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DETERMINATION OF FRAND ROYALTIES: AN OVERVIEW OF THE APPROACH ADOPTED BY EU AND INDIA

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Abstract : One of the paramount principles of Standard Essential Patents (SEPs) is that its licensing has to be done on Fair, Reasonable, and Non-Discriminatory (FRAND) terms, to maintain competition in the market. However, there is no uniform method of determining the appropriate FRAND royalty rates, but the authorities of various countries are working towards resolving this inconsistency, atleast within their national boundaries. European Union has been an ardent player in dealing with SEP and FRAND disputes, however, India is still on the embryonic stage of coping up with such cases. Since calculation of sound royalty rates is an essential factor for adjudicating SEP disputes, hence this paper aims to analyse and compare the approach adopted by judiciary and competition authorities of EU and India, to determine or calculate reasonable FRAND royalty rates in SEP disputes.

Keywords: Standard Essential Patents; FRAND royalty rates; Delhi High Court; European Commission; Royalty Base; abuse of dominant position

I. INTRODUCTION

Standard Essential Patents (SEPs) are the patents that are granted to protect technologies that must be used to comply with a standard which is a set of specifications and procedures established to provide functionality and compatibility to products existing in the same market.[1] For instance, SEPs exist for connecting technological features which are essential for the working of a laptop, or for maintaining multiple functionalities of a smartphone. It is considered as a mandate to incorporate such a patented technology in a product so that the inter-operability of the product could be maintained and is made compatible with the other similar products available in the market. Such inter-operability benefits the market by augmenting the utility of products which in turn introduces homogeneous products at lower prices, thereby increasing competition in the market.[2]

It is the inherent right of the SEP holder that he may license the SEP to the other competitors in the market so that they can also use it in their product and this motivates healthy competition in the market. However, the said right has become one of the main issues for the legal battle between the SEP holder and the SEP implementer. Therefore, the SEPs may have an anti-competitive effect as the SEP holder might abuse its dominant position by setting unreasonable royalty rates, i.e., rates that do not fulfill Fair, Reasonable and Non-Discriminatory (FRAND) criteria. The rationale behind the same is that when a SEP is widely used, it is difficult for the implementer to shift to a different technology due to lack of cost-effectiveness, hence, the patent holder can take undue advantage of SEP implementers' position and perform anti-competitive practices, such as abusing its dominant position.[3]

The technical requirements for a standard are selected by Standard Setting Organizations (SSOs) and these requirements need to be strictly adhered to by a product to be in conformity with a particular standard. These SSOs could be regional, national, or international and they could be further classified into governmental, quasi-governmental, and private.[4] The SSOs need to ensure that all the conditions with respect to the adoption of SEPs are complied with, such as: i) the patent owner discloses its patent to the SSO, and ii) licensing of SEPs are made at FRAND rates.[5] The 'fairness' and 'reasonableness' in the FRAND rates could be determined based on the probable royalty rate which a patentee could get under normal circumstances where the selection of such standardised technology in a competitive market is absent and for the 'non-discriminatory' part, it could be seen that whether the licensees in the similar situations have access to same licensing terms.

There are two-fold purposes of FRAND commitment as per most of the SSOs' IPR policies, i.e., to ensure that the SEP holder doesn't abuse its dominant position and license their SEP on reasonable terms, and to ensure that SEP holders are fairly compensated for their contributions in the development of the standard.[6]

However, certain issues have arisen with respect to FRAND licensing which the judiciary of various countries is trying to resolve, such as:

