Patent Pools and Competition Law: A Study of the Contemporary Scenario

Aiswarya R Hormis & Aparna Sivaram, National University of Advanced Legal Studies (NUALS), Kochi

ABSTRACT

The intense conflict between intellectual property law and competition law is seen in almost every field of industry reflecting the concept of discord between individual benefit and business ethics. The development of jurisprudential literature on the two disciplines gives an insight as to what forms the legal foundation of the conflict. One of the many examples of this conflict would be the friction between patent pools and anti-trust practices. Till date, there are numerous issues faced by patent pools such as patent hold-up and hold-out problems. Patent pools are commonly characterized by patent holders coming together, waiving their exclusive rights under an agreement. While they help to develop research and innovation and reduce transaction costs by allowing licensing of multiple patents, they also provide space for potential malpractices such as collusion, price fixing and cartelization. In such a scenario, it becomes imperative to analyze the anti-competitive effects of patent pools and look for robust solutions to foster a healthy and competitive environment to maintain an amicable economic climate. Through this paper, the authors would like to shed better light on this issue and make an attempt at suggesting a few constructive solutions which will alleviate, if not solve the problem.
Competition law and intellectual property law do not always go hand in hand. We see a rampant conflict between these two fields of study. Competition law regulates practices that are anti-competitive and have a negative effect on the smooth functioning of the market. Intellectual Property law gives concern towards the exclusive monopoly right given to the holder. It deters other players from providing particular products in the same market and this is detrimental to competition. It is based on the reward theory which enumerates that the holder of the right must be rewarded depending upon the utility of the product. After close perusal of the objective of both the laws, it is pertinent to note that both these legislations promote consumer welfare and innovation. The Competition act, 2002 is enacted to keep a check on the abuse of monopoly power which is provided under the Intellectual Property Rights law. Therefore, what is required is to achieve a harmonious balance between these two laws.

The term “pool” is used to mean a plethora of arrangements which patent holders have undertaken to combine their patents. It can be defined as a system in which two or more patent owners agree to license one or more of their patents to one another or third parties. They are often formed when various patented technologies are needed to create a standardized product. Patent pools are generally used for complex and mature technologies which help industries to develop suitable products. They usually last for the lifecycle of the technology rather than for a fixed period.

One of the major problems faced by industries is the “patent hold up” problem. A patent hold up arises in the context of negotiations between a patent holder and an implementer when ex ante licensing is impractical and the patent holder enjoys a greater bargaining power in ex post negotiations. The difference between ex ante and ex post emerges when the implementer sinks in some resources that are specific to the technology that is sought to be patented. In such circumstances, the patent holder can take advantage of the implementer’s reduced flexibility and extract a larger licensing fee than is required. This puts the patent holder at a position of greater

---

advantage as he has the right to obtain an injunction for patent infringement if the negotiations fail. Another problem concerning patents is the “patent hold out problem”. This is the practice of companies repeatedly ignoring patent owner demands as the chances of getting caught for infringement is negligible. Patent pools help mitigate both the problems of “hold up” and “hold out” as these problems hinder the efforts of the industry in ensuring that a product conforms to the industry standard.

There are several types of patent pools, but all of them have one common characteristic; two or more patent holders come together waiving their exclusive rights under their respective patents to grant each other rights or to grant jointly rights to others under their patents. There are restrictions in addition to the waiver of exclusive rights under a patent pool. Patent owners who contribute to the pool have to pay a license fee to gain access to all the other patents in the pool. The fees collected from those contributing patents and taking a license, and those only taking license, are divided among the members who contributed patents to the pool. This is as per the terms and conditions of the pool. There can be other restrictions in addition or in lieu of the license fees such as how the contributed patents may be practiced, where it can be practiced, and so on.

