisms provided by the Policy and the Government Plans, but also the knowledge acquired through years of experience and through the continuous trial and mistake practice.

In the Japanese case, several stakeholders are engaged in the Innovation process and in the development of mechanisms to approach to IP. The following two examples offer a clear picture on how the Japanese SME-IP Policy has been used:

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52 Idem.
Model Case 1 – Engineer Co. Led.

Background

Engineer Co. Led. is a Japanese Company located in the Osaka Prefecture that originally began to run business since 1948 as an independent merchant and by 1972 it transformed into a formal Company under the name of Futaba Tool Mfg. Co. After decades of existence, finally in 2002 they adopted the name of Engineer Co. Led. and nowadays the Company has around 30 employees and was able to develop more than 1000 industrial tools.

Additionally, Engineer has been placed as one of the successful examples of SMEs going into the internationalization process since they put their products not only in the Japanese market but also in U.S.A. and among its catalogue is possible to find:

- General use drivers
- Special-use drivers
- Interchangeable drivers
- Nut, Hex, ball points
- Removal tools
- Nippers, strippers, scissors
- Gripping tools
- Tweezers
- Soldering tools
- Microscope and magnifiers
- Testers
- Adjustable angle wrenches
- Pick-up tools

Although the initial market of Engineer was the industrial sector, in a sort of B to B relation, due to the numerous financial crisis, they were forced to expand their market in order to survive and for that purpose two main mechanisms were applied:

1. Outsourcing: they do not manufacture their products, but instead, they create alliances with other SMEs for: supply, research, development and manufacture;

2. Marketing: for reaching different markets (moving into the B to C relation), they developed an added value strategy since it was completely necessary to build an identity to be able to relate with the consumers, e.g.: among their products, two of them are extremely successful in the non-industrial consumers sector and the development of a marketing-IP strategy was essential (Neji-Saurus and Tetsuwan Scissors\(^53\)).

Interview Findings

Japan offers a wide range of SMEs, from the very sophisticated ones in technological fields to the ones that are focused within the retail sector. In the case of Engineer, the role of IP is aligned with the ancillary role given by the CHUSHO and the proactive role of the Engineer members is vital for the development of the IP strategy:

a) Full Product Development Strategy: by combining managing, marketing and IP the General Director of Engineer along with his team, developed a strategy (which for reasons of Copyright will not be detailed herein) going from the bottom to the top.

When developing a new product or modifying an existing one, the Engineer team takes into account not only the market necessities but also the best way to reach that market and by doing so, the use of IP plays a relevant role.

Engineer, unlike large Companies and like most Japanese SMEs, does not have an IP Department but somehow, they have managed to include the IP perspective during the product development, promotion and commercialization.

b) Education as a communication tool: one of the most interesting statements obtained during the interview was the fact that the General Director recognized that IP Experts (including Patent Attorneys) and Businessmen spoke in different languages and although is impossible to reach the level of expertise that IP Specialists have, is important to make use of the Education tools in order to reach an equal communication level. With that in mind, more than the half of the Engineer employees have taken the Intellectual Property Management Skills Test (IPMST)\(^54\).

c) Evaluation of the best IP right to prosecute: the number of IP rights is not equivalent to the success of the product. An evaluation stage is essential to determine if the IP prosecution is worth it, because at the end of the day the IP budget will be limited and when applying for an IPR not only the application but the conservation should be considered.

* The contents of this case were gathered during an interview performed to the General Director of the Engineer Co. Led., Mr. Mitsuhiro Takasaki on June 23, 2014.

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\(^{53}\) The reproduced image belongs to Engineer Co. Led. and it was included within this article for mere educational purposes. For more details on Neji-Saurus and Tetsuwan Scissors visit [http://www.engineer.jp/index_e.html](http://www.engineer.jp/index_e.html)

\(^{54}\) For more details on the IPMST, please refer to:
  - [http://ip-edu.org/english](http://ip-edu.org/english)
Model Case 2 – Japanese IP Human Resources Policy*

Background

The IP education in Japan was raised as a government policy at the beginning of 2000, included in the National Policy based on IP. The government drafted the IP Basic Law and, as already stated, the same has a particular nature and has been used as a sort of slogan in different fields. Within that particular Law, Articles 21 and 22 establish that the Japanese State needed to take the necessary measures to promote education and learning on IP as well as to provide knowledge through public relations activities in order to develop a society in which IPRs are respected. Additionally not only the promotion for the creation, protection and exploitation was stated as an obligation but also the duty of securing and developing human resources having technical knowledge on IP improving their quality in close cooperation and collaboration with Universities and business enterprises, so, in order to fulfil such duty, the stakeholders were commanded to draft a new Study Plan taking into account that the same must be addressed to various students and with an interdisciplinary approach. Additionally, the IP education Plan also needed to be drafted in accordance with the IP cycle and the type of professionals they were seeking to train.

At the undergraduate level, the IP education is divided in two different tiers:

- IP Classes for Law and Non-Engineering courses;
- Creating IP Faculties to provide a 4 year education (equivalent to a Bachelor Degree).

On the other hand, at the graduate school, IP education is provided at:
- Law and non-Engineering courses,
- Engineering courses,
- Postgraduate IP Schools.

The Japanese IP Human Resources Policy has had a wide impact and by 2014 around 40,000 IP Professionals are inserted within the Japanese Labour market:

<table>
<thead>
<tr>
<th>Law firm</th>
<th>Corporations</th>
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<td>7,000</td>
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<tr>
<td>Staff 23,000 Paralegal</td>
<td>Staff 40,000</td>
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Interview Findings

As a consequence of this Policy, Japan has one of the most extensive educational offerings in IP, e.g.:

1) About Tokyo University of Science: The TUS is the oldest private university in the field of Science and Technology (1881), with 5 campus and 2 sister universities. The Master of Intellectual Property (MIP), was established in 2005 and is a 2-year program, either full or part time, with 60 students per year and three main features: Multi-disciplinary theory and practice (Law, Economic, Natural Science…), Faculty of various backgrounds and wide variety of courses and building networks for the education of global IP professionals.

2) About the Tokyo Institute of Technology (TITECH): The TITECH was founded in 1882, with 4788 undergraduate students, 93 research students, 3851 master course students and 1520 PHD Students. In the field of IP, the approach that the TITECH gives is not limited to the Law field, but instead introduces Management strategies combining Law, Business and Technology. In addition, it is possible to have a Doctoral course in Innovation Management.

3) About the Kanazawa Institute of Technology (KIT and its Toranomon Graduate School): The KIT Toranomon Graduate School was established by the Kanazawa Institute of Technology, but with a central campus in Tokyo and offers two 1 year part-time graduate programs for working individuals. The Graduate Program in Systems for Intellectual Property Creation aims to develop intellectual property professionals who can manage the intellectual creation cycle with 200 graduates. The program includes 3 professional courses: IP Professional Development, Intellectual Property Management and International Standardization Strategy Course.

About the Nihon University (Professional Graduate School): Nihon University was founded on 1898. Under the Headquarters of NU the College of Law is located with 5 different courses for the Bachelor Students. After the 5 year course, the students can join the Graduate School of IP, which opened in 2010 with 12 full-time professors and capacity for 30 students per year and a “three mind strategy”: legal mind, science mind and business mind.