- **Patent Hold-up:** Licensing of SEP on FRAND terms is enforceable through a voluntary contract between the SEP holder and SSO, with standard implementers as third-party beneficiaries.[7] It becomes hard for the SEP implementers to work on technology or even to opt for any other substitute if the said technology is standardized and the requisite investments for the development of standard compliant products have been made.[8] This situation of the SEP implementers may increase the bargaining power of the SEP holders which could be used by the latter for exploiting its dominant position in the market by not providing the license on FRAND terms, leading to a 'patent hold-up'.[9] The patent hold-up can reduce the probable profits and benefits for which the implementers want to adopt and invest in SEPs.
- **Royalty Stacking**: Another unfair practice in which SEP holders are involved is 'royalty stacking', herein, royalty is added for each component of the SEP, and such royalties together sum up to be higher than the price of the product itself and this could hamper the demand for standard compliant products.[10] Royalty stacking is not only capable of delaying the launch of new products in the market but also leads to excessive pricing of the products and endangers innovation, which affects the consumers and as well as the market.[11]
- **Patent Hold-out**: In their counterargument against patent hold-up, the SEP holders state that the FRAND terms deprive them of the market power which is usually provided to the other patents.[12] Since the SEP holders are bounded by FRAND terms, it is contended by them that they cannot easily deny giving a license to the SEP implementers, hence, some implementers misuse this vulnerable situation of the patent holders and commit 'patent hold-out' or 'reverse hold-up' by using the essential technology without a license or by refusing to pay royalties to SEP holders at a reasonable rate.[13] Patent hold-out leads to losses in royalty for SEP holders and reduces their incentives to invest in the development of standards.[14]

Apart from the abovementioned issues, one major problem which the courts of many countries have been struggling with is of deciding that what is the appropriate method to calculate or determine the FRAND royalty rates? Since there is no uniform manner of calculating the FRAND royalty rates, different methods have been formulated for its determination. Due to the said uncertainty in calculating the royalty rates, the judiciary of several countries has now started to take up the said issue and resolve the problem atleast within the boundaries of their territories.

This paper shall now discuss and compare the approach adopted by the judiciary and competition authority of the EU and India with respect to the issue of determining FRAND royalty rates. But first and foremost, we need to understand what are the various methodologies available for determining FRAND royalty rates and also the different approaches of choosing a relevant Royalty base.

II. ROYALTY RATES AND ROYALTY BASE

Most of the SEP holders agree that the FRAND licensing contracts should be flexible to accommodate new SEP implementers coming into the market, and this makes the determination of FRAND royalty rates a far more tedious task alongwith the issue of choosing a relevant base.

A. Methodologies for calculating FRAND royalty rates

Some of the methods for calculating the FRAND royalty rates which are developed and adopted by courts of different countries are: (1) the hypothetical negotiations approach; (2) the comparable approach; (3) the top-down approach; (4) the incremental value approach; and (5) the bottom-up approach.

Under the hypothetical negotiations approach, the royalty rate is calculated on the basis of the royalty rate the parties would have agreed upon in the event of 'hypothetical negotiations' between them on the supposition that had the intention to negotiate a licence.[15] In the *Georgia Pacific case*, the US court identified 15 factors for setting FRAND royalty rates, such as 1) Royalties collected by the patentee for FRAND licences for the same patent.; 2) The royalties paid by the licensee for the exploitation of comparable patents.; 3) The nature and scope of the licence, etc.[16]

In the comparable approach, a comparison between the royalty rate of the licence in question with the previous comparable licence rates of the alleged patent is made. While comparing some factors needs to be looked into, such as, 1) method of calculating royalty rates; 2) similarities and the difference between the patents in question; 3) the comparability of the markets on which licences have been granted, etc.[17] However, this method is only accepted if there is an interconnection between the economic factors of the previous licence royalty rate and the license in question. It is also necessary for the previous licence to prove itself to be sufficiently comparable in order to form a basis for calculating a reasonable royalty rate.[18]

For the top-down approach, all the royalties due to the SEP holder for a particular standard are added, thereafter the result is divided by the number of licensees as it determines the SEP holder's portion of that royalty based on its share of all SEPs relevant for the particular standard.[19] Hence, firstly, the total number of SEPs covering each standard is determined (the denominator) and then the share of SEP holder in the calculated SEPs is determined (the numerator).[20] The top-down approach prevents issues like royalty stacking and patent hold-ups.

With respect to the Incremental value approach, the Federal Trade Commission (FTC) has recommended that: 'Courts should recognize that, when it can be determined, the incremental value of the patented technology over the next-best alternative establishes the maximum amount that a willing licensee would pay in a hypothetical negotiation. Courts should not award reasonable royalty damages higher than this amount.'[21]

The bottom-up method determines the cost associated with the implementation of reasonable alternatives to the patent at issue that could have been included in the standard and then divide the cost by the total number of counterfeits in order to set the maximum royalty per product.[22] As per this approach, courts try to determine the reasonable royalty of the SEP based on the value of patented technology using comparable license agreements and other methodologies, but without significant reference to other patents covering the same standard.[23] However, this approach has been criticised as it allows for royalty-stacking.

