

AN ECONOMIC APPROACH TO PATENTS, DAMAGES ARISING OUT OF INFRINGEMENT AND NON-PRACTICING ENTITIES

PRIYATTAMA BHANJ¹

INTRODUCTION

A Patent is a protection granted by way of right by the government for a limited period of time, excluding others from using the invention patented without the permission of the patent holder. With an increase in Patent Infringements, there is a shift in interest from intellectual property violation, to its economic evaluation. Patent Infringements have economic implications as much as those affecting Intellectual Property of the individual. . For the purpose of this essay, no particular jurisdiction has been analysed but the damages resultant from patent infringement in general has been looked into, from an economic perspective. The first part of the paper deals with the economic applications of patents. The next part looks into the approaches to patent damage valuation. The third part deals with the effect of litigation by Patent Trolls or Non-Practicing Entities (NPE`s) on the functioning of the defendant firms. In conclusion, whether the existing screening mechanism is an appropriate system to deal with the issue, has been analysed.

ECONOMIC APPLICATIONS OF PATENTS

One of the criteria for an invention to be eligible for a patent, is that it must have a novel use. An economic approach to the analysis of Patent use reveals that the issuance of Patents also has economic applications of its own. Apart from promoting innovation and granting monopoly rights of use of to the owner, Patents have many other economic applications as discussed below.

- As Barriers to Entry- With the entry of either a new firm or product into the market, previously existing firms are forced to lower their prices and face the prospect of less

¹ 4th Year BA LLB Student, West Bengal National University of Juridical Sciences

consumers, leading to a collective decrease in the economic profits of all participants in a market².

Thus, the entry of new firms or participants will decrease economic profits for the existing firms. An instrument to stop new entrants from doing so is by altogether preventing their entry into the market, to maintain *status quo* of economic profits as well as increase it, is by putting up 'barriers to entry'.³ For innovators, this happens in the form of patents. In order to derive commercial profits from the invention, and prevent others from coming up or using the same, existing innovators get them patented.

Thus, patents allow them to produce, sell, charge high prices and get economic profits from it.⁴ Patents are thus, a way of incentivising the inventor for the risk and costs incurred by him, and allowing him to commercialise the same invention for a limited period⁵

- As instruments of Pre-emption- One of the incentives brought about by patents is the incentive to pre-empt investment or innovate. In the context of patented good, a monopolist,⁶ is incentivised to invent by profits that he would lose by the entry of a competitor⁷ into the industry. As long as he can avert competition, his incentive for profits remains. For a competitor or new entrant the incentive would be the profits earned if he gains entry into the market successfully.⁸ (In this situation, let us assume that there are no patents to be sought and that similar products will also be allowed without fear of infringing any patents. Then, the competition shall decrease considerably, and the first innovator shall be forced to comply with the market, anticipating a decrease in profits)

² *Competition and Market Power*, Lori Alden, available at www.econoclass.com/imperfectcompetition.html (Last seen on 01/08/2014)

³ *Id.*

⁴ *Id.*

⁵ *Id.* (time period for granting patents differs according to jurisdiction)

⁶ An innovator who patents his product first i.e. patent holder

⁷ An another innovator with similar new technology or idea/ a non-patent holder, with a possibly similar product

⁸ Lauren Cohen, Umit G. Gurun, Scott Duke Kominers, *Patent Trolls*, Harvard Business School, (2014), available at www.hbs.edu/faculty/Publication%20Files/15-002_156f8555-5a80-4469-a825-78c4f091261e.pdf Last visited August 1, 2014.

