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STANDARD ESSENTIAL PATENTS AND FRAND LITIGATION BY MS. RASHMI SINGH & MR. PABITRA DUTTA*

Standards mean a set of specifications and procedures which are established so as to provide functionality and compatibility to products existing in the same industry.[1] They are in the form of published documents, usually by institutions which are formed to develop and implement such standards. Standards can exist in a wide variety of areas such as food safety, environment management, IT security etc. Similarly, patents which protect a technology essential to a standard are known as Standard Essential Patents ("SEPs"). For example, SEPs exist for a technology used in specifications of a construct of a USB or a Compact Disc or the rotor blade of a wind mill, or a technology used in a chip incorporated in a Smartphone.

The rationale behind declaring a patent as SEP is to maintain compatibility of products from different producers and ensures quality and safety of products as once a patent is declared as SEP, it becomes mandatory to implement such a patent in a product in order to maintain its inter-operability with other products in the market. Increased interoperability may be translated into greater utility of products and an increased choice of complementary products at lower prices.[2]

After standardisation of a patent, the SEP holder may license it to other players for its implementation in their products. A current patent battle which is ensuing between the SEP holders and the SEP implementers in various countries, originates at this point. When SEPs are widely adopted it becomes difficult for the implementer to shift to a different technology due to lack of cost effectiveness, and thus it is likely that the SEP holder may abuse its dominant position to set unreasonable royalty rates and impose terms contrary to anti-trust laws.

The Setting of standards and their Licensing : What is FRAND?

Some technologies become standard because they are widely used in an industry, such as Adobe PDF and Java (*de facto* standards), while some technologies are implemented by organisations which are created for the purpose of developing, coordinating and interpreting the technology standards. Such organisations are called Standard Setting Organisations("SSOs").They are membership-driven bodies at international, national or regional levels, comprising experts from competing companies, governments, academia and civil society, who develop standards in response to priorities determined by public and private-sector members. SSOs establish rules[3] for rights to participate in the standards-development process, consensus based procedures for decision-making, the open availability

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[1] ETSI, "*What are Standards?*", Accessed February 20, 2015. http://www.etsi.org/standards/what-are-standards.html.
[2] WIPO, "Standards and Patents", Standing Committee on Law of Patents, Thirteenth Session (2009).
[3] IEEE Standards Board Bylaws. Accessed February 19, 2015. http://standards.ieee.org/develop/policies/bylaws.html

of standards' specifications, and policies on patents' interaction with standards. Standards are then finalized through an approval process conducted through a consensus-based approach.[4] The Institute of Electrical and Electronic Engineers ("IEEE") and International Telecommunication Union ("ITU") are prominent SSOs in the cellular and Wi-Fi space. The Telecommunications Standards Development Society, India (TSDSI) is the first Standard Development Organisation which was established in India in 2013 with an aim to develop and promote India specific requirements in the field of telecommunications.

The important conditions with respect to adoption of SEPs are that, firstly, the members must disclose, prior to the adoption of a standard, IP rights that would be essential to the implementation of a proposed standard and secondly, that members must commit to license their SEPs to third parties at fair, reasonable and non-discriminatory ("FRAND" or "RAND") rates. These policies have to be adhered to ensure the widespread adoption of standards, the very purpose for which a SSO is made. Therefore, licensing a SEP on FRAND terms is a voluntary contract between the SSO and the SEP holder.[5] However, the meaning of FRAND has not been defined by SSOs; it depends upon the nature of the transactions between the SEP holder ("licensor") and the SEP implementer ("licensee").

Determination of FRAND rates: *Microsoft v Motorola*

Due the vague nature of FRAND terms and lack of set principles to determine them, the licensing negotiations between the SEP holder and SEP implementer might not reach a consensus and such a situation has led to a number of patent litigations across the world.

The FRAND royalty rates with respect to SEPs were determined for the first time by a United States Court in the case of *Microsoft Corp. v Motorola Inc.*[6] ("*Microsoft*") in 2013. The litigation related to two common industry standards developed by ITU (H.264 video coding standard) and IEEE (802.11 Wi-Fi standard). These standards are used in thousand of products such as computers, smart phones as well as X-box 360 game consoles.