About the Osaka Institute of Technology (OIT): the OIT has three different Faculties, including the one on Intellectual Property which was established in 2003 as an undergraduate 4-year program. Additionally, the OIT has a Graduate School of IP, established in 2005, wherein students receive lectures on General and Specific IP topics from 12 full-time Professors along with other Part-time Lecturers. One of the main advantages is that students may have different backgrounds providing different feedback during the lectures.

*The contents of this interview were gathered during the English Seminar of Intellectual Property by JAUIP held in Tokyo last August 25, 2014.
3.3. Lessons to be applied from the practiced Policy

The success of any Policy not only lies in the fact that the drafters understand the interests and needs of the stakeholders to which the Policy will be applied, but also in the constant trial and mistake exercise. As previously stated, the success or failure of the Japanese IP policy related to SMEs is out of the scope. However, through the above cited cases is possible to confirm that there are at least 5 relevant characteristics playing an important part in the creation of a communication channel between SMEs and IP and since Mexico is beginning its trial and mistake stage, the same may be used as a path of example:

1) IP as an ancillary tool: Mexico and Japan have recognized that in the case of SMEs the correct approach should be through the Management field. As seen during this Chapter, the CHUSHO and the INADEM consider relevant the role of IP, however, the support provided is contained within the Management field.

It would seem natural that both Government Agencies approach to IP matters from their field of expertise, taking into account that both of them belong to the Ministries of Economy and their duty is limited within the SMEs universe. On the other hand, when studying the approach that IP Government Agencies (JPO and IMPI) give to SMEs is possible to find a clear difference: in the case of the JPO, an specific Plan over SMEs exists (although is more directed to increase the number of Patent applications and enforcement actions) while in the case of the IMPI, no specific Action Plan is being applied.

2) Education as a promotion and understanding tool: at the beginning of this Chapter it was stated that in accordance to the WIPO Strategic Plan at medium term from 2010-2015, the companies based mainly in “knowledge” and “technology” were responsible for the 30% of the world’s economic performance, however, SMEs still have very little role within that specific amount and one of the main reasons is related to education. To tackle this issue, each country has applied different strategies and at two different levels: education over the use of IP and education to train IP Specialists. In the Japanese case its IP Education Policy has as result more than 40,000 IP specialists Market, however, this does not translate into direct endorsement for Mexico to apply such strategy.

When looking into the Mexican SMEs context, it is clear that the first step aligned along IP Education, is Transference of Knowledge, therefore, before thinking about becoming a nest of Patent Specialists (like Japan) specific training over Transfer of Knowledge should be supported by Government Agencies and IP Service Providers.
3) Use of IP Service Providers as multidisciplinary hubs: related to the above cited point, SMEs represent for both countries more than 98% of the existing business units. Despite this fact, IP Law firms and other IP Service providers tend to focus within Larger Companies and most of their business schemes correspond to the necessities of such customers. The fact is that by doing so, they are losing a huge market and that when an SME approaches them to obtain a specific advice, the same is either too expensive and/or too limited.

Due to the specific nature of SMEs, the role of the IP Service Providers should not be limited to a mere vehicle to file, maintain and defend the IP right of interest, instead a set of specific services are completely necessary and this also requires to recognize that when dealing with the Intellectual Assets of SMEs, a multidisciplinary team is needed since the IP Specialist perspective will not be enough, v.gr.: for SMEs the performance of an Intellectual Capital Report would be essential in order to locate the kind of Intellectual Assets they have and the activities they could perform with them.

Going from the IP exclusive service provider role into the Multidisciplinary approach would seem to be more in line with the perspective provided by the INADEM and the CHUSHO when approaching SMEs as potential clients and in order to do so, the inclusion of Management tools and an ancillary approach are completely essential.

4) Modified IP Cycle: when the Japanese IP Policy Outline was launched, among all the specific milestones, the creation of an IP Cycle was one of the most important ones. The Intellectual Property Cycle, consisting of the creation, protection, and utilization of intellectual property, was positioned as the pillar, along with the enhancement of content and human capital development in the Intellectual Property field.\(^{55}\)

However, when it comes to SMEs, the ground is so uneven that such specific cycle must suffer certain adaptations and modifications in order to meet their necessities taking into account that location of knowledge and continuous education are completely necessary for them:

![Diagram](image)

5) Full stratification: in close relation with the fourth point, Japanese and Mexican SME’s Universe is diverse, going from the long-time established and successful ones to the micro and informal sector, therefore, attempting to reach such wide universe would be impossible. In this point, the bottom-up approach offers an answer to the kind of strategy that would be more suitable, e.g.:

- Mexico is highly recognized in the automotive manufacturing sector, but the SMEs located in the same usually are merely subcontractors. With that context in mind, for that kind of SMEs a transfer of knowledge and Utility model strategy would be of great help;

- Mexican SMEs have wide presence within the Retail Service Sector and this represents an issue when approaching through the “innovation” slogan. Attending to their needs, probably a strategy based on Trademarks, Trade-dress and Branding would be more suitable.

In the Mexican case, taking into account that the National Development Plan considers that national development is a shared goal to which all Mexicans must commit and that SMEs and IP are regarded as a development tool, building bridges of communication between Policies, Government Actions, Programs and Plans and the Stakeholders is completely necessary. Such communication bridges may take several forms: Guidelines, White Papers, Manuals, Rules, among others. However, the proposed common characteristic between these types of documents are the following:
1) Drafted with a bottom-top approach, in order for the stakeholders to clearly understand their position and role in the complex world of the Policies;

2) Placing the Innovator with the Innovation at the middle to determine what the innovation is about and what does the Innovator wants to do with it;

3) Acknowledging the fact that MSMEs’ interest over IP (usually) is to reach new markets and attract investors, instead of enforcing their IPRs against third parties.

Finally, as a remaining point for both countries, is essential to recognize that Policies and Government Actions may have a limited effect if the stakeholders do not commit to apply and improve through the practice of the existing mechanisms. In this point the role of IP Service Providers (General Law Firms, IP Law Firms, Marketing Agencies, and Patent Pools) is crucial, therefore, if both Governments have a differentiated Policy when it comes to SMEs, these IP Service Providers may start to develop specific strategies for these IP users, otherwise, they will continue providing services designed for a different market and losing a potential and increasing market.
CHAPTER 4
THE ROLE OF PRODUCTIVE TRADITIONAL KNOWLEDGE
WITHIN THE MEXICAN IP POLICY

4.1. Mexican Status over Traditional Knowledge

4.1.1. Mexican Traditional Knowledge from its Productive Perspective

Within the Protected Innovation Plan for 2013-2018, the Strategy 3.2 reads as follows:

“Strategy 3.2. To promote the protection of productive knowledge [emphasis added]:
3.2.1. To encourage patenting in order to incentivize innovation;
3.2.2. Promote national patenting among members of the national research system;
3.2.3. Strengthening the relationship with Incubation Centres and Centres of Patenting;
3.2.4. Increase the development and registration of IP from entrepreneurs and Micro and SMEs.”