The aim is to develop a new technology and be the first to patent it. For this, a firm may also practice, pre-emptive Research and Development with respect to the technology to be patented.⁹ The incentive for this type of pre-emption is the factor of innovation competition.¹⁰ i.e. in an attempt to be the first to procure exclusive rights to a new product the firm may invest in Research and Development before any other firm, so that such pre-emptive Research and Development would prevent other firms from exercising the same knowing that the first firm has a head start and would be able to overtake the second firm when it comes to procuring a patent for the technology¹¹

An opposing argument to the abovementioned is that market foreclosure effect is an understood consequence of patents and such an effect may not be qualified as anti-competitive.¹² Thus, it is not sought that patent filings be proscribed, because holding of the patent in itself is not conclusive of market dominance, since different patented products can compete in the same market. This is possible when patents granted in compliance with the requisite legislation produce pro-competitive results on the whole by excluding competition by imitation and promoting competition by substitution.¹³

VALUATION OF DAMAGES ARISING OUT OF PATENT INFRINGEMENT

The purpose of a Patent is to protect the invention of the Patent Holder, and prohibits its commercial use, distribution, production and sale without the permission of the Patent Holder.¹⁴ A patent infringement thus gives rise to a claim for damages, based on the monetary loss that the patent holder or owner may suffer. This infringement occurs when another person uses or utilizes any process or technology that has been granted to the inventor. This loss may be based in two of the main principles as decided by the **Panduit Case**¹⁵, i.e. Loss of Profits and Unjust Enrichment.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² Josef Drexl, Nari Lee, *Pharmaceutical Innovation, Competition and Patent Law: A Trilateral Perspective*, 318, (2013).

¹³ *Id.* at 319

¹⁴ World Intellectual Property Organisation(WIPO), FAQ, available at www.wipo.int/patents/en/faq_patents.html

¹⁵ *Panduit Corp v. Stahlin Brothers Fibre Works*, 575 F.2d 1152 1573 (6th Circ 1978)

A. LOSS OF PROFITS

An important claim arising out of patent infringement is the loss of Profits. In such a case, it is possible for the plaintiff to base his claims on the market demand for the patented product, availability of non-infringing alternatives and practicability of calculating any profits that could have been made had the infringement not occurred.¹⁶ Calculated Damages are a way of putting the plaintiff back in the same position he would have been but for the wrong doing. The ‘lost profits’ damages is meant to give to the patent holder the profit lost by him due to the infringement.¹⁷ Such damages may be calculated as the difference between profits that the patent owner would have gained, “but for” the infringement and the actual profits made, in the course of the infringement.¹⁸

B. SUBSTITUTABILITY OF ALTERNATIVE PRODUCT

Another factor to aid in determining the extent of damages claimed is the substitutability of alternative non-infringing products available.¹⁹ In a consumer market, the substitutability of two goods for a consumer is gauged by the cross-price elasticity of the products.²⁰ If the consumer finds that for a high priced patented product, there exists a suitable non-infringing alternative, whose price remains stable, (assuming that the use of the patented product would be costlier), then the consumer would prefer to use the non-infringing alternative; firstly, to not face the risk of infringing a patent, and secondly, to avoid the higher costs of licensing and then using the patented product.

Thus, a large positive cross-price elasticity would mean that both products are perfect substitutes and consumer would be willing to choose a lesser priced substitute.²¹ To measure damages in light of the above mentioned, (in the “but-for” situation), if consumers had been

¹⁶ *Id.*

¹⁷ Federico Munari and Raffaele Oriani, *The Economic Valuation of Patents: Methods and Applications*, 264, (1st ed., 2011)

¹⁸ *Supra note 14.*

¹⁹ *Id.* t 265

²⁰ A concept in economics that measures the responsiveness in the demand of quantity of a good when a change in price takes place in a relative good.

²¹ *Id.*

offered the option to choose such a non-infringing product by the infringer, then, he could be allowed to keep the profits from those sales, thereby decreasing the “loss of profit” damages that can be claimed by the patent holder.²²

A corollary argument by the patent holder may be that loss faced by him was also due to ‘price erosion’ as a consequence of the infringement.²³ Under this theory, the entry of the infringing product is claimed to have caused a price competition because of which the patent holder is forced lower his product’s price thereby decreasing his net profits arising from sale.²⁴ Such a situation usually arises when the infringer sells the infringing good or product at lower price compelling the patent holder to reduce his prices to be able to compete in the market.²⁵ The assertion here is that because of such a situation the patent holder had to give up on an increase in price that would have yielded profits. This factor could be taken into account while determining losses arising out of the infringement.