In 2010, Motorola offered to license Microsoft its patents essential to the implementation of these standards. The ITU and IEEE rules specify that royalties for patents covering the said standards must comply with RAND requirements. A disagreement arose on the royalty rate that Motorola proposed and Microsoft sued Motorola for breach of contract arguing that the rates proposed by Motorola were highly unreasonable and violative of its RAND commitment. The Court ruled in favour of Microsoft setting the FRAND royalty rates for the SEPs in issue. The judgement provided by Justice Robart is considered as a landmark judgment as it resolved the highly contentious issue of FRAND rate determination and also provided a general framework for analysing RAND disputes in future.[7]

The analysis was mainly based on the following two considerations:

1. *Hypothetical Negotiation Setup:*

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[4] ITU, "Understanding Patents, Competition and Standardisation in Interconnected World", July 1, 2014.
[5] *Microsoft Corp. v Motorola Inc.*, 696 F 3d 872.
[6] *Id.*
[7] Jorge L. Contreas, "*So that's what RAND means?: A Brief report on Findings of Fact and Conclusion of Law in Microsoft v Motorola*", PatentlyO, (April 27, 2013), http://www.patentlyo.com/patent/2013/04/so-thats-what-rand-means-a-brief-report-on-the-findings-of-fact-and-conclusions-of-law-in-microsoft-v-motorola.html.

The hypothetical negotiation setup is based on the modified version of Georgia Pacific factors[8]. The setup confers that the negotiations between the licensor and the licensee occur prior to the date when the patent was adopted as a standard.[9]The purpose is to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.[10]The rate is determined by considering the importance of SEP to the standard and the importance of SEP and the standard to the product at issue.

2. *Comparable Licenses and relative value of patented technology:*

The FRAND commitments provide that the licenses have to be given to the licensees free of any unfair discrimination[11], therefore a licensor cannot, without a reasonable objective, be selective about companies to whom it provides licenses or discriminate on the terms or royalty it charges, as it would distort competition between reasonable licensees. Therefore, similar licenses by the licensor with other companies should be shown as comparable licenses while determining the correct royalty rate. Also, the royalty associated with a particular patented technology should be commensurate with the actual value that the technology adds to the overall standard and to the product in which it is implemented.[12]

Therefore, the analysis has set a logical and consistent methodology to compute FRAND rate royalty. The opinion might be useful to other courts dealing with similar patent infringement suits and also in the process of negotiation between parties even before a matter is brought to a court.

FRAND rates were also determined in the case of *Innovatio IP Ventures*[13] where the company brought an action against numerous coffee shops, restaurants, hotels and other commercial entities for using its Wi-Fi standards illegally. It proposed a 6% benchmark royalty rate measured against the value of the end product incorporating wireless functionality, adjusted by a “feature factor” that reflected the contribution of the wireless component to the end product. However, this demand evidenced the instance of patent holdup and the reasonable royalty was found to be only $0.0956 per unit. The analysis was done based on Judge Robart’s modified Georgia Pacific factors and was mainly based on factors relating to importance and technical contribution of patent portfolio to the standard and to the alleged infringer’s accused products and comparable licenses.[14]

FRAND litigation in India

FRAND litigation arrived in India when Telefonaktibolaget LM Ericsson (“Ericsson”), which is one of the world’s largest telecommunication companies and claims to have the largest number of cellular patents in the world, some of them being SEPs, sued the local Indian

[8]Georgia *Pacific Corp. v United States Plywood Corp,* 446 F.2d 295 (1971).
[9] *Ericsson v D-Link ,(*E.D. Tex. 6 August 2013); *Realtek v LSI,* Case No. 13-16070 (9th Cir. 2014).
[10]*In Re Innovatio IP Ventures LLC Patent Litigation* , 921 F.Supp.2d 903 (2013).
[11]*Supra Note 2.*
[12] *Supra Note 4*, ¶80, 104.
[13] *Supra Note 9.*
[14] Rajiv Kr. Choudhry, “*Searching for FRAND in Frand valuations*”, SpicyIP, (December 12, 2013), http://www.spicyip.com/2013/12/searching -for-frand-in-frand-valuations-part-2-3.html.

player Micromax[15] for using its patented technologies relating to several wireless technology standards such as GSM, EDGE and 3G without paying royalties. The negotiations between the parties had been unsuccessful for a period of three years. Ericsson demanded compensatory damages amounting to Rs. 1 billion and an *ex parte* and permanent injunction against Microsoft.