One of the main reasons why the Protected Innovation Plan for 2013-2018 does not make any mention to Traditional Knowledge (TK) is because such strategy is focused within the “protection of productive knowledge” and within that specific Plan, productive knowledge is defined as “the process and result of applying new knowledge [emphasis added] in production processes; is a kind of knowledge, as embodied in the processes, procedures, technology and products or outcomes and therefore is explicit [emphasis added] and with use value; in other words, [productive knowledge] refers to the practical use of concepts, ideas, new applications, proposals and inventions applied with commercial success.”\(^{56}\) By analysing the elements of the definition given by the IMPI, is possible to obtain two elements of IP that are usually considered to be in opposition with the principles of TK: novelty and explicitness.

At this stage, is completely necessary to provide a definition of TK in order to confirm that the same does not have a productive perspective and is undoubtedly outside of the scope of the Protected Innovation Plan. For such purpose, International Agreements and Conventions already grasped into the main features of TK and have proposed several definitions (although no International Definition has been yet accepted):

\(^{56}\) Agreement by which the Protected Innovation Program, Op. Cit.
<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Definition</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WIPO TK Toolkit</td>
<td>Narrow</td>
</tr>
<tr>
<td>2</td>
<td>WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore</td>
<td>Narrow</td>
</tr>
<tr>
<td>3</td>
<td>WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore</td>
<td>Broad</td>
</tr>
</tbody>
</table>

The level of complexity when trying to define TK is one of the main reasons why no international definition has been accepted and despite the efforts made by the Convention on Biological Diversity (CBD) and the

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59 Idem.
Cartagena and Nagoya Protocol, TK includes a great variety of fields going from the cultural aspect to the biodiversity issues however, the above cited concepts offer a clear picture of the TK's main characteristics and is logical to understand the reasons of the limited role that IP may have over the same. In that line of thinking, the WIPO along with many other Organizations have acknowledged the fact that traditional knowledge as such - knowledge that has ancient roots and is often oral - is not protected by conventional intellectual property systems.  

So then, again, due to the classical principles ruling IP, TK has no direct channel of protection. Nevertheless, some IP schemes have been developing in order to try to protect and promote such type of knowledge and nowadays is possible to find several jurisdictions having their own specific IP legal framework under the so called “sui generis” nature, showing that by providing enough flexibility to the IP classical principles, is possible to offer some sort of protection. However, TK has a double connotation: first, as the bundle of cultural knowledge inextricably linked to the worldview and way of living of a community and, secondly as the bundle of applied knowledge owned by a community that has productive application. In this latter connotation, IP may have more to do since it is related to productive knowledge and one of the main challenges would be the location and creation of communication channels between TK and the Industry along with the corresponding set of rules to govern such transactions.  

In the Mexican case, Productive Traditional Knowledge (PTK) acquires a greater importance due to the mega-diverse nature of the country. In accordance to the National Commission for the Knowledge and Use of Biodiversity (CONABIO), Mexico is considered a "mega-diverse" country, as part of the limited group of nations possessing the greatest number and diversity of animals and plants, almost 70% of global species diversity. For some authors, the group consists of 12 countries: Mexico, Colombia, Ecuador, Peru, Brazil, Congo, Madagascar, China, India, Malaysia, Indonesia and Australia. Other, list up to more than 17, adding to Papua New Guinea, South Africa, USA, Philippines and Venezuela.

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61 According to the WIPO Database, at least 24 countries and 2 Country Organizations (ARIPO and Andean Community) have either a specific Law referring to TK or express mention to TK within the existing IP Laws. One of the most successful cases is the Law Introducing a Protection Regime for the Collective Knowledge of Indigenous People derived from Biological Resources by the Peruvian State, wherein a specific registration and exploitation regime is established making use of the IP Sui generis doctrine.  
62 In accordance to the ARIPO, 80% of the world's population depend on traditional medicine for its primary health needs, over 90% of food in sub-Saharan Africa is produced using customary farming practices, while in China, traditional herbal preparations account for 30% - 50% of the total medicinal consumption whilst in Ghana, Mali, Nigeria and Zambia, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicines at home, from [http://www.aripo.org/index.php/services/traditional-knowledge](http://www.aripo.org/index.php/services/traditional-knowledge), visited on October 10, 2014.  
Now, Mexican diversity not only limits to its plants and animals varieties but also to its multicultural nature as seen on the below Table.\textsuperscript{64} Although Mexico is recognized as a multicultural Nation, originally based on its indigenous peoples, it is still not a Nation fully engaged in the protection and inclusion of the same as part of its diversity and the many identities that indigenous cultures generate by living in an area of about two million square kilometres.

<table>
<thead>
<tr>
<th>Mexico’s Indigenous Population</th>
<th>9 854 301</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethno-linguistic Groups</td>
<td>62</td>
</tr>
<tr>
<td>Indigenous language speakers</td>
<td>5 988 557</td>
</tr>
<tr>
<td>Bilingual Population</td>
<td>5 131 226</td>
</tr>
<tr>
<td>Monolingual Population</td>
<td>719 645</td>
</tr>
</tbody>
</table>

This specific numbers show that within the Mexican context, TK coming from local and original communities acquires a greater level of importance since the same not only has a cultural dimension but also a productive approach that may allow such communities to insert themselves within the current productive chains by making use of their knowledge, although its relation with IP is going under a constant evolution and is still, in many senses, an uncharted territory.


As previously mentioned, the Protected Innovation Plan does not make any express mention to TK or PTK, but instead limits to set Productive Knowledge (PK) as the main target. Nevertheless, within the Protected Innovation Plan three other IP legal schemes closely related to PTK are mentioned: Collective Trademarks (CLT), Certification Trademarks (CT) and Appellations of Origin (AO).\textsuperscript{65}

The so called Program is divided in two main parts: the first one contains a diagnosis of the Mexican IP Status, while the second part refers to the lines of action to be taken in order to reach the established milestones. In the case of CLT, CT and AO, the same are only mentioned in the first part and no specific action is established:

\textsuperscript{64} CDI / PNUD, Sistema de Indicadores sobre la Población Indígena de México, con base en INEGI, XII Censo General de Población y Vivienda, México, 2000.

\textsuperscript{65} The level of protection and differences among those three IP legal schemes has been subject of several studies, however it is clear that the same are not exclusive from each other, although each one of them has more or less relation to specific PTK.
“Other protection schemes: The Mexican government is in the process of negotiating several international agreements, which are rethinking the traditional scheme of intellectual property. For example, opening new technical fields to patentability, the recognition of non-traditional marks (sound, smell, holographic, etc.) as well as a new focus on the issue of geographical indications and designations of origin [emphasis added] is being considered, all of this will require a substantive change to the national legislation.

If such change is being under current examination, it will be of extreme importance the evaluation of the Mexican status of CLT, CT and AOs in relation to their main users and stakeholders (local and original communities):

a) Mexican Collective Trademarks: This specific IP legal scheme is of great help for local and original communities due to its collective nature, however the way on which the system is designed and applied may create certain difficulties for the intended users.

