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Patent pooling in the Indian scenario

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Abstract
This study is focused on merits and scope of Patent Pooling in India which is a developing country. The medical and health care facilities in India are not satisfactory. The low-income people are not in a position to afford expensive medical facilities. Patent Pooling means an agreement between two or more patent proprietor to permit or license one or more of their patents to each other or to third parties. It is formed to share the resources of two or more companies which will promote growth and development of the country as well as innovating something new. It provides one-stop shopping. It is a double-edged sword for the third parties. The Indian Patents Act, 1970 does not render any provision related to the formation of patent pools but at the same time it neither restrain the formation of patent pools. There might be one barrier in its formation i.e., anti-competitive policies regulated by Competition Act, 2002.
"Patents are like fertilizer. Applied wisely and sparingly, they can increase growth. But if you apply too many chemicals, or make patents too strong, then you can leach the land, making growth more difficult." — Alex Tabarrok

Keywords: patent pooling, anti-competitive policies

1. Introduction

Concept and Meaning

Intellectual Property" is an intellectual work, produced by the intellect of human brain [1]. The exclusive rights which a person enjoys with respect to his intellectual property are his **"**intellectual property rights" or IPRs [2]. Intellectual Property is divided into two categories: Industrial Property and Copyright. Patent is classified under industrial property. Patent rights are aimed at protecting an idea which brings about an invention. Thus, the subject-matter of a patent right, we can say, is an inventive idea or simply, an invention. At present, the inventor, under the patent laws, is guaranteed his IPR over the invention and as a result of it nobody can make use of this invention unless he is lawfully permitted to do so in which case he shall be paying a good amount of money as royalty to the inventor in lieu of acquiring a right to use that invention. [3] Inventions are protected by patents. Basically an invention is a procedure or product that provides a new mode to perform something or provides a new technical answer to something. [4] The term "patent" has been derived from the Latin word "patene" which means "to open". Patent is an exclusive right granted to an inventor with respect to that invention which he discloses to the public. Therefore, we can say that patent like a reward is granted to an inventor in return of his disclosure of his invention to the public for the benefit of the society [5].

Patent means the sole right offered by a government to an inventor to utilize, sell or produce an invention for a certain years or in other words, patent means protected by a government issued right allowing someone to make and sell a product or service for a certain amount of years without anyone being allowed to copy it.

The word 'pooling' in simple terms means 'to share' or in other words, it means a shared supply of any resources to be drawn on when needed and it can also be put in other way which means sharing of any resources or information for the benefit of all involved.

So, collectively, patent pooling, in context to Intellectual Property Right, as defined by USPTO [6], means an agreement between two or more patent owners to allow or licence one or more of their patents to one another or to third parties. So if there are two companies holding patents and both are in a need of resources which these two companies have, then for the benefit of both companies they enter into an agreement and provide licence to each other or to third party so that they can use their resources or any information which they are in need of and can go ahead with their individual plans and projects.

Patent pools give way to new products and technologies by sharing of various sources and assets by different companies which is turn, reduces transaction costs. But, the same time, it causes competition among similar companies and there is risk of collusive behaviour among them. Thus, it acts as cartel [7].

The concept of patent pooling is helpful in those situations where the companies have patents on complex technologies and the complementary company who is in need of these complex technologies enter into an agreement with those companies and these two or more companies provide licence to each other so that to have a technical solutions. And the concept behind this is that the patents which are pooled are made available to member and non-member licensees and typically the pool collects a portion of the licensing fees from each member in proportion to each patent's value. Patent pool acts as a joint venture which is created by two or more patent holders for the purpose of sharing their intellectual property

rights.

Basically, these patent pools cover fully developed or mature technologies which are not easy for other companies to develop such kind of technology. Pooling also displays the wealth of the firm and represents the standards of the firm which supply companies or any firms with the necessary technologies so that they can develop their own compatible products and services. It shows that one company who has a more supply of such technologies carries a good wealth and standards with the others firms. But in this case firms rather concerns with technologies that are yet to be matured or fully developed.

