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# ANTI-COMPETITIVE REPERCUSSIONS OF THE STANDARD SETTING PROCESS

NEHA GOYAL*

ABSTRACT

The Information and Communication Technology ("ICT") sector is dynamic and highly innovative. The entry of new market players with innovative and competing technologies is the hallmark of this sector. In order to ensure inter-operability among the different class of products in the ICT sector the standards are established every now and then. The standard setting process aims at the promotion of competition by making patented technologies equally available to all the market players. The process of the standardisation on the face of it appears to be pro-competitive but it has some anti-competitive repercussions as well.

* Neha Goyal, Ph.D. Scholar (National Law University, Jodhpur), LL.M. (National Law School of India University, Bangalore), B.S.L. LL.B. (Pune University).

## INTRODUCTION

The standard setting process has its own pros and cons. Enhanced interoperability among the products and the sale of the standard-compliant devices are some of the benefits of the standardisation process. However, the establishment of standards gives immense market power in the hands of the Standard Essential Patents ("SEP") holder, consequently, they acquire the character of dominant firms in the marketplace. The process of standardisation has its own anti-competitive consequences as an SEP-holder is a dominant player in the market, he tries to regulate the market in his own ways with the concentrated market power in his hands. Thus, the process of standardisation is vulnerable to the SEP-holder's abuse of dominant position. Some of the abuses in which the SEP holder indulges are the act of refusal to license either to all or to selective willing licensees, charging exorbitant royalties, linking the royalty to the net selling price of the end-product, by giving threat of seeking injunctive relief against the licensee, by compelling the licensee to take license for his other patents also etc.

The present paper seeks to analyse the different modes used by the SEP-holder such as patent hold-up, patent ambush, the inclusion of price terms in the Non-disclosure Agreement ("NDA") etc., in order to extract exorbitant royalties from the willing implementers thereby abusing his dominant position after the establishment of the standard.

## THREAT OF SEEKING INJUNCTIVE RELIEF

The threat of injunction is a commonly used tool by the SEP-holder for imposing its terms and conditions on the willing implementers. The patentee has the right of enforcing his patents through the court of law by seeking a remedy of injunctive relief, but the problem arises in the cases of the essential patents. The right to seek an injunction in such cases creates a hurdle in the smooth implementation of standards. Since a single standard is made up of large number of patented technologies, the injunction granted with respect to one such SEP of the standard can bring the entire standard to a halt.

There are two kinds of arguments that prevail in this regard. According to the first class of arguments, the remedy of seeking injunctive relief should not be available to the SEP-holder at all, as the mere threat of seeking injunctive relief is sufficient to compel the implementers of the standard to agree to pay a higher amount of royalties. Thus, the SEP-holder tends to abuse his dominant position which is anti-competitive and thus, is actionable under competition law.[1] On the other hand, the second class of arguments suggests that the holder of the standard-essential patent shall not be barred from seeking such relief, as it will encourage the potential infringers of the SEPs to not negotiate the terms and conditions for the payment of FRAND ("Fair, Reasonable and Non-Discriminatory") royalties. If the infringer is aware of the fact that the SEP holder

[1] § 4, the Competition Act, 2002.

does not have the right of seeking injunctive relief then he might refuse to pay the FRAND royalty rate or may choose to not pay at all. If there is no settlement regarding the rate of royalty, the court will fix the FRAND rate of royalty which will be in the infringer's interest only, as it can continue to infringe and whenever he will be directed by the court, he will have to pay the FRAND rate of royalties. In other words, in the absence of the patentee's right to seek injunctive relief, the implementers of the standard will intentionally forego the requirement of negotiating the licensing terms with the holder as in the worst case after the legal dispute arises, it will have to pay royalty calculated on the basis of FRAND only.

The Four-factor test was laid down by the court in the case of eBay Inc. v. MercExchange LL.C.,[2] for the grant of injunctions in patent infringement cases. According to this rule, injunctions can only be granted in the case of patent infringement if the patentee is able to establish that the absence of such relief will cause irreparable injuryto him which the already available remedies cannot adequately compensate for.Thus, an equitable remedy is warranted to balance the hardships between the patentee and the infringer and to ensure that public interest will not be affected by the grant of such injunctions. Further, in the case of Apple v. Motorola[3] it was expressly stated by the court that there is no per se rule that injunctions will not be available in the cases involving SEPs. The injunction will only be granted if the SEP-holder can prove that the injury after the negotiations for the settlement of royalties between both the parties does not get materialized.

