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**STANDARD ESSENTIAL PATENTS AND COMPETITION  
LAW ISSUES – INDIAN PERSPECTIVE IN COMPARISON  
WITH TRANSATLANTIC PERSPECTIVE**

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**DISSERTATION**

*submitted to*

**NATIONAL LAW SCHOOL OF INDIA UNIVERSITY,  
BENGALURU**

*in partial fulfilment of the requirements for the award of the degree of  
Master of Laws (LL.M.) in Business Laws*

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## **CERTIFICATE**

This is to certify that this dissertation titled '**Standard Essential Patents and Competition Law Issues – Indian Perspective in Comparison with Transatlantic Perspective**' submitted by **Dheeraj R P (I.D. No. LLM/932/2020)** in partial fulfilment of the requirements of Master of Laws (LL.M.) Degree for the Academic Year 2020-21 at National Law School of India University, Bengaluru, is a bonafide research work carried out by him under my supervision and guidance. This dissertation or any part thereof has not been submitted elsewhere for any other degree.

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## DECLARATION

I, Dheeraj R P, declare that this dissertation titled '**Standard Essential Patents and Competition Law Issues – Indian Perspective in Comparison with Transatlantic Perspective**' submitted to National Law School of India University, Bengaluru in partial fulfilment of the requirement for award of LL.M. degree is an original and bonafide research work carried out by me under the supervision of my guide. In case the contributions of others are involved, efforts have been made to give due credits to them through reference to the literature. This dissertation or any part thereof has not been submitted elsewhere for any other degree.

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## INTRODUCTION

Standard setting organizations (SSOs) or Standard Development Organization (SDOs) are responsible for setting industry standards, and each sector have their own SSOs who develop standards according to the requirement of that sector. Standards developed by the SSO/SDOs have to be implemented and followed by all the manufactures operating in that sector. The interface of Intellectual Property Rights (IPR) and standards begin when patented technologies attain the status of standard, and these patents become essential for the manufacturers to conform to the industry standard, giving rise to Standard Essential Patents (SEPs).

These SEPs have to be licensed to the manufacturers by the owners of SEPs to enable the manufacturers to conform to industry standards, the interface between Standards, IPR and Competition law begin when the SEP holders begin to behave in an anti-competitive manner by not granting licenses to the manufactures in the industry or start charging higher royalty rates. SSOs have tried to resolve this issue by prescribing their own IPR policies which bound all the members of the SSOs and implementing Fair, reasonable and non-discriminatory terms of licensing, but the anti-competitive nature of SEP holders seems to be prevalent even to date.

Despite the numerous benefits which standards bring to the platter, the tendency of the SEP holders to indulge in anti-competitive practises harms the competition and consumer welfare. On this background, the researcher is proposing to undertake a comparative analysis by parallely evaluating the context of SEP and Competition Law issues in India with that of the US and the EU.

### STATEMENT OF PROBLEM

The researcher is undertaking an analysis to determine whether the present legal framework in India governing Standard Essential Patents is adequate to address the problems which arise due to opportunistic conduct by the SEP holders by focussing on the case laws in India and compare them with the case laws in the US and the EU.

### IMPORTANCE OF STUDY

SEP litigation is in its nascent stage in India and there is a rich jurisprudence out there across US and EU jurisdictions that have been dealing with SEP related litigation for

a very long time. SEP litigation landscape in India is seen pro-SEP holders by many scholars and many issues arise due to such conduct by the courts. Therefore, the researcher is trying to study and analyse the approaches to SEP litigation in other jurisdictions to identify the gaps in the present approach taken by the Indian courts and to learn from the wide and rich experience of the EU and US.

#### AIMS AND OBJECTIVES

The aim of this dissertation is to study the SEP litigation landscape in the transatlantic context and comparatively analyse with the Indian context to identify the gaps in the approach adopted by India. The objective of the dissertation is to compare the approaches adopted in the EU and US by undertaking a case study of decisions rendered by the EU and US courts with the Indian approach to effectively identify the shortcoming in the Indian approach.

#### HYPOTHESIS

The present legal framework in India governing Standard Essential Patents is inadequate to address the problems which arise due to opportunistic conduct by the SEP holders.

#### RESEARCH QUESTIONS

- 1) What are SEPs and, why are they important?
- 2) What are the competition issues in the context of SEPs?
- 3) How have the transatlantic countries approached this issue of SEPs?
- 4) Does the present framework in India adequate to address these issues?
- 5) If there are any legal gaps in the present framework, how to address those gaps?

#### METHODOLOGY

The Researcher has adopted a combination of doctrinal research methodology and qualitative research methodology. Doctrinal method to introduce the concept of SEP and explain competition law and IPR interplay in the context of SEPs and qualitative



method in form of case studies to deeply analyse the cases in three different jurisdictions to comparatively analyse and adopt it in the Indian context to address the legal gaps and uncertainties in the context of SEP and competition law.

#### MODE OF CITATION

In this dissertation, the researcher has followed *The Oxford University Standard for Citation of Legal Authorities (OSCOLA) 4<sup>th</sup> Edn (2012)*.

#### SCOPE AND LIMITATIONS OF THE STUDY

The scope of this dissertation extends to and is limited to studying the SEP litigation landscape in three jurisdictions only, i.e. US, EU and India, other jurisdictions such as China, Japan have been excluded. Further analysis has been limited to three identified factors which have been explained in Chapter III. Another major limitation has been that since the present dissertation is being written in the times of the pandemic and without access to libraries, the researcher has entirely relied on the limited secondary resources available online.

#### REVIEW OF LITERATURE

1. George S Cary and Larry C Work-Dembowski and Paul S Hayes, 'Antitrust Implications of Abuse of Standard-Setting' (2008) 15 Geo Mason L Rev 1241

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In this article, the authors discuss about the competitions issues which are entailed with Standard setting in general in the US context, this article has been used by the researcher to explain the interface of Standards, competition law and IPR.

2. Geradin D, 'Reverse Hold-ups: The (Often Ignored) Risks Faced by Innovators in Standardized Areas' (2010) Swedish Competition Authority –

This article gives a unique perspective on FRAND and competition issues from the perspective of a patent holder or innovator, this article has been used by the researcher to explain the consequence of overprotecting the implementers in the context of SEPs.

3. Herbert Hovenkamp, 'FRAND and Antitrust', (2020) 105 Cornell L Rev 1683

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This law review article explains the antitrust issues which arise due to the standard setting process and violation of FRAND, the arguments from this article have been used to explain the competition concerns with SEPs in Chapter I.

4. Jacob R, 'Competition Authorities Support Grasshoppers: Competition Law as a threat to Innovation' (2013) 9(2) CPI –

This article examines the threats posed to innovators and patent holders due to overemphasis on competition law. The researcher has used this article to drive home the point that over emphasis on the protection of implementers may be counter-productive leading to patent hold-out.

5. Jacroz JC & Chapman ML, 'The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog' (2013) 16 Stan Tech L. Rev. 769 –

This article examines the concept of hypothetical negotiation adopted by the US courts to determine royalties in cases of SEP infringement and determines whether it leads to FRAND royalties or not, the researcher has used this paper to explain the concept of the hypothetical negotiation.

6. Joseph Farrell and John Hayes and Carl Shapiro and Theresa Sullivan, 'Standard Setting, Patents, and Hold-Up' (2007) 74 Antitrust LJ 603 –

This article talks about the counterproductive effects of standard setting in the context of SEPs, the researcher has used this article to explain the rationale and justification for the need for FRAND terms.

7. Justus A. Baron et al, 'Licensing Terms of Standard Essential Patents – A comprehensive analysis of cases' (2017) European Commission 23 –

This is a study prepared for the European Commission which focuses on issues relating to SEPs and provides a case study analysis of decisions of jurisdictions across the world, but mainly focussing on EU and US.

8. Justus Baron & Gupta K, 'Unpacking 3GPP' (2016) Working paper <[https://www.law.northwestern.edu/research-](https://www.law.northwestern.edu/research-faculty/clbe/innovationeconomics/documents/Baron_Gupta_Unpacking_3gpp_Standards.pdf)

[faculty/clbe/innovationeconomics/documents/Baron\\_Gupta\\_Unpacking\\_3gpp\\_Standards.pdf](https://www.law.northwestern.edu/research-faculty/clbe/innovationeconomics/documents/Baron_Gupta_Unpacking_3gpp_Standards.pdf)> accessed on 21 August 2021 –

This is a study conducted by an SSO, which covers numerous issues with standard setting and the researcher has used this article to explain the economic function of FRAND.

9. Kindleberger C, 'Standards as Public, Collective and Private Goods' (1983) 36 (3) KYKLOS 377 –

This article explains the need for establishing standards and the advantages entailed with the standard setting which also affect consumer welfare, the researcher has used this article to explain the economic function of FRAND in incentivizing standard development.

10. Layne-Farrar et al, 'Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments' (2007) 74(3) Antitrust Law Journal 671 –

This article is about determining licensing costs of patents and explores different ways of determining patent prices and explains why FRAND terms need to be followed while pricing the patents.

11. Lemley and Shapiro, 'A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents' (2013) 28 Berkeley Tech L. J. 1135 –

This article also talks about determining FRAND royalties and the researcher has used this article to explain the concept of quantifying FRAND royalties.

12. Lemley M and Shapiro C, 'Patent holdup and royalty stacking' (2007) 85 (7) Texas Law Review 1991-2049 –

This article explains about the two core issues resulting from anti-competitive conduct of the patent holders, the researcher has used this article to explain the concept of patent hold-up and royalty stacking, also to drive home the justifications for FRAND terms.

13. Mark A Lemley, 'Intellectual Property Rights and Standard-Setting Organizations' (2002) 90 Calif L Rev 1889 –

This article talks about the SSOs in US and their interface with IPR regime, the researcher has used this article to get a basic understanding about SSOs in the introductory part and Chapter I.

14. Neha Chaudhari, 'Standard Essential Patents on Low-Cost Mobile Phones in India: A Case to Strengthen Competition Regulation?' (2015) NLS-SLR 41 –

This article talks about the decisions rendered by the Indian courts with respect to SEPs and especially the Ericsson cases and criticises the approach taken by the courts and calls for strengthening the competition regulation.

15. Ohlhausen M.K., 'Antitrust Oversight of Standard-Essential Patents: The Role of Injunctions' (2015) IP and Antitrust Forum China IP Law Association –  
This article talks about the competition law issues entailed with SEPs and how it might prejudice the implementer, the researcher has used this article to explain the anti-trust implications of SEPs in Chapter II.
16. Raghavi Vishwanath, 'Demystifying the Indian FRAND Regime: The Interplay of Competition and Intellectual Property' (2016) 21 JIPR 89 –  
This article also traces the interpretation of FRAND terms by the Indian courts and explains the interplay of competition law and IPR, and further discusses the competition law concerns with granting SEPs.
17. Rohini Lakshane and Shweta Mohandas, 'Joining the dots in India's Big-Ticket Mobile Phone SEP Litigation' (2018) CIS –  
This article has compiled the majority of the cases relating to SEPs in India and the authors have provided their comments on the decision of the courts in those cases. The researcher has used this article to explain the SEP cases in the Indian context.
18. Saumay Kapoor and Nanki Chopra, 'Standard Essential Patents, Injunctive Relief and India' (2017) 8 Indian J Intell Prop L 91 –  
This article also discusses about the SEP litigation in India and criticises the approach adopted by the Indian courts while granting injunctive reliefs.
19. Shapiro C, 'Injunctions, Hold-Up, and Patent Royalties' (2010) 12 (2) American Law and Economics Review 509 –  
The authors in the article have tried to explain the ill-effects of granting injunctions and the probable issues which might result from granting injunctions without following due procedures.
20. Sidak G, 'The Meaning of FRAND – Part II: Injunctions' (2015) 11(1) Journal of Competition Law and Economics 201 –  
This article talks about when injunctive reliefs can be sought for by the SEP holders without breaching FRAND commitments.

