Patent Licensing: Global Perspective and Analysis of Case Studies*

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This article examines licensing as a fundamental mode of technology transfer and the rationale behind grant of licences. The article also explores legal and institutional aspects of technology transfer, particularly, patent licensing in a global context. Patent licensing is analysed through case studies from the perspective of developing countries.

Keywords: Patent licence, technology transfer, industrial property

Licence contracts are one of the essential instruments to transfer technology and can contribute effectively to the technological experience of a country. However, to use contracts of licence as an alternative to acquisition and development of technologies, efforts should be made to formulate and implement national systems of innovation. Licences facilitate introduction of products in new geographical markets and thus benefit the holder. Besides, a licensee can take advantage of the technology to commercialize a superior product as well as use the brand or trademark to create goodwill in a particular geographical territory. Though licences are commonly negotiated in all forms of intellectual property (IP), it is most frequent in patents and trade secrets.1

Basically, licensing is a permission granted by the patent owner to another to use the patented invention on agreed terms and conditions, while the patent owner continues to retain ownership of the patent. There are various ways in which licences may be granted.2 They may be express or implied, through an ordinary written agreement, or oral agreement3,4,5 or on a document under seal. A licence differs from an assignment, in that a licence (even where it is exclusive) conveys no proprietary interest in the patent or other IP to the licensee. It only authorizes the licensee to do that which, in the absence of the licence, the legal owner would prevent him from doing by means of an infringement action. A contract to grant a license is conceptually distinct from the grant of a license per se. The terms of the contract would determine the scope of the licence to be granted.6

Similar to commercial contracts, every licensing agreement confers benefits and shares risks between contracting parties. A key element in the consideration provided by the licensor is the technology (or a right of access to it), often coupled with an after-transfer service that gives the licensee rights in respect of improvements in technology that may be discovered or developed by the licensor during the term of the agreement. Occasionally, the patented invention and associated designs for the patented product will be so easily understood or applied technically as to require little in the way of know-how to be transferred from licensor to licensee, and, in such circumstances, the licensee is buying a simple (or bare) licence.

Why License? Advantages and Disadvantages

A licensing agreement transfers from the licensor to the licensee, the right to use IP in the technology and to make, use and sell products embodying the technology, in a specified manner for a specified time in a specified region. In other words, the licensor continues to have the proprietary rights over the technology and has only given a defined right to the use of that technology.

A licensor who wishes to concentrate on single geographic market or specific field of use may further license the technology to another with greater capacity or interest in other markets or fields of use.

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That way, in contrast to getting nothing from that unfamiliar market, the licensor will have the possibility of receiving an additional income having licensed-out his IP.

Besides, there are other advantages that can result from licensing:

- A company that cannot or does not want to be involved in the manufacture of products could benefit from licensing-out technology by relying on the better manufacturing capacity, distribution of outlets, local knowledge and management and other expertise of one or more partners.
- There is often a rush to bring new products into the market. A licence agreement that gives access to technologies, which are already established or readily available, can make it possible for an enterprise to reach the market faster with innovative technology.
- A company that may not have the resources to conduct its own research and development may, through licensing, gain access to technical advances that are necessary to provide new or superior products.
- There are licensing-in opportunities that, when paired with a company's current technology portfolio can create new products, services and market opportunities.
- Licensing-out allows the licensor to retain ownership of the intellectual property in the technology and to derive an economic benefit, usually in the form of royalty income, from it.

Apart from the above, there are some issues that potential licensor-licensee should be wary of:

- A licence agreement can be disadvantageous when the technology is not clearly defined or is not complete. In such a case the licensor may be expected to continue development work at great expense to satisfy the licensee.
- The licensor may become critically dependent on the skills, abilities and resources of the licensee for generating profits.
- The licensee may have made a financial commitment for a technology that is not ‘ready’ to be commercially exploited, or which has to be modified to meet the licensee’s business needs.
- A technology licence may add a layer of expense to a product that is not supported by the market for that product. It is fine to add new technology, but only if it comes at a cost that the market will bear in terms of the price that can be charged. Multiple technologies added to a product can result in a technology-rich product that is too expensive to market.
- Companies relying on licensed technology may become too technologically dependent, which could eventually become a barrier to their future expansion or their ability to adapt, modify or improve their products for different markets.