Each and every concept has positive as well as negative aspect. Patent pooling may have positive side on the competition and innovation which is very fruitful for the various companies. It can be good for companies or firm as it helps in sharing of intellectual property assets and through this companies may develop new products and it also help them to reduce their production or transaction cost. On the other hand, under various circumstances it may increase the chances of anti-competitive behaviour which leads to reduction in the market competition and prevent other competitors to compete with others. It also involves an inherent risk of collusive behaviour in which there will be a chance of secret agreement between various competitors for any illegal or fraudulently objectives.

Patent pooling may also lead to violations of various competition rules depending on the applicability of antimonopoly or antitrust [8] rules:

1. The patent pools may mislead or twist the competition if pro-competitive (Promoting competition) aspects do not have much weight age over the (potential) limitations on competition.
2. The licensing clauses which deal with patent pooling may limit the rights of the patent holders and therefore infringe those statutes which are meant for promoting fair competition in business.

The patent pool may lead to discourage in the competition and give growth to secret agreement between various competitors for any illegal goal.

History & examples of patent pools:

The concept of patent pooling has been much focused in Europe and the United States, but recently Asian companies have also became very responsive to this concept and have increased their participation in patent pools so that they should also come forward with new technologies and innovations.

Patent pools are adding a crucial role in shaping the aspect of the industry for over the last hundred years. The first patent pool was shaped by Baker, Grover, Singer, and Wheeler & Wilson in 1856 for sewing machine. Initially, before the creation of pool these people were fighting with each other in respect of violation of patent. So, in Albany, in the Court proceeding, Orlando B. Potter, an advocate and president of the Grover and Baker Company, made a proposal to all of them to settle down the dispute by permitting each other to use the technology by pooling rather than fighting with each other and to run out of profits.

There was a government enforced pool formed at the time of the world war I when the US government was in the need of airplanes. But the two big airplanes manufacturers, the Wright Company and Curtiss Company were indulge in the patent war with each other which lead to the non-production of airplanes. Hence, with the intervention of government, a patent pool i.e. Manufacturer's Aircraft Association was formed in 1917, encompassing all aircraft companies in the United States.

In 1924, there was an organization called Associated Radio Manufacturers, whose name changed into Radio Corporation of America, unified the radio interests of General Electric, American Marconi, Telegraph (AT&T) and American Telephone and Westinghouse, which lead to the setting up of standardisation of television transmission standards, airway's frequency locations and radio parts.

Another instance of patent pool formed in the industry. In 1997, one patent pool was formed by the Fujitsu Limited, General Instrument Corp., Trustees of Columbia University, Matsushita Electric Industrial Co., Ltd., Lucent Technologies Inc., Mitsubishi Electric Corp., Scientific Atlanta, Inc., Philips Electronics N.V. (Philips), and Sony Corp. (Sony) so that they can conjointly share royalties from patent that are important to act according to the MPEG-2 compression technology standards.

In 1998, Sony, Pioneer and Philips formed a patent pool for inventions that are crucial to act according with certain Digital Video Disc -Video and Digital Video Disc - Read Only Memory quality specifications.

In 1999, a patent pool was formed by Toshiba Corporation, Time Warner Inc., Matsushita Electric Industrial Ltd., Hitachi Ltd, Mitsubishi Electric Corporation, and Victor Company of Japan, Ltd. for products manufactured in accordance with the proper Digital Video Disc Read Only Memory and Digital Video Disc-Video formats [9].

Object & scope of patents

In general, patent means, "'exclusive right' to the first and true inventor to make, use or vend his invention" [10].

Patent has been explained in John Hinde v Osborne Garrette & Co [11] as follows: The inventor says, I ask you, the public, or rather I ask the Crown, to give me a monopoly for a certain number of years. In consideration of their giving that monopoly, I will tell them in my specification the nature and manner of using invention I claim."

Similarly, in Raj Parkash v. Mangat Ram [12], the Delhi High Court explained patent as follows:

"The effect of grant of patent is quid pro quo. Quid is the knowledge disclosed to the public. Quo is the monopoly granted."

Thus, patent is an exclusive right which the inventor has over his invention as a reward in return of the disclosure of his invention to the public for the benefit of the society.