## RESEARCH GAP

The jurisprudence regarding SEP litigations and its interface with the competition law is very rich in the EU and US jurisdiction. In the Indian context, there are numerous scholarly writings available with respect to SEP litigation critiquing the approach adopted by the Indian courts. There appears to be a research gap in the comprehensive comparative case study analysis comparing the approach of the EU, US and Indian courts in dealing with SEP issues entailed with it.

## CHAPTERIZATION

The dissertation has been divided into four chapters –

In the first chapter, the paper familiarizes the reader with the main subject matter of this dissertation SEPs, it introduces the reader to the concept of SEPs and their interface with the competition law.

In Chapter II, one of the most essential feature of SEP litigation across jurisdiction – FRAND is introduced and the chapter provides the rationale and justifications for FRANDs existence. Further, FRAND from contract law perspective, competition law and IPR perspective is examined.

Chapter III is the core of this dissertation, which undertakes the comparative analysis of the decision rendered by US, EU and Indian courts on those specific factors which have been identified in Chapter III.

In Chapter IV, the researcher from the comparative analysis in the previous chapter, has zeroed in on certain factors which have to be adopted by the Indian courts and has suggested some policy consideration from the learnings from the transatlantic experience.

## **CHAPTER I – INTRODUCTION TO STANDARD ESSENTIAL PATENTS AND THE INTERPLAY BETWEEN IPR AND COMPETITION LAW**

International Organization for Standardization defines standards as a document containing rules or characteristics of a particular activity which are defined to achieve a certain degree of certainty and order in industry and these are established based on the consensus and approval of a recognised body/organization.<sup>1</sup> The organizations which are responsible for the development of standards are called Standard Setting Organizations (SSO's). SSO's develop standards after deliberation and consultation among the members of the SSOs and other stakeholders.<sup>2</sup>

Developing standards have multiple benefits, firstly, it ensures that there is consistency among the products or services in terms of quality, safety, efficiency, interoperability et cetera; and when a standard is developed by an SSO, those requirements are codified and put in a document, this helps in the codification of the latest technology in the sector and helps in facilitating its implementation across the sector by making it accessible to everyone in the sector.<sup>3</sup> Secondly, the development of standards promotes and simplifies international trade, since the same specification and requirements are used across borders.<sup>4</sup>

The process of development of these standards is undertaken by SSOs and each sector have their own SSOs and the procedure employed by each SSO varies accordingly. Broadly the procedure involves members of a SSO accepting a particular technical requirement as a standard, this requirement becomes a standard and is made applicable to all the members of that particular sector to comply with that standard and the definitive region within which the standard operates depends on the SSO and its members.<sup>5</sup> Some of the most popular SSOs relating to technology are the European Telecommunications Standards Institute (ETSI), Institute of Electrical and Electronics Engineers (IEEE), International Telecommunication Union (ITU) et cetera.

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<sup>1</sup> ISO, 'Standards in our world' <[https://www.iso.org/sites/ConsumersStandards/1\\_standards.html](https://www.iso.org/sites/ConsumersStandards/1_standards.html)> accessed 21 August 2021.

<sup>2</sup> Mark A Lemley, 'Intellectual Property Rights and Standard-Setting Organizations' (2002) 90 Calif L Rev 1889.

<sup>3</sup> ISO (n 1).

<sup>4</sup> ISO (n 1).

<sup>5</sup> ISO (n 1).

What gives rise to Standard Essential Patents is when a particular technology is accepted as a standard and to achieve that standard you have to necessarily use a patented product/technology, this patented technology/product is referred to as the Standard Essential Patent (hereinafter referred to as 'SEP').<sup>6</sup> When a patented technology is required to achieve a standard, those patented technology becomes Standard Essential Patents. For example, let's assume ETSI has developed a Standard for Wi-fi technology in Laptops and Personal computers named 'Wi-fi – 6' and this particular standard can only be achieved by using a Wi-fi module developed by RealTek, then the RealTek Wi-fi module becomes the Standard Essential Patent to achieve the standard of Wi-fi – 6. Every member of ETSI shall be obligated to implement this standard if they are manufacturing laptops/personal computers and to implement the standard they would have to necessarily use the SEP. This is where exactly, the interface between technology, IPR and competition law begins and the competition concerns arise.

Continuing with the foregoing example, let's say Lenovo is a member of ETSI and now wants to manufacture laptops with a Wi-fi feature, as a result of the adoption of Wi-fi – 6 standard, Lenovo would have to conform with this standard and to achieve this standard Lenovo has to necessarily use the RealTek wi-fi module, which is the SEP. In this case, Lenovo is the implementer of the standard, and RealTek is the patent holder. The implementer will necessarily have to obtain a license as per patent law provisions from the patent holder to use their SEP. SEP holders in such circumstances are placed in a dominant position, by virtue of their product getting the SEP status and thereby inheriting monopoly rights, which may induce them to abuse their dominant position by exploiting the situation to his advantage and this can lead to rampant anti-competitive practises across the sector, leaving implementers at a disadvantaged position.

This problem of anti-competitiveness is unique to SEPs unlike normal patents, this is because, in cases of normal patents, if a patent holder denies grant of license to an implementer, the implementer can go back to research and innovate to find a new solution.<sup>7</sup> This is unlikely to happen in cases of SEP, since a particular technology is

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<sup>6</sup> George S Cary and Larry C Work-Dembowski and Paul S Hayes, 'Antitrust Implications of Abuse of Standard-Setting' (2008) 15 Geo Mason L Rev 1241

<sup>7</sup> *Ibid.*

adopted as a standard and a manufacturer will be obliged to accept such standard and the only way the manufacturer can achieve the said standard would be through licensing the SEP. Even though the manufacturer has the opportunity to go back and innovate, the very requirement of conforming to standards, would enable the patent holder to abuse the dominant position which he/she enjoys.

Another compelling reason why the implementers are placed in a disadvantageous position is that the implementers are left with no choice other than to implement the standard by licensing the SEP, otherwise there is every possibility that the implementers will be disregarded by the consumers in the market, if they are unable to offer cutting edge technologies compared to their competitors and it also creates a hindrance for them to enter the market.<sup>8</sup>

One of the reasons why the patent holders are more induced to abuse the dominant position which they enjoy is to – i) recover the all the R&D costs incurred by the patent holder in developing such technology and ensuring that it is implemented as a standard; ii) to deny entry of competitors into the market thereby creating a monopoly in the product market as well as with respect to SEP.<sup>9</sup> To achieve this SEP holder can resort to two ways – i) to grant licenses of SEP the patent holder can charge unreasonably high rates and ii) the patent holder can deny the grant of license to ensure that the patent holder remains as the sole player in the sector by prohibiting the entry of other players into the market.<sup>10</sup>

To illustrate with an example, RealTek holding the SEP will charge Lenovo who is seeking to launch new laptops with new technology, with very high royalties to recover the R&D costs; since Lenovo is primarily a laptop manufacturer, Lenovo would be forced to license the SEP at higher royalties or else they would lose a significant ground in the market to its competitors. Another aspect of holding dominant position is that now the SEP holder can choose whom to grant licenses and who not to grant license, and if a company is not willing to pay royalties at the rates SEP holder demands, then such companies will not succeed in the market and the company which is able to afford those high royalty SEPs will flourish in the market.

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<sup>8</sup> Herbert Hovenkamp, 'FRAND and Antitrust', (2020) 105 Cornell L Rev 1683.

<sup>9</sup> *ibid.*

<sup>10</sup> Herbert (n 8).



Continuing with the same example, another way in which the SEP holders can make the market anti-competitive/monopolistic is they can enter into agreements which are anti-competitive with a manufacturer of laptop, let's say Lenovo, that they would only grant license to them in exchange of higher royalties, this will enable Lenovo to enjoy a monopoly in the laptop market, since only laptops from a particular manufacturer will feature Wi-fi 6 like in this example.

Since, the very fact that SEP's entail with them many competition issues, this had to kept in check to ensure that there is competition and efficiency in the market, and that it does not lead to a monopolistic market. Considering the economic situations of both the SEP holder, who would have invested significant revenue into developing the technology and the implementer, who genuinely wants to license such technology to earn his bread and butter, the SSO's developed their own IPR policies, which sought to ensure competition in the market and that the SEP holder does not abuse the dominant position he holds. These IPR policies, across the SSO's, have incorporated certain licensing terms which have to be followed by the SEP holder while licensing out his SEP to the implementer, and these terms are generally known as the Fair, Reasonable and Non-discriminatory terms of licensing, commonly goes by the acronym FRAND terms.<sup>11</sup>

FRAND terms ensure that the SEP holders do not act anti-competitively during licensing out SEPs. In other words, FRAND ensures that the SEP holders do not charge the implementers with arbitrarily high royalties and while charging royalties the SEP holders cannot discriminate among the implementers and also, since they hold the licensing rights they cannot pick and choose to whom they grant licenses, if the implementer is willing to license at FRAND terms, the SEP holder is obligated to license it and cannot discriminate.

Implementing FRAND terms tries to effectively address the problem of anti-competitiveness which is entailed with SEPs. There is no straightjacket formula which determines what FRAND terms are and it may differ from one SEP to other, what is FRAND for one SEP might not be FRAND for the other SEP.

This provides a segue to the following part of the paper which discusses about SEPs and FRAND commitments in detail, and further discusses about FRAND as an

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<sup>11</sup> Herbert (n 8).

economic function and the rationale for adopting FRAND from contract law, competition law and IP law perspective.

## CHAPTER II – STANDARD ESSENTIAL PATENTS AND FRAND COMMITMENTS

### ECONOMIC FUNCTION OF FRAND

One of the important economic functions of FRAND is that it promotes and contributes to development of standards. It promotes development of new technologies which can be integrated as essential for standards and it encourages existing tech firms to more actively contribute to standard development by making their technology available for integration as standard.<sup>12</sup>

Standards are developed by SSO with the main objective being that the whole sector adopts such standard and the benefit of development of such standards are generally enjoyed by many actors starting from producers to consumers.<sup>13</sup>

A study of a particular SSO, 3GPP, conducted by Baron & Gupta indicate that only few firms participate in the process of standard development and that there is a significant gap between the number of contributors to number of users of the standards, since many firms look at standard development rather unattractive/less incentive since they have to share their efforts with other companies.<sup>14</sup>

FRAND does not cause a hindrance to the revenue of the SEP holder, studies show that even FRAND rates are attractive too and many firms which own SEPs have greater revenue than those owning other patents.<sup>15</sup>

FRAND terms need to be attractive and should provide adequate compensation to the SEP holders to ensure that they further invest in the standard development and contribute to it, if the FRAND terms do not compensate the SEP owners adequately, there will be no incentive for the SEP holders to contribute to standard development.<sup>16</sup>

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<sup>12</sup> Justus A. Baron et al, 'Licensing Terms of Standard Essential Patents – A comprehensive analysis of cases' (2017) European Commission 23.

<sup>13</sup> Kindleberger C, 'Standards as Public, Collective and Private Goods' (1983) 36 (3) KYKLOS 377.

<sup>14</sup> Justus Baron & Gupta K, 'Unpacking 3GPP' (2016) Working paper <[https://www.law.northwestern.edu/research-faculty/clbe/innovationeconomics/documents/Baron\\_Gupta\\_Unpacking\\_3gpp\\_Standards.pdf](https://www.law.northwestern.edu/research-faculty/clbe/innovationeconomics/documents/Baron_Gupta_Unpacking_3gpp_Standards.pdf)> accessed on 21 August 2021.

<sup>15</sup> Stasik E, 'Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunication Standard' (2010) Les Nouvelles 114.

<sup>16</sup> Justus (n 12) 25.