Terms of Patent Licences
The clauses to be included in a patent licence agreement are variable and decided on a case-to-case basis, for example, scope of licence, territory, whether exclusive or non-exclusive, improvement technologies, duration of licence, compensation, maintenance, protection and defence of patent licensed and other terms. The terms are elaborated further through case studies discussed below:

Patent Licensing: Global Trends
The following discussion relates to case studies from developing countries with special reference to legal and institutional aspects.

Mexico
The Promotion and Protection of the Industrial Property Law came into force from 28 June 1991, prior to which the Law on the Control and the Registry of Transfer of Technology and its regulations were existent. Usually, the clauses of the contract to which the signing parties have agreed to in the licensing agreement are binding on them, besides any stipulations in the Civil Code. Also, the contract of licence should not contain any concessions that are not commensurate with the object of the licence or any restrictive clauses. Nevertheless, is necessary to register the patent licence before the Mexican Institute of the Industrial Property.

The Economic Competition Federal Legislation declares illicit the contracts and other acts that restrict competition, but does not make an explicit reference to the restrictive clauses. In effect, Mexico does not have a legislation for technology transfer and the
subject of the restrictive clauses is not clearly
governed either by industrial property laws or the
anti-competition legislation. There seems to be
complete freedom in drafting such clauses which is
unfortunate since this could have a negative impact on
technological development and economy of the
country.

Braz _i_l _a

In Brazil, the National Institute of Industrial
Property (INPI) oversees both intellectual property
and technology transfer. With the adoption of the new
Industrial Property Law 9279/96, the earlier
legislation on technology transfer was repealed.
According to the new law, registering of the
agreements is not mandatory, but there are certain
benefits for the enterprises that register their licence
agreements. These agreements are effective with
regard to third parties and they legitimize the
payments made during the process allowing fiscal
deductions for the title holder. However, registration
of these contracts is subject to several INPI
requirements besides clearly specifying their
purposes, consideration, term and means of execution,
and other industrial property rights involved.

Another set of complementary processes that
regulate the process of acquisition of technologies by
means of the licence agreement is stipulated in Law
No 4131/62, which establishes the maximum
percentage of exemption for each technical branch,
and guarantees that technology transfer does not take
place at unreasonable or excessive prices.

On the other hand, Normative Act 135/97
establishes requirements that need to be fulfilled at
the time of registration of the contract; although it
does not contain any stipulation prohibiting restrictive
clauses. A preliminary examination of patent licences
is carried out to ascertain any abusive clauses which
the parties may be forced to reconstruc t or eliminate.
In case the licensor is able to justify the reasons to
sustain these clauses, or if such clauses have been
accepted in other markers, they may be considered
just and therefore, legitimate. INPI does not therefore;
completely restrict the freedom of contracting parties
to specify terms and conditions in licensing contracts.

Data from INPI show that of the major technology
acquisition agreements in Brazil in 2009, patent
licences contributed to only 2.3 per cent of the total
number of registered agreements. The largest
number of technology acquisition agreements
(over 60 per cent) resulted from technical support
services, trademark licences contributed to 22 per cent
and 11.7 per cent were from licensing of know-how.
It therefore, appears that technology acquired in
Brazil is often not protected by patents, coming
mainly from foreign companies and focused primarily
on technical services, which involves the training of
specialists. As a result, the Brazilian government, as a
part of technological development policy in recent
years, has provided new incentives for innovation.
The Innovation Law requires that all government
universities and R&D centres must have an IP
office to create awareness and to perform patenting
and licensing activities in public universities and
R&D centres.

Case Study: UNICAMP-INOA

This successful case study concerns patent
licensing activities in the University of Campinas or
Unicamp in Brazil8, which has emerged as a leader in
patenting and licensing activities in Brazil and Latin
America in a short span of 7 years through its
technology transfer office, Inova. Founded in 1967, as
a multidisciplinary university, Unicamp pursues a
variety of technologies in many fields and Inova has
aggressively pursued patenting and new licensing
deals for those that have been most promising. A total
of 128 technology transfer agreements have been
signed in the last two and a half years. The case study
is presented as a guide to realistic expectations about
investments, royalties and terms of patent licence.