A single judge bench of Delhi High Court granted an *ex-parte* interim injunction[16], including measures for confiscation of Micromax's consignment at border by custom authorities. The Court also ordered Micromax to deposit money in the range of 1.25% -2% of sale price of affected as a condition precedent to the release of such products by Customs. As a countermove, Micromax filed a complaint in the Competition Commission of India ("CCI") alleging abuse of dominant position by Ericsson.

Ericsson filed a similar suit[17] before the Delhi High Court against Intex Technologies on the same grounds seeking a similar relief. Intex too proceeded and filed a CCI complaint against Ericsson.

The decisions in the above cases are still pending.

Major issues involved

1. *Patent holdup:*

Once a patent is adopted as a standard and achieves commercial acceptance, it becomes 'locked-in'. It is necessary for a manufacturer to use the same; otherwise his product would be incompatible with other companies' products and hence unmarketable. Such a situation strengthens the SEP holders' bargaining power because the licensee does not have alternatives to the same technology. Patent holdup occurs when a SEP holder takes advantage of a locked-in patent by trying to impose unreasonable royalty rates. Unless constrained by a SSO to comply with FRAND licences, the SEP holder can exploit the locked in position to obtain significantly higher royalties than it would have obtained before the patent was incorporated as a standard. However, even after committing to FRAND such a situation arises due to the vague nature of FRAND.

In the cases of *Micromax* and *Intex* the CCI[18] noted, "*hold-up can subvert the competitive process of choosing among technologies and undermine the integrity of standard-setting activities. Ultimately, the High costs of such patents get transferred to the final consumers.*"

Further, in such cases the licensor binds the licensee by a non-disclosure/confidentiality agreement[19] with respect to the terms of the license which restrains the other licensees from acquiring knowledge of the royalty rates imposed on such previous licenses. This acts as an

[15] *Ericsson v Micromax*, CS(OS) 442/2013 (March 6, 2013).
[16] *Ericsson v Micromax*, CS(OS) 442/2013 (12 November 2014).
[17] *Ericsson v Intex*, WP(C) 464/2014 (January 21, 2014)
[18] *Micromax v Ericsson*, Case No. 50/2013, Competition Commission of India, (November 12, 2013)
[19] *Id*

impediment in the conduct of licensing negotiations between the parties and thus leads to major competition concern[20] in FRAND litigations.

The patent remedies to a patent holdup situation mainly lie in determination of a reasonable royalty by the courts and providing the parties and opportunity to negotiate a post trial license before judicially crafting an ongoing damages award.[21] The post trial damages shall take into account the changes in the parties' bargaining positions and the resulting change in economic circumstances, resulting from the determination of liability.[22]

2. *Royalty base:*

The reasonableness of a royalty amount depends on the correct selection of the royalty base. The SEP holders tend to impose the royalty rate on the net sale price of the final product rather than only on the component which comprises the infringed patent. This means even if SEP is used in a single component of a multi component product, the implementer would be liable to pay the royalty on the components which do not include the SEP. In such cases, the whole idea of FRAND diminishes as calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product.[23]

Thus the courts have considered 'smallest saleable patent practicing unit' ("SSPPU")[24], in a multi component product, as a proper royalty base for determining FRAND royalty rate. In *Virnetx Inc. v. Cisco Systems*[25], the Federal Circuit held that the royalty base must be closely tied to the claimed invention rather than the entire value of the product. The SSPPU has been widely accepted as an appropriate base in various patent damage cases.[26]

Contrary to the SSPPU approach, the SEP holders evaluate the royalty rate on the basis of Entire Market Value Rule ("EMVR"). EMVR is an exception to the general rule of calculating the royalty on SSPPU. The EMVR Rule permits recovery of damages based on the value of the entire apparatus containing several features, where the patent-related feature is the basis for customer demand.[27] In *CSIRO v. Cisco Systems Inc.*[28], the court held that, *"Basing a royalty solely on chip price is like valuing a copyrighted book based only on the costs of the binding, paper, and ink needed to actually produce the physical product. While such a calculation captures the cost of the physical product, it provides no indication of its actual value."* Therefore, in cases where a technology is implemented by a single component and that technology may have more value than the component itself and it is a factor which drives the consumer demand, using the end-user product as the royalty base would be justified.