B. Approaches to choose appropriate Royalty Base

The royalty base could be the price of the end-user product or the price of the standardised patented technology incorporated in the said product and on this, the royalty rate is applied. The range of the said base is generally decided by the apportionment rule according to which 'The patentee,… must in every case give evidence tending to separate or apportion the defendants profits and the patentee's damages between the patented feature and the unpatented features.'[24] Hence, the royalty base should be decided as per the amount that compensates the patent holder for the value of the patented technology based on the infringer's use of that technology.[25] Generally, two approaches for choosing an appropriate royalty base have been identified, i.e., EMVR approach (Entire Market Value Rule) and SSPPU (Smallest Saleable Patent Practicing Unit).

The EMVR approach supports that the base should be decided on the entire product's selling price, which includes the patented technology. Though SEP holders prefer this approach as it enables them to increase the net sales base by chasing the downstream products, however, some authorities like the Competition Commission of India (CCI) have observed that a calculation of the royalty rate based on the downstream product's selling price is excessive and anti-competitive in nature.[26] Similarly, the National Development and Reform Commission of China (NDRC) found in an investigation that it was 'unfair to use as a basis for calculating the royalty the net wholesale price of the entire device, which goes beyond the scope of the SEP, while insisting on a relatively high royalty rate at the same time …'.[27]

In many cases, patentees calculate their reasonable royalty damages by multiplying a royalty rate by a royalty base and when through this calculation EMVR is not satisfied, in most of the cases, the courts have opted for the Smallest Saleable Patent-Practicing Unit (SSPPU) approach. This approach avers that the royalty base should be calculated on the basis of the price of the smallest saleable component of the product implementing the patented technology and this approach is also preferred over EMVR as it hinders the risk of patent hold-up. [28]

III. EUROPEAN UNION PERSPECTIVE

Europe has played a crucial role worldwide in dealing with disputes relating to FRAND licensing and in developing its jurisprudence. These legal disputes have gone up to the Court of Justice of European Union (CJEU) and in a few of such complex cases, the European Commission has also stepped in to help the courts.

A. Judicial Approach

i. CJEU on FRAND Licensing

In July 2015, CJEU gave a groundbreaking decision and observation with respect to FRAND licensing. The *Huawei v. ZTE*[29] judgment has provided certain procedural steps that the SEP holders should follow to enforce claims for injunctive relief under a SEP. The sequential steps to be followed are as follows[30]: 1) The SEP holder must provide the alleged infringer with notice.; 2) The alleged infringer should express willingness to take a license on FRAND terms.; 3) The SEP holder must provide a written license offer on FRAND terms, specifying in particular the royalty and how it is to be calculated.; 4) The alleged infringer must respond diligently to the SEP holder's offer in accordance with recognized commercial practices in the field and in good faith.; and 5)The alleged infringer must provide appropriate security and be able to render an account of its acts of use. The CJEU has also provided a 'FRAND defense' for the SEP implementer or the alleged infringer, in any case of injunctive relief, where the SEP holder fails to make a FRAND counter-offer and provide security and/or has not followed the abovementioned steps, the SEP implementer could allege that the SEP holder has abused his dominant position in violation of the EU antitrust laws.[31]

However, the CJEU has provided flexibility to the national courts in the EU member states to apply the Huawei principles as per the facts of the cases brought before them. Therefore, with respect to the calculation and determination of FRAND royalty rates, the regional courts have given their decisions differently.

ii. Observations made by Regional Courts

In *Philips v. Archos*[32], the Regional Court Mannheim held that mere declaration by the SEP holder that the offer is FRAND would be insufficient. The court observed that the SEP holder should specify how the royalty rate of the SEP license is calculated, as the SEP holder is required to be transparent and clear about the calculation for the offer to be FRAND.[33] The said German court refused to grant an injunction on the ground that Philips did not satisfy the Huawei judgment principles and, thus, Archos had a FRAND defense. However, a district court in the Netherlands concluded in parallel proceedings[34] that Archos proved to be an unwilling licensee by not accepting to license the SEP on FRAND terms as required by Huawei's judgment. It was argued by Archos that the royalty rate should be based on the particular technology in question which is incorporated in the phone and not on the total price of the phone, therefore, the use of the SSPPU approach was considered by Archos to be more feasible for the apportionment of the royalty base.[35] The court observed that Philips has requested a fixed amount as royalty which suggests that there is no relationship of the royalty with the market value of the phone and held that the royalty rate proposed by Philips, which is not based on the SSPPU price, is FRAND. It was also suggested by the court that an assessment of SSPPU should be made during the negotiations.[36]