The case of Huawei v. ZTE[4] by the European Court of Justice laid down the conditions for the grant of injunctions. According to these conditions before seeking the grant of injunctions, the notice of infringement shall be given to the infringer along with specifically mentioning the infringed SEPs and the manner of infringement. Further the case of Unwired Planet v. Huawei,[5] laid down that the patentee before seeking the remedy of injunctive relief in such cases is required to offer its licensing terms that meet the requirements of FRAND conditions. In the case of failure to observe FRAND conditions, injunctions can be claimed as a remedy.

## PATENT HOLD-UP AND HOLD-OUT

In an ideal standard-setting environment in the ICT sector, the interoperability among the different classes of products is ensured by the establishment of the standards. The numerous technologies that are covered by the patents are adopted in the standard in exchange for an undertaking from its holder that the access will be granted to such technology to the willing licensees on FRAND terms. The sole motive behind the undertaking of FRAND commitment is to control the anti-competitive behaviour of the

[2] eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388, 389 (2006).

[3] Apple Inc. v. Motorola Inc., 757 F.3d 1286, 1331 (Fed. Cir. 2014).

[4] Case C-170/13, Huawei Techs. Co. Ltd. v. ZTE Corp., ECLI:EU:C:2014:2391.

[5] Unwired Planet International Ltd. v. Huawei Tech., [2017] EWHC (Pat) 711 (Eng.).

SEP-holder ex-post. The SEP-holder possesses substantial leverage of negotiating and charging the royalties from the potential licensees, in the absence of any fixed yardsticks of calculating FRAND royalty.

After the establishment of the standard, the willing implementers of such standards necessarily arrange for implementing the same, thereby getting locked-in with such standards and the patented technologies incorporated in it. The Patent hold-up is an act of the SEP-holder of holding back his patented technological invention incorporated in the technology by either refusing to licence or by giving the threat to seek injunctions against the implementer. The extraction of exorbitant royalties is the main reason because of which patent hold-up occurs. Now, the implementer has to choose between the two alternatives viz. either to continue to use such standard by paying the higher royalties demanded by the SEP-holder or switch to the next best available alternative by not only suffering the cost of switching but by paying the royalties that operates in that technological space.

By getting its technology incorporated into the standard, the SEP-holder acquires excessive market power to capture a share of profit of another person. Additionally, the SEP-holder acquires the power of market regulation by being selective in granting a license of its patents. The act of patent hold-up creates a hurdle in the smooth implementation of the standard. Instead of incurring the cost of switching and delaying the manufacturing process of the product the implementer agrees to pay the unreasonable amount of royalty demanded by the patentee.[6]

Patent hold-up occurs in two ways, first, when the patent-holder does not disclose the existence of its patents relevant to the technology being considered for adoption into a standard, and once such technology gets implemented and the standard is established, the patentee discloses the patents and asserts its rights thereto. This situation is known as patent ambush and has been discussed in the next part of the paper. Second, when the patentee discloses the existence of its patents and undertakes to license it on FRAND terms and then holds-back the licensing of the same after the establishment of a standard, abusing his dominant position.

On the other hand, patent hold-out is an act of certain opportunistic implementers who indulge in practise of ignoring the licensing negotiations of the SEP-holder thereby holding-out from licensing the same as they are aware of the fact that the maximum penalty which can be imposed on them at a later stage of legal dispute will be same as that of the legal fees demanded by the licensor at the first place.

The major drawback of the act of hold-up is that the patent holder seeks to reap undue leverage by locking-in the potential implementers, whereas, by the practice of holding-out the implementer aims to achieve undue advantage by using the patents belonging to others without paying for them. There might be a possibility that the act of holding-up is being committed by the patentee because the licensing negotiations between the

[6] Colleen V. Chien, Holding Up and Holding Out, 21(1) MICH. TELECOMM. & TECH. L. REV., 1 (2014).

patentee and the potential implementer did not materialize or it might have been repeatedly rebuffed by the implementer. The instance like patent hold-out portrays the failure on the part of the implementer to pay for the patents incorporated in their products prior to their release as they are expected to know whether any patented technology is embedded in its product or not.