[20] *Broadcomm Corp v Qualcomm Inc*, 501 F.3d 297, 314 (3d Cir. 2007).
[21] *Paice LLC v Toyota Motor Corp*, 504 F.3d 1293, 1315 (Fed. Cir. 2007).
[22] *Telecordia Techs., Inc. v. Cisco Sys., Inc.*, F. Supp.2d (D.Del. 2009).
[23] *LaserDynamic Inc. v Quanta Computer USA Inc*, 694 F.3d 51 (2012).
[24] *Id.*
[25] No.13-1489 (Fed. Cir. 2014).
[26] *Wi-Lan v Alcatel-Lucent* Case No. 6:10-CV-521(E.D. Tex. 28 June 2013); *Golden Bridge Technology v Apple Inc.* (N.D.Cal. 18 May 2014).
[27] *Cornell v Hewlett Packard*, 609 F. Supp. 2d 279 (2009).
[28] (E.D. Tex. 23 July 2014).

3. *Royalty Stacking:*

Royalty stacking is the situation where royalties are layered upon each other leading to a higher aggregate royalty. This happens when different SEP holders impose similar royalties on different components of same multi component product, leading the royalties to exceed the total product price. The court noted in *Microsoft* that 92 different entities had 350 SEPs for 802.11 standard, which is a Wi-Fi standard developed by IEEE for high speed wireless local area networking.[29] If each of these entities sought royalties similar to Motorola's request of 1.15% to 1.73% of the end-product price, the aggregate royalty to implement the 802.11 standard, which is only one feature of the Xbox product, would exceed the total product price.[30] It is argued that royalty stacking could be tackled by way of cross licensing, patent pools and repeat play reputation. However, such methods might lead to a plethora of competition concerns.

This concern was raised by the CCI in the cases of *Micromax* and *Intex* wherein the Delhi High Court had ordered[31] Micromax to pay the royalty to Ericsson on the basis of net sale price of the phone rather than the value of technology used in the chipset incorporated in the phone which was said to be infringed. Micromax alleged that due to this royalty for use of same chipset in a smart phone is more than 10 times the royalty for ordinary phone, while the chipset gives no additional value to a smart phone, then it gives to an ordinary phone and that such misuse of SEPs would ultimately harm consumers. CCI noted that "*For the use of GSM chip in a phone costing Rs. 100, royalty would be Rs. 1.25 but if this GSM chip is used in a phone of Rs. 1000, royalty would be Rs. 12.5. Thus increase in the royalty for patent holder is without any contribution to the product of the licensee. Higher cost of a smartphone is due to various other softwares/technical facilities and applications provided by the manufacturer/licensee for which he had to pay royalties/charges to other patent holders/patent developers. Charging of two different license fees per unit phone for use of the same technology prima facie is discriminatory and also reflects excessive pricing vis-a-vis high cost phones.*"

4. *Availability of Injunctive relief:*

Threat of injunction becomes a powerful weapon when used by a SEP holder for enforcing its royalty rates, as in such a case an SEP implementer would think that accepting an unreasonable royalty would be less risky than curbing an action of infringement.[32] The use of injunctive relief[33] against willing licensees is prima facie breach of FRAND commitment as the FRAND royalty rates by itself are an adequate remuneration to the SEP. Such an action is also considered to be abusive of dominant position and hence a violation of competition laws.[34] Therefore, an injunction should only be claimed when the licensee is unwilling to pay the judicially determined FRAND royalty or where monetary compensation is not an adequate remedy. Recently, the Delhi High Court granted an ex-parte interim injunction[35]