C. UNJUST ENRICHMENT

Some jurisdictions allow the patentee to recover the infringer’s profits as one way of calculating damages. The application of this doctrine varies with jurisdiction for eg: in Japan, such damages shall only be available if the patent holder has used the patent i.e. to claim an infringement, he must show that he has exercised the right granted to him under the patent. In the United Kingdom, such claims are based in statute.²⁶ In Germany, for the infringement of another’s patent, the premise followed is that by doing so, the infringer undertakes the business of the patent holder and the owner would be entitled to all profits, resultant from the business.²⁷ The balance of interest is evident from the allowance of deductions which the infringer can make if

²² *Id.*

²³ *Supra note 14.*

²⁴ *Id.* at 268.

²⁵ *Id.*

²⁶ The UK Patent Act (United Kingdom), § 60.

²⁷ *On Sharks, Trolls, and Their Patent Prey - “Being Infringed” as a Normatively Induced Innovation*, Markus Reitzig, Joachim Henkel, and Christopher Heath, at http://www.inno-tec.bwl.uni-muenchen.de/files/service/links/epip/joachim_henkel.pdf , Last seen on 29/07/2014.

he uses his own skill and labour, to market the infringing products²⁸ This is consonance with the argument of that unjust enrichment stems from the infringers profits.²⁹

NON-PRACTICING ENTITIES OR PATENT TROLLS: ECONOMIC IMPLICATION

Non-Practicing Entities or Patent Trolls, are people or companies who may not originally be the owners of the patent, but can sue infringers for patent infringement. Such entities do not seek to manufacture or further the purpose of the patent for innovation, but only acquire licensing fees, i.e. the fees to be paid on the utilization of the licensed product.

NPEs do not contribute to innovation in the society viz. a primary purpose of the patent and this has certain social and economic detriments. These entities take up litigation against firms for even the slightest infringement and claim a stake in the damages resultant of the lawsuit, accompanying the injunction. It is argued that the injunction granted to NPEs is over-compensatory in nature irrespective of what harm they suffered because in the first instance, these entities do not propose to contribute to the existing pool of innovation but only seek the licensing fees from supposed infringers, thus in a way exhibiting rent-seeking.³⁰

The resultant increase in the number of litigation suits has also affected the welfare of the consumer in the market because in case preliminary injunctions are granted, production and sales are shut down or consumers may even stop buying the product.³¹ There is also the fear of lawsuit because the protection effected by a patent extends even against indirect participants in the infringement.³²

Thus, the defendant firms (against whom the NPE's bring infringement suits) see a fall in revenues as well as innovation, because most of these firms end up not bringing out any new products in the field of technology soon after the lawsuit, for fear of persecution and thus, such patent litigation backed by NPEs affects both consumers as well as progress of new

²⁸ *Id.* See further Düsseldorf District Court, July 25, 1996, 4 O 217/95 – “Winkelprofil III.”

²⁹ M. Schankerman, and S. Scotchmer, *Damages and Injunctions in the Protection of Intellectual Property*, 32, RAND Journal of Economics, (2001).

³⁰ Jaideep Venkatesan, *Compulsory Licensing of Nonpracticing Patentees After eBay v. MercExchange*, Virginia Journal of Law and Technology, 14, 26, (2009) .

³¹ James Bessen, Jennifer Ford, and Michael J. Meurer, *The Private and Social Costs of Patent Trolls Do nonpracticing entities benefit society by facilitating markets for technology?*, 6, Regulation, CATO Institute.

³² *Id.*

technology.³³ NPE`s utilize the fact that the legal system will choose to afford protection to that party whose right over intellectual property has been infringed, and thus in most cases will rule in the favour of the entity -this may also happen when no such infringement has taken place³⁴- and consequently the threat of a lawsuit will make productive and inventive defendant firms succumb and the NPE is able to get rents (in the form of fee).³⁵

Mostly, the lawsuit by NPE`s is targeted towards medium to small firms for even the slightest of infringement and this is important to note because most defendant firms have already invested in the innovation but by getting embroiled in the cost of the lawsuits and the losses therein, make such firms less agreeable to license latest inventions or technologies to other smaller firms.