In Telemecanique & Control (I) Ltd. V Schneider Electric Industries [13], the Delhi High Court observed as follows:

"It has to be appreciated that undoubtedly patent creates a statutory monopoly protecting the patentee against any unlicensed use of the patented device. A monopoly of the patent in the market is like payoff to the inventor" [14].

Categories of patents

On the basis of nature of the pooled technologies or patents,

they can be categorized as-

1. Complementary or Substitutes and,
2. Essential or Non-essential.

Substitute Patents

Substitute patents can be well understood with the simple meaning of substitution. There are certain goods which have same use and purpose and one can use if either of the goods is not available like tea and coffee etc. are called substitute goods. In the similar way, substitute patents means patents of same technology which can be used as an alternative of each other and technologies which come under substitute patent can be used parallel without violating the other patents. Therefore, they compete with each other.

Complementary Patents

There are certain goods which are used together and there is no alternative available for them like car and petrol, ink and printer, etc. are called complementary goods. Similarly, those patents which are used together to produce a particular product or output and are not substitutes for each other are termed as complementary patents. Thus, from a technical point of view, complementary patents are to be used together in the production process.

On the basis of the effect on market competition, there lies the difference between complementary and substitute patents. As substitute patents compete with each other so from a competition point of view, these are not involved in pooling because it will lead to elimination of competition between such substitute technologies. But in the case of complementary patents, they are involved in patent pooling as it will not lead to decrease in the competition. Hence, complementary patents promote competition in the market.

Essential and Non-Essential Patents

As far as standardisation is concerned, essential patents are those patents which are required to follow the technical standard. As a result, essential patents are complementary in nature because they need to follow the technical standard. Patents can also be commercially necessary based on consumers' demand. Hence, they should also be regarded as 'essential' when assessing the potential threats on competition by the creation of a pool.

Patents called to be non-essential if there are substitutes to the covered technology.

There lies the difference between both of these patents. Generally, essential patents are complementary and they are less concern about the competition while non essential patents are substitutes and more problematic from the point of view of competition.

Merits and demerits of patent pool

Patent pools provide various benefits to third parties which include – decrease in the cost which incur for participation in the market and help to prepare these new technologies, advancement and formation of new technologies, clear up blocking positions of the patents, and helps in escaping the high priced infringement judicial proceeding. Specially, patent pools permit interested third parties "one-stop shopping" for patent licensees to assemble all the required patents for using a specific technology from one place only instead of securing licences from different patent owners individually.

But sometimes patent pool become obstacle for third parties who are not the member of a pool, especially in the export manufacturing company, where a non-foreign player who is not part of a patent pool cannot participate in foreign market without paying royalties. Usually the patent pool manages all the patents at an internationally adopted standard and always demands for huge royalty. As third parties has no other option because the patent pool is the only way through which they can get the licence rights, and to get these licence rights third parties or domestic parties has to negotiate on high priced royalties. For instance, where the one who is taking the licence is lowest cost producer has to pay for same royalties as other high cost companies are paying in some other countries.

On looking from both the sides of patent pool, one thing which comes out from it is that the patent pool is like a double edged sword for the third parties who take the technologies from the pool. On one side, it provides third parties to take and use the technology without incurring any important negotiation costs while dealing with the individual patent owners. And, sometimes third parties are left with no other option to go through with the technology wherein he may have small or no power to negotiate for the royalty because of lack of alternatives than to use that technology.

Each member of the pool is made available of all patents and hence, it allows companies holding the patents to go forward which further technology developments. The licensing fee paid by the licensees is distributed between all the members of the pools as per mutually decided model. It encourages more licensing to patents and helps in exchange of technical information.

Patent Pooling is beneficial for both patent owners as well as public when resources are shared in a pool. In case of United States v. Birdsboro Steel Foundry & Mach. Co., Inc. [15], defendants were justified in entering into agreement to cross-license patents for cooling beds used in steel mills, where, in absence of such agreement, cooling beds embodying the best features of both defendant's patents could not lawfully be made, and neither the defendants nor the public could obtain any benefit without agreement [16].

A different type of patent pools was established by the end of 20th Century which provided consumer electronics, for example: DVDs, MPEG, etc. The patent pools has reduced patent thickets and transaction cost. It provides one-stop shopping for all parties involved. Patent Pools also bring end to ubiquitous litigation.