<table>
<thead>
<tr>
<th>Legal Definition</th>
<th>Main Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican IP Law: no definition.</td>
<td>Special Applicants Quality: Associations or Companies</td>
</tr>
<tr>
<td>Applies Conventional Trademark Definition</td>
<td>Special Collective Use Rules</td>
</tr>
<tr>
<td>Applies same Legal Requirements</td>
<td>Special Limitation: exclusive and non-transferrable use</td>
</tr>
</tbody>
</table>

Mexican Collective Trademarks are designed to be registered only by Companies or Associations and the corresponding registration is subject to an evaluation in accordance with the same parameters than the common trademarks. As we may see from the above cited graphic, within the database of the IMPI from Agreement by which the Protected Innovation Program for 2013-2018 is approved, Op. Cit.

For the above graphics, a sample of 183 Collective Trademark registrations was obtained from MARCANET (available at http://marcanet.impi.gob.mx/marcanet/controler/ExpedienteBusca visited on October 14, 2014) and from that sample, the existing Registrations were divided into: PTK – Non PTK, Type of PTK, Type of Distinctive Sign and

67 For the above graphics, a sample of 183 Collective Trademark registrations was obtained from MARCANET (available at http://marcanet.impi.gob.mx/marcanet/controler/ExpedienteBusca visited on October 14, 2014) and from that sample, the existing Registrations were divided into: PTK – Non PTK, Type of PTK, Type of Distinctive Sign and
a total of 183 Registrations of Collective Trademarks (including in force and expired), 172 correspond to PTK, while 11 to Non-PTK, confirming that CLTs are one of the most explored IP legal schemes to try to protect and promote PTK:

The above charts offer a clear picture of the use made by stakeholders over the CLT regime and by interpreting such data within the Mexican IP Legal framework, is possible to offer the following conclusions:

- Type of Use: Mexican CLTs are commonly used as one of the main tools to promote PTK, however, the legal framework to which they are subject is the same than the common trademarks. In consequence, there is no specific IP regime over TK or PTK;

Type of Owner. For the specific sample, please go to https://dl.dropboxusercontent.com/u/103460515/Annexes.pdf and see Annex 2.
Type of PTK: although the common belief is that TK is limited to cultural assets, handicrafts and Folklore, the numbers show that in the Mexican case almost the half of CLT are related to the food and beverage industry (including agricultural products);

Type of Distinctive Sign: from the analysed distinctive signs, half of them use a geographical reference to the place on which the product is made, while the other half makes use of new brands. In accordance to Article 90 of the Mexican IP Law, a trademark may not be registered if it includes “not proper or common geographical names and maps, and also gentilic nouns and adjectives, where they indicate the origin of the products or services and may cause confusion or error regarding such origin, as established by Article 90 of the Industrial Property Law.” In such regard, the IMPI has not applied a regular criterion, since in some cases the applicant is forced to disclaim the geographical reference, while in some other cases the trademark is registered without any obstacle.

Type of owner: from the analysed trademarks, more than the 70% belongs to Civil Associations, confirming that PTK comes from local and original communities. Along with such data, the fact that applicants are compelled to attach to the application the Rules of Use of the trademark provides a certain level of formalization to the common and conventional practices of the communities and in fact, in some cases such rules are not only related to the way on which the CLT should be used, but also to the quality and process of production of the goods or services.

b) Mexican Certification Trademarks: in accordance to the existing legal framework, there is no specific regulation over CT. However, in the Mexican practice, CT are registered as common trademarks and the authorized users are subject to the specific rules established by the owner. In the case of PTK, it would be interesting to see how CT may be applicable taking into account that these type of trademarks are used to certificate the quality of the product (material and procedure included), however, by the time being CT are limited to specific industries and have been developing within the standardization field.

c) Appellations of origin: is possible to affirm that the only IP legal scheme wherein TK and PTK may fit properly, are the AO. However, this specific scheme establishes pretty high standards if we take into account the common characteristics of Mexican local and original communities.
Within the Mexican IP framework, AO are placed as a subcategory of Geographical Indications and this latter are not included in the national legislation. In terms of Article 156 of the IP Law, the appellation of origin refers to the name of a geographical region of the country which serves to designate a product originated therein and whose quality or characteristics are exclusively related to the geographical environment covered by this territory:
From this IP legal scheme and despite the fact that we are consider a multi-diverse Nation, Mexico only has 14 appellations of origin (Tequila, Mezcal, Olinalá, Talavera, Bacanora, Ambar de Chiapas, Café de Veracruz, Sotol, Café de Chiapas, Charanda, Mango Ataulfo del Soconusco de Chiapas, Chile Habanero de la Península de Yucatán, Vainilla de Papantla and Arroz de Morelos) and by looking into the above figures, the following are offered as possible reasons as to the lack of exploitation of this specific IP legal scheme:

- Specific Legal standing: the legal nature of AO results in a Declaration issued by the Mexican Government through the IMPI. To achieve the issuance of such declaration, the IMPI may act ex officio or upon request, in the latter case the legitimate party must submit an application to the Institute, to proceed to the corresponding analysis. However, at this point the Law is very clear in stating as parties with legal standing the following:

I. The persons or entities directly engaged in the extraction, production or manufacture of the product or products to be covered by the AO;
II. Chambers or Associations of manufacturers or producers, and
III. The Departments or Agencies of the Federal Government and the Governments of the Mexican States.

- Standardization to enable the effective exploitation of the AO: the Mexican Norms dealing with standards are the so called NOMs and in the case of the AO, almost 80% of the existent Declarations have their own NOM dealing with the corresponding processes related to their production.

- Regulatory Boards: even though almost 80% of the AO have their own NOM, the effect of the same seems to be extremely limited when there is no lobbying arm organizing and promoting the use and exploitation of the AO. In this sense, 71% of the existing Mexican AO do not have any specific Regulatory Board and this has a direct effect into the correct implementation of the AO.  

By looking into the above cited IP legal schemes is possible to confirm that within the Mexican Innovation nests, a fair amount of TK could be considered as PTK and in consequence as productive knowledge. Therefore, by not establishing a clear strategy within the Protected Innovation Plan, the IMPI is taking for granted a line of action that may have larger impact into the Mexican IP strategy as an inclusive tool.

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68 For the specific AO-NOM-Regulatory Board, please go to https://dl.dropboxusercontent.com/u/103460515/Annexes.pdf and see Annex 3.
4.2. The Japanese Traditional Knowledge Policy

4.2.1. Regional Collective Trademarks, Traditional Crafts and OVOP

From the IP perspective, Japan and Mexico offer a similar view over TK: by looking into the Japanese Intellectual Property Basic Act, no mention is made over TK and instead the efforts set as target “the creation of added values through the creation of new intellectual property [emphasis added] and effective exploitation of such intellectual property in light of a growing necessity for intensifying the international competitiveness of Japanese industry.”  

Additionally, in accordance with the screening performed over the Japanese Legal framework, TK is generally approached from its cultural perspective and when it comes to its productive viewpoint, its transference and commercialization is subject to the common rules.