## RATIONALE FOR FRAND

Other than the economic function of FRAND, the most important rationale of FRAND is that it tries to address the market failures which is created due to the very nature of the SEP licensing framework. This section tries to analyse these market failures, that is, royalty stacking and patent hold-up

### PATENT HOLD-UP

When an implementer is negotiating the licensing terms with the patent holder, especially ex post, when the implementer has already utilised the patented technology, there is a shift in the bargaining power in favour of the patent holder, this is known as patent hold-up.<sup>17</sup> Some scholars use the term patent hold up to describe the abuse of dominant position which the patent holder enjoys when his patent becomes a SEP.<sup>18</sup>

The very fact of granting of SEP status to a patent shifts the bargaining power towards the patent holder and this entails within itself several issues. In an ex-post context, where the implementer has already utilised SEP without a license and is entering into negotiations with the SEP holder, on one hand implementer is left with no choice but to take a license because of the fact the patent has been identified as the SEP and on the other hand, even before licensing, the implementer has already invested huge amounts of money in research and development of the product and manufacturing it using the SEP, and now he cannot afford to back track, this sort of a situation puts the implementer in a very vulnerable position and also puts the SEP holder in a very dominant position where he can leverage the position of the implementer to enter into licensing terms which are more favourable to the holder and charge higher royalty rates for licensing. This dominant position to the SEP holder accrues due to the standard setting processes.<sup>19</sup>

In several landmark cases in the US<sup>20</sup>, the issue of patent hold up was brought into forefront, where in several companies were accused of concealing information regarding the existence of patents to the SSO's during standard setting process, so that

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<sup>17</sup> Joseph Farrell and John Hayes and Carl Shapiro and Theresa Sullivan, 'Standard Setting, Patents, and Hold-Up' (2007) 74 Antitrust LJ 603.

<sup>18</sup> Lemley M and Shapiro C, 'Patent holdup and royalty stacking' (2007) 85 (7) Texas Law Review 1991-2049.

<sup>19</sup> Joseph (n 17).

<sup>20</sup> *Rambus v FTC* No. 07-1086 (D.C. Cir. 2008); *Dell v FTC* 1996 FTC LEXIS 29.

a particular standard is accepted and adopted by the members of the SSO and after implementation, the SEP holders claim higher royalties, since the situation becomes *ex post*.

Another situation where patent hold up can occur is, when there is a patented technology and subsequently it becomes a SEP and the companies which have been locked in on the technology are obliged to license the SEP now, and the SEP holder goes on to charge exorbitant royalties to the implementer than he would have charged *ex ante*. This kind of a situation occurred in *Broadcom v Qualcomm*<sup>21</sup> and other cases, where in the court found that charging higher royalties in such situations constitutes breach of FRAND commitments, also termed breach of FRAND commitments as patent hold-up.

In recent years, the scope of patent hold-up has been extended not only to include breach of FRAND commitments but also abusive use of injunctions, as injunctions have been used to strongarm implementers to enter into abusive license terms with SEP holders.<sup>22</sup>

This patent hold-up problem occurs across boundaries and the competition authorities have been making constant efforts to curb the abusive practises adopted by the SEP holders. FRAND commitment ensures that implementers are prejudiced as a result of the huge market power and bargaining power which is enjoyed by the SEP holder and it tries to trickle down that power to create a level playing bargaining ground for both the implementer and the SEP holders.<sup>23</sup> FRAND commitments ensures that the royalties which are paid to the SEP holders would be the same amount that would be paid as royalties *ex ante*, that is before the patent attained the status of a SEP. The rationale behind this is that, when negotiations take place between parties *ex ante*, it results in efficient outcomes, wherein they agree on reasonable royalty rates and other terms of licensing.<sup>24</sup>

The trend of expansive interpretation of the definition of patent hold-up to curb the bargaining power of the SEP holder is seen across the countries and in some cases, it

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<sup>21</sup> *Broadcom Corp v Qualcomm* 543 F.3d 683 (Fed. Cir. 2008).

<sup>22</sup> Shapiro C, 'Injunctions, Hold-Up, and Patent Royalties' (2010) 12 (2) American Law and Economics Review 509.

<sup>23</sup> Ohlhausen M.K., 'Antitrust Oversight of Standard-Essential Patents: The Role of Injunctions' (2015) IP and Antitrust Forum China IP Law Association.

<sup>24</sup> Justus (n 12) 28.

has been reported that this has led to reverse concerns whether the balance has tilted too much in favour of the implementers and has prejudiced SEP holders from claiming the benefits which arise out of SEPs.<sup>25</sup>

Too much protection to the implementers may potentially lead to situation of hold-out or reverse hold-up, because in cases of SEP, holders cannot refuse to grant license as easily when compared with the ordinary patents, since it is an obligation on the part of the SEP holder to license the SEP.<sup>26</sup> Also, FRAND commitments make it easier for the hold-out to occur, because the infringer of a SEP will at the most be sued by the holder and will have to pay the royalties at FRAND rates that it would have paid if they had licensed in the first instance and nothing more than that, this leads to a situation where in more and more implementers stop to license the SEP, this leads to a situation of hold-out. SEP holders rights are prejudiced by this, since the holder will not receive the royalties which he rightful deserves on time and he further will have to incur additional transaction costs to approach the court to claim the same.<sup>27</sup>

Therefore, while implementing the FRAND commitments, it has to be ensured that it just creates a level playing field for both the implementer and the holder and does not favour one party and does not either lead to patent hold-up or hold-out.

#### ROYALTY STACKING AND ANTI-COMMONS

In general, anti-commons problem occurs when multiple people own pieces of one product and that product can operated only if all those pieces come together.<sup>28</sup>

In the context of IPR, royalty stacking and anti-commons problem occurs when a technology or product uses patented technology of various patent owners. In other words, for a single product to work you'll have to use more than two patented technologies owned by different individuals, as result of this an implementer will have to procure licenses from more than two patent holders, thereby increasing the transaction costs and also licensing costs as well.<sup>29</sup>

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<sup>25</sup> Jacob R, 'Competition Authorities Support Grasshoppers: Competition Law as a threat to Innovation' (2013) 9(2) CPI.

<sup>26</sup> Geradin D, 'Reverse Hold-ups: The (Often Ignored) Risks Faced by Innovators in Standardized Areas' (2010) Swedish Competition Authority).

<sup>27</sup> *ibid.*

<sup>28</sup> Shapiro (n 22).

<sup>29</sup> Shapiro (n 22).

Transaction costs involve various aspects – searching of patents, negotiation of contracts and other enforcement costs, when there are multiple patents, these costs increase drastically and the costs for procuring licenses from various patent holders also increases dramatically with the increasing number of patent density per product.<sup>30</sup>

Royalty stacking problems is also called as “double-marginalisation” and also as “Cournot effect”, the problem of royalty stacking can be described as when the implementers are charged excessive royalties by the patent holders due to the fragmented ownership and since they would necessarily need all the patents for their product to work or implement a particular standard, this involves multiple patent owners charging excessive royalties, it leads to multiple royalties which are paid by the implementers, this leads to the problem of royalty stacking.<sup>31</sup>

FRAND terms of licensing tries to address this problem of royalty stacking, FRAND tries to ensure that the overall aggregate royalty paid by an implementer must be reasonable.

One way to avoid the problem of royalty stacking is by way of calculation of the value added by each patent to comply with the standard and remunerating the patents according to the value added by them and not according to the entire value of the resultant product after combination of all the patents.<sup>32</sup>

#### **FRAND FROM A CONTRACT LAW PERSPECTIVE**

FRAND commitment vary for every SEP and every SSO have their own IPR policies defining FRAND commitments in a particular way. For example, ETSI IPR policy does not mandate but only request is placed before the member/the patent holder when there a particular SEP to undertake that the patent holder will license out the SEP to the implementer on FRAND terms.<sup>33</sup>

There is no guarantee that the patent holder will for sure license the SEP to an implementer, the only obligation on the patent holder is to make offers according to FRAND terms and the negotiations might even fall apart even after the offer is made.

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<sup>30</sup> Justus (n 12) 31.

<sup>31</sup> Shapiro (n 22).

<sup>32</sup> Layne-Farrar et al, ‘Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments’ (2007) 74(3) Antitrust Law Journal 671.

<sup>33</sup> Section 6, ETSI IPR Policy.

There is no contractual obligation placed on the patent holder to enter into an agreement with the implementer.<sup>34</sup>

Another concern which arises from the contract law perspective is that, a licensing contract is between a patent holder and an implementer and as per the contract law principles, the contract is privity between two parties and third party does not play a role, here can the SSO define terms that an offer made by the patent holder has to satisfy the FRAND terms? Doesn't this violate the principle of privity of contracts.<sup>35</sup>

Some scholars in the US consider this issue from a different perspective altogether, their view is that FRAND commitments of a SEP holder is pursuant to the contractual relationship between the SSO and the SEP holder.<sup>36</sup> SEP holder when he becomes a member of SSO, there is an agreement between the SEP holder and the SSO, that the member would abide by the IPR policies of the SSO and the implementer in this case would be a third-party beneficiary, who would be getting benefitted as a result of the contractual obligation of the SEP holder with the SSO.<sup>37</sup> But some scholars have argued that this argument can be extended only to the implementers who are also part of the same SSO and cannot be extended to others outside the SSO.

A similar sort of position is taken by the scholars in EU as well, in France, a third party can initiate proceedings to enforce a contract which provides for benefits for a third party. But the still it seems that the position is unsettled in the EU, whether the contractual obligation on the SEP holder is only towards a potential licensee/implementer or whether the contractual obligation of the SEP holder is only towards the SSO.<sup>38</sup>

Therefore, it is important to note that there has been no finality whether FRAND commitments imposes obligation on the SEP holder to enter into a contract on FRAND terms or it just prescribes that SEP holders act in good faith while negotiating a licensing contract.

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<sup>34</sup> Sidak G, 'The Meaning of FRAND – Part II: Injunctions' (2015) 11(1) Journal of Competition Law and Economics 201.

<sup>35</sup> Tsai and Wright, 'Standard Setting, IPR and role of antitrust in regulating incomplete contracts' (2015) 80 (1) ALJ.

<sup>36</sup> Lemley (n 2).

<sup>37</sup> Lemley (n 2).

<sup>38</sup> Justus (n 12) 36.



Courts have rejected whenever the implementers have approached the courts to enforce FRAND commitments under contract law, they have considered FRAND commitments has mere framework of the SSO which provides guidelines to the SEP holders regarding licensing out their SEPs.<sup>39</sup>

Another important aspect is that many scholars argue that FRAND commitment contain an implicit waiver of patent holders right to seek injunction against infringers.<sup>40</sup> The courts in several cases have held that SEP holders by accepting FRAND commitments agree that the damages based on FRAND terms would be sufficient to compensate the infringing activity and that there would no irreparable harm caused to the SEP holder when damages are paid according to FRAND terms, thus there may not be a need for seeking injunctions. But there is no implicit waiver of right to pursue injunctive remedies under FRAND commitments unless it has been specifically added in the FRAND commitment.<sup>41</sup>

Though the damages to an infringing conduct is seen as a remedy, if those damages do not compensate the loss caused to the SEP holder, there have been instances wherein the court has granted injunctive reliefs to the SEP holder, thereby from these decisions it can be suggested that granting injunctive reliefs does not breach the FRAND commitments of a SEP holder. In some cases, the courts have found that the seeking injunctive reliefs goes against the FRAND commitments of an SEP holder, if the SEP holder fails to show that the infringing conduct has caused an irreparable injury and that the damages cannot compensate the loss caused to SEP holder.<sup>42</sup>

## **FRAND FROM COMPETITION LAW PERSPECTIVE**

One of the main objectives of the FRAND from a competition law perspective is perceived to be prevention of patent hold-up and many scholars and courts in several decisions have adopted the same view. Some scholars state that the very fact that an

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<sup>39</sup> *In the mater of certain 3G Mobile handsets and components thereof*, International Trade Commission.

<sup>40</sup> Lemley and Shapiro, 'A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents' (2013) 28 Berkeley Tech L. J. 1135.

<sup>41</sup> Sidak (n 34).

<sup>42</sup> "Whatever the appropriate method of determining the RAND licensing rate, it could well be that retrospective payment at the rate ultimately determined and a determination of the future rate, not an injunction banning sales while that rate is determined, is the only remedy consistent with the contractual commitment to license [...] standard-essential patents." *Microsoft v Motorola*.

implementer can approach the court seeking for enforcing FRAND terms renders such holding up an improbable event.<sup>43</sup>

Majority of the litigation on SEP concerns with the competition issues and the approach taken by the courts in rendering decisions also focus majorly upon competition concerns while analysing FRAND terms of licensing. In several cases, the competition law enforcement authorities have intervened to set right any potential harm to the consumers or innovation from the conducts of SEP holders. It has been found that royalty stacking and patent hold-up are two significant issues which are plaguing the SEP sector in general and are potentially affecting the prices of the end consumer goods and also adoption of technical standards by the manufacturers.