I. History

The concept of patent pools has been known for over 150 years. An early example would be the “Sewing Machine Combination” of 1856. This lasted until 1877. Grover, Baker, Singer, and Wheeler & Wilson decided to combine their IP and form a trust in 1856 and agreed to cross-license the IP held in trust. Before the establishment of this patent pool, each of these members was litigating against each other against infringement of the patent. During one of the court proceedings, Orlando B Potter, who was a lawyer and president of Grover and Baker Company, suggested that they form a patent pool instead of going into numerous suits which proved expensive and depleted their profits. In the 20th Century, there was a patent war between the Wright Company and the Curtiss Company. This resulted a stoppage in the production of airplanes. Since World War I was fast approaching, the U.S Government was in dire need of airplanes and urged both the companies to enter into a patent pool to mutually utilize the benefits of their technology

---

in manufacturing airplanes.\textsuperscript{4} If a firm wants to utilize the benefits of the patent that is contributed in the pool, it has to negotiate separately with each of the firms that are involved in the patent pool to fix on the licensing terms. This is rather cumbersome and time-consuming. For this reason, firms will be reluctant to use the patents, which will result in wastage, hampers progress, and prevent the inventors from making license money.\textsuperscript{5} Hence, the firms decided to create patent pools.

II. Jurisprudence of Competition law and Intellectual Property Rights

It is also relevant to analyse briefly the jurisprudential aspects of both competition law and intellectual property rights to understand the rationale behind regulating competitive market structures and providing freedom of exclusivity to innovations in society. This will be useful for the purpose of understanding the pro-competitive and anti-competitive effects of patent pools. As far as competition law is concerned, the main debate surrounding this is the influence of economics in competition law. The main foundation of the economic approach to competition law lies in developing clear economic goals in line with the vision of maintaining fair competitive practices in the market. There are varying schools of thought in competition law that differ in their opinion regarding the extent and scope of influence that economic principles exercise in this field. While the “Chicago school of thought” and the theory of neoliberal economics deeply influenced the anti-trust law of the United States, other jurisdictions like Europe have not embraced this concept. This is because certain jurisdictions prioritised the prevention of monopolies and the market integration theory over the theory of neoliberalism. However, with time this has changed and the European Union has also begun to adopt a more economic approach towards the issue. The foundation of the economic approach in the United States is linked to Robert Bork’s treatise called “The Anti-Trust Paradox”. According to this, consumer welfare maximisation would be the guiding rationale of competition law in the United States. Bork argued that competition law was not the appropriate recourse for addressing non-economic issues in the markets. Thus, this treatise creates a case for a normative framework required for competition law to be aligned with the economic goals that are formulated in accordance with the socio-political context of a particular jurisdiction. India’s competition law is still at the incipient stage and lacks the urbane and suave touch of the law in


jurisdictions such as the United States and EU. India, being a mixed economy, cannot completely adopt the neoliberal approach as it has opted for an economic environment that provides for an interface of both the socialist model and a market economy. The rationale behind the Indian competition law was explained by the Supreme Court in the case of Excel Corp case vs. CCI⁶. Certain observations were made by the court in this case which was meant to guide the CCI in its rulings and analysis. In the words of the court, the ultimate goal of competition law is to enhance consumer well-being and ensure that markets function effectively. It also ensures a level-playing field for market players and sets the “rules of the game” that protects the process of competition itself rather than the competitors in the market. This is, however, a very vague statement and a lot of literature needs to be developed to strengthen the base of competition law jurisprudence in India and provide the much needed clarity to the economic approach vs. non-economic approach debate and the position of India in this regard.

The term intellectual property refers to the mind or creativity. In this way it includes any creative work which emanates from the mind. Property is a bundle of rights. Rights includes the power to use, sell, mortgage, change, or even destroy the object. Hence intellectual property is a property which is a creation of human mind. According to the incentive theory, reward is presented after the occurrence of an action. This reward can be tangible or intangible. It has the intention of causing the behaviour to occur again by associating a positive meaning to it. It aims at positive reinforcement. Intellectual property holders need to be constantly motivated or positively stimulated so that he/she is incentivised to invest in research and development of their IP rights. The Competition Law is aimed at harbouring competition. It fosters efficiency. Intellectual property rights on the other hand provides freedom of exclusivity to the creator of a particular product.