According to Resnik [17], pooling would help companies earn a steady income, recover their investments and reduce risk, which could spur them to further research and innovation.

The risk incurred in organising patent pool is its potential to foster monopoly and limit competition. It is most harmful form of violation of competition law.

Patent Pooling involves sharing of royalties paid by licensees between all members of a pool. Moreover, pools should not be anti-competitive in nature. Reference can be made to a case law of Summit Tech., Inc. & VISX, Inc [18].

In March 1998, the United States Federal Trade Commission announced charges against Summit Technology, Inc. and VISX, Inc. regarding their pooling of patents related to

photorefractive keratectomy ("PRK").They licensed most of their PRK patents by forming a patent pool through a partnership entity- Pillar Point Partnership. This partnership then certified the full documents of patents back to Summit and VISX, and only to Summit and VISX. Summit and VISX sold or leased PRK instruments to eye physician and sublicensed the physician to execute PRK procedures. This patent arrangement obligated Summit and VISX to pay the Partnership of $250 fee each time a PRK procedure was performed. Summit and VISX hadn't an incentive to decrease this fee because the patent pooling agreement bound each firm to pay decided price to the pool. The FTC called this pool as anti-competitive because the assembly of competing patents would not be justified as it would eliminate all competition thereby increasing the prices of products [19]. In the case of United States v. Glaxo Group Ltd. [20]. In a civil antitrust action in the United States District Court for the District of Columbia, the United States Government sought to enjoin enforcement of the bulk-sale restrictions on the ground that they involved unreasonable restraints of trade, in violation of 1 of the Sherman Act [21]. Also, the government challenged the validity of the American patents which had been obtained by the British manufacturers. The District Court held that the bulk-sales restrictions constituted per se violations of 1 of the Sherman Act, but that since the manufacturers were not relying on the patents in defence of the government's antitrust claims, the government could not challenge the validity of the patents. Although the District Court granted the government's request for injunctive relief against future violations, the District Court denied the government's request that the manufacturers be ordered (1) to make bulk sales on reasonable and non-discriminatory terms and prices to all bona fide applicants, and (2) to grant reasonable-royalty licenses for the manufacture of griseofulvin [22].

Global Scenario

There are many major organisations and corporations who have declared their participation in the patent pooling. During these days there is a formation of new and fresh pools by the different companies. Recently patent pools have gained much attention because of their striking use in several organisations & industries like electronics, or biotechnology or wireless industries.

High tech industries leaders and telecom leaders are more concentrating on the formation of patent pools because of steadily use of wireless communication technology. Moreover, companies dealing with the biotechnology field are also forming the different patent pools which help them in eliminating the various troubles related to blocking of patents or stacking of licences.

The question was raised in number of cases in US courts whether patent pool is the subject matter of anti-trust or competition law enshrined in the Sherman Act 1890 in USA. Finally, a doctrine of rule of reason came after various cases in US court to solve this problem. Strong legal backing for pools came in Standard Oil Co. v. United State [23]. The rule of reason came in this case where combinations and contracts were subjected to anti-trust law only when they 'unreasonably' restrain trade. The terms should be reasonable which should promote competition rather restraining it.

In United States v Line material [24], the court held that 'there is nothing unlawful in the requirement that a licensee should pay a royalty to compensate the patentee for the invention or the use of the patent. The illicit component is the use of the control that such cross licensing render to set prices.

In the case of United States v. New Wrinkle Inc. [25], the Supreme Court held that 'two or more patentees in the similar field may not legally unite their patent monopolies to ensure common gain for themselves through contractual obligations between themselves and other licensees, for manipulate the sale price of the patented devices.'

Thus it shows that patent pooling has violated laws and is guilty of many anti-competitive practices such as price fixing, tying arrangements and other restrictions on patented goods [26]. Initially, the concept of patent pooling was introduced in US. Various patent pools were created voluntarily as well as by governments administered pools which provided benefits to people of the nation. This study is much focused on patent pooling in India and its scope which is as follows under next heading of this paper.