In the US, the department of justice in collaborative efforts with the US Patent and Trademark office have published a joint statement regarding the Remedies for SEPs subject to voluntary Fair, reasonable and non-discriminatory commitments in 2013, which tries to address competition concerns of SEPs.<sup>44</sup>

In the European Context, several landmark judgements rendered by the ECJ take the centre stage regarding competition concerns and injunctive reliefs. Several courts have opined that the granting injunctions to SEP holder results in competition concerns wherein it incentivises the SEP holders to indulge anti-competitive behaviour, as a result of which there might be potential for patent hold-up and royalty stacking issues.<sup>45</sup> The courts have specifically held so only in cases of SEPs and not in cases of ordinary patents. The courts opine that in cases of SEP, granting of injunctions in favour of SEP holder will hamper the negotiation process of licensing terms and may lead to implementer being strong armed into entering license agreements which are prejudicial to his interests and the interests of the consumers welfare.

This view was criticised by many scholars stating that this sort of opinion violates two major principles, one is the right of a person to access courts which is also imbibed in Article 6 of ECHR and secondly, the principle of sincere cooperation as per Article 4(3) of Treaty on EU. These scholars opine that very fact approaching the court

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<sup>43</sup> Joseph (n 17).

<sup>44</sup> DoJ & USPTO, 'Remedies for Standards–Essential Patents Subject to Voluntary F/RAND Commitments' (2013).

<sup>45</sup> Motorola Mobility Case - DG Competition, Decision of 29 April 2014, C (2014) 2892 final; Samsung case - Commitment Decision of 29 April 2014, C(2014) 2891 final.

should not lead to non-FRAND deal rather it should foster an environment to negotiate a FRAND deal and considers litigation as continuation of negotiation process. They also opine that when the matter is before the courts, the courts will have material evidence of both the sides and the court will be in a better position to adjudicate the case, therefore they argue that prohibiting SEP holders to approach the courts seeking injunctions is incorrect.<sup>46</sup>

In 2015, the ECJ tapped in the opportunity in the case of *Huawei v ZTE*<sup>47</sup> to clarify the law regarding the SEP and injunctions. The court addressed the issue by providing a set of guidelines which needs to be followed both by the implementer and the SEP holder and also how competition concerns need to be taken care of during FRAND negotiations and as well during litigation before the courts. These cases will be further discussed in the succeeding chapter of this paper.

#### **FRAND FROM A PATENT LAW PERSPECTIVE**

As discussed in the above section, competition law and contract law frameworks interact closely with SEPs and their licensing to the implementers, also offers solutions to many shortcomings with SEPs. Both contract law and competition law complement very well with the patent law and ensures that there is a more efficient and balanced system. They ensure better enforcement of FRAND terms of licensing. Some legal systems have identified doctrines in the patent legal system which also ensures enforcement of FRAND terms of licensing.

Doctrines which ensure enforcement of FRAND terms of licensing are described below –

- Equitable estoppel – To invoke this doctrine, 3 basic requirements need to be established. Firstly, it needs to be shown that there was conduct representing or concealing anything; secondly, it has to be established that one of the party relied on such representation or concealment; and thirdly, some detriment has to be caused. In the context of SEP, this doctrine applies when the behaviour or conduct of the SEP holder is inconsistent or misleading and the implementer relies on such conduct and which results in his detriment.

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<sup>46</sup> Justus (n 12).

<sup>47</sup> *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*, Case C-170/13.

Equitable estoppel can be applied when SEP holder fails to comply with the disclosure obligations of an SSO.<sup>48</sup>

- Doctrine of implied license – This doctrine operates when there is an express declaration of willingness of the patent holder that he will license the SEP on FRAND terms and the users based on that declaration assume that they can freely use the SEP as long as they pay reasonable royalties to the SEP holder, even though there is no express license between the implementer and the SEP holder. This doctrine is based on the beliefs and expectations of the parties to the contract.<sup>49</sup>

To take this even further, it was suggested by one study that construing FRAND commitment as implied license is better off for both SEP holder and implementer than a mere contract with the SSO regarding FRAND commitment.<sup>50</sup> The advantages are that it makes sure that all members of the SSO will benefit from the implied license; it also reduces the scope for litigation, even if there is any litigation it will be for specific issues like determining royalty rates; it also eliminates all ex-post complication which are prevalent in the present SEP context; and lastly, it eliminates the competition concerns as well since the SEP holder's opportunistic behaviour will be curbed by such implied licenses.

This chapter has tried to analyse the concept of Fair, Reasonable and non-discriminatory (FRAND) terms of licensing/FRAND commitment in its entirety starting from the economic function of FRAND to discussing rationale for FRAND, then it segues into understanding FRAND from perspective of contract law, competition law and patent law respectively.

During the discussion of FRAND in this chapter, there were several cases mentioned and cases form the major chunk of SEP jurisprudence in all jurisdictions, going forward to understand how far FRAND has been successful and the SEP jurisprudence, the next chapter undertakes the task of analysing cases in 3 jurisdictions – US, EU and India.

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<sup>48</sup> Lemley (n 2).

<sup>49</sup> Lemley (n 2).

<sup>50</sup> Lemley (n 2).

### **CHAPTER III – COMPARATIVE CASE STUDY ANALYSIS**

This chapter tries to analyse the judicial jurisprudence on the issue of SEP and FRAND licensing by way of a comparative analysis of decision rendered by courts of three jurisdiction – US, EU and India, with an aim to understand the approach adopted by US and EU in tackling the problems associated with SEP and FRAND licensing and the main objective being to analyse how Indian courts have handled the issue of FRAND licensing and analyse the takeaways for India from the rich experience of US and EU.

#### **CASE SELECTION CRITERIA**

Cases from three jurisdictions are analysed in this section and the cases have been selected on three basis – the first basis is relating to licensing on FRAND terms with specific focus on defining time and negotiations: ex ante and ex post; the second basis is to trace the evolving landscape of granting injunctive reliefs; and third basis is on the issue of quantifying FRAND royalties and how have the courts approached this issue.

The cases being studied in this chapter are basically from the technology, communications and mobile industry, wherein courts have analysed the issue of SEP and interpreted on the FRAND licensing terms.

#### **DEFINING TIME OF NEGOTIATION – EX ANTE AND EX POST NEGOTIATIONS**

The concept of defining time of the negotiation process is very important step in the process of determining the damages caused due to the breach of SEP. When there is a breach of a SEP, the court have adopted an approach of hypothetical negotiations to determine the royalty rates. Hypothetical negotiations are used to determine an approximate value of royalty which would have been charged by the SEP holder, in case the implementer had entered into negotiations before the commencement of breach of SEP.<sup>51</sup>

The concept of hypothetical negotiations deems that the negotiations had taken place before the breach of SEP commenced, in other words, ex ante, rather than calculating

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<sup>51</sup> Justus (n 12) 57.

the royalty after the commencement of the breach or after the patent was locked in as a standard, in other words ex post.<sup>52</sup>

One of the most debated areas in this approach of hypothetical negotiation is defining the time of the negotiations, if the date is determined at an early date from the lock in of the standard or the infringement then it is argued by the SEP holder that it favours the infringer and if the date is determined near to the date of infringement it is argued by the implementer that it favours the SEP holder as it will result in paying higher royalties for the SEP.

Now let's examine the judicial decisions which have looked into the issue –

i) *Microsoft Corp. v Motorola Inc.*<sup>53</sup>

This is one of the landmark cases on the SEP litigation and determining FRAND royalties in the US, this appears to be also the first decision which explicitly discussed the concept of FRAND and its function to prevent patent hold-up and royalty stacking. This decision by Judge Robart provided a framework to determine the royalty rates.

In this case Motorola was sued by Microsoft for infringing their patents relating to smartphones, after being sue Motorola offered to license the two infringing patents belonging to Microsoft – one patent was a wifi standard and the other was a video compression technology standard, at a rate of 2.25% of the selling price for each product with the above technology sold. Microsoft initiated another proceeding against Motorola for violating its commitment to license the above patents under FRAND terms, though the commitment of Motorola was with the SSOs IEEE and ITU, Microsoft claimed that breach as third-party beneficiary to the contract between Motorola and the SSOs.

The court held a bench trial and determined that the royalty rates for both the patents which were infringed by Motorola at FRAND rates. The determined rates were 0.555 cents per unit and 3.71 per unit respectively for compression technology and wifi standard. These rates were determined on FRAND basis and

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<sup>52</sup> Justus (n 12) 57.

<sup>53</sup> *Microsoft Corp. v. Motorola, Inc.*, 854 F. Supp. 2d 993 (W.D. Wash. 2012).

interestingly, these were less than what Motorola had offered when it wrote to Microsoft.

On the issue of breach FRAND commitments, there was a jury trial held, which held that Motorola had violated the contract, also held that it did not act in good faith and was supposed to deal fairly, as a result of which this breach, Microsoft was awarded damages worth 14.52 million dollars.

Motorola appealed the decision of Judge Robart before the Ninth Circuit Court of Appeals,<sup>54</sup> wherein the appeals court upheld the decision of lower court determining the royalty rates as well as the jury decision on the breach of contract and damages awarded.

In this case, while formulating the framework to determine the royalty rates, the court employed the approach of hypothetical negotiations and determined that time of the negotiations would be ex ante, meaning before the patent was locked in as a standard.

This approach is taken by the courts to ensure that there is no patent holdup and opines that FRAND plays an important role in preventing holdup and royalty stacking, as there is a high possibility that the SEP holder will increase the royalty rates arbitrarily after it has been set as a standard and to avoid this risk, the court while defining the time of the hypothetical negotiations determines it to a date prior to when it is adopted as a standard. A similar approach has been adopted by the court in cases following the Microsoft – Motorola case.

ii) *Apple Inc. v Motorola Mobility Inc.*<sup>55</sup>

In this case, patents of both the companies were involved, Apple claimed that their patent on the touch screen technology and another technology used for live streaming of videos were infringed and on the other hand Motorola claimed that its patent relating to cellular communication was infringed by Apple.

Though this case was dismissed summarily for non-availability of evidence on damages and no FRAND rates were defined, Judge Posner went into examine the aspects of FRAND terms of licensing and hypothetical negotiation, further went

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<sup>54</sup> *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872 (9th Cir. 2012).

<sup>55</sup> *Apple, Inc. v. Motorola Mobility, Inc.*, 869 F. Supp.2d 901 (U.S. District Court, N.D. Illinois 2012).

on to explain that defining time of the negotiations plays an important role and favoured ex ante negotiations, that is defining the date of the negotiation to be when the patent was locked in a standard and not when the first infringement took place. The rationale behind such choice was that after the patent has been locked in as a standard, there is visible imbalance of power in the hands of the SEP holder and the implementer and it may lead to negotiations which may lead to patent hold-up.

The court was considerate about the impact on economic considerations and on competition while explaining the approach to be taken while defining the time of negotiations.

iii) *Nokia v ICom*<sup>56</sup>

This case relates to the European jurisdiction, in this case, the ex-ante approach to determining the negotiation date was formalised by Justice Floyd in the following manner –

*“...in the case of a patent which is essential to a standard, it is appropriate to enquire into what license terms would have been agreed between a willing licensor and a willing licensee on the basis of the invention which the patent protects but without knowledge that the patent will be incorporated into the standard. The reason that that is said to be relevant is because the patent forces companies who wish to participate in the standard to make use of it. That fact alone may skew the appropriate royalty rate, which has to be paid. The approach is called the ex-ante approach to the settling of the terms because it is based on the assumption that the terms are being agreed before the standardization has taken place.”*<sup>57</sup>

This was a case where Nokia was sued by ICom for infringing its patent, and similar suit was filed against HTC as well, both these cases were clubbed together and joint trial was held to determine the damages and FRAND terms of licensing. There was no final judgement in this case, since Nokia and ICom settled the matter out of court. Though there was no judgement, it led to the formalisation of the approach to determine the time of negotiations to determine the royalty rates payable by the implementer to the holder.