III.     Pro-competitive Effects

Patent pools hold out numerous pro-competitive effects. A few of them are explained below:

---
A. Efficiency: The creation of patent pools helps to facilitate the efficient production of products. For example, if two or more firms may own certain IP rights. But it might not be sufficient for the efficient production of the product and the IP rights of the other firm is necessary for the same. In such a scenario, these firms are blocking each other’s patents and thereby prevent markets and consumers from enjoying the benefits of the product to be manufactured. Pools containing complementary patents, ie. patents that different technologies which are collectively used for the production of a product. This lowers the total royalty rate to the licensees and thereby reduces the final cost of the product for consumers.  

B. Reduced litigation costs: Patent pools are a tool to mitigate the problem of litigation costs as such disputes can be easily settled or avoided through the creation of patent pools. This saves businesses time and money. It also reduces the uncertainty of patents caused by litigation. It particularly benefits small and medium-sized firms as they are often unable to withstand the huge litigation costs which would otherwise be inevitable.

C. Reduced transaction costs: Patent pools help reduce transaction costs. The licensees only need to get into a single licensing agreement to use the patents in one patent pool. This simplified approach also encourages development in the market and the adoption of new technologies. They also decrease costs by eliminating infringement litigation. It prevents double-marginalization or royalty stacking. Royalty stacking occurs when the production of a product requires multiple patents and this would result in multiple license fees. It happens when the licensee must pay royalties to multiple IP owners to commercialize the product. The royalties are then said to be stacked one on top of another. In license agreements, the licensee may insert and negotiate a clause whereby he may state that if he has to pay royalties to multiple parties, then the amount of royalty he pays under the first agreement should be reduced. These are known as royalty stacking clauses.

IV. Anti-competitive Effects

A. Patent pools have been used throughout the twentieth century as a tool to cartelize industry and contravene anti-trust laws. While patent pools are generally considered as a socially
beneficial phenomenon, certain circumstances can pose anti-competitive threats to the market. One of the major examples of the same is collusion. In market competition, collusion takes place when there is an illegal agreement between rivals in the same market which attempts to threaten the market equilibrium. The parties in a collusion agreement conspire to work together and coordinate their pricing policies to gain an unfair market advantage. The most common form of collusion is price-fixing. In other cases, companies may integrate their advertising campaigns which would result in the limiting of a consumer’s knowledge about the product. Anti-trust laws aim to prevent collusion in markets. The threat of collusion depends on two main factors. The first factor is the structure of the market and the power of the pool within the market. The second is the nature of the pricing and arrangements within the pool. There is no limitation under the Patents Act regarding how royalties are computed. However, the act does not justify the price-fixing of products under patent pool agreements, as this is viewed as anti-competitive. This arises in cases, where the patent pool does not cover the entire market but a small portion of the larger market that has decided to share a unique technology. The case law in this area is vague and undecided. In the 1902 decision of Bement v. Nat’l Harrow Co., the court allowed the pool members to ascertain the price of agricultural harrows that was produced with common technology. In the General Electricals decision, the court upheld an agreement in which the patentee i.e. General Electricals licensed Westinghouse to produce incandescent bulbs but specified Westinghouse’s selling price in the agreement. In contrast, in the case of United States v. Line Material Co., the court expressly condemned the practice of price-fixing in a cross-licensing agreement dealing with complementary patents. In the more recent Actavis decision, the majority opinion of the court was against product price-fixing in patent pools thereby embracing the Line Materials decision.

B. Sometimes patent pools can result in cartels. A cartel is an agreement between organizations in the same level of the supply chain, to fix prices, allocate customers or

8 Bement v Nat’l Harrow Co., 186 U.S. 70 (1902).
territories, or even to restrict output. This is considered anti-competitive and is subject to the *per se* rule. Section 2(c) of the Competition Act, 2002 covers the concept of cartels. The Competition Commission of India presumes agreements entered into by enterprises, or persons, or association of persons or enterprises, which result in a cartel, to have an appreciable adverse effect on competition. The section in dealt in detail in the later part of this paper.