Despite these similarities, there are several differences among the two countries’ approach over TK (not specifically limited to the IP field). In the Japanese case, two main features are relevant to approach the understanding of TK from its productive perspective:

a) High appreciation over Cultural Assets: in accordance with the 2013 Report issued by the Cultural Properties Department from the Agency for Cultural Affairs, as of August 12, 2012, Japan has 1,083 National Treasures and 12,821 Important Cultural Properties; Individual recognition over 80 items and 111 persons and Group recognition over 26 items and 26 groups as Important Intangible Cultural Properties and 46 items of 52 holders selected as Conservation Techniques. On the other hand, the Japanese Ministry of Foreign Affairs offers an Atlas over the Japanese Traditional Crafts containing a list of 26 different handicrafts and 13 of them have at least 100 Companies involved in their production.

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71 Under the Japanese Law for the Protection of Cultural Properties, six different categories are used to classify Japan’s cultural assets: Tangible Cultural Properties (high historical or artistic value such as structures, paintings, sculptures, crafts, calligraphies, books and documents); Intangible Cultural Properties (high historical or artistic value such as drama, music and craft techniques); Folk Cultural Properties (items indispensable for understanding the transition in people’s daily lives, such as manners and customs relating to food, clothing and housing); Monuments (include shell mounds, tumuli, sites of fortified capitals, sites of forts or castles and monumental dwelling houses, which are of high historical or scientific value); Cultural Landscapes (those that have evolved with the modes of life or livelihoods of people and with the geo-cultural features of the region) and Groups of Traditional Buildings. Available at http://www.wipo.int/wipolex/en/text.jsp?file_id=187600, visited on October 16, 2014.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>No. of Companies</th>
<th>No. of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naruko Kokeshi</td>
<td>Dolls</td>
<td>100</td>
<td>135</td>
</tr>
<tr>
<td>Aizu</td>
<td>Lacquer ware</td>
<td>369</td>
<td>3,600</td>
</tr>
<tr>
<td>Yuki Tsumugi</td>
<td>Textile</td>
<td>731</td>
<td>1,150</td>
</tr>
<tr>
<td>Kiryu</td>
<td>Textile</td>
<td>260</td>
<td>1,050</td>
</tr>
<tr>
<td>Takaoka</td>
<td>Copperware</td>
<td>453</td>
<td>3,416</td>
</tr>
<tr>
<td>Kaga Yuzen</td>
<td>Printer and dyer</td>
<td>333</td>
<td>944</td>
</tr>
<tr>
<td>Kutani</td>
<td>Porcelain ware</td>
<td>474</td>
<td>2,101</td>
</tr>
<tr>
<td>Wajima</td>
<td>Lacquer ware</td>
<td>813</td>
<td>2,734</td>
</tr>
<tr>
<td>Tokoname</td>
<td>Pottery</td>
<td>256</td>
<td>1,050</td>
</tr>
<tr>
<td>Shigaraki</td>
<td>Pottery</td>
<td>150</td>
<td>1,200</td>
</tr>
<tr>
<td>Nishijin</td>
<td>Textile</td>
<td>1,757</td>
<td>22,258</td>
</tr>
<tr>
<td>Kyo Sensu</td>
<td>Folding Fans</td>
<td>132</td>
<td>727</td>
</tr>
<tr>
<td>Arina and Imari</td>
<td>Porcelain ware</td>
<td>156</td>
<td>6,350</td>
</tr>
</tbody>
</table>

b) Incorporation of Traditional techniques into Modern chains of value: the second relevant element is closely related to the fact that many Japanese SMEs have a high level of specialization. In this sense, there are several examples of the way on which Companies have incorporated within their production chains traditional techniques obtaining as a result innovative products or processes and the reinterpretation over such kind of knowledge. As mean of example, the Japan External Trade Organization (JETRO) offers a list of “Japanese Companies with Quality” out of which, two of them are making use of traditional techniques:73

- Numajiri Textile Laboratory: a Japanese Company specialized in the development of original high-quality knits. The Numajiri Textile Laboratory was created from the remains of Hiruma Senkou Company (established in 1903) and took advantage of the existing “old” tools and previous know-how to blend it with the new trends and nowadays all of the fabrics created by Numajiri are produced on original Japanese machines using traditional methods.74

- Momentum Factory Orii, Co. Ltd.: a Japanese Company established in 1950, focused in art copperware colouring, maintenance metal materials, interior and exterior building materials and planning department

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making use of a traditional technique that has passed from generation to generation and now is available in new products adapted to the Japanese market demand.\textsuperscript{75}

Being this the current scenario on which Traditional crafts exist in Japan, is possible to find three different examples of the protection offered:

a) Regional Collective Trademarks: from the IP perspective, the Japanese Trademark Law establishes the possibility of obtaining a Regional Collective Trademark, subject to the fulfillment of the legal conditions. This IP legal scheme is similar to the Mexican Collective Trademarks in the sense that they belong to a group of organized people, however, the regime is more in accordance with the necessities of the stakeholders, v.gr. Regional brands are designed to convey the uniqueness of certain regional products\textsuperscript{76}, in consequence is possible to register trademarks derived from the names of particular geographical regions and the particular products produced in those regions.\textsuperscript{77} In accordance with the 2013 JPO report “by the end of September 2013, 1,044 applications had been filed before the JPO to register regional brands, mainly for local specialty products that are being produced in Japan, with 551 having already been registered as regional collective trademarks.”\textsuperscript{78} Moreover, in 2010 the JPO offered a breakdown by type of product or service covered by the Regional brands:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{2010_Regional_Collective_Trademarks_Registrations_and_Applications.png}
\caption{2010 Regional Collective Trademarks Registrations and Applications}
\end{figure}

\textsuperscript{75} Momentum Factory Orii, Co. Ltd. website \texttt{http://www.mf-orii.co.jp/e-profile.html}, visited on October 16, 2014.

\textsuperscript{76} Before 2005, the exclusive use of these regional/geographical names by only certain business operators was considered to be inappropriate because other business operators might want to use these names as well in their businesses, however in 2006 the new Trademark Act was enacted, introducing the Regional Collective Trademark System.


\textsuperscript{78} Regional Brands in Japan –Regional Collective Trademarks-, Ministry of Economy, Trade and Industry (METI), JPO, Japan, 2013, p. 2
b) The Japanese Law for the Promotion of Traditional Craft Industries (Densan Act): although it might seem that this Law limits to the cultural perspective, this particular Act also provides an economic approach to these type of cultural assets having a high content of TK. Actually, it was the METI who enacted this Act in May 1974 with the objective of promoting the traditional crafts industry in order that the same brought richness and elegance to people's living and contribute to the development of local economy. In order to achieve such quality, the Act establishes a set of requirements with evaluation standards:79

<table>
<thead>
<tr>
<th>Application Requirements</th>
<th>Evaluation Standards</th>
<th>Definition of standards</th>
<th>Main benefits</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Association</td>
<td>Used in everyday life</td>
<td>Traditional: having a history of at least 100 years.</td>
<td>Economic Support and Promotion Support</td>
<td>Subsidy, finance, taxation system measures</td>
</tr>
<tr>
<td>(comprising more than 1/2 of the sector)</td>
<td>Main element done by hand</td>
<td>Regional: at least 10 enterprises of 30 persons engaged in the region.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documents and other evidence</td>
<td>Manufactured by traditional techniques</td>
<td></td>
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<tr>
<td>Promotion and Action Plan</td>
<td>Main materials must be the traditional ones</td>
<td></td>
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<td></td>
<td>The article must form a regional production</td>
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In many senses the Densan Act works as a Certification Trademark by allowing the authorized Cooperatives to use the logo only if they are able to prove the requirements related to the production process, however, by adding a commercial requirement (business plan), the METI tries to force this sector to incorporate into the modern production chains giving them in exchange a set of benefits.

c) One Village One Product (OVOP): when it comes to PTK, the role of the community has been acknowledged by the Government as well as by the private sector. In this sense, one of the most successful examples of cooperation between the private and public sector is the OVOP Initiative. This particular initiative does not exclusively focus within the PTK but instead on agricultural products (whose production

might involve advance procedures as well as traditional techniques). Nevertheless, the study of its replication into the PTK may offer several hints of the steps to be taken in a near future.