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<sup>56</sup> *ICom v Nokia*, [2011] EWHC 1470.

<sup>57</sup> *ICom v Nokia*, [2011] EWHC 1470.



iv) *CSIRO v Cisco*<sup>58</sup>

In US, Georgia-Pacific Corp. v United States Plywood Corp. is a landmark judgement which gave list of 15 factors which needs to assessed while determining the damages in cases of patent infringement. This is not an exhaustive list and can be subject to modifications based on the judge who is examining the issue.

In this case, the issue came up whether the Georgia-Pacific factors will be sufficient for calculation of royalties in SEP cases. The court held that while calculating FRAND royalties, the value accrued as a result of it being locked in as standard must be discounted while calculating FRAND royalties and that Georgia Pacific factors may not sufficient to calculate appropriate FRAND rates in cases of SEPs.

v) *Ericsson v D-Link*<sup>59</sup>

In this case D-Link was sued by Ericsson, as D-Link infringed the SEP owned by Ericsson relating to WiFi standards, and D-Link was found to be infringing the SEPs and damages of \$0.15 per device which have infringed the SEP was awarded.

On appeal, though the judgement relating to infringement was upheld, but the approach adopted to ascertain damages was set aside and remanded back to the district court. This decision had a significant impact on determining damages.

The appeals court held that following Georgia pacific standards will not lead to determining reasonable FRAND royalty rates in cases of SEPs and the court criticised the manner in which the 15 factors mentioned in the Georgia case even though some factors are irrelevant in cases of SEP are considered while determining FRAND rates and further went on to held that such an application of Georgia factors led to increase in the royalty rates, as those 15 factors does not account the incremental value accrued due to essentiality which occurs due to lock in of a patent as a SEP.

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<sup>58</sup> *CSIRO v Cisco*, 809 F. 3d 1295 (Fed. Cir. Dec. 3, 2015).

<sup>59</sup> *Ericsson v D- Link*, 773 F.3d 1201 (Fed. Cir. 2014).

The courts in US and EU have adopted the approach of hypothetical negotiations to determine the FRAND royalty rates in cases of infringement of SEPs and determining damages. One of the most debated aspects of this approach, is in fact the aspect of determining the time of these hypothetical negotiations, whether will the negotiations be ex-post or ex-ante. From the above analysis, it is evident that the courts in US and EU have adopted the ex-ante benchmark to determine the damages. Ex-ante hypothetical negotiations have been the touchstone for determining FRAND royalties and damages in cases of SEPs.

Though ex-ante approach to determine the FRAND royalties and damages has been the dominant approach, there have been divergence from this approach in some cases, wherein courts have also factored in ex-post considerations along with the ex-ante approach to determine FRAND royalties and damages. These ex-post considerations involve factoring in lock-in costs and valuation post adoption as a standard. One of the factors which has been responsible for this trend is the blind adoption of Georgia Pacific factors by the courts to determine the FRAND royalties, the problem with following all the 15 factors set out in the Georgia case while determining damages in cases of SEP is that, it includes ex-post consideration such as valuation of patents after lock-in as a standards and the cost of comparable licenses which were available at that time, this allows for ex-post consideration to kick in during determining the damages in cases of SEP infringement and therefore leading to increased FRAND royalty rates being determined by the courts.

Several scholars have criticised such an approach taken by courts and questions whether it achieves the purpose of determining FRAND rates of royalties in cases of SEPs.<sup>60</sup> Some scholars have also criticised the hypothetical negotiations approach taken by the courts stating that it results in unnecessary complications while determining FRAND rates of royalty.<sup>61</sup> They identify two problems – one is that it presupposes that infringement of SEP occurred as a result of failed negotiation and tends to solve that problem with retroactive negotiation of licensing of SEP, the second is that concept of hypothetical negotiation and negotiations which takes place

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<sup>60</sup> Jacroz JC & Chapman ML, 'The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog' (2013) 16 Stan Tech L. Rev. 769.

<sup>61</sup> Geradin (n 26).

in reality vary significantly and the hypothetical negotiation does not account in several factors which would have played significant role in negotiating in real world.

## **EVOLVING LANDSCAPE OF GRANTING INJUNCTIONS**

Injunctive relief and SEP litigation go hand in hand and SEP holders across jurisdiction have used this as strategy to their advantage to strong arm implementers to negotiate a one-sided licensing agreement or to charge higher royalties et cetera. The trend of SEP holders seeking injunctive reliefs started to recur frequently and many implementers were prejudiced by such acts of the SEP holder, then when the anti-trust concerns and impact on economic consideration issues came up before the courts, the approach of the courts changed and with FRAND licensing terms and other concerns in place, the courts began to verify whether seeking injunctive reliefs was a legitimate remedy available for the SEP holders. Different jurisdictions have evolved their own way to deal with the injunctive reliefs in SEP litigation and this section tries to trace the evolving framework of granting injunctive reliefs in the SEP litigation framework.

### EUROPEAN UNION

#### NETHERLANDS

i) *Philips Electronics v SK Kasetten*<sup>62</sup>

In this case it was held that SEP holder can approach the courts to exercise his remedy of seeking injunction to enforce his patent and mere existence of an obligation to license his SEP under FRAND terms of licensing does not prevent him from pursuing the remedies available under the law. In the present case SK Kasetten had never offered to license Philips SEPs and hence Philips had initiated the proceedings seeking injunctive relief.

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<sup>62</sup> *Philips v SK Kasetten*, Doc. no. 316533/HA ZA 08-2522 (Hague District Court).

The court in this case took a completely pro-holder view in this case, it further went on to hold that it was the obligation of the implementer to seek license in the first place and only if there was an unreasonable rejection by the holder, only then an implementer could pursue his remedies before the court, and in case if the implanter has failed to fulfil his part of the obligation of making an offer to license the SEP, then the SEP holder is free to pursue his legal remedies.

ii) *Sony Supply Chain Solutions (Europe) B.V. and LG Electronics, Inc.*<sup>63</sup>

This was a case relating to a Blu-ray technology standard which belonged to LGE and alleged that Sony had infringed their SEP by using it in their PlayStations without licensing it, LGE approached the court to seek injunction and seizure of goods and the court granted preliminary injunction and ordered for seizure of PS3s, which upon appeal was reversed considering fact that there were some sort of negotiations which had happened between the parties and the court further went on to hold that if LGE in future wanted to seek for injunctive reliefs they had first inform Sony in writing regarding the claim prior to approaching the courts. This case was settled out of court and patent suits were dropped pursuant to signing a cross-licensing deal.

The courts in Netherlands diverged from their approach in Philips case and were reluctant to grant in subsequent cases.

iii) *Samsung Electronics v Apple Inc.*<sup>64</sup>

This case involved an SEP relating to 3G technology and Apple was being sued by Samsung for infringing its SEPs and had approached the court seeking injunctive reliefs and the court examined the negotiation process and the demeanour of Samsung in the negotiations wherein it had initiated injunction proceedings before making a first offer and also it refused several counter offers made by Apple, the court went on to hold that Samsung had abused its rights and violated its obligation to license the SEP on FRAND licensing terms and rejected to grant injunction citing that it would put Samsung in a dominant position against Apple if injunction were to be granted.

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<sup>63</sup> *Sony Supply Chain Solutions (Europe) B.V. and LG Electronics, Inc.* Doc. no. 389067 / KG ZA 11-269 (Hague District Court).

<sup>64</sup> *Samsung Electronics v Apple Inc.*, Doc. no. 400367/HA ZA 11-2212 (Hague District Court).

Court in Netherlands do not answer the question of competition law issues in SEP litigation and they do not appreciate that anti-competition defences do exist in SEP litigation, but they have developed an approach wherein they consider “special circumstances” to deny granting injunctive reliefs to the SEP holder. These special circumstances generally include where there is a willing licensee, who has tried to negotiate with the SEP holder regarding licensing the SEP in question. The court in the Samsung case also left the question open whether filing suit for injunctive reliefs in those special circumstance as defined above amount to abuse of dominant position under Competition law.

#### FRANCE

- i) *Telefonaktiebolaget LM Ericsson v TCT Mobile Europe SAS and TCT Mobile International Ltd.*<sup>65</sup>

In this case TCT mobile was being sued by Ericsson for infringing three of their SEPs relating to 3G standards and they had sought for injunctive reliefs in a District Court. Here, the suit for injunction was filed by Ericsson was filed when still negotiations were taking place between the parties and agreement relating to geographic extent and other factors were finalised and the only disagreement was with respect to determining royalty rates.

Court here refused to grant injunctive reliefs in favour of Ericsson and held that in the event of granting injunction it would lead to Ericsson being placed in a dominant position and that it would affect the negotiation process wherein as a result of the imbalance of powers it would unduly favour one party and negotiating the license on FRAND terms would be difficult.

#### UNITED KINGDOM

In UK, the main objective of the law of injunctions is to ensure that by way of granting injunction it results in fair outcome among the parties and it is an equitable right, it is always left to the discretion of the judge to decide on a case-to-case basis. In cases of patent infringement in UK, the courts have tended to grant injunctions to the patent holders when prima facie patent infringement is shown.

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<sup>65</sup> *Telefonaktiebolaget LM Ericsson v TCT Mobile Europe SAS and TCT Mobile International Ltd*, No.12/14922 (Paris District Court).

i) *IPCom v Nokia*<sup>66</sup>

In this case the trend of granting injunctions in patent infringement cases changed, wherein the court decided not to grant injunction. Nokia was sued by IPCom for infringing their SEP and sought for restraining them from carrying on sales, the court denied it stating that it would be prejudicial to the defendant Nokia in this case if it were to be granted and instead suggested that damages can be awarded when the injury can be ascertained in terms of money. Also, in this case Nokia was a willing licensor but with certain caveats, even then the court found not fit to grant injunctions.

ii) Even in *Vringo v ZTE*<sup>67</sup>, the court clarified that remedy of injunctive reliefs in favour of SEP holder cannot be granted when there is a willing licensor and the mere challenge by the implementer on the validity of the patent in another proceeding does not make the implementer less willing/unwilling.

Below is the extract from *Vringo v ZTE* –

“There is what I will call a general idea (without expressing a view on whether it is right or wrong) that when a patent is an SEP, if a defendant is a willing licensee, then it may be that the patentee is not entitled to obtain an injunction against the defendant, whereas if the defendant was not a willing licensee, then the defendant may be subject to the risk of an injunction. [...] In my judgment, a defendant accused of patent infringement by a patentee who claims to have a standards essential patent is and must be entitled to say, I wish to know if this patent is valid or infringed or not before I take a license. Such a stance cannot fairly be described as unwillingness.”<sup>68</sup>

iii) *Unwired Planet International Ltd v Huawei Technologies and ors & ZTE v Conversant*<sup>69</sup>

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<sup>66</sup> *IPCom v Nokia*, 18 May 2012, [2012] EWHC 1446.

<sup>67</sup> *Vringo Infrastructure Inc. v ZTE (UK) Ltd.*, [2013] EWHC 1591.

<sup>68</sup> [2013] EWHC 1591.

<sup>69</sup> *Unwired Planet International Ltd. v Huawei Technologies Co, Samsung Electronics Co, Google and others*, [2015] EWHC 2097.

This decision was rendered by the UK Supreme Court and this relates jurisdiction of UK courts to grant injunctions relating to SEPs and deciding on FRAND terms for a global FRAND licenses.

In this case, Unwired Planet had acquired SEPs from Ericsson and these were licensed to Huawei till 2012 and upon expiry, Huawei did not renew these licenses which were now owned by Unwired Planet and was sued by Unwired planet, the judge determined FRAND royalties based on the previous agreement, but he made it applicable to worldwide. The trial court judge held that since the licensor and licensee were operating worldwide, FRAND license applicable worldwide should be entered into and determined FRAND rates on that basis and imposed injunction on Huawei failing to accept the FRAND license.