The conflict between Broadcom and Qualcomm is a landmark case of patent hold-up, where Qualcomm failed to disclose the existence of its patents during the standardisation process. When the anti-trust suit was filed by Broadcom, the Court of Third Circuit specifically stated 'although a patent confers a lawful monopoly over the claimed invention, its value is limited when alternative technologies exists. That value becomes significantly enhances, however, after the patent is incorporated in a standard. Firms may become locked into a standard requiring the use of a competitor's patented technology. The patent holder if unconstrained may permit it to demand supra-competitive royalties.'[7] Thus, in the court's view before incorporating the patented technology in question the Standard Setting Organisation ("SSO") has the choice of including the next best available alternative but once the technology is incorporated and standard is established then the holding-up act of the patent holder will dissolve the purpose of the process of standardisation and FRAND. Additionally, it will have anti-competitive repercussions. Thus, the patentee cannot be allowed to abuse his dominant position by holding-up the technology for the licensing of which an undertaking has been given to the concerned SSO. Subsequently, when the infringement suit was filed by Qualcomm against Broadcom, it was specifically held by the District Court that Qualcomm had a duty to disclose the patents relevant to the technology being incorporated into the standard.[8]

In order to control the problem of patent hold-up, in Apple Inc. v. Motorola Inc.,[9] the court specifically stated that the SEP-holder's undertaking to the concerned SSO for granting the license to the willing licensees on FRAND terms operates as a legally binding contract that can be enforced by the willing licensee as a third party being a beneficiary of the contract.

Similarly, in Microsoft v. Motorola[10] while expressing its concern regarding the holding-up act of the SEP-holder, the court held that FRAND obligations can be imposed by the implementer being a third-party beneficiary of the contract between the patentee and the SEP-holder. But refused to frame a per se rule regarding the non-availability of a remedy of injunctive relief to the SEP-holder, although, the threat of an injunction is used as a tool for holding-up the patent but the Court opined; completely barring the patentee to seek the remedy will encourage the practices like patent hold-out carried out by opportunistic licensees.

[7] Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, (3d Cir. 2007).
[8] Qualcomm Inc v. Broadcom Corp., 548 F.3d 1004 (Fed. Cir. 2008).
[9] Apple Inc. v. Motorola Inc., 757 F.3d 1286, 1331 (Fed. Cir. 2014).
[10] Microsoft Corp. v. Motorola Inc., No. C10-1823JLR U.S. Dist. LEXIS 60233 (W.D. Wash. 2013).

## PATENT AMBUSH

Patent ambush is a form of patent hold-up. The word 'ambush' in common parlance means an act of surprise attack by a person from a concealed position. Patent ambush occurs when during the standard-setting process patentee participates in the proceedings but fails to disclose the patents covering the technology under consideration for incorporation in the standard. The patentee asserts his patents after the establishment of the standard, thereby compelling the locked-in implementers of the standard to pay excessive royalties. For implementing an established standard, all the potential implementers of the standard make certain adjustments to manufacture the standard-compliant device(s). At this point, if the patent rights are asserted along with the demand of an exorbitant amount of royalty which is quite high in comparison to the amount that would have been negotiated if the patents were disclosed during the standard setting process, the implementer will have to pay such higher price, as the cost of switching to the alternative technology will be much higher in this case. Patent ambush is a perfect example of the abuse of standard-setting process by which manufacturers are forced to share the profit incurred from their own products.[11] The concentration of the power to regulate the market is already in the hands of the SEP-holder, but by acts like patent ambush, result in the abuse of such power, which is anti-competitive and in violation of competition law.