BiPhor is one such example of successful
technology licensing by Unicamp to Bunge, an
agricultural company. BiPhor is a white pigment
based on aluminum phosphate nanoparticles
produced by green technology and is whiter, more
durable and of improved quality as compared to its
existing counterparts. The main terms of patent
licence agreements were:

- Exclusive licence: The licensor cannot practice
  the invention within the specific territory and
  field of use
- Duration of licence: The life of the patent,
  20 years
- Pilot plant running at 1,000 tonnes per year in
  sample production
- Commercial plant to be running in five years at
  100,000–200,000 tonnes per year
- Sales price to be a little lower than that of TiO2
  (competing product)
Compensation: The agreement stipulated for payment of different royalty rates according to the value of the product; 1.5 per cent royalty per year for 20 years of which 33 per cent would go to the inventors.

Argentina

The current legislation on technology transfer is less explicit and rigorous, than in the past, particularly in relation to the restrictive clauses. The Law No 22,426 of 1981 was promulgated primarily with the intention of registering technology transfer contracts. This Act dissolved the National Contract Registry of License and Technology Transfer, and designated the National Industrial Property Institute (INPI), with the Transfer Technology Bureau as the institute responsible for registration of contracts.

Though, earlier it was mandatory for contracts between related industries, like parent-subsidiary, to have prior approval of the administrative authority and be registered; this requirement was done away with by the Foreign Investments Decree No 1853. The registration here was solely for information and statistical purposes. The activity of the INPI remained limited to verify the benefits according to the concept of technology established by the law, and to fit these benefits within the regime of fiscal incentives, that constitutes the stimulus for the registry of these agreements.

As regards restrictive clauses, the Patent Law, Article 38, in referring to such clauses tries to balance interests from a technological as well as competition perspective. The Competition Law No 25156, declares illicit, all acts or conduct that intend or to limit, to restrict, or to distort competition, and establishes the conditions under which these acts may be justified.

Case Study: Therabel Pharma

Therabel Pharma is an Argentinian Small Medium Enterprise (SME) set up in 1990 and devoted to the preparation of pharmaceutical and cosmetic products. In 2001, the firm acquired new equipment that allowed Therabel Pharma to produce the latest drugs and to use polymers for the launch of biologically active substances used to treat diseases such as diabetes and various ophthalmic conditions.

Recognizing the need for innovation, Therabel Pharma formalized a mechanism for intellectual property protection for new products and processes in order to foster its presence in the local drug supply market. As a result of this strategy, the firm has filed applications for a number of patents, which are in progress, in various territories including in the United States and Europe with an intention to license them to local companies for production and marketing.

Cuba

Cuba was in a state of upheaval in the nineties, due to disappearance of socialism globally and the North American blockade, resulting in significant economic changes due to decreasing foreign investment. Amongst them was a new legislation, Law of the Foreign Investment, adopted in 1995 which offered greater security and guarantee for investments. It also established rights to intangible goods like contributions to share capital that are valued by methods decided by national and foreign investors or by the foreign investor along with the Trade and Foreign Investment Ministry (MINCEX), in case the contribution is to a totally foreign company.

Under the new economic structure of foreign investment, norms have been stipulated for the import of technology. In addition to Law No 77/95, Resolution 14/2001 is in force, which establishes the procedure to develop the process of negotiation, presentation of requests and evaluation of the proposals of foreign investment. Though, in the request for foreign investment, documents related to intellectual property must have the approval of the Cuban Industrial Property Office, it is not obligatory for licence agreements, joint ventures and other documents. It is also necessary that feasibility studies be carried out for investments in industrial property. This is done through the Development and Marketing Department of the Cuban Industrial Property Office which then gives its recommendations that best serves the interest of national companies.

The existing Decree-Law No 68, Inventions, Discoveries, Industrial Models, Trademarks and Appellation of Origin, was promulgated in 1983 to establish the modalities of industrial property protection and regulate patent licence agreements. However, it has drawbacks, for instance, some of the clauses limited in this law as abusive do not apply to technology transfer contracts. Further, several provisions of this legislation are ambiguous, some not inclusive, others technically incorrect and some terms used cannot be adapted to the current contractual relations.

Case Study: CIGB

Although the Cuban government established the National Center for Scientific Research in 1965,
biotechnology did not emerge as an important branch of the Cuban economy until 1986 with the founding of the Center for Genetic Engineering and Biotechnology. Currently, the cluster biotech institutions belong to what is known as the ‘Scientific Pole’ which boasts of ten major centres and 52 related research and production institutions.

With increasing emphasis on IP protection, Cuban biotechnology institutions have to date over 190 inventions, 1550 patent applications abroad and over 500 patents granted in different countries of Latin America, Europe, Asia and Africa. The protection strategy is aimed at potential markets for exploitation of technology, among which are countries of high technology development in the pharmaceutical and biotechnology sectors.