Indian scenario and its scope in india

The concept of 'patent pooling' is new in India and has been primarily focused to have solutions for the affordable health care. The one of the objective of patent pool is to compile numbers of patents held by various countries, so as to boost development and easy access to medicines for poor people residing in developing countries.

Our Indian Patents Act, 1970 [27] does not render for any provisions related to formation of patent pools or any guidelines for the same but at the same time it neither restrain for creation or formation of patent pools. There are many companies who are working according to the Section 102 of the Indian Patents Act, 1970 as a helping provision for establishing patent pool which is managed and controlled by the Government in the public interest. But here would be a one barrier which might become a hindrance for the patent pool and that is anti-competitive policies which are regulated by Competition Act, 2002 [28].This act basically disallows any types of agreements or licences which prevents or reduce competition. Patent pool may convert into anti- competitive when the members of the pool decide for not to give licence to any third party and agree to fix price and quota for the same.

Recently, one Indian drug manufacturing company named as MedChem and Aurobindo Pharma Limited has come together and joined Medicines Patent Pool (MPP), so that they can manufacture various anti-retroviral medicines [29]. This pool will help Aurobindo Pharma company to have access to the patented drugs of Gilead company which has been recently introduced in the pool and now, Aurobindo Company can manufacture and sell tenofovir (medicine used to prevent and treat HIV/AIDS and Hepatitis B) in many countries even without paying any royalty.

The evolution of nano technology which has given this 21st century, a new beginning, uses large number of materials and tools which are already been patented which create barrier for innovators to produce something new.

Developing countries face problems in accessing those technologies which are already being patented by developed countries. India, being a developing nation face problems in

getting advantages of various technologies like ODS (Ozone Depleting Substances), etc. because of restrictions and high price imposed by patent holders. So, to overcome these problems patent pool proves boon for developing countries to get benefits of all those materials, substances, tools or any other thing which holds patent. Patent pool involves pooling of sources, expertise, facilities and services. Patent pools involves agreement signed between two or more patent owners to pool their patents and licence amongst themselves or to a third party on pre-determined licensing terms. It has helped in removing barriers and making availability of medicines in developing countries like India.

The Medicine Patent Pool (MPP) [30] was firstly established with the support of UNITAID [31]. Initiative taken by UNITAID to setup a pool is praiseworthy because it made HIV/AIDS medicines available to the poor people of the world. UNITAID provides funds so as to improve the access of medicines for different diseases. The MPP aims to manufacturing of low cost generic drugs (ARVs) for under developed and developing nations for securing licences from originator companies and these drugs (ARVs) are made easily accessible to the low income patients. Moreover, more improved drugs can be made available. The patent pooling has removed the problem of paying price for numerous licensing agreements. All patents can be licensed at a single price.

The concept of the patent pooling in India is new and recent hence, not through among Indian Companies. It provides solution to the problem of accessibility to affordable health care in developing countries like India. The need of patent pooling in India is because of lack of new medicines for curing diseases. The pool brings many pharmaceuticals companies holding patents in different entities so as to cure diseases and promote development in developing countries.

The patent pooling system which is recently introduced in India faces legal barriers in the nation and it is subjected to patent and competition law. After the Patent (Amendment) Act, 2005 [32], many sectors like bio-technology, nano-technology produces a single product which consists of many pieces of patented knowledge. This helps in reducing multiple licences and multiple licensing fees payment. The Indian Patents (Amendment) Act, 2005 does not contains specific provisions regarding patent pooling nor put any legal barrier on its formation. But there are certain provisions of licence and assignment under the act which provide implications for its formation. The sections dealing with assignment and licensing of a patent are relevant because basis of patent pooling is cross-licensing between patent holders of different entities or licensing agreements with the third parties.

Section 68 of the Patents (Amendment) Act, 2005, provides that an assignment of a patent or of a share in a patent, a mortgage, licence or the creation of any other interest in a patent shall not be valid until and unless the same were in writing and the agreement among the parties concerned is reduced to the form of a document embodying all the terms and conditions governing their rights and obligations and duty executed.

Section 69 of the Patents Act, 1970 provides for the registration of the assignments of or transmission of the interest in the patents. Any person who becomes entitled by assignment or by transmission of patent by operation of law may make an application to the Controller for the registration of the title of the patent in his name. Similarly, a person who acquires an interest in the patent by mortgage, etc. may make an application to the Controller of patents for the notice of the interest acquired by him in the patent.