In re Dell Computer Corporation,[12] Dell participated in the standard-setting process of Video Electronics Standard Association for the development of a certain standard. Dell owned a patent that corresponds to certain parts of the standard but failed to disclose the same. When the entire industrial sector became comfortable with the implementation of the standard, Dell began to enforce its patents, compelling the implementers to pay the royalty amount for such use. Thereafter, an action was brought against Dell by Federal Trade Commission Act (Prohibiting Unfair or Deceptive Methods of Competition) ("FTC"). It alleged that Dell acted in bad faith as its act of disclaiming the patents relevant to the standard misled the concerned SSO. For such an act of Dell, the term 'patent ambush' was coined by the FTC officials. Additionally, it expressed its concern that such an act causes hindrance in the smooth implementation of the standard.[13]

Rambus' case is a landmark case on this point. Rambus participated in the proceedings of Joint Electron Device Engineering Council ("JEDEC") which was in process of designing a standard related to Dynamic Random-Access Memory. Rambus had some pending patent applications relevant to certain technologies included in the standard but did not disclose the same intentionally. In addition to this, its representative also

[11] Brian Dean Abramson, The Patent Ambush: Misuse or Caveat Emptor, 51 IDEA 71, 79 (2011).
[12] In re Dell Computer Corporation, 121 F.T.C. 616 (1996).
[13] Id.

evaded the question regarding the existence of the patent when asked for it. It was also alleged that it used the information acquired during the standard-setting process for amending its patent applications in order to directly corresponds to the technologies in the standard. Thereafter, after the establishment and the implementation of the standard it started filing infringement suit against the implementers.

FTC challenged the conduct of Rambus under Section 5 of the FTC and Section 2 of the Sherman Act (Prohibiting Monopolisation). According to the decision of FTC, the conduct of Rambus was violative of the above-mentioned legal provisions as according to FTC if JEDEC had the knowledge of the existence of Rambus's patents then it would have included the next best technology. On the other hand, the District Court was of the opinion that Rambus is a lawful monopolist as the holder of the patent is bound to gain excessive market power.[14] Whereas, when the complaint was filed by two companies against Rambus against the anti-competitive conduct of Rambus, EC held Rambus liable for abusing his dominant position and thus imposed certain binding commitments on it.[15]

## ROYALTY STACKING

The issue of royalty stacking comes up when the end product manufactured by the licensee includes a standard that comprises of a large number of patented technological inventions. In order to implement that standard, the willing licensee is required to pay the royalties for all the patented technologies included in the standard. In such a situation the individually paid royalty amount adds up to an unreasonably high amount that it becomes uneconomical for the licensee firm to even manufacture that product. This can happen irrespective of the fact that reasonable royalty was charged by all the individual patentees.

In the absence of thresholds for the determination of 'fair,' 'reasonable' and 'non-discriminatory' amount of royalty, the existence of a large number of patents in a standard further complicates the problem as it results into an accumulated amount of royalty. Even if a reasonable royalty is charged individually the accumulated amount will be unreasonably high, thereby making the end product too expensive for the consumers.

In the opinion of some scholars, existence of the problem of patent hold-up at individual level results in the problem of royalty stacking. There are chances that only some of the patent-holders in the entire patent portfolios are charging higher amount of royalty in comparison to the intrinsic worth of the patent. In other words, in an entire standard

[14] Rambus Inc. v. F.T.C., 522 F.3d 456, 469 (D.C. Cir. 2008).

[15] Case COMP/38.636 — Rambus, Comm'n Decision, (Dec. 9, 2009) (Summary: 2010 O.J. (C 30) 17), https://ec.europa.eu/competition/antitrust/cases/dec_docs/38636/38636_1203_1.pdf

there are chances that only few licensors are charging unreasonably higher amount of royalties which is rendering the implementation of entire standard as uneconomical.[16]

Generally, for the calculation of the royalties in such case the two approaches are used by the court. The first one is the entire market value rule ("EMVR") where the price of the individual technology embedded in the standard is calculated on the basis of net selling price of the end product. The second one is smallest saleable patent pricing unit ("SSPPU") where the price of the individual technology is calculated on the basis value added by it to the end product.