This was appealed before Court of Appeals stating that UK courts did not have jurisdiction to define FRAND terms for a worldwide license, wherein the appeal was rejected, thereafter it reached the UK Supreme Court, wherein it was held that Courts in UK had jurisdiction to grant injunctions to SEPs which were registered in UK and went on to hold that FRAND licenses are intended to have international effect and the policies of the SSOs also reflect the same, hence the courts have the jurisdiction to determine FRAND rates for worldwide licenses.

## GERMANY

### *i. Orange Book Standard Case*<sup>70</sup>

This case is one of the first case which dealt with SEP issues and its interface with competition law in Germany. This case involved SEPs relating to Compact Disks (CDs) and the implanter was a willing licensee in this case, the SEP holder denied granting license to the implanter on FRAND terms and thereafter approached the court seeking injunctions to restrain them from using the SEPs.

The court examined competition issues along while considering the injunction suit and held that when there is a willing licensee who is willing to license the

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<sup>70</sup> *Orange Book*, Case No. KZR 39/06 (German Federal Court of Justice).

SEP on FRAND terms and has made an unconditional offer to the SEP holder to license on FRAND terms, the SEP holder cannot approach the court seeking an injunction as it will amount to abuse of dominant position and it also breached the good faith.

The court held that competition concerns arise only if the implementer is a willing licensee who is acting in good faith and prescribed two criteria which have to be met by the implementer to claim abuse of dominant position and good faith, those are as follows –

- a) The implementer has to have made an offer to the SEP holder and that offer must not be unreasonable; it must be an unconditional offer and binding on both the parties. The offer must indicate the seriousness of the implementer and should not be a farce document. The offer must contain all the necessary requisite terms and conditions. An offer which indicates conclusion only if the court holds for infringement does not constitute an unconditional offer.
- b) The implementer has to act in good faith and if the implementer has already been using the SEP even before acceptance of the offer, then the SEP holder has to compulsorily anticipate the terms of a concluded license contract and act as if the license has already been accepted by the SEP holder.

The wide range of conditions which has been imposed on the implementer which has to be followed while making an offer has made the situation worse for the implementers, because this allows the courts to grant injunctions even on willing licensees unless if he has met the condition as mentioned in the case, which requires him to abide by the terms of license agreement and pay royalties to an escrow et cetera.

- ii) *Huawei Technologies Co. Ltd v. ZTE Corp., ZTE Deutschland GmbH*<sup>71</sup>  
This is a landmark case in the SEP litigation across jurisdiction, the decision was rendered by the European Court of Justice in 2015 which provides a detailed framework of negotiations between the implementer and the SEP holder.

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<sup>71</sup> *Huawei Technologies Co. Ltd v ZTE Corp. and ZTE Deutschland GmbH*, Case C-170/13 (CJEU).



This case was referred to the European Court of Justice by a German District Court, because German courts were taking divergent views while deciding cases of injunction in SEP context and when can injunctions be granted without violating the anti-trust laws in place in EU. There was a total of five questions which were referred to the ECJ.

The first was that whether the principle laid down the Orange Book Standard case have to be followed and whether the implementer can avoid injunction against it by only indicating its willingness to license the SEP on FRAND terms?

The second question was what attributes does a willing licensee has to possess and are there any specific ways in which the willing licensee has to have negotiated the licensee.

The third question was what all should be contained in the offer which the implementer makes to the SEP holder and are there any specific requirements.

The fourth question was that whether the implementer has to fulfil any pre-contractual obligations like paying royalties into an escrow account even before the conclusion of the licensee agreement et cetera.

The fifth question was whether the presumption of abuse of dominant position like in cases of injunctive reliefs be extended to other remedies available in cases of patent infringement like recalling of goods from the market, seizure of goods, rendering of accounts etc.

In essence, the case was referred to ECJ to determine whether the requirement imposed in the Orange Book Standards case were appropriate or not.

The court after examining the issues, evolved a framework which has to be followed by the SEP holder and the implementer in cases of SEP infringement, to determine whether injunctive reliefs can be granted without violating the competition law.

Firstly, the SEP holder has to intimate the implementer who has infringed the SEP, that a particular SEP has been infringed and the way in which it has been infringed.

Secondly, if the infringer is willing to license the SEP on FRAND terms, then the obligation is on the holder to give in writing a specific offer

containing the royalty which has to be paid and the rationale for charging that royalty and the offer must be compliant with the FRAND terms of licensing.

Thirdly, the implementer/the infringer has to respond to the offer made by the SEP holder in good faith and in a timely manner. Also, if it has any counter offers to make, it may do so and if such counteroffer is not accepted by the holder, then the infringer must be prepared to render its accounts to the holder indicating current and past use of SEP which is being litigated and also provide appropriate security for payment of royalties.

The court evolved this framework for negotiation keeping in mind interest of both the parties, that is the SEP holders interest in enforcing his rights in his IPR and his right to seek remedies before court and the implementers interest in having freedom to negotiate contract without any distorted power balances.

Though the ECJ did not bar SEP holder from seeking injunctive reliefs, it established a framework which has to be followed before pursuing their remedy under law of injunctions, otherwise it amounts to abuse of dominant position.

Thought the ECJ evolved a framework which has to be followed for enforcing injunctive reliefs, there was no specific criteria laid down to determine who is a willing licensee and what constitutes willingness and it has left it for the courts to determine on a case-to-case basis.

iii) *St. Lawrence Communication v. Vodafone*<sup>72</sup>

This case was post the Huawei decision and it improvised on the negotiation framework established in Huawei v ZTE case by incorporating FRAND terms into the framework. The offer made by the SEP holder and the counter offer made by the implementer both have to be in compliance with FRAND terms of licensing. Even if the initial offer is not a FRAND offer, the implementer is obligated to counter-offer in compliance with FRAND terms.

This case also shifts the burden on the implementer to ensure the counteroffer is FRAND compliant and the does not go into the fact that the

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<sup>72</sup> *St. Lawrence Communication v. Vodafone*, 4a O 73/14 (2016 Dusseldorf District Court).

SEP holders offer is FRAND compliant or not and this has been the trend in most of the SEP litigation in Germany.

iv) *Sisvel v Haier*<sup>73</sup>

This decision was rendered by the Federal Court of Germany and it was one of the first cases to be decided after the landmark Huawei v ZTE decision in the ECJ. This judgement tries to further clarify the obligations of the implementer and the SEP holder in the negotiation process as laid out in the Huawei decision.

The above-mentioned issue was rectified in this case, the Appellate court went on to confirm the negotiation framework which was established by the ECJ, but it also held that every step mentioned in the process must sequentially flow one after another, after each step is satisfied. In other words, it means that the SEP holder is mandated to make his offer FRAND compliant, in case he fails to do so, the implementer cannot be made obligated to make a FRAND offer, and injunctive reliefs cannot be granted to the SEP holder if the offer made by him is not FRAND compliant. Also, the SEP holder must make available all the requisite information regarding the SEP violated to ensure that the implementer can assess the notice of infringement.

The court also went on to clarify the obligations of the implementer and held that implementer must act in good faith and comply with the FRAND requirements. The very fact that in this case the implementer had not acted in good faith by delaying the negotiation process, made the court to hold the implementer was unwilling licensee. The implementer after receiving the notice of infringement has to indicate his unconditional willingness to accept the license on FRAND terms immediately after receiving such notice, and also the willingness should not be an abstract statement of willingness to negotiate or mere announcement, concrete efforts to indicate the genuineness and seriousness must be made to ensure FRAND compliance.

v) *NTT DoCoMo v HTC*<sup>74</sup>

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<sup>73</sup> *Sisvel v Haier*, 15 U 65/15 und 15 U 66/15 (2016 Dusseldorf District Court).

The German district in this case clarified the timeline within which the counter offer must be made. Following the ECJ decision in *Huawei v ZTE* case, one of the requirements in the negotiation framework was that the implementer must act in good faith and in a timely manner and in this case the counter offer made by the implementer after a period of 18 months since the initial offer, and as a result of which the court granted injunctive relief to the SEP holder.

#### UNITED STATES

i) *eBay Inc. v MercExchange, L.L.C.*<sup>75</sup>

In the US, the courts used to follow the practise of granting automatic injunctions in cases of patent infringement and this case put an end to such practise in cases of patent infringement. The judgement was rendered by the Supreme Court of the United States. This case laid down a framework to ensure that there is no patent hold-up. The SCOTUS evolved a four-factor test which had to be followed by the courts to determine whether injunctive reliefs have to be granted or not. The four-factor test was as follows – a) it had to be shown that the plaintiff has suffered an irreparable injury

b) that the monetary damages and other remedies available under law are inadequate to provide appropriate compensation

c) that injunctive reliefs are warranted and no other choice is left considering the balance of probabilities.

d) that there would be no harm to the public interest in case an injunction is granted.

ii) *Apple Inc. v Motorola Mobility Inc.*<sup>76</sup>

In this case it was opined that when an SEP holder has an obligation to license his SEP on FRAND terms, it indirectly means that the SEP holder

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<sup>74</sup> *NTT DoCoMo v HTC*, 7 O 66/15 (2016 Mannheim District Court).

<sup>75</sup> *eBay Inc. v MercExchange, L.L.C.*, 547 U.S. 388 (US Supreme Court 2006).

<sup>76</sup> *Apple, Inc. v Motorola Mobility, Inc.*, 869 F. Supp.2d 901 (U.S. District Court, N.D. Illinois 2012).

cannot pursue his remedies under the law of injunctions and can only seek for damages.

“I dont see how, given FRAND, I would be justified in enjoining Apple from infringing the 898 unless Apple refuses to pay a royalty that meets the FRAND requirement. By committing to license its patents on FRAND terms, Motorola committed to license the 898 to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate compensation for a license to use that patent”<sup>77</sup>

This opinion of the district court was appealed and the appellate court held that such a blanket ban on seeking injunctive reliefs cannot be imposed upon even in cases of SEP, considering various factors such as implementer not acting in good faith, failed negotiations et cetera and held that in cases where the implementer unilaterally refuses to license on FRAND rates or causes unnecessary delays in the negotiation process, then the SEP holder can seek for injunctive reliefs.

## INDIA

SEP litigation in India is still in a nascent stage and the judicial jurisprudence in this area is not as rich as European and US jurisdictions, one of the first decisions relating to SEPs and injunctive reliefs was rendered only in 2013.<sup>78</sup>

*i. Telefonaktiebolaget LM Ericsson v Micromax Informatics Ltd.*<sup>79</sup>

In 2013 Micromax was sued by Ericsson who alleged that Micromax had infringed 8 SEPs owned by it relating to 2G and 3G technologies and they approached the court seeking ex parte injunctions against Micromax and also claimed damages for infringing their patent which was calculated at Rs. 100 crores by Ericsson. Injunction was granted by the court as sought by Ericsson. This interim order was challenged before the division bench of Delhi High Court, and the appeal was dismissed.

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<sup>77</sup> *ibid.*

<sup>78</sup> Rohini Lakshane and Shweta Mohandas, ‘Joining the dots in India’s Big-Ticket Mobile Phone SEP Litigation’ (2018) CIS.

<sup>79</sup> *Telefonaktiebolaget LM Ericsson v Micromax*, C.S. (OS) 442/2013 (Delhi High Court).

In the meantime, Micromax entered into an interim arrangement with Ericsson, wherein it agreed to pay the royalties at the rates which was decided by Ericsson. This led to another proceeding before the Competition Commission of India.

ii) *Micromax Informatics Limited v Telefonaktiebolaget LM Ericsson*<sup>80</sup>

Micromax approached the CCI and alleged that the Ericsson was abusing its dominant position by imposing unreasonable and arbitrary royalty charges and that it was acting in a discriminatory manner.

The royalty rates which were being charged by the Ericsson was on the basis of net sales price of the product and claimed a certain percentage of it and the implementer Micromax alleged that this is against FRAND terms and instead royalty charges need to be calculated on the on the technology which was being used.