[29] IEEE 802.11 Standard. Accessed March 10, 2015. http://standards.ieee.org/getieee802/download/802.11-2012.pdf.
[30] *Supra Note 5 at 213.*
[31] *Supra Note 16.*
[32] Fiona Scott Morton and Carl Shapiro '*Strategic Patent Acquisitions*' 2014 Antitrust Law Journal (II) 79.
[33] *eBay Inc. v MercExchange LLC,* 547 U.S. 388 (2006).
[34] *Apple Inc. v Motorola Inc* No. 2012-1548 (Fed. Cir. Apr. 25, 2014).
[35] *Ericsson v. Xiaomi Technology & Ors,* CS(OS) 3775/2014 (8 December 2014).

against Chinese cell phone manufacturer Xiaomi due to a plea by Ericsson over the infringement of its SEPs, wherein it was prevented from selling, advertising, manufacturing or importing the devices in question. The Court based its decision on the fact that Xiaomi had failed to respond to Ericsson's repeated communication attempts. The question which arises now is if an alternative remedy in the form of damages is available, then whether injunction should be granted in such a case.[36]

The underlining principle behind granting of injunction is that a party must suffer an irreparable damage if the same is not granted. The law on injunction in India is based on the principles of equity. In the said case, the remedy available to the SEP holder is in the form of royalty. The only thing which is to be determined is whether the quantum of the same is adequate. Further, the moment a SEP holder indulges in setting up a SSO, he inevitably accents to license the technology on FRAND terms. Hence, even if the royalty is lower, the said is not an irreparable injury and hence, it is a humble submission that grant of the same by the court has to be reconsidered.

Competition Issues

SEPs are *sine qua non* to technologies and SEP holders may use this situation to exploit other smaller players in the market, which may in turn lead to abuse of their dominant position by SEP holders. Article 82 of the European Union Treaty prohibits abusive behaviour. The same is also prohibited as per Section 4(1) of the Competition Act, 2002 prohibits abuse of dominant position by an enterprise or a group. The first question to determine whether an enterprise or group has indulged in a dominant behaviour of abusive nature is determination of relevant market which has not been in the Act. Under common parlance it may mean a place where buyers and sellers meet and exchange of the impugned goods and services take place. The pertinent question to be considered here is whether or not the Competition Commission has the jurisdiction to adjudicate upon such cases in the first place. Section 3(5) of the Competition Act, 2002 lays down that the right of IPR holders shall be exempted from the provisions of the act meaning that IPR right holders shall have monopoly over their rights. The Preamble of the Act states that it is a welfare legislation which shall protect the right of the consumers by curbing anti-competitive and monopolistic practices in the market. In *Super Cassettes Industries v. Union of India*[37], the apex Court held that the Copyright Board did not have the mechanism to adjudicate upon the issues pertaining to abuse of dominance and hence, the commission was set up under the provisions of the then Monopolistic and Restrictive Trade Practice Act, 1966 and it was the apt forum to adjudicate upon such issues. The CCI for the first time in *Micromax v. Ericsson*[38] came down heavily on the abusive behaviour of Ericson and ordered enquiry by Director General by the same. The said complaint was filed by the complainant Micromax under Section 19(1)(a) of the Act.

It contended that Ericsson was violating the FRAND terms by charging differential royalty rates to different players in the market. Ericsson had compelled each player in the market to enter into a Non-disclosure Agreement such that no player could reveal the royalty rates to each other. The rates that were sought were very high and the same could not be paid under

[36] SpicyIP, '*Delhi High Court Grants Injunction Against Xiaomi*', http://spicyip.com/2014/12/breaking-news-delhi-high-court-grants-injunction-against-xiaomi.html

[37] 1997 (94) ELT 302 All.

[38] *Supra Note 18.*

any circumstance. CCI also stated that as per Section 62, the provisions of the Act were in addition to and not in any derogation to any existing law. Hence, the Commission was within its rights to adjudicate on the same and no law such as the IPR ones or any pending litigation shall not bar the jurisdiction of the CCI.

The Courts across the world in cases such as the *Google Consent/Motorola Mobility case*, have adjudicated upon the issue of SEPs and the violation of FRAND terms by SEP holders. In *Broadcom v. Qualcomm*[39], the court in relation to Wi-Fi SEPs adjudicated that Qualcomm essentially formed a SSO to exploit royalty rates from its pools of SEPs. The Court held that if a SEP holder entered into formation of a SSO to just gain profits out of the same and falls back on its commitment, and then the same may be an anti-competitive conduct.