In United States the calculation of the royalty is done on the basis of SSPPU. It was stated by the Federal Circuit in Laser Dynamics Inc. v. Quanta Computer Inc.,[17] that the royalties shall be calculated on the basis smallest saleable patent pricing unit, instead of the prices of the end product. In the opinion of court when the infringement of the small element of the entire standard is alleged then calculating the royalty on the basis of the end value of the product is not justified. In addition to this, the court clarified that royalty can be calculated on the basis of the net selling price of the end product when it is established that the demand of the end product is due to the incorporation of the suit patent in it. In Ericsson v. D-Link,[18] it was expressly stated by the Federal Circuit that when the suit patent corresponds to the nominal value of the end product the royalty for it should be determined on the basis of SSPPU.

However, in India, no specific approach is followed by the adjudicating authorities till date. As in the dispute between Micromax and Motorola, on one hand, the Competition Commission of India ("CCI") favoured SSPPU for the calculation of royalties, whereas Delhi High Court decided the interim royalties on the basis of the end price of the product.

## INCLUSION OF PRICE TERMS IN NON-DISCLOSURE AGREEMENTS

Patent Licensing Agreements include the sharing up of sensitive information regarding the functioning of the subject-matter of the patent. Such information may appertain to certain technical specifications or data, trade secrets, technical know-how, testing methods, R&D activities, etc. The information contained in the licensing agreements is very critical and sensitive. The misappropriation of such information can adversely affect the rights granted to the patentee under the patent law. Therefore, such information is required to be kept confidential. During the negotiation process between the potential licensor and the licensee, the sharing up of certain patent-related information takes place. A situation may arise when the potential licensee is accused of misappropriating the information related to the subject-matter of the patent. Therefore,

[16] Damien Geradin, Anne Layne-Farrar & A. Jorge Padilla, The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking, 14(2) B.U. J. SCI. & TECH. L., 144 (2008).

[17] Laser Dynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51, 67 (Fed. Cir. 2012).

[18] Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1225 (Fed. Cir. 2014).

in order to shield the entire transaction, the patentee requires the prospective implementers to sign a NDA so as to keep intact the sensitive information related to the patent. There are two parties involved in the NDA i.e. the disclosing party and the receiving party. After entering into an NDA, it is an obligation of the receiving party to keep the information disclosed by the disclosing party confidential. The breach of NDA is an actionable claim.[19] The terms and the confidentiality clause of the NDAs aredecided by the disclosing party. The standard-essential patents are also shared through the mode of NDA. Even some of the SSOs like the European Telecommunications Standards Institute advice the necessary adoption of such agreements.

The inclusion of the price terms in the NDAs is majorly done with the motive of not disclosing the amount of royalty charged to the implementers. The price terms often form part of the NDA to cover up the act of charging discriminatory prices from different implementers. There are three prongs of FRAND 'Fair', 'reasonable' and 'non-discriminatory'. Up till now a vast amount of research has been carried out for the determination of the fair and the reasonable royalties. However, the first two objectives of FRAND are incomplete without the third one, i.e., the royalty which discriminates among the similarly placed licensees can never be fair and reasonable.

In the year 2013, few licensees approached the CCI complaining about the act of Ericsson compelling them to enter into the NDA. Ericsson alleged infringement of its SEPs. NDA was imposed as a pre-condition, even for disclosing the SEPs for which the complainants were being alleged for infringement. It was claimed by the complainants that such pre-condition was imposed so as to restrict the licensees to compare their respective license fee thereby breaching the FRAND commitments. [20]

It is a well-settled principle of the 'non-discriminatory' prong of FRAND that similarly placed licensees shall not be discriminated against. If this is the case that patentee is required to charge the same royalty from similarly situated licensees, then there is no need to include the price terms in NDA. On the other hand, the price charged and the basis of which it is charged shall be made public.[21] It is not always necessary that price terms are included in NDA by the SEP-holder only. There might be a possibility that the price terms are included in the NDA on the request of the licensee. When the initial licensee gets access to the SEP on a lower royalty rate, it might request the patentee to form the price terms part of NDA in order to gain a competitive advantage over the subsequent implementers.

[19] Vikas Kathuria & Jessica C. Lai, Validity of Non-Disclosure Agreements in SEP Licensing, 40(6), EUR. INTELL. PROP. REV., 358-367 (2018).