The OVOP movement began in Oita Prefecture at the end of 1970s having as main goal the revitalization of the prefecture’s rural economy. The original concept of OVOP was to encourage each village in Oita to select a distinctive product of the region and to produce it to reach national and global markets.80

The basic principle of this movement is that if local communities produce commodities (undifferentiated products), as in the case of many agricultural products, they are in a perfectly competitive market wherein they have absolutely no influence over the price and they are also forced to accept the price of the market as given. So, in order to allow local communities to play a bigger role within the determination of the market conditions (to increase their profits), the OVOP movement encourages local communities to “pick” a product (attending to their background, know-how and geographical conditions): “the advantage of OVOP activities lies in product differentiation, which can reduce the price elasticity of demand for products.”81

This specific movement has been replicated in several developing countries and one of the main critics raised against the same is that it has no coordination. Notwithstanding this fact, several successful examples are available: from Bungotakada city the White spring onions, from Kitsuki city the Greenhouse mandarins, from the Himeshima village the Kuruma prawns and from Kusu town the Kicchomu-zuke pickles.82

4.2.2. The Japanese PTK-IP Policy in Practice

The implementation of this particular Policy is still suffering several changes and an ongoing evolution, however, is possible to find in the practice several examples on the way on which PTK connects with the industry and the following two examples offer a clear picture on how the Japanese PTK-IP Policy has been used:

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81 The One-Village-One-Product (OVOP) Movement: What it is, how it has been replicated and recommendations for a UNIDO OVOP-type project. Nobuya HARAGUCHI. Research and Statistics Branch, Working Paper 03/2008, United Nations Industrial Development Organization (UNIDO), Vienna, 2008, p. 4.

Case Study 1 – Ainu Community*

Background
In April 2007, the Hokkaido University Centre for Ainu and Indigenous Studies (CAIS) was established as Japan’s only national research institution specializing in studies on Ainu and other indigenous people. In 2008, the Japanese Diet approved the resolution urging the government to officially recognize the Ainu as an indigenous people and due to this the reputation and the work of the Centre increased. One of the most important characteristics of this Centre is the fact that its members come from different disciplines, making its work multi-disciplinary and with an international approach. Additionally, the Centre’s work aim to the achievement of social contribution by sharing research findings with the public. Finally, the Centre has a close relation with Ainu people, developing its work taking into account their opinions and ways of thinking and living. Additionally, the Ainu Museum (Porotokotan), originally in Shiraoi’s urban district, was moved and restored at the shores of Lake Poroto in 1965 to form this outdoor museum to preserve and exhibit the Ainu’s cultural assets.

Interview Findings
-Lack of framework: Intellectual and IP proves to be a limited tool for the protection of Ainu Culture, since it already belongs to the public domain. There is no specific framework to protect Ainu culture and in consequence, their intellectual assets are subject to the same rules and methods of protection than industrial intellectual assets.

-Enforcement: Ainu’s people main concern is not to obtain IP rights to enforce them against a possible infringer, instead their main concern is to create a branding strategy to help consumers to identify Ainu products.

-Regional collective trademark: Ainu Organization obtained the registration for the Regional Collective Trademark Nibutani Ita, however, its effectiveness is extremely limited due to the fact that the same is only enforceable and with effect within the appointed territory.

-Traditional Craft Appointment: the Japanese Government granted this particular appointment to the Ainu people, the same translates in the possibility of obtaining public subsidy covering 1/3 of the costs for the promotion of their business. However, to access to such budget is necessary to have a pre-established business plan.

-Lack of successors: as in many other handicrafts in Japan, the Craft Masters usually do not have successor and in consequence, their handicraft would difficulty survive for the next generations.

-Close community: older generations seem to be rather dubious about organizing themselves through Associations in order to seek for more protection over their cultural assets. Moreover, when trying to apply their craft techniques into new products, some Ainu people completely deny such modification, due to their strict beliefs. Conversely, younger generations believe that one strategy to claim Ainu’s culture is through the application of TK into the creation of new products with more commercial feasibility.

-Branding strategy: the first milestone to cover is to establish a common branding strategy for Ainu handicrafts. As we know, its culture is extremely rich and they have several types of cultural assets, e.g.: General handicraft, final product, graphic design, music, drawing, food. However, the main target are the first two as they prove to be appealing for the general public.

-Soft power strategy: since the formal recognition of Ainu’s indigenous people, the Japanese Government seems to be willing to promote their culture as a soft power tool. However, this does not translate into the recognition of their rights, which should be the first target.

-Added Value Strategy: Ainu people already joined the trend of creating new products making use of traditional knowledge techniques. The joint development of these new products is usually carried out through two different channels: either the Ainu people manufactures the product under the guidance of an outsider (usually a designer) or the Ainu people transfer their knowledge to the outsider in order for this latter to develop the new product. These two particular production schemes carry two major benefits; first, the new products have additional value considering that they contain a history behind and in second place, it allows Ainu people to obtain an income from its knowledge.

It is rather difficult to find a solution to the traditional knowledge issue through the channels offered by IPRs. Nevertheless, indirect protection through IPRs is available and suitable for the Added Value Strategy and it should be subject of further study.

*The contents of this interview were gathered during a visit to Hokkaido University Centre for Ainu and Indigenous Studies (CAIS) and Ainu Museum (Porotokotan) on August 25-30, 2014.
Case Study 2 - Suzuki Craft*

Background

Japan is well-known for its several ancient traditional crafts. However, having a Company based exclusively on the sale of such kind of creations is no easy task, even in a country wherein craft labour has a high recognition.

The history of the Japanese Suzuki craft began approximately 1300 years ago and somehow has managed to survive by transforming from a container originally used in high-class and elegant affairs such as in the middle of a Buddhist altar and within an imperial court, into a wide variety of tableware tin products with the Traditional Craft Government Recognition in accordance with the Act on the Promotion of Traditional Craft Industries.

Osaka Suzuki Instruments Co. Ltd. (大阪錫器株式会社) was established on 1942, currently directed by Mr. Tatsumasa Imai (Contemporary Master Craftsman) who along with his almost 30 employees Company is facing several challenges to, as he stated, preserve his family’s tradition.

Interview Findings

-The commoditization strategy: as well as many other Traditional Craft Companies which have opted for the commoditization strategy, Osaka Suzuki Instruments Co. Ltd. finds itself within an uncharted territory, since the knowledge they own is not related to commercialization schemes or to branding strategies, but to the Suzuki art craft (they are craftsmen, not merchants).