In *Sisvel v. Haier*[37], the Higher Regional Court Düsseldorf held that providing a standard royalty rate and multiplying that by the number of royalty-bearing devices is insufficient and does not meet the ECJ's requirements for information on how the FRAND royalty is calculated provided in Huawei judgment. The court observed that the details of the calculation of past and future royalties must be transparent and presented extensively, and should also take into account different markets and specific patents.[38] The Federal Court of Justice criticized the royalty regime proposed by Haier which stated that royalty should be calculated on the basis of only a small portion of the SEPs included in the licence.[39] As held in Philip's case, similarly the court in this case observed that the methodology to be adopted for calculating royalty rates must be decided through negotiations.[40] The German court stated that since there is a range of license terms, including a range of royalties, that can be FRAND, therefore, the burden of assessing a specific FRAND royalty should not be borne by the courts.[41]

Hence, we can see that the German courts have been resistant to decide an appropriate methodology for calculating FRAND royalty as they believe that a specific royalty rate cannot be strictly applied in all cases.

iii. UK Court's landmark decision on methodology for determining FRAND royalty rates

The UK High Court in *Unwired Planet International Ltd v Huawei Technologies Co. Ltd & Ors*[42] is the first European decision that provided a set of comprehensive guidelines regarding FRAND-compliant license offers, and methodologies for determining FRAND royalty rates for mobile telecommunication SEPs. The Patents Court allowed the determination of FRAND royalties based on a benchmark global rate and to then adjust this rate appropriately.[43] This rate is established by the value of the SEP owner's patent portfolio and the said rate should not change or differ based on the size or market share of the licensee.[44] Therefore, the court held that there is only one set of license terms that are FRAND in a given set of circumstances, however, the Court of Appeal later, in the appeal proceedings of this case, clarified that there may be a range of FRAND terms, rather than just a single unique set of FRAND terms.[45]

Alternatively, Judge Birss observed that a FRAND rate can also be determined by using comparable licences if they are available and have been freely negotiated, and these licenses can also be used to determine the benchmark rate.[46] Judge Birss proposed the following steps that need to be followed to perform the comparison amongst the licenses[47]: i) identify comparable licenses held by the SEP owner or by a third party; ii) identify the SEP of the said SEP owner; iii) to evaluate the value of the relevant SEP portfolio (V) in relation to the portfolio of comparable licences identified on the basis of patent counting and the royalty should be proportional to the number of SEPs; iv) set the reference rate of the SEP portfolio to which the identified comparable licenses belong (R) by defeating the compared licenses, by looking at the terms to which they have been concluded and in particular whether they include lump sums of departure or cross-licenses; v) calculate the FRAND royalty rate with the formula RxV; vi) cross the said results with the top-down approach. The court recognized that relying on simple patent counts was an imperfect shortcut, but concluded that '[i]ndeed when one thinks about it some sort of patent counting is the only practical approach at least for a portfolio of any size. Trying to evaluate the importance of individual inventions becomes disproportionate very quickly.'[48] It was also observed that for determining the royalty rate, the evidence of the parties would be relevant, including evidence of how negotiations work in the industry and the royalty rates determined by other courts might also work as 'persuasive precedents' in cases where calculation of royalty rate is in question.[49]

Therefore, as per the said judgment, an appropriate way to determine a FRAND royalty rate is to determine a benchmark rate that is governed by the value of the patentee's portfolio and for this comparable approach is considered to be best suited as it will also eliminate other SEP related issues, such as, patent hold-up and hold-out, therefore, diminishing the chances of observing anti-competitive behaviour in the market. The discrimination faced by small entrants may also be reduced as they will be entitled to pay a royalty based on the same benchmark as the established large entities will pay.[50]

The court characterized another method for determining FRAND royalty rates, i.e., the top-down approach, as a cross-check rather than the preferred calculation method in the Unwired Planet case, wherein Judge Birss used this approach in order to cross its results with those of the comparable method.