[20] Micromax Informatics Ltd. v. Telefonaktiebolaget LM Ericsson, Case No. 50/2013, Competition Commission of India (CCI) (2013).

[21] Kathuria & Lai, supra note 18, at 10.

The inclusion of price clauses in NDA not only violates the SEP-holder undertaking as to FRAND but is anti-competitive as well. It is expressly stated in Article 102(c) Treaty on the Functioning of the European Union 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage'[22] is anti-competitive and thus, amounts to an abuse of dominant position. In addition to the practise of discriminatory pricing as an aftereffect of inclusion of price terms in NDA, the NDA is also used as a tool for extracting unreasonably high royalties through other modes. For example, in the dispute between Ericsson and Intex before CCI, it was alleged by Intex that Ericsson is abusing its dominant position by imposing the requirement of NDA before even disclosing the patents it has been alleged for infringing. It further prevented Intex from cross-checking with the vendors who claimed themselves to be the licensed users of Ericsson's SEPs. Thus, in addition to charging using NDA as a tool for charging exorbitant and discriminatory royalties it has also been used as a tool to obtain multiple licenses for single exploitation.[23]

## CONCLUSION

Although the IPR policies of all the SSOs require its members to make disclosures of the patents relevant to the standard being established, but in the absence of any sanction the patentee takes sufficient leverage of disclosing the patents at a later stage and enforcing the same through the court of law, if the royalty demanded by them is not agreed upon by the willing licensee.

The SEP-holder being the dominant player in the market possesses a superior bargaining position in his hands. But if a complete bar is put on his right of seeking injunctions then he will not have any bargaining power at all which will give alleged infringer leverage to ignore to negotiations for the settlement of royalties. Therefore, when the patent infringement case involves SEP, then the injunctions cannot be granted with the same frequency as any other case of patent infringement. The courts have been vigilant enough while granting injunctions in the cases relating to SEPs.

Royalty stacking is an inevitable outcome of the FRAND licensing mechanism. For calculation of the royalties in such cases, it seems that the SSPPU approach is ideal for calculating the royalties of the individual patent of the entire standard. But even if the royalties are decided on the basis of EMVR mode of calculation if the apportionment value is sufficiently within the limits the cumulative royalties will not add-up to an unreasonably high amount. However, the adjudicating authorities are not titled towards the use of any particular mode of calculation of the royalties, but it is expected from the SEP-holder to assess the royalty for their patents accordingly.[24]

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[22] EC Treaty art. 82 (as in effect 1958) (now TFEU art. 102(c)).

[23] Intex Technologies (India) Ltd. v. Telefonaktiebolaget LM Ericsson, Case No. 76/2013, Competition Commission of India (CCI) (2013).

[24] Benjamin C. Li, The Global Convergence of FRAND Licensing Practices: Towards "Interoperable" Legal Standards, 31(2) BERKELEY TECH. L. J., 429 (2016).

NDA result in the violation of the non-discriminatory prong of FRAND as well as it has some anti-competitive repercussions. When the price terms are made part of such agreements, the first assumption drawn is that it has been done for charging different prices from different implementers. Thus, it is suggested that even if the price terms are formed the part of the NDAs the considerations that form the basis of calculation as well the methods of calculation shall be made public.

The whole mechanism establishing standards and licensing the patented technologies of FRAND terms aims to regulate the concentration of the power in the hands of the patent holder. The sharing up of technologies especially in the ICT sector is essential to ensure that the products belonging to the different classes can work together. Thus, the process of standardisation is designed to bring all the necessary technologies relating to a particular product at a single platform. The three prongs of FRAND ensure that on one hand the patentee is sufficiently incentivised for his technology and on the other hand the royalty thus charged from the willing implementers of the standard is not exorbitantly high. The mechanism of Standard-Setting Process and FRAND licenses thus, seems to be a well-crafted theoretical framework. But from the above analysis of its anti-competitive consequences, it is quite clear that to regulate the dominant behaviour of the patent holder the mechanism which has been designed has its own anti-competitive repercussions. It is therefore suggested that, in order to mend the loopholes that exist ex-post the standardisation process the SSOs are required to play an active role in determining the yardsticks on the basis of which FRAND royalty rate can be calculated.