Consequently, the most natural strategy for them was the translation of such ancient technique into today’s Japanese modern society trying to increase the level of demand and moving from the crafts market to the tableware field. This transition has been successful in the sense that the Company and craftsmen were able to adapt the Suzuki tin process into a wide variety of new designs (they launch around 20 new designs each year) however, having a wide variety of Suzuki products does not, by any mean, translate into automatic sales.

-Poor IP Management: The protection that IP can grant to traditional knowledge, including art craft processes, is extremely limited. However this situation is compounded by the fact that these type of Companies consciously decide not to use any type of IP protection, e.g. Osaka Suzuki’s star product is the “Tambura” (a beer glass made of tin), however, the final consumer may not know that his favourite “Tambura” glass was made by the hands of a qualified craftsman, since the product has neither source of indication, trademark nor Company name but a mere Chinese kanji related to the standard of the material.

Fortunately, Osaka Suzuki makes use of two other IP protection schemes: Industrial Secret and Regional Collective Trademark however, when the same are not properly combined their effects are rather limited.

-Lack of distribution control: the above highlighted situations have as natural consequence a lack of distribution control which is relevant not only because it will reflect into the monetary terms of the Retail Agreement, but also because the final consumer may have a wrong idea about the source of the product he just acquired, e.g. during the last decades Osaka became the main place wherein several Suzuki workshops were established, although the main market is located in Kyoto, Osaka produces the great majority of Suzuki products that are sold all over Japan, but since the product has no source of indication, the buyer may think that he is acquiring a fine Suzuki product made in Kyoto and not in Osaka as it is.

Additionally, since the Company has not embarked into the Brand Building process, the bargain power is extremely low and they are subject to the Retailers’ Terms and Conditions, which tend to be inequitable for the Company.

*The contents of this interview were gathered during a visit to Osaka Suzuki Instruments Co. Ltd. on September 19, 2014.
4.3. Lessons to be learned from the applied Policies

1. Sharpening the intangibles: one of the main obstacles when dealing with TK comes from its implicit character, but fairly speaking any type of knowledge has an implicit side to which IP tools will not be able to reach. However, the main problem with TK is that IP should be focused within its productive side and in order to do so is completely necessary to achieve a certain level of explicitness. The Japanese Scholar Ikujiro Nonaka during its Dynamic Theory of Organizational Knowledge Creation makes an analysis over two types of knowledge (existing at any type of organization) and the way on which the same may be transferred and transformed:

![Knowledge Transfer Diagram]

2. TK Documentation: As explained by the cited author, both types of knowledge are in constant relation and is extremely difficult to separate them with a perfect line. Now, this classification seems to be of great use when approaching to TK, since the documentation over the same is very little and the vast majority has been transmitted from generation to generation through the oral tradition (recognized by the theory of Ikujiro Nonaka as “socialization”). Let us think about a Japanese Master in the Tokoname Ceramics, who has been working in sharpening his technique for more than 30 years and who at the same time, learned from his Master by the “Mite Narau” (learn to see) education process. This means that no documentation or very little exists over his specific technique, representing a double risk: from the succession side, this Master is experiencing lack of pupils who are willing to spend at least 10 years to learn the basics of his technique and it would seem that when he dies, his technique will die too; additionally, if a third party (e.g. a Designer

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who wants to incorporate the Tokoname technique into modern products) wants to learn or to use such technique, he would definitely have to go to the Master’s Workshop to learn from him.

At this point it is very clear that documentation is a key element of TK, from its cultural and its productive perspective. From its productive perspective, having a clear documentation method would be an advantage for inserting traditional techniques into modern chains of production. Fortunately, there are several examples of TK documentation and of the benefits that it brings:

-Kyoto Institute of Technology Project: recognizing the importance that preservation of traditional techniques has and the critical state of “only one master” (no feasible successor), the Kyoto Institute of Technology embarked into a documentation project making use of high technology. By measuring the body movement of a Master and his pupil while doing cutlery for a bow, they examined pause and power arrangement of Master’s body movement, measured in three dimensions obtaining specific patterns of movements and clarifying some elements of his technique. Additionally, the results of such research are available at the Library of the University and the implicit Master’s technique found a translation mean that will allow it to pass to future generations.

-WIPO Traditional Knowledge Toolkit: in an effort to establish a clear path of TK documentation, the WIPO offers a toolkit establishing the main elements to be considered when going into the documentation process. This tool is available for any interested party and its use is flexible enough to allow the user to modify and adapt it in accordance with his main necessities and concerns.

3. Added Value, a step ahead from mere commodization and soft power: as seen at Case Study 2, some traditional techniques with productive use have been able to do the transition into these “modern times”, however, in some cases such transition seems to be incomplete; while in Case Study 1, the main approach given is focused into soft power strategies.

Along this Chapter the idea that IP has a small role within TK has been acknowledged, as well as the fact that IP may have a bigger role over PTK. If that hypothesis is true, whereas commodization is more close.


85 To learn more about the WIPO Toolkit, please refer to: http://www.wipo.int/export/sites/www/tk/en/resources/pdf/tk_toolkit_draft.pdf
to this latter goal, it does not remark the origin or the value of the product and in consequence the final consumer may have no idea about the history behind the good he just purchased.

4. Collective Branding: following this line of thinking, in order to go a step ahead from the mere commodization (including those traditional products sold as souvenirs), the use of IP through branding would be a key element to build a strong link between the traditional origin of the product and the consumer. As in the OVOP case, the producers making use of traditional techniques offering commodities have no bargain power and are subject to the market conditions which make commercialization a big challenge, therefore, by creating a strong collective brand and highlighting the uniqueness of the process, materials and persons who are making the product may grant them a strong bargain power.

5. Knowledge Partnerships: in the Technology Transfer field, mostly from Universities to the Industry sector, Knowledge Partnerships have been deeply studied. In the European case, the European University Association (EUA) along with the European Association of Research and Technology (EARTO) drafted a white paper with the purpose of establishing the general grounds for collaborative research and transfer using the concept of “Responsible Partnering” as cornerstone. This paper enhances the human aspect of these types of partnerships and invites users to act responsibly when seeking for a Knowledge partner. In the case of PTK, community is the cornerstone of the same and since external forces are approaching such communities to learn from them and use such knowledge into new products, establishing a clear framework seems to be essential to secure the communities’ interests and expectations.

In the Mexican case, taking into account that the National Development Plan considers that national development is a shared goal to which all Mexicans must commit, PTK and IP may be one of the best tools to fulfill two of the main goals established by the cited Plan: “Inclusive Mexico” and “Prosperous Mexico” however, as we have seen during this Chapter, TK is deliberately left out from the Protected Innovation Plan issued by the IMPI, since its productive connotation is not considered. In an effort of taking advantage of Mexico’s multicultural nature, establishing a clear axis in such field is essential in order to use IP as a development tool. In this sense, building bridges between Policies, Government Actions, Programs and Plans and the Stakeholders is completely necessary and the same may take several forms: Guidelines, White Papers, Manuals, and Rules, among others. However, the proposed common characteristic between these types of documents are the following:

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1) Drafted with a bottom-top approach, in order for the stakeholders to clearly understand their position and role in the complex world of the Policies;
2) Placing the community with the PTK at the middle;
3) Acknowledging the fact that Communities’ interest over IP (usually) is to reach new markets and attract investors, instead of enforcing their IPRs against third parties.