Therefore, it could be observed that English courts, unlike German courts, have not been reluctant in deciding upon the manner of calculating royalty rates or specific FRAND rates.

However, German courts can also be seen hopping on to the comparable approach as observed in *Saint Lawrence Communications v. Vodafone*[51], where the Regional Court Düsseldorf held that the six license agreements with other licensees provided by SLC contain royalty rates between USD 0.20 and USD 0.40 per device, and may be used to calculate FRAND royalty rate in the said dispute.[52] It was finally observed by the court that the SEP owner has provided sufficient reasons and explanations for the method of calculating the requested royalties and, concluded that a license offer on a per-device basis with royalties within the range of comparable license agreements is FRAND compliant.[53]

Therefore, it is quite evident that most of the European courts have adopted the comparable approach for the determination of royalty rates, with the top-down approach working as a cross-check over the results obtained from the comparable method.

B. Observations of Competition Authority

i. European Commission

The European Commission has also given their observations on the issue of determination of the FRAND royalty rates. In 2007, Rambus Inc. was alleged to be responsible for claiming abusive royalty rates for some of its patents, such as DRAM chips, therefore, infringing the EU anti-trust law.[54] The Commission, initially, observed that the practice of claiming royalties by Rambus for the use of its patents from the DRAM manufacturers has raised concerns as to the compatibility with Article 102 of the Treaty on the Functioning of the European Union (TFEU), which prohibits abuse of dominant position within the internal market by any undertaking, affecting the trade between EU member states.[55] Some respondents stated that the terms of the alleged default license agreements lacked clarity which gave Rambus enough scope to extract royalties based not on the price of the patented technology, but based on the value of the standard compliant product.[56] In the response of which Rambus stated, 'that the royalty shall be determined on the basis of the price of an individually sold chip and not of the end-product. If they are incorporated into other products, the individual chip price remains determinative.'[57] The Commission accepted the said response given by Rambus and observed that the royalty rates offered by Rambus can be regarded as FRAND.

ii. Policy Recommendations on SEP licensing by EU Commission

In 2017, the European Commission released guidelines in the form of a 'Communication' on 'Setting out the EU approach to Standard Essential Patents'. This Communication sets out few principles which could be used by SEP owners and implementers while the negotiations of FRAND licensing, such as, (i) assessing the economic value of the patented technology; (ii) FRAND valuation should ensure continued incentives for SEP holders; (iii) FRAND value should be determined on the basis of the present value of the patented technology; (iv) refusal of 'one-size-fits all' model since FRAND depends upon the sector to sector; and (v) the need to avoid royalty-stacking.[58] The Commission sets out that the SEP royalties should be calculated on the basis of the value that the technology adds to the end product and not on the SSPPU basis.[59]

Through this Communication, the European Commission has provided a balanced and non-binding policy document and has also tried to answer the questions which the CJEU left open in *Huawei v. ZTE*. Hence, these guidelines by the Commission are considered as a laudable move and a ray of light as it has tried to answer some of the important questions which were left unanswered by the EU courts. The Commission has taken a 'middle-way' approach in setting up these guiding principles and has also left enough space for the courts to come to a fair conclusion depending upon the facts of the cases. However, this text has received criticism as well because few questions have remained unanswered and the Communication also lacks guidance in some respect as is also acknowledged by Jakob Dewispelaere in his statement, i.e., 'Consequently, despite CJEU guidance, patent holders and implementers still find themselves frequently embroiled in lawsuits, especially in SEP-heavy industries such as telecommunications, precisely because clear guidelines are lacking.'[60]

IV. INDIAN PERSPECTIVE

In India, not many cases dealing with the issues SEPs and FRAND royalty rates have come before the judiciary, however, slowly and gradually a change in the trend can be observed. Telefonaktibolaget LM Ericsson, one of the world's largest telecommunication companies and allegedly amongst the largest patent holders in the mobile phone industry, some of them being SEPs, has brought few FRAND litigations in India against few major handset and smartphone provider companies in India such as Micromax Informatics Limited ('Micromax'), Intex Technologies (India) Limited ('Intex'), Xiaomi Technology ('Xiaomi'). In the said cases, the Delhi High Court has tried to provide an appropriate methodology of calculating the FRAND royalty rates in the SEP disputes, however, the Competition Commission of India (CCI) could be seen diverging from the viewpoint of the court. Hence, it becomes vital to understand the stance of both, the courts as well as the CCI, for a better understanding of the methodology adopted and preferred in calculating the FRAND royalty rates in India. The cases and observations are discussed in brief below.