The CCI considering the facts and circumstance and the market power which was held by Ericsson, concluded that the royalty rates which was being charged by Ericsson amounts to clear abuse of dominant position and amounted to anti-competitive practises and a DG investigation was ordered to look into the competition issues entailing the Ericsson's SEP and its abusive activities.

This decision of the CCI led to another proceeding before the Delhi High Court, wherein Ericsson challenged the jurisdiction of CCI in a matter relating to infringement of patents.

iii) *Telefonaktiebolaget LM Ericsson v CCI*<sup>81</sup>

Ericsson's main contention was that CCI did not have jurisdiction to pass an order against it ordering an investigation since the subject matter under contention was a patent infringement and no competition related issues were in contention for the CCI to invoke its jurisdiction. Extensive submissions reliant on the Patents Act was made by Ericsson to show that only Patent Act would be applicable in cases of patent infringement and it had adequate remedies and mechanisms to deal with cases of patent infringements and dealing with abusive conduct of patent owner, hence invoking jurisdiction by the CCI was unwarranted and is not as per law.

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<sup>80</sup> *Micromax Informatics Limited v Telefonaktiebolaget LM Ericsson*, Case No. 50/2013 (CCI).

<sup>81</sup> *Telefonaktiebolaget LM Ericsson v CCI*, (2016) 232 DLT (CN) 1.

The Delhi High Court in its seminal verdict upheld the jurisdiction of CCI to deal with cases of anti-competitive activities by SEP holders and held that a harmonious interpretation of the Patents Act and the Competition Act must be made and read together, the remedies provided under both the legislations are not mutually exclusive to each other.

This verdict can be considered as a stepping stone for the SEP litigation scenario to move towards a FRAND regime in India.

Ericsson after filing the first case against Micromax went on to file multiple SEP infringement cases against many smartphone manufacturers like Xiaomi<sup>82</sup>, Gionee<sup>83</sup>, Intex etc and sought for injunctions against them and also damages for infringing their SEPs. In its case against Gionee, it claimed that 8 of its SEPs were infringed, the court after going through the cases ordered Gionee to pay interim royalties to Ericsson. In the Intex case, Ericsson sought for damages of 56 crores for infringement of the same 8 SEPs, even in this case, the court adopted the same royalty formula to calculate the royalties to be paid to Ericsson and direct Intex to pay them. In its case against Xiaomi, again the infringement of the same 8 SEPs was alleged and sought for ex parte injunctions against Xiaomi restraining them for carrying on sales, manufacturing and importing of their products. Single bench of the Delhi High Court granted the injunction as sought by Ericsson and did not go into any FRAND considerations were followed or not whatsoever, this order was appealed before a division bench, wherein the court went into the merits of the case and found that Xiaomi had obtained licenses from Qualcomm who had license with Ericsson, considering these facts and circumstance it was held that Xiaomi need not pay any royalties and ad interim injunction which was granted was also revoked.

In most of the cases which have been discussed in the Indian context, there were no final judgements/verdict rendered by courts, either those cases were solved out of court or they continued in the interim arrangement they had entered into. One of the very first case relating to SEP wherein a final judgement was rendered was in the case of Philips v Rajesh Bansal.

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<sup>82</sup> *Telefonaktiebolaget LM Ericsson v Xiaomi Technology* CS(OS) 3775/2014, High Court of Delhi.

<sup>83</sup> *Telefonaktiebolaget LM Ericsson v Gionee Communication Equipment Co. Ltd. and Anr.* CS(OS) 2010/2013, High Court of Delhi.

iv) *Koninklijke Philips Electronics N.V. vs. Rajesh Bansal and Ors*<sup>84</sup>

In this case, Philips had owned SEPs relating to encoders and decoders which were used in the DVD system, which was popular piece of tech in almost all household in India. The defendants in this case were manufacturing these DVD systems locally by assembling the parts which were imported from other countries, and decoder which were used was basically Philips SEP. The defendants did not have any clue about these SEPs and had not obtained any license with respect to the SEPs. Philips sued them for infringing their SEPs and sought for damages, the court held that since there was no licensing agreement, there SEPs were infringed and directed the defendants to pay royalties to Philips.

v) *Interdigital Technology Corporation v Xiaomi Corporation*<sup>85</sup>

This case is one of the latest cases relating to SEPs in India and it deals with anti-anti-suit injunction, this case arose as a result of parallel proceedings in Wuhan Court in China.

In the Wuhan Court, proceedings were initiated by Xiaomi and sought the court to determine royalty rates on FRAND basis for the licensing SEPs owned by Interdigital Corp relating to 3G and 4G technologies. Thereafter Interdigital initiated proceeding against Xiaomi in India before the Delhi High Court alleging infringement of their SEPs and sought for injunctions against Xiaomi.

Taking account into this fact, Wuhan Court ordered injunction against Interdigital from seeking injunctive reliefs from other courts, since the case was pending for consideration before it and subjected Interdigital to fines up to Rs. 1crore per day in case breach of its order. The rationale provided by the Wuhan Court was that the proceeding before Indian courts were initiated with an intention to hamper the proceeding before Wuhan court, and that it might lead to complications if both the court decided in opposite directions, hence the court found that it was appropriate to order an anti-suit injunction in the interests of both the parties.

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<sup>84</sup> *Koninklijke Philips Electronics N.V. vs. Rajesh Bansal And Ors. Philips* (2018) 251 DLT 602.

<sup>85</sup> *Interdigital Technology Corporation v Xiaomi Corporation*, CS (Comm) 295/2020 (Delhi High Court).



To counter this, Interdigital filed an anti-anti-suit injunction application before the Delhi High Court to restrain Xiaomi from enforcing the anti-suit injunction until completion of proceeding before the Delhi High Court.

The Delhi High court granted the anti-anti-suit injunction and restrained Xiaomi from enforcing the injunction ordered by Wuhan Court, the court came to the conclusion by stating that the comity of courts principle cannot be invoked when it goes against public policy considerations.

This judgement involves many issues which are problematic – firstly, it is restraining the party to not enforce a decision which was passed by a court of a foreign country; secondly, the court is not conversant of certain facts that Interdigital was being investigated in China for competition issue and also that the case before the Wuhan Court was filed before the proceedings were initiated in Delhi and also effectively, the prayer sought in both the petitions are to determine FRAND rates of royalty.

This case also continues the problematic trend of granting injunctions in favour of SEPs and Indian courts have been granting injunctions in favour of SEP holder, it has become a strategic decision and consideration for SEP holders to litigate in India, rather than other countries.

From examining the above discussions, one can clearly conclude that the SEP litigation on the aspect of grant of injunctions start to converge at some point of time to ensure that FRAND terms are followed and competition law is respected. We started discussing with the injunction regime in the EU jurisdiction, where the granting injunctions regime tended to be pro-SEP holders, the courts in the guise of protecting the patents had disregarded multitude of factors like competition issues, imbalance of negotiating powers et cetera. The courts thereafter started to change their approach in handling cases related to SEP infringement and especially in injunctions suits. The jurisprudence in this particular area of granting injunctions in SEP cases has evolved significantly in the EU and the US, compared to India. EU and US have evolved structured approaches in dealing with injunctive remedies and at the same time fulfilling FRAND commitments as well. On the other end of spectrum is the SEP litigations in India, where in the Indian courts have become a heavenly forum for the SEP holders, as the judicial decisions indicate a trend of the courts being pro-

SEP holders, wherein it has gone hard on the implementers by strictly trying to enforce patent law and protect the SEP holders, the rationale behind such approach may be genuinely to promote innovation and protect the innovators<sup>86</sup>, but such strict approach is counterproductive in cases of SEPs, as it leads to several complications as discussed in the previous sections. The Indian jurisprudence on this issue also lacks discussion on FRAND terms of licensing, except of couple of decision regarding the CCI, there has not even been a mention FRAND terms of licensing. The courts without going to the aspects of whether FRAND offers were made, or whether the implementer was a willing license or not, the court has granted injunctions in favour of the SEP holder and in most instance these injunctions were ex-parte injunctions, wherein the implementer was not given a chance to defend his case.<sup>87</sup> This has resulted in a problematic trend in India and this trend needs to break or else this problematic trend will loom over the future SEP litigations in the country.

#### **QUANTIFYING FRAND ROYALTIES**

This is one of the most important and inseparable component of SEP litigation across jurisdictions and the courts have played a major role in quantifying royalties for the SEP holders and determining damages. The most debated aspect in SEP litigation jurisprudence is the methodology adopted in quantifying royalty rates. This section tries to analyse the varied methodologies adopted by courts across jurisdiction to quantify FRAND royalties.

#### **INCREMENTAL VALUE**

One of the main objectives of FRAND terms is to limit the royalty rates charged for a patent only to the intrinsic value of the patent, in other words value of the technology in isolation from the additional value which it gets as a result of being locked in as a standard essential patent. This concept was termed as the incremental value of the patent by the courts in the US and calculation of royalties on this basis is one of the ways in which it was done by the courts in US.

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<sup>86</sup> Neha Chaudhari, 'Standard Essential Patents on Low-Cost Mobile Phones in India: A Case to Strengthen Competition Regulation?' (2015) NLS-SLR 41.

<sup>87</sup> Raghavi Vishwanath, 'Demystifying the Indian FRAND Regime: The Interplay of Competition and Intellectual Property' (2016) 21 JIPR 89.

In *Microsoft v Motorola*, it was held that during the ex-ante hypothetical negotiation, the value associated with the SEP due to its lock-in as a standard would not be calculated and but it would be calculated on the economic value which it adds to the implementer's product.<sup>88</sup>

In *Ericsson v D-Link*, it was held that to calculate royalty rates the difference between the added value due to standardisation and added value of the technology must be considered. The rationale behind such calculation is to disaggregate the value of standardization from the value of SEP. The calculation must be made as follows – firstly, the patented features and the unpatented features must be separated, secondly, the value which the patented feature contributes to the technology must be determined excluding the value it derives due to its adoption as a standard.<sup>89</sup>

Concerns with this mode of calculations arise when in multi-dimensional technologies, where incremental value rule cannot compensate the investment costs of the developer, and then it would be counterproductive for further innovations.<sup>90</sup> In cases where a technology uses many SEPs to function, the incremental value of single SEP in isolation to other would be zero, as it alone cannot function, therefore in such scenarios incremental value rule cannot be adopted to calculate FRAND royalties.

#### ENTIRE MARKET VALUE RULE

Entire Market Value Rule or EMVR, is used when the entire market value of a product is as a result of the SEP and this was used by the courts initially more often when they were calculating the royalty prices based on the price of the end product.

The courts with a caution to ensure that there are less decisions in which EMVR is used and extreme unfounded damages are awards, have defined the rule very narrowly.

In the case *Lucent v Gateway*<sup>91</sup>, it was alleged by Lucent that several apps belonging to Microsoft were using the patented feature owned by Lucent without its license and the sought for damages and royalty of \$561.9 million on the basis that Microsoft had sold 110 million units and had generated a revenue of \$8 billion, and that they were

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<sup>88</sup> *Microsoft Corp. v. Motorola, Inc.*, 854 F. Supp. 2d 993 (W.D. Wash. 2012).

<sup>89</sup> *Ericsson v D-Link*, 773 F.3d 1201 (Fed. Cir. 2014).

<sup>90</sup> Geradin (n 26).

<sup>91</sup> *Lucent Techs., Inc. v Gateway, Inc.*, 580 F. 3d 1301 (Fed. Cir. 2009).

seeking 8% of the total revenue. The application was rejected on the ground that there was no evidence to prove that the date picket feature of the patent was the only demand deriving feature of Microsoft products.

In *LaserDynamics v Quanta Computer*<sup>92</sup>, the court held that the EMVR can be adopted only in very few narrow circumstances and that it can be applied only if the entire demand for a particular product is attributable to a single patent. The court went on to explain another drawback in cases of product using multiple patents, if EMVR is applied then the implementer will be paying damages for the non-infringing patents as well. Therefore, the court held that EMVR can be applied only when the customer decision based on the existence of that particular patent or technology and it derives all the demand to the product and set a higher evidentiary standard for those who are claiming rates on EMVR basis.