The Center for Genetic Engineering & Biotechnology (CIGB) is a large research-production complex, devoted primarily to the development of vaccines, pharmaceuticals, and plant molecular biology, recombinant antibodies, recombinant proteins, vectors and bioinformatics. In 2009, CIGB had acquired 1004 patents in total, of which 42 per cent are protected in Europe, United States, Australia, Japan and Canada. Besides, 28 per cent of the patents are protected in Asia, 18 per cent in Latin America and 12 per cent in other countries.\(^9\)

Some of the principles that agreements of CGIB through its subsidiary Heber Biotec S A (holding exclusive rights to market CGIB’s products worldwide), are based on are as follows:

- Technologies are licensed only for production of pharmaceutical products and vaccines, for use in health care
- Clearly defined obligations for both parties
- Precisely determined compensation with well defined objectives

The key features gleaned from these transactions in biotechnology, which may be applicable to other companies that aim to utilize industrial property are:

- Focus on designing innovative products
- Conducting exchange programmes for personnel
- Patent protection in other countries to facilitate selling in other markets
- Appropriate negotiation of these assets

Summing up the scenario in Latin America, very few countries have legislations on technology transfer \textit{per se}. Besides, the IP offices do not critically examine the licence agreement for any restrictive clauses included. It is therefore, important to recognize the significance of these regulations in legislations of industrial property.

This current position is unfavourable because to limit to these types of regulations enhances technological dependency and causes stagnation of the national economy especially in transaction with foreign companies.

**Association of Southeast Asian Nations (ASEAN)**

Within the ASEAN, there is the Framework Agreement on Intellectual Property Cooperation, known as Bangkok Agreement. Article 2 states the principle under which cooperation in this matter will be sustained as ‘Member States are conscious of and understand the necessity for each Member State to adopt appropriate measures to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain-trade or adversely affect the international transfer of technology’. This stance is in correspondence with Article 8 in TRIPS Agreement, but it is often not translated into a mandatory norm in each of the member countries.

**Philippines**

As on 1 January 1998, the Intellectual Property Code took effect after modification in industrial property laws. This includes a chapter on voluntary licensing to control conditions that might result in abuse of rights of intellectual property and adversely effect commerce and the transfer of technology. Registered licence contracts must respect restrictions imposed by the law and all transfer agreements must conform to regulations in the IP code. Here, too, it is worth mentioning that Section 91 of the mentioned Code establishes that restrictive clauses will be allowable in exceptionally meritorious cases where
substantial benefits will accrue to the economy. The organization in charge of this evaluation is the Industrial Property Office.

Besides, the licence contracts must include certain mandatory provisions in relation to interpretation of laws and litigation, continued access to improvements in the technology transferred, arbitration, etc.

Organization African Intellectual property (OAPI)

In OAPI, the Agreement of Bangui specifically describes invalid clauses which when included in a contract of patent licence will be null. This extends to the modalities of utility models and trademarks, the difference being that these limitations do not consider restrictions expressly, as in ‘they will be the relative ones to the extension, reaches, duration of the use of the mark or the quality or amount of products or services for which the mark can be used.’

Nevertheless it is important to note that restrictive clauses in relation to contracts do not apply to licensing of know-how. The intention is to allow right holders of industrial property to impose restrictions in licensing agreements in relation to the content and reach of these rights, protected by industrial property legislations.

South Africa

Institutional technology transfer offices (TTOs) are a relatively new development in South African universities and research organizations. While some efforts were made to promote technology transfer activities as early as the 1980s, it was not until the late 1990s that a handful of institutions set up TTOs and are showing encouraging signs of progress:

- TTOs are now regarded as established entities within their organizations
- Newer TTOs are continuously being set up
- An impressive portfolio licensing deals and spin-out companies is gradually being built up
- Professional, experienced technology transfer practitioners who form the core, willingly share their skills with newcomers to the profession
- Links have been forged that strengthen research collaborations and technology transfer partnerships with international organizations
- Government support is a major contributor to this development

Case Study: Baylabs

The plant species *Aloe ferox*, indigenous to the eastern and southeastern Cape regions of South Africa, has sustained an aloe tapping industry for over 250 years. However, the industry failed to substantially improve the economic conditions of communities in the region. In 1998, a method for producing a novel fibre in powder form from the discarded leaves of the plant was patented by South Cape Aloe (SCA), a virtual startup company with strong emphasis on technology and IP. The products developed to treat irritable bowel syndrome (IBS) and AIDS-related diarrhea (ARD). SCA granted Baylabs, a manufacturing company, exclusive rights to make the powder and gained a share hold in Baylabs in exchange for exclusive, royalty-free, worldwide rights to exploit the powder. Baylabs in 2008 filed a Patent Cooperation Treaty application for the novel powder formulation.