A. Delhi High Court's Decisions

The SEP litigations in India have mostly arisen before the Delhi High Court and the said court has tried to resolve every issue related to these patents comprehensively. The court has tried to answer for the preferred way of calculating FRAND royalty rates, which is discussed in the cases mentioned below.

i. Ericsson v. Micromax[61]

In the Micromax case, Ericsson claimed that the defendant has been using its SEP related to 2G and 3G technology without paying any royalties and filed a suit for an injunction before the Delhi High Court to restrain Micromax from manufacturing, importing, selling, offering for sale, advertising products which included Ericsson's patented technology.[62] Ericsson also contended that the SEP licenses were to be granted to Micromax on FRAND terms, however, the said company had refused to undertake such licenses and was using these patents without a license, hence, was infringing Ericsson's patents.[63]

The Delhi High Court after hearing the parties granted the injunction in favour of Ericsson. The court directed Ericsson to produce 26 licences that Ericsson had signed with other Indian parties.[64] After computing the royalty rates on the basis of those licences the court directed Micromax to pay royalty amounts to Ericsson based on the percentages of the net selling prices of the devices incorporating the 2G and 3G standards, i.e., royalties ranging from 0.8%-1.3% of the net selling price of the devices containing the infringed technology.[65] The court also clarified that the rates that it determined were purely an interim arrangement, applicable till the final settlement of the case, and 'not a determination of the FRAND rates for the Ericsson portfolio'.[66] It was decided by the court that the rates on which sale is made after the said order of the court by Micromax will be based on the court's established rate and Micromax shall intimate Ericsson of the arrival of further consignments at customs and seek NOC from Ericsson so that the consignment could immediately be handed over to Micromax.[67] The court relied on comparable and EMVR approach to determine FRAND royalty rates and base, similar to the judicial trend followed by the European courts.

ii. Ericsson v. Intex[68]

In 2014, Ericsson sued Intex on similar grounds as provided above in the Micromax case. The Delhi High Court after hearing the parties granted the injunction in favour of Ericsson.[69] Though, Intex challenged Ericsson's practice of 'charging royalties on the basis of the sale price of the mobile phone as opposed to the profit margin on the sale price of the baseband processor/ chipset' but the Delhi High Court observed that Ericsson's practice of charging a royalty based on the price of the downstream device is FRAND.[70] In determining the royalty base for a FRAND royalty, the court asserted that, in *CSIRO v. CISCO*[71], the US District Court for the Eastern District of Texas had 'rejected that royalty should be based on chipset price'.[72] The court also referred to the said direction given by the Chinese Competition Authority in a case that fixing the royalty rates as a percentage of the net selling price of devices incorporating 3G and 4G standards.[73] The court further noted that a coordinate Delhi High Court bench, which passed an order in a similar suit, i.e. Micromax case, concerning the same patents, had also determined royalty rates based on the net selling price of the devices.[74] Therefore, the High Court upheld the royalty rates calculated for the Micromax interim decision.

The court directed Intex to pay Ericsson 50% of the total royalty amount, as per total selling price per device, and not chipset, from the date of filing the suit.[75] The court observed that Intex's complaint to the CCI is admission of its infringement of Ericsson's SEPs and the court also observed that Intex had made a statement before IPAB admitting that the patents in suit were directly related to its business, a further admission of infringement.[76] On the basis of the said admission, the court found that Intex had taken contradictory stands and observed that Intex is an unwilling licensee, i.e., a licensee not negotiating in good faith.[77]

iii. Ericsson v. Xiaomi[78]