In India, CCI in *Micromax v Ericsson*<sup>93</sup> case opined that the demand made by the Ericsson on a percentage basis of the total sales price would lead to excessive royalties and that there was no link to the price being charged and the SEP. The competition commission also invited the attention another drawback of EMVR that it might lead to discriminatory pricing, as it would lead to charging different prices for the same technology as the price of the product varies from one to another by giving example of GSM technology SEPs used in feature phones and smartphones.

The Delhi High court decision in the Ericsson cases, have disregarded the arguments against the EMVR and has awarded royalties on percentage basis of the net sales prices of the products without providing any rationale why it adopted the approach of EMVR.

#### SMALLEST SALEABLE PATENT PRACTICING UNIT

Smallest saleable patent practicing unit or SSPPU is a calculation principle evolved by the courts in the US, this principle involves calculation of the damages on the basis of the price of the smallest saleable patent, as EMVR results in exorbitant royalty rates and which further results in patent hold up. The objective is moving towards a realistic determination of the royalty rates.

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<sup>92</sup> *LaserDynamics, Inc. v Quanta Computer Inc.*, 694 F. 3d 51 at (Fed. Cir. 2012).

<sup>93</sup> *Micromax Informatics Limited v Telefonaktiebolaget LM Ericsson*, Case No. 50/2013 (CCI).

In *Ericsson v D-Link*, though the court did not determine royalty rates in terms of SSPPU, it went on define the SSPPU principle – “where the entire value of a machine as a marketable article is properly and legally attributable to the patented feature, the damages may be calculated by reference to that value. But where this is not the case, the royalty base must insist on a more realistic starting point for the royalty calculations by juries - often, the smallest saleable unit and, at times, even less.”<sup>94</sup>

In the *Cornell v Hewlett-Packard*<sup>95</sup> case, the court declined to apply EMVR in this case, the product was HP servers and workstations, the claimant requested to use HPs servers and workstations as the royalty base. The court rejected and found that the processor was the appropriate royalty base as the infringing technology was the major component in the processor. In this case, the SSPPU was the processor and damages were calculated with processor as the royalty base. The court applied 0.8% royalty on the price of the processors and effectively the royalty rates were reduced by 33% from the EMVR calculations.

There is no unified way in which the FRAND royalty rates are quantified across jurisdictions, there have been differences even in single jurisdiction on the basis used for quantification. The approaches which have been discussed above have their own advantages and drawbacks, in all the jurisdictions the discretion has been left with the court to adopt the approach which it deems fit, whether this favours in determining FRAND royalties or becomes counterproductive needs to be analysed with evidences.

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<sup>94</sup> *Ericsson v D- Link*, 773 F.3d 1201 (Fed. Cir. 2014).

<sup>95</sup> *Cornell University v Hewlett-Packard*, 609 F. Supp. 2d 279 (N.D.N.Y. 2009).

## **CHAPTER IV: LEARNINGS AND TAKEAWAYS FROM TRANSATLANTIC EXPERIENCE**

The global landscape of the SEP licensing and determination of FRAND rates have been shaped by the decisions of the courts and competition authority ruling across the world. These decisions guide the way in which economic considerations and policy consideration needs to be taken into account and thereafter determining the FRAND terms of licensing.

These decisions of the courts have not just affected the parties to the litigation, rather the effect and the ramifications of these decisions are manifold at sectoral levels and policy levels. It directly impacts innovation, implementation of standards, development of standards et cetera.

### **FRAND FRAMEWORK IN US AND EU**

The Courts in the US and EU have taken into account multitude of factors in SEP and FRAND adjudications to ensure that at a policy level, there has to be no hindrance to the industry in general. The factors include considerations regarding patent holdup or hold out, defining time of hypothetical negotiations, in determining FRAND royalties, setting out frameworks for negotiations of SEPs in real life, setting out frameworks for granting injunctions et cetera, these factors have a significant impact on the stakeholders i.e., the innovators and implementers along the value chain in making

certain decisions such as investment decisions, R&D decisions, developing standards and providing solutions to modern day problems et cetera.

FRAND is used by both the jurisdictions as strategy to promote innovation as well as regulate the SEP licensing landscape, this aim is not only keeping in mind the interests of the implementers and innovators, FRAND is used to derive public good as well by providing cutting edge technologies and solutions in the hands of the public at reasonable prices ensuring consumer welfare.

Enforcing FRAND in a manner which keeps balance among both the SEP holder and implementers have been the main focus in the EU and the US, to ensure that there is incentive for every person involved in the process. The courts have tended to develop a better understanding of the incentive structure of FRAND licensing with every decision being rendered, and not just patent hold-up and enforcing IPR being the main focus of the courts.

Establishing a common framework to determine FRAND royalties or enforce FRAND have provided great clarity in the context of SEP litigation in the US and EU. In the EU, the ECJ decision in the Huawei v ZTE provided a common framework to ensure FRAND compliance as well it aids the court in determining injunctive reliefs for the SEP holders.

## **LEARNINGS FOR INDIA**

### **DEFINING TIME – EX ANTE AND EX POST CONSIDERATIONS**

The decision rendered by the courts in India with respect to determining royalties in cases of SEPs have disregarded one of the primary aspects while determining FRAND royalties, i.e., defining the time of negotiations. This approach can be seen majorly in the decisions of the courts of the US, wherein a hypothetical negotiation framework is established to determine the FRAND royalties.

This concept of hypothetical negotiations which are ex ante to standardization aids the court to determine FRAND royalties, this creates a fiction that if the negotiations had taken place between the parties just before the patent was locked in as a standard, what would have been the licensing costs. The

rationale behind this is to exclude the additive value due to standardization, which effectively does not reflect the appropriate price of the patent.

The Delhi High Court in *Philips v Rajesh Bansal* and *Ericsson's SEP cases*, does not delve into such detailed approach to determine FRAND royalty rates. There is no set framework which the court used in determining the royalty rates in these cases and in majority of these cases, the court has ended up accepting the royalty rates which were demanded by the SEP holder as FRAND rates.

Its high time that the high courts distances itself from such unguided approaches to determine FRAND rates and instead adopt ex ante hypothetical negotiations concept as done by the courts in US and EU.

#### GRANTING INJUNCTIVE RELIEFS

The trend of granting injunctive reliefs in favour of SEP holders was prevalent in US and EU as well during the initial stages of SEP litigation in those jurisdictions and with time the approach of the courts changed with ever increasing relevance of competition law and FRAND terms of licensing.

The approach adopted by the Indian courts in granting injunctive relief is very problematic, from both implementer perspective and policy perspective.<sup>96</sup> The courts have granted ex-parte injunctions in favour of the SEP holders in majority of the SEP cases in India without delving into the facts and circumstance the case and completely disregarding FRAND considerations.

Even while granting injunctions in India, the courts are unguided without proper framework and reasoning while granting injunctions. The courts have not cared whether the implementer was a willing licensee or not, whether there were any efforts made by the SEP holder to negotiate with the implementer or not. This pro-SEP holder approach have several downstream implications at policy levels, such an approach may become disincentive for implementers in India; this will indeed lead to implementers entering into licensing agreements which are not FRAND and thereby leading to increase in prices of the end good and affecting consumer welfare as well.

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<sup>96</sup> Saumay Kapoor and Nanki Chopra, 'Standard Essential Patents, Injunctive Relief and India' (2017) 8 Indian J Intell Prop L 91



The court in India have to adopt an approach like in EU as laid by the ECJ in *Huawei v ZTE* to ensure that there are proper negotiations between the holder and the implementer and injunctions can be granted only when the implementer is not a willing licensee. Adopting such an approach, balances the power between parties; ensures FRAND commitments are met and competition law concerns are also taken care of.

#### QUANTIFYING FRAND ROYALTIES

There are multiple methods to quantify royalties in cases of SEP litigation like EMVR, SSPU, Incremental value rule et cetera. The courts across jurisdiction have used all the three above specified methods in calculating royalties, there is no one size fits all formula, but the courts have been wary of using the EMVR method as it may not lead to FRAND rates always and have described specific situation when EMVR must be adopted.

India in particular has only used the EMVR to determine royalties in SEP litigations, this has already discussed in the previous chapter is a problematic approach as it does not result in FRAND royalty. This rule can be used when the demand of the product is only derived due to the existence of that SEP, but clearly in the cases dealt by the Indian courts, this was not the case. Majority of the SEP litigation in India were with regard to communication related SEPs (2G, 3G and 4G standards) and that feature was not the only reason for which consumers were purchasing phones, hence EMVR should not have been applied by the Indian courts.

The main objective of the courts while determining royalty rates has to be to achieve FRAND rates of royalty, which would balance the interests of both the parties, but the Indian courts have adopted the pro-SEP holder approach in all the cases and giving no regard to the FRAND commitments.

Hence, the Indian courts in future cases, have to adopt a approach which is FRAND oriented and diverge from the practise of adopting EMVR method.

## **POLICY CONSIDERATIONS**

India does not have a concrete policy with respect to SDO/SSOs, SEPs or FRAND terms of licensing, this is one of the reasons why the courts have faulted multiple time while they were dealing with SEP cases, as they were dealing in a grey area.

The only effort made by the government towards creating a proper framework for SSOs and other related concerns was when the government published a discussion paper on SEP<sup>97</sup> and FRAND terms and called for comments on specific concerns and issues, it has been 5 years since this paper was published and there has been no signs of any framework put in place to deal with the issues relating to SEPs.

Going forward there are some key issues and policy considerations which needs to be kept in mind –

- i) Considering insertion of a separate chapter on SEPs in the Patents Act.
- ii) Even though the jurisdiction of CCI to investigate cases relating to SEPs has been clarified through a case law, an expression provision relating to CCI's jurisdictions has to be inserted.
- iii) IPR policies of SDOs need to be upgraded and defining a negotiation framework on the lines of Huawei v ZTE needs to be included.
- iv) There needs to be a clear definition of what FRAND is, and a set of guidelines indicating what ideally a FRAND practise would entail will provide guiding light to the SEP holders, implementers as well as courts.
- v) Also, a definition of what is not FRAND needs to be inserted to provide more clarity.

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<sup>97</sup> DIPP, 'Discussion Paper on Standard Essential Patents and Their Availability on FRAND Terms' Government of India (2016).

## **CONCLUSION**

The researcher has systematically analysed SEP litigation context in the light of competition and FRAND issues across three jurisdictions i.e., EU, US and India by way of studying the decision rendered by the courts in these jurisdictions. An analysis of these cases and the approaches adopted by these courts reveal that there are several gaps in the approach adopted by the Indian courts while dealing with cases relating to SEPs, in specific while granting injunctions and determining FRAND royalties. The courts adopting a pro-SEP holder approach in these cases as opposed to doing FRAND oriented approach alludes to the fact that the courts are operating without a proper framework or guidelines while deciding cases relating to SEPs. This approach undermines the sanctity of FRAND oriented analysis and disincentivizes the implementers in dealing with SEPs in India and might hinder innovation at a longer run.

In light of these comparative analysis of cases in three jurisdictions, the researcher has identified the aspects which need immediate attention which have plagued the SEP litigation landscape in India. The researcher has extensively dealt with the approaches adopted by the EU and US courts and has suggested that adopting such approaches would cause a positive shift in the SEP litigation landscape.

Based on the findings and the observations made through the comparative analysis, the researcher has recommended certain policy recommendations in the last chapter of the dissertation to put in place a robust framework which would ideally guide the SEP litigation in the future.

This dissertation in its introduction began with a hypothesis ‘The present legal framework in India governing Standard Essential Patents is inadequate to address the problems which arise due to opportunistic conduct by the SEP holders.’

The comparative case study analysis has helped the researcher to prove the hypothesis, as it revealed the infirmities in the approach taken by the Indian courts, and that there needs to be a shift in the approach adopted and establish a proper framework to deal with SEP cases. Hence it is proved that the present legal framework in India governing Standard Essential Patents is inadequate to address the problems which arise due to opportunistic conduct by the SEP holders.

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