C. Pools containing substitutable patents, i.e., patents that contain competing technologies and the licensees have an option to choose among the patents in the pool, may have an anti-competitive effect of increasing the total royalty rate to the licensees. This increases the final cost of the product for consumers.\(^\text{12}\) A patent holder who has substantial market power may adopt exploitative practices to expand his position in the market which would have an appreciable adverse effect on free and fair competition. \(^\text{13}\) If the arrangement involves settlement between horizontal competitors, i.e, players who compete in the same level in the market, and if the effect of the settlement is to reduce competition among entities who would otherwise be potential competitors in a given market, then this would be considered as anti-competitive as envisaged under section 3(3)

D. Another anti-competitive effect that may occur in patent pools is when there is a restriction on research and development by its members. For example, if the terms of the license provide that patent holders are to grant licenses to each other for the current as well as future utilization of their technologies, this may act as a deterrence for the members as they would have to share the fruits of their research with other members. This would lead to free-rider problems as other members would benefit from the hard work of a few members.

An important factor is the licensing practice in patent pools. If such licensing policies are liberal, then it is considered to be more conducive from the competition point of view. However, if the members of the patent pool are not allowed to license the patents independently, then the pool may charge a price that is above the competitive rate. Pools that do not encourage free licensing of patented technologies may make it harder for new firms to enter the market and overcome the

\(^{12}\) *ibid*

The basic test to determine whether the patent pool poses anti-competitive concerns is whether the licensing agreement eliminates competition that would have occurred in the absence of the license. If a licensing agreement extends competitive restrictions beyond those that were granted to the owner of the patents then such agreements should be challenged. Article 40 of the TRIPS agreement relates to the same. Under the Article, member states are allowed to adopt legislation to prevent anti-competitive practices in licensing agreements. It may be useful to refer to grant-back provisions here. According to grant-back provisions, pool members may be required to share improved technologies with the pool at no fee if such technologies are deemed relevant to the pool. They prevent individual members of the pool from hiding any development concerning the technology from other members of the pool. Article 40 explicitly considers grant-back provisions as anti-competitive. Member states are entitled to interfere with such licensing agreements on grounds of it being illegal per se or subject it to a rule of reason review.  

It is pertinent to note the hostage theory here. This theory mainly pertains to blocking patents. A blocking patent is one that prevents a third party from the commercial exploitation of a modified or improved version of a device or a process. When a patent stops another product or service from being produced because its production would infringe upon it, such a patent is called a blocking patent. Many companies employ blocking patents in several strategic ways. Pools of blocking patents are a medium through which collusive agreements are formed indirectly. The creation of a pool in case of blocking patents imposes discipline on members of the pool who seek to violate the collusion agreement. The assets of each member are held “hostage” by the other members of the pool, subject to harm if covenants of the pool are breached. The license of each member’s pool is held hostage. If the pool is comprised of blocking patents, then the licensee of any member of the pool can be sued by the other members. The members agree to maintain prices and certain levels and restrict the output. If one member of the pool licenses the invention to a customer on different terms than the one agreed on, then the other members can dissolve the pool and sue the breaching member’s licensee. Here the royalty rebate scheme can be discussed. This provides a mechanism for patentees to maintain an “act” of free competition. In reality, however, prices are

raised internally. Patentees assign their patents to the pool. The pool licenses the use of the patents back to the patentees at a fixed rate of royalty. The cost to the patentees of using their technology is thus increased. This, in turn, is passed on the licensees in the price of the patented goods. The pool members compete individually in the market. Therefore, it appears as though the prices are competitively set by the members. But this is not so, as the input price has been increased internally in the pool by the licensor and the end price paid by the licensee is elevated as a result.

In the United States, intellectual property licensing is analysed in terms of anti-trust guidelines commonly known as IP guidelines. These guidelines address the area of patent pools very briefly and mainly deal with the practice of exclusion from patent pools. These guidelines consider patent pooling as pro-competitive. Under the guidelines, exclusion from pooling arrangements among owners who collectively possess market power may harm competition. If the limitation on participation in the pool does not have a reasonable nexus with the efficient development and exploitation of the pooled technologies, then such exclusion is considered to be anti-competitive.