The Delhi High Court, in 2014, issued an interim injunction against Xiaomi to restrain it from importing or selling any infringing devices in India, containing alleged SEPs of Ericsson which Xiaomi was using without obtaining any license from Ericsson.[79] However, Xiaomi appealed the said order on the ground that it had obtained the chipset implementing Ericsson's asserted patented technology from Qualcomm Inc., which had a license from Ericsson, hence, its products did not infringe Ericsson's patents.[80] Temporarily, the Division Bench allowed Xiaomi to import and sell only devices containing Qualcomm's chipsets in India, and Xiaomi was also directed to deposit an amount of INR 100 for the sale of every device until February 2015.[81] After the trial, in 2016, the court vacated the interim injunction in part in so far as two of his 3G patents were concerned.[82] Finally, in 2019, Xiaomi and Ericsson reconciled and put a stop to their issues, and the five-year patent litigation came to an end.

B. Competition Commission of India's opinion on FRAND royalty rates

The aggrieved Indian companies like Micromax, Intex, iBall, etc. have gone before the Competition Commission of India (CCI) with their grievances against the alleged anti-competitive practices performed by SEP holders, such as Ericsson, while licensing their patented technology. CCI has made some exceptional observations while dealing with such complaints, some of which are discussed below.

i. Micromax's complaint against Ericsson

In 2013, Micromax filed a complaint against Ericsson with the Competition Commission of India (CCI), alleging that Ericsson 'was demanding unfair, discriminatory, and exorbitant royalty for its patents regarding GSM technology'[83]. Micromax alleged that Ericsson violated the provisions of the Competition Act, 2002 as when the royalties imposed by Ericsson were compared to royalties charged by other patentees for patents similar or comparable to the patents held by Ericsson, it was evident that Ericsson has abused its dominant position by imposing exorbitant royalties for the use of the SEPs in question. Also, Ericsson was 'well aware that there was no alternate technology available' and it 'was the sole licensor for the SEPs of globally acceptable technology standards'.[84] Micromax argued that Ericsson was charging a royalty based on the sale price of the phone in which Ericsson's patented technology is used and not based on the cost of the said patented technology/chipset. Also, 'the chipset gives no additional value to a smart phone, then it gives to an ordinary phone' and the 'misuse of SEPs would ultimately harm consumers'.[85]

CCI observed that clearly, the practices adopted by Ericsson were discriminatory as well as contrary to FRAND terms.[86] The royalty rates charged by Ericsson had no linkage to patented product but were linked with the cost of the end-product, contrary to what is expected from a patent owner holding licences on FRAND terms. The Competition Authority of India explained the increase in the royalty due to the high cost of the phone, which could be due to the incorporation of various other software/ applications, through an example, i.e. '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'[87]. Therefore, it was observed that the practice of charging two different license fees for a particular SEP incorporated in two different products is discriminatory and anti-competitive in nature.

ii. Intex's complaint against Ericsson

In its complaint before CCI, Intex alleged that Ericsson demanded an unreasonable and arbitrary royalty rate which was based on the value of the handset and not on the cost of actual patent technology used in the product, similar to the Micromax case as mentioned above, and the said act of Ericsson was violative of the provisions of section 4 of the Competition Act, 2002.[88]

It was observed by CCI that the practices adopted by Ericsson appeared to be discriminatory as well as contrary to FRAND terms.[89] The observations made while dealing with the complaint of Micromax were upheld in this complaint. Moreover, it was held that forcing a party to execute NDA and imposing excessive, unfair, and arbitrary royalty rates amounts to abuse of dominant position as provided under section 4 of the Act and CCI also directed Director General to investigate the matter further.[90]

iii. CCI's jurisdiction challenged

Ericsson file a writ petition against CCI contending 'that any issue regarding a claim for royalty would fall within the scope of Patents Act, 1970 and cannot be a subject matter of examination under the Competition Act'[91], hence, CCI cannot decide upon the royalty rates in the SEP disputes. The Delhi High Court held that since the remedies provided by both the Patent Act and Competition Act are different, therefore, there was no irreconcilable inconsistency between both the legal regimes, and CCI's jurisdiction to entertain complaints for abuse of dominance in respect of Patents cannot be withheld.[92]

C. India's attempt at FRAND Policy making

The Department for Promotion of Industry and Internal Trade (DPIIT) released a discussion paper in 2016 which involved certain questions which needed to be addressed and resolved for effective policy making related to SEPs and FRAND commitments, such as[93], (i) Whether there is a need for prescribing guidelines on setting or fixing the royalties in respect of SEPs by Indian Government? If not, which would be the appropriate authority to issue the guidelines? and, (ii) On what basis should the royalty rates in SEPs be decided? Should it be based on the Smallest Saleable Patent Practicing Component (SSPPC), or the net price of the Downstream Product, or some other criterion?