CCI in the cases of *Intex* and *Micromax* has held that the royalty rates demanded by Ericsson were in violation of the competition laws and also raised concerns about patent holdup and royalty stacking. They also went to the extent of determining the royalty rates which was a first for any Competition Commission in the world. The Commission in both these cases referred to Clause 6 of the ETSI IPR policy whereby each SEP holder is bound to furnish an irrevocable written undertaking on the granting of licenses on FRAND terms which are to be applied fairly and uniformly to similarly placed players. The Authority also stressed on the possibilities of patent hold-up and royalty stacking by the SEP holder. Once the patent holder of a SEP commits to licensing its patents to a SSO, the royalty which is to be claimed should be based in FRAND terms only.[40] CCI determined the FRAND rates, rejecting the claims of Ericsson that the same was purely contractual in nature. This is a first for any Competition Authority in the world.

Ericsson further appealed this order of CCI on the Micromax case before the Delhi High Court which categorically stated that CCI did not have any jurisdiction to adjudicate on the issue though it asked the Director General to submit its report directly to the Court. The Court further fixed the royalty rates without any trial and asked Micromax to inform Ericson about imports in consonance with IPR Rules, 2008. This was appealed by Micromax before the Division bench, whereby it upheld the rates but emphasized that the order was not to be construed in favour of either party.

Therefore, under the said circumstances, it shall be prudent if adequate trial is given to both the parties and rates are determined by the Court without prejudice to any party and keeping in mind the interests of the end consumers at large.

Other Considerations

1. *Parallel Imports:*

Parallel importation is the import of patented goods outside the distribution channels contractually negotiated by the IP owner. For example, ‘A’ holds patent over a product ‘X’ in India and also in China. There is a difference in the prices at which the product is sold in both countries. If ‘B’, an Indian company, imports such a product from China in order to utilise the benefit of the price difference, such an import would be called as a parallel import. The

[39] *Supra Note 20.*
[40] “*FRAND: Challenge for competition authority*”, http://www.oxfordjournals.org/content/7/3/523.abstract.

rationale behind parallel imports is to obtain patented goods at a lower price by involving in price arbitrage and exploiting the price difference of the product in both countries. It is based on the doctrine of *international exhaustion*, which says that once the 'first sale' of a patented product is made by the patentee, then she exhausts the further distribution rights over such a product as such a sale is a sufficient reward for the patentee.

Section 107A(b) of The Patents Act, 1970 provides protection to parallel importers. Indian manufacturers import the components from neighbouring countries such as China so that they can incorporate them in their products and sell the same at a lower price. These should be covered under the garb of parallel imports and the Indian importers shall be protected from the charge of infringement. If the same is true, then a conundrum arises as to whom should the SEP Holder sue. This depends on firstly, whether the product is patented, if yes, in which country and secondly, whether the exporter is duly authorised under the law to sell and distribute the product in the importing country. If parallel imports are taken into consideration and the SEP owner sues the exporter of the patented products also, then it might lower the burden on the Indian companies.

Conclusion

In retrospection, one can possibly say that a fine line between corporate autonomy on one hand and consumer interest on another ought to be maintained. The stand taken by Ericsson may not necessarily be wrong in light of the global scenario on the issue of SEPs. The law with respect to SEPs is unclear and judgements with respect to the same have differed from territory to territory. It has to be realised that SEPs are not used by the licensees due to a lack of choice of alternatives, but the same is done in order to maintain operability and compatibility between the symbiotic technologies. It is also to be considered that a global giant like Ericsson cannot be allowed to exploit its global position in markets such as that of India. To put things in perspective, even the holder of a single patent can be deemed to be a dominant player in the relevant market. Further, the increasing number of interim injunctions granted by the Indian courts might put the parties in such a bargaining position where the SEP holder has an upper hand.

What has to be realised that a country such as ours cannot afford to lose its global image on the basis of lack of development of IPR jurisprudence. While companies must be mandated to pass their technology on the basis of FRAND commitments, it is also pertinent to note that rights of the patent holder are also to be safeguarded.