Baylabs has developed four over-the-counter natural remedies from *Aloe ferox* that are distributed to pharmacies. The revenue generated is used to file patents and obtain scientific evidence of efficacy for gastrointestinal problems. The company’s value has grown through its IP and clinical trials of IBS and infantile diarrhea disease. Discussions are underway with international strategic partners regarding exclusive licence agreements; efforts to secure government or venture capital funding are in progress.

There is no traditional knowledge involved in using the waste leaf but TK exists in using the *Aloe ferox*. In natural products, key issue is a long-term planning and supply. If the product were to become a blockbuster, arrangements would have to be made for the community to benefit, such as through a trust fund. It is important to recognize traditional harvesters and traditional plant users and their stake in bio-prospecting. Baylabs is set to give the aloe tapping community a stake in the project.

The Baylabs example illustrates how the development of a patented technology can have positive commercial and moral outcomes. Through the creation of strategic alliances and patent licences, opportunities can arise for securing and developing IP for the benefit of underserved communities in both developed and developing countries.

Conclusion

Licensing agreements are critical in the growth and development of technology and there are several elements that should be attended to, in particular. In case of international patent licensing agreements, clauses as wide as possible need to be included since
there are no regulations or industrial property laws that govern technology transfers cutting across borders. All terms and conditions should be explicit so that concerned party may enforce obligation in case of breach. The licence should also take into account the nature of commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business. The effect of selling the patented product in promoting sales of other products of the licensee, the existing value of the invention to the licensor as a generator of sales of his non-patented items, and the extent of such derivative or convoyed sales are points that should be included in the licence. The duration of the patent, fields of use of patents under license, character exclusive or non-exclusive, territory of use and exportation’s markets and the terms for termination of licence should be determined.

Each licensing situation is unique. The case studies on patent licensing from diverse perspectives, from universities to small and medium enterprises, however, highlight one common element, that patent licensing facilitates fast introduction of new products in different markets. Nevertheless, patent licensing is a complex and serious process involving technical, financial, legal provisions and other matters. Before entering into negotiations of this kind it is advisable to engage a competent professional, preferably an integrated team consisting of lawyers, economists, and technical specialists with licensing expertise. A successful licensing negotiation is a ‘win-win’ situation, that is, an agreement that satisfies business expectations of both the parties.

References
2. Under US law, an assignment of less than the entire patent, an undivided share in the entire patent, or all rights under the patent for a specified region in the USA is construed as a licence, and thus the licensee has no right to sue for patent infringement in his own name; Rite-Hite Corporation v Kelly Company Inc (1995) 35 USPQ2d 1065 (US court of Appeal, Federal Circuit).
3. (i) Naimie v Cytozyme Laboratories Inc (1999) 174 f3d 1104 (US Court of Appeals Tenth Circuit), where the court held that an oral licence, evidenced by a letter specifying the terms of the proposed agreement, was enforceable. Under German Law, a licensing agreement does not have to be in any particular form unless it includes a restriction of competition, when the contract must be in writing (Article 34 of the German Law against Restraints of Competition). There are conflicting views as to whether non-compliance with the form requirement in Article 34 renders the agreement automatically invalid; (ii) Detonation-Obstructing Components - Invalid license agreement - Claims of licensor under unjust enrichment law - Case No K ZR 42/95, International Review of Intellectual Property and Competition Law, 3(1) (1999) 122, the German Federal Supreme Court ruled that even if a licence agreement violates Article 34, the licensor can request information and rendering of accounts as well as payment of a reasonable license fee under unjust enrichment law.
6. How Developing Countries can Manage Intellectual Property Rights to Maximize Access to Knowledge, edited by Xuan Li and Carlos Correa (South Centre, Switzerland), 2009; Hassan Emmanuel, Yaqub Ohid and Diepeveen Stephanie, Intellectual property and developing countries: a review of the literature, technical report for UK Intellectual Property Office and UK department for International Development (Rand Corporation, USA, UK) , 2010.