In Canada, the 2000 IP Enforcement Guidelines states that competition law is to be applied to intellectual property as it is applied to any other property. The main purpose of this is to “prevent companies from inappropriately creating or encouraging the market power that is the basis of competition without giving up on the economic benefits”. 16

V. Patent Pools in India

India is a developing nation. Patent pools are a relatively new concept in the country. It is seen as a solution to the problem of lack of access to affordable health care. World Health Organization has recommended that patent pools can be used as an effective tool for providing easy access to life-saving medicines and treatments. 17 Accordingly, this method has been used in the diagnosis of breast cancer as well as in development of drugs for diseases such as malaria and HIV. The Medicines Patent Pool brings together patents relating to manufacturing, sale, and distribution of HIV- AIDS anti-retroviral medicines in developing nations. The drawback in this is that patent holders are not producing sufficient amounts or fixed-doses of combinations or these often prove

---

16 Section 2.3. of the IP Guidelines, 2000
to be costly to people residing in these areas. Before 2005, India witnessed a process patent regime that was abused by the biopharmaceutical companies to establish a generic industry. The Indian Patents (Amendment) Act, 2005 neither has provisions for specific patents in a pool nor does it have any provision limiting the creation of patent pools. Patent pools mainly deal with cross-licensing of patents by different patent holders and for this reason, it is pertinent to note the provisions regarding licensing and assignment under the Indian Patents Act and how it applies to patent pools.

According to the Competition Commission of India, patent pools become anti-competitive when firms in a manufacturing industry decide to pool their patents and do not grant license to third parties, and simultaneously they fix prices. They will result in them earning supra-normal profits and hinders the entrance of new players into the market. If all the available technology is locked in the hands of a few through patent pools, third parties will find it difficult to compete. The CCI in the case of Micromax vs. Ericsson\textsuperscript{18} has addressed the issue of the relationship between patent law and competition law which protects contradicting interests in the market. The court in this case held that the spirit of any legislation is to protect the mutual interests that was intended for protection by the lawmakers. The court insisted on maintaining a harmonious relationship between The Patents Act, 1970 and the Competition Act, 2002. The court pointed out that the two laws may seem contradictory to one and another but in the core of their foundation, they seek to protect common interests and therefore do no oppose or override each other.

Section 68 of Indian Patents Act, 1970, provides for assignment of patents by contracts is not valid unless it is in writing. “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 unless the same were in writing and the agreement between the parties concerned is reduced to the form of a document embodying all the terms and conditions governing their rights and obligations and duly executed.”\textsuperscript{19} Under section 69, the person in whose favour the patent is assigned has to apply to the Controller for registration of his title, or as the case may be, his interest in the register. Insertion of restrictive conditions in licensing agreements is common in patent pools and this is frowned upon by the

\textsuperscript{18} Case No. 50 of 2013 Order available at https://www.cci.gov.in/sites/default/files/502013_0.pdf?download=1
Indian Patents Act, 1970 through section 140. Certain patent pools are created with compulsory licensing and this covered under section 84. It states that after the expiration of three years from granting a patent, any person can make an application for a compulsory licensing subject to three grounds: 1. Reasonable requirements of the public are not met, or 2. The patented invention is not available to the public, or 3. The patented invention is not worked in India. It is difficult for developing countries to create patent pools with compulsory licensing because they face political pressure from developed nations.

The Indian legislation for ensuring fair competitive practices is the Competition Act, 2002. Section 3 of the Competition Act, 2002 states about anti-competitive agreements. It envisages two types of agreements; horizontal and vertical agreements. Section 3(3) states about horizontal agreements and these include cartels. It shall be presumed that such agreements have an appreciable adverse effect on competition and hence it is void. section 3(4)- vertical agreements. Agreements coming under this clause can take protection enumerated under section 19 of the Competition Act, 2002. This can be in the name of efficiency, technological improvement and consumer benefit. Section 3(5) provides that reasonable conditions can be imposed to protect rights including patent rights and such agreements are not considered as anti-competitive. It covers only intellectual property rights conferred by India. This provision expressly incorporates the principle of reasonable steps taken to protect intellectual property as not constituting anti-competitive behaviour. In other words, any unreasonable condition imposed in the agreement pertaining to intellectual property rights will be viewed as anti-competitive and will not gain the protection afforded by this provision.

Though blanket protection has been given to IP rights through this section, Section 4 deals with the clause of abuse of dominant position which gives ample space to bring IP rights within its purview. Under section 27 the CCI has the right to penalize IPR holders who abuse their dominant position.