CONCLUSION

The importance of intellectual property rights has witnessed a surge of economic activity related to it.³⁶ As a result, many entities are seeking to get hold of ‘undervalued patents’ i.e. patents that they feel are not being fully utilised.³⁷ The argument of NPE`s is that, their actions are a form of market-making where they assert the patents against companies utilizing them, in place of those who are unable to do the same.³⁸ For e.g.: technology or any ideas that company A holds, could be of use to company B. If such technology is patented and the NPE in its capacity as middleman brings it to the attention of the second company, then it is in the interest of furthering innovation.³⁹

It is with regard to the importance of rewarding and promoting true innovation that the monopoly resultant of patents is allowed to a certain extent.⁴⁰ Patent laws also lay down conditions, for whether a technology qualifies to be patented. Criterion like ‘utility’ and ‘non

³³ *Id.*

³⁴ Lauren Cohen, Umit G. Gurun, Scott Duke Kominers, *Patent Trolls*, Harvard Business School, (2014), available at www.hbs.edu/faculty/Publication%20Files/15-002_156f8555-5a80-4469-a825-78c4f091261e.pdf Last visited August 1, 2014

³⁵ *Id.*

³⁶ Robert P. Merges, *The trouble with trolls: Innovation, rent-seeking, and patent law reform*, Berkeley Technology Law Journal, 1, (2010).

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

obviousness' ensure that patents are not conferred for inconsequential advances giving unnecessary economic power to the patent holder.⁴¹

This is done through ex-ante screening of the patent application. This entails the examination of patents by trained experts in the relevant field of technology to ensure meeting of the standards of validity of patents.⁴² The purpose of such a screening *ex ante* i.e. before the grant of the patent, is that dependent on the quality of innovation- low or high- a strong or weak patent may be granted. The legal condition of utility for patents, works to prevent rent-seeking by people who wish to obtain patents without showing whether the technology is completely understood or designed and capable of real technological innovation.⁴³

The reasoning behind such a requirement is that it seeks to control the misuse of “legitimate rents” and prevent unnecessary costs of developing technology unless its usefulness is proven beyond doubt. Such a procedure at the ex-ante stage also weeds out the possibility of frivolous patents that want to make commercial profits out of licensing and not work upon innovation.⁴⁴ However, to what extent such a screening process will prevent rent-seeking Patent Trolls or NPEs remains uncertain, because in most cases the entities are granted right to enforce by the innovators themselves. Perhaps, a regulatory examination of how such rights of enforcing a patent are granted to these NPE`s, before institution of litigation claims might be beneficial.

These patent assertion companies or Non-practicing entities are not involved in research or development towards the patented technology.⁴⁵ Their sole aim is to seek license rents and for this purpose, opportunistically seek out even slight infringers and initiate litigation. They use patents as a shield to do so and thus, the inclusion of such a market, with no incentive for social welfare or innovation is not worth supporting.⁴⁶

A stringent screening process, with less incentives to Patent “trolls” may go a long way in balancing these interests. This will also ensure that only worthy inventors and innovators are granted patents and will use them in promoting technological and social advancement. And not just seek to benefit monetarily by suing infringers.

⁴¹ *Id. See Robert P. Merges, One Hundred Years of Solicitude: Intellectual Property Law 1900-2000*, 88 CALIFORNIA LAW REVIEW. 2187 (2000)

⁴² HANDBOOK OF LAW AND ECONOMIC, P.S. MENELL AND S.SCOTCHMER, CH 19. INTELLECTUAL PROPERTY LAW VOL 2, 1512 (A. Mitchell Polinsky, Steven Shavell Ed.).

⁴³ *Supra note 30*, Rent Seeking entails an economic gain by an entity with no reciprocal mutual benefit.

⁴⁴ *Id.* 1589

⁴⁵ *Id.* at 1600

⁴⁶ *Id.* at 1601