In 2018, DPIIT invited the entire industry to share issues/concerns/comments on the said subject alongwith suggestions to resolve the issues related to SEPs and their availability on FRAND terms. This step taken by DPIIT was considered as a welcome move in developing the concept of FRAND licensing in India. It is rather necessary here to discuss the recommendations made by some industries, such as the Federation of Indian Chambers of Commerce and Industry (FICCI) and Software Freedom Law Center (SFLC.in), to understand the outlook of such Indian industries on the issue of the determination of FRAND royalties. FICCI suggested that there is no one -size-fits-all formula that can be applied to every case which involves the determination of FRAND royalty rate, hence, it should be left in the hands of either the parties to decide mutually or the courts to adjudicate in case the parties are not able to reach on a mutual decision.[94] This approach is also adopted by other global jurisdictions but since the Indian jurisprudence on SEP matters is still evolving, therefore, it is recommended by FICCI that it is not the right time for the Government to intervene in SEP and FRAND related matters.[95] SFLC.in recommended that the FRAND royalties should be set by the Bureau of India Standards (BIS) based on the SSPPU approach, rather than based on the net price of the end-product which contains the patented technology in question, and for setting the royalties BIS could coordinate with other sectoral SSOs like TSDSI. [96]

V. CONCLUSION

The importance of Standard Essential Patents and FRAND commitments cannot be outlooked in the present era where wireless communication has taken over all other primitive means of communication. However, after observing the opinion of judiciary and other authorities on FRAND licensing in the EU and India, it could be said that it is an evolving field, and lot many challenges are yet to emerge. An upswing in the SEP infringement lawsuits worldwide could be seen in the past few years and as determination of FRAND royalty rate depends on the nature and scope of the SEP, it could be one of the leading causes for the same.

It is also quite evident that the EU has a much more developed jurisprudence on FRAND royalty rates whereas in India the concept is predominantly on the nascent stage. However, the Indian judiciary is paving its way in resolving the issues with respect to SEP, FRAND, calculation of royalty rates, choosing appropriate royalty base etc. by following and accepting various international decisions.

According to a British court, the FRAND royalties should be based on a benchmark rate established by the value of the SEP owner's patent portfolio, and that rate should not vary based on the size or market share of the licensee and alternatively, a FRAND rate can be determined by using comparable licenses if they are available.[97] The Delhi High Court adopted the latter approach alongwith supporting the determination of royalty based on the net sale price of downstream devices in the *Ericsson v. Micromax* case.[98] J. Gregory Sidak has rightly stated that 'the Delhi High Court decision to use the value of the downstream product as a royalty base and rely on comparable licenses to determine a FRAND royalty was consistent with sound economic principles, and the court is responding to the judicial and industry trends in the rest of the world.'[99]

Whereas the CCI in its orders has regarded that royalty base decided on the downstream product's sales price is excessive and has no link to the value of the patented technology. European Commission also supported the said approach where the royalty shall be determined on the basis of the price of patented technology and not of the end-product.

However, the difference in the viewpoints of the judiciary and competition authority in India is responsible for creating confusion in the area of determination of FRAND royalty rates. It is vital that the courts and CCI function harmoniously to provide clarity and develop a comprehensible jurisprudence of SEP and FRAND in India.

As already discussed in this paper, the European Commission published a document, i.e., 'Communication' on SEPs which provides for non-binding guidelines that can be followed by SEP holders and implementers while dealing with FRAND licensing agreements. In India, DPIIT has also tried to initiate a discussion on SEP and FRAND licensing and has asked for the comments/issues of the public in this regard. However, nothing substantive and rigid has come out yet and the government is still working on the development of such a framework, post which Indian courts and the SEP owners in India will be in a better position to carry on the future litigations related to the infringement of SEPs and violation of FRAND licensing terms.

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