There are certain provisions in Indian Patents Act, 1970 which provides formation of patent pools and also regulates the misuse of patents and prohibits the unreasonable restrictions imposed by patent owners which are contrary to competition law.

Section 140 of the Act, 1970 deals with avoidance of certain restrictive conditions. Clause (1) of the section reads as:

"It shall not be lawful to insert-

1. in any contract for or in relation to the sale or lease of a patented article or an article made by a patented process; or
2. in licence to manufacture or use a patented article; or
3. in a licence to work any process protected by a patent, a condition the effect of which may be-
    a. to require the purchaser, lessee, or licensee to acquire from the vendor, lessor, or licensor or his nominees, or to prohibit him from acquiring or to restrict in any manner or to any extent his right to acquire from the person or to prohibit him from acquiring except from the vendor, lessor, or licensor or his nominees any article other than the patented article or an article other than that made by the patented process; or
    b. to prohibit the purchaser, lessee or licensee from using or to restrict in any manner or to any extent the right of the purchaser, lessee or licensee, to use an article other than the patented article or an article other than that made by the patented process, which is not supplied by the vendor, lessor or licensor or his nominee; or
    c. to prohibit the purchaser, lessee or licensee from using or to restrict in any manner or to any extent the right of the purchaser, lessee or licensee to use any process other than the patented process, and any such condition shall be void.
    d. to provide exclusive grant back, prevention to challenges to validity of the patent and coercive package licensing".

In India, patent pools can be set up either getting licences voluntarily from the patent holders or by government intervention.

Section 102 of the IPA, 1970 provides the way for setting of patent pools administered and managed by Government. The Central Government may acquire an invention with respect to which an application for patent has been filed. The Central Government may also acquire a patent which has been granted to an invention. Thus, the Central Government may acquire the invention before the patent granted to it. When the Central Government acquires any patent or invention, it gives notification of this acquisition in the Official Gazette. With acquisition of invention or the patent, as the case may be, all the rights in respect of the patent stand transferred to and vest in the Central Government.

Upon acquisition of invention or patent, the Central Government pays to the applicant or to the patentee, as the

case may be, such compensation as is agreed upon between the Central Government and the applicant or the patentee, as the case may be.

Thus, from the above provisions, it is implied that the government can set up patent pool by acquiring inventions and patents which are required in the public interest.

In India, patent pooling is viewed as restrictive practice by Competition Law and Policy. The Competition Commission of India has termed 'patent pooling' as restrictive practice because it has provided a set of practices which are anti-competitive in nature [33].

The scope of Patent Pooling is very wide and it should be carried in all low and middle-income countries so that they can get benefits of all modern technologies which would lead to the development and growth of the countries. The medical and health facilities in India are poor. It has to be made strong and easily affordable to all poors of the world. The reach of better health care facilities should be made to all patients who have not efficient money for their treatment. A healthy nation is built from its men who should be socially, politically and economically healthy. The scope of MPP in India is enhancing and will surely get a large success in providing health care facilities all over India. Patent pooling is not only limited to agreement of sharing of resources rather reducing transaction costs, saves time, and reduces multiple licensing. It should not be anti-competitive or contrary to Competition Act, 2002 or any law of India which promotes competition. Patent pooling should involve complementary patents which do not reduce competition.

Conclusion

Intellectual Property Rights are concerned with ideas which produce different innovations and the credit goes to human intellect and creativity. Patent Pooling is a very good concept as well as solution to many problems in low and middle-income countries where people can't afford and access expensive entities needed for their survival as well as sustenance. It helps in promoting development of the new technologies and new products. It helps in saving time and money and providing greater access to the information to its pool members. It is nonetheless than a life-saver because it helps in providing life saving drugs to the under-developed and developing nations.

The patent pools can be easily created by the intervention of government under the existing law. Moreover, there are certain provisions which promotes patent pooling impliedly. The challenge is how this concept can be followed in India where there is no specific legal provision for its formation or if in future any legal barrier comes. The footprints of patent pooling cannot be predicted in country like India.

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