Finally, as a remaining point for both countries, is essential to recognize that Policies and Government Actions may have a limited effect if the stakeholders do not commit to apply and improve through the practice of the existing mechanisms.
CONCLUSIONS

In December of 2013, the World Bank Board discussed the Country Partnership Strategy which was jointly developed with the Mexican Government. By means of this public paper, the World Bank recognized that the National Development Plan for 2013 to 2018 was completely aligned with the “twin goals” of the World Bank: ending extreme poverty and promoting shared prosperity, confirming that above the National Development Plan, Mexico’s Policies and Actions also have a principal axis to which they should commit.

As widely recognized, innovation is one of the main tools that any country may use in order to tackle poverty, while Intellectual Property schemes may be one of the best paths to promote shared prosperity. However, as we have seen during the past four Chapters, Mexican IP Policy tends to be built over the top-bottom approach, limiting the level of use and understanding that potential users require.

The World Intellectual Property Organization has acknowledged that the main challenge Intellectual Property faces nowadays is to achieve a shared understanding of the contribution of the same.\textsuperscript{87} This shared understanding has two main sides: the first one is focused on reaching people’s empathy over Intellectual Property to fight the counterfeiting problem and the second is focused on reaching people’s understanding over the Intellectual Property system to increase the level of use. For the Mexican context, although the first type of understanding has been the most explored one, the second type has special relevance when using IP as a tool to reach the established goals by the National Development Plan.

In the Japanese case, the Intellectual Property Policy Outline achieved the goal of placing IP as a National goal to which all sectors needed to be committed and in consequence, the role that IP has within the Japanese society, as a development tool, is larger. The Intellectual Property Strategy was an ambitious plan establishing as cornerstones: the creation of Intellectual Property Headquarters (IPHs) and Technology Licensing Organizations (TLOs), the creation of Universities’ Start-Ups, the improvement of the researcher’s conditions and the enforcement of the Intellectual Property Rights (expedition of patent process, protection of local branding and development of international cooperation). Within this strategy, one of the main tools used by the Japanese government was the creation of a transfer of knowledge scheme, wherein, the involved parties transfer and receive knowledge in order to enhance the productivity chain.

After more than ten years as of the disclosure of the Intellectual Property Strategy, Japan is an Intellectual Property based country and has indisputably earned the first places of trademarks and patents filings all over the world enhancing the international competitiveness of its industries. However, there is no such thing as an infallible formula that may be applied to any country under development conditions and each one of those countries is compelled to analyze, draft and apply their own success route.

Least Developed Countries as well as Developing countries are focusing their effort in establishing and consolidating an IP strategy with the traditional legal schemes (patents, trademarks, copyrights,…) while Developed countries already passed that stage and now are expanding the scope of protection and their main goal is to increase their innovation level as well as starting the use of “soft power” tools in the cultural field.

Mexico is still going into the industrialization process, consequently a general axis with a top-bottom approach in needed. However, when it comes to IP, a combination between the top-bottom and bottom-top approach may be more suitable, taking into account that Mexican Innovators are in need of understanding why IP may be useful for them. As a second step, once understanding is reached, the Mexican IP Policies, Plans and Actions may aim to increase the level of use over IP legal schemes.

Since understanding is the first issue to be tackled by Mexican IP Policy in regard to Mexican Innovations Nests (Research Centers-Universities, MSMEs and Local communities), by looking into international examples some answers may be provided. One of the strategies applied by WIPO (using the bottom up approach) is the case study tactic: by building an open database (WIPO IP Advantage) available to anyone containing success cases of entrepreneurs applying IP schemes, WIPO aims to show common users that these kind of legal tools are useful not only for developed countries and larger companies, but also for developing countries and SMEs.

Mexico has many Innovation Nests which will be able to provide significant support for the country’s development, while IP is in a position of becoming a great vehicle to promote and support Innovators. Moreover, each Innovation nest has different concerns and goals and in order to maximize the benefit from the use of IP, not only Policies but strategies developed by IP Services Providers should recognize that by placing the Innovator with the Innovation at the center more could be achieved in terms of understanding and use:
<table>
<thead>
<tr>
<th>User</th>
<th>Main Use</th>
<th>Main needs</th>
<th>Policy Approach</th>
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<tbody>
<tr>
<td>Larger and established Company</td>
<td>Market Power tool</td>
<td>To fit the IP and Competition Law framework</td>
<td>Modification of Law framework and strong lobbying activities</td>
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<td></td>
<td>Exclusivity against third parties</td>
<td>To ensure an effective and prompt prosecution</td>
<td>Modification of Regulations to expedite the issuance of certificates</td>
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<tr>
<td></td>
<td>Enforcement against unauthorized use</td>
<td>To ensure an effective and prompt enforcement.</td>
<td>Modification of measures and practices to increase collaboration between Authorities</td>
</tr>
<tr>
<td>Micro, Small and Medium Company</td>
<td>Marketing tool</td>
<td>To understand the main requirements for the IPRs prosecution</td>
<td>Education over the importance of IPRs as a business tool</td>
</tr>
<tr>
<td></td>
<td>Reaching new markets</td>
<td>To understand the main benefits or IPRs</td>
<td>Promotion of IPRs as an incentive for innovation</td>
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<tr>
<td></td>
<td>Protect ideas</td>
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<tr>
<td>Universities and Research Institutes</td>
<td>To promote researching activities</td>
<td>To understand the main requirements for the IPRs prosecution</td>
<td>Education over the importance of IPRs as a business tool</td>
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<tr>
<td></td>
<td>To obtain funding</td>
<td>To understand the main benefits or IPRs</td>
<td>Promotion of IPRs as an incentive for innovation</td>
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<td></td>
<td></td>
<td>To establish a scheme of knowledge transfer</td>
<td></td>
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<tr>
<td>Traditional Knowledge</td>
<td>Promotion of culture</td>
<td>To use IPR as a promotion tool through the development of branding strategies</td>
<td>Education over the importance of IPRs as a business tool</td>
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<tr>
<td></td>
<td>Added Value to goods</td>
<td>To ensure the recognition of the work</td>
<td>To establish an adequate license scheme</td>
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</tbody>
</table>

Mexico has reached its own impasse and the destination has been defined since decades ago: international competitiveness, however, the route shows the possibility of creating an inclusive project which definitely may allow us to explode all of our resources going from an Intellectual Property based system to a Knowledge based economy by answering to the Mexican Innovators: why should they use IP?
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Laws


Official Documents and White Papers


Other Online Resources


INADELEM Outline, available at https://www.inadem.gob.mx/red_nacional_del_emprendedor.html


Momentum Factory Orii, Co. Ltd. website http://www.mf-orii.co.jp/e-profile.html

Numajiri Textile Laboratory Website http://numaken.com/en/company/


WIPO Lex, WIPO, available at www.wipo.org


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