---

Another issue to be considered under the patent pool is when patents are granted by foreign authorities. It will be measured against the standard of appreciable adverse effect on competition under section 3(1) or 3(4) and deemed to be void. Under the present competition law regime in India, patent pools have a liberal interpretation because unless it leads to activities such as refusal to grant the license to third parties, price-fixing, tying and so on which causes an appreciable adverse effect on competition, it will not be considered as anti-competitive. 23

VI. Solutions

The authors through this paper would like to suggest some solutions to have a healthy balance between patent pools and competition law in India. Intellectual Property Rights aim to protect and provide an incentive to innovation along with bestowing monopoly rights on the patent owners for a limited period. Competition law aims to prevent unfair competition in the market. It advocates for fair competition in the market through regulatory mechanisms. We need to have a liberal approach while dealing with anti-trust issues relating to patent pools. Excessive curtailing of the freedom of patent holders to freely deal with their patent in a patent pool would result in disincentivizing innovation. Patent pools, as has been highlighted through the paper, is an effective tool in promoting production efficiency as it reduces patent infringement suits.

Here it would be relevant to discuss the Nine “no-nos” of patent licensing under the US Anti-trust law. One of these nine restrictions deals with the right of the purchaser of the patented product to resell the product. This restriction entails the exhaustion doctrine which states that an unconditional sale of a patented technology exhausts the patentee’s rights to control the purchaser’s use of the product thereafter. This doctrine, however, does not apply to those cases where the sale or license granted is a conditional one. In such cases, it is generally inferred that the price negotiated includes the value of the user rights granted by the patentee. Therefore, conditions accompanying the sale of a patented product are generally upheld. However, these conditions would be subject to the restrictions placed by both anti-trust as well as patent law. It should also satisfy the equitable considerations of law. Patentees also have the option of offering either exclusive or non-exclusive licenses. In the case of an exclusive license, the licensee receives the

sole right to practice the patent whereas, in a non-exclusive license, the patentee retains the right to license the technology to others. It is generally argued that exclusive licensing has anti-competitive effects. However, this is not a conclusive statement and depends on a variety of factors such as degree of foreclosure in the market, responsiveness to demand and supply for the particular technology in the market, nature of the product, consumption patterns, and behaviour of the input and output markets. All these considerations must be kept in mind while fixing the terms of the patent pool.

Steps should be taken to ensure that the agreement to license patents by different patent holders should be done of free will and there should be no coercion. The objects of a patent pool must be clear and unambiguous so that third parties can make informed decisions. It also helps them to avoid unfavourable situations and suffer losses. This includes clarity in the rights and obligations of contributors as well as licensees of contributed rights. Efforts must be taken to ensure that patents that are properly conferred by the appropriate authority should only be involved in the pool.

The quality of the technology which is accessed through the patents should be high so that the cost incurred by third parties to obtain it would be covered by the expected efficiency in production using this high-quality technology. The patent owners in a pool should not be allowed to charge excessive licensing fees as this would lead to an increase in costs for third parties who are desirous of obtaining the available technology and would, in turn, increase the prices of the final products. This would negatively affect competition in the market and the consumers as a whole. The patent owners should be aware of the economic capacity of the consumers which would differ from market to market. A close analysis of section 4 of the Competition Act, 2002 brings to our notice that abuse of dominant position does not include high prices. Hence amendments should be made to incorporate the same.
Conclusion

Through this paper, the authors have attempted to analyse the conflict in the objective of competition law and intellectual property law. Both these fields of law are relatively new and extremely relevant in the current global economic scenario. The issue of anti-competitive activities in a patent pool is only one of the many examples which reflects this discord and highlights the need to strike a healthy balance between the two fields of law. Patent rights give the patent holders the right to exclude others from using their patents. This is beneficial for owners of patents in a pool or its licensees so that they can effectively utilize the patents and third parties would be deterred from using the patents without permission. But this could act as an economic hindrance as it disallows persons who are not involved in the patent pool or are not its licensees to use the available technology thereby reducing production. The solutions suggested by the authors are only the beginning step towards combating various challenges that may arise, given the fact that the current business environment is extremely dynamic and unstable.