

# Chapter 10

## Regulating Standard Essential Patents in Implementer-Oriented Countries: Insights from India and Japan



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### 1 Introduction

Growing diffusion of internationally standardized digital products dramatically has changed the global manufacturing industry. Today, very few firms are able to gain a significant market share or earn from patent royalties. To illustrate, in the smartphone industry, Samsung, Apple, and Huawei dominate 40% of global sales,<sup>1</sup> and Qualcomm makes a billion dollar only from patent licensing. A technology standard is one of the drivers of the global market creation. In the case of smartphones, wireless telecommunication standards play a key role. However, standards themselves do not determine the market power of the individual firms. Rather, it is the strategic use of Standard Essential Patents (SEPs) that affects the competitiveness of firms.

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<sup>1</sup>'Smartphone Vendor Market Share' (*IDC*, 2017) Q1 <<https://www.idc.com/promo/smartphone-market-share/vendor>> accessed 12 May 2018.

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As widely reported, this decade has experienced many legal disputes over SEPs. Courts, antitrust bodies, and government agencies as well as Standard Setting Organizations (SSOs), have discussed in length about issues of license refusals, reasonable royalty rates, and injunctive reliefs on infringements of the license of the SEPs.<sup>2</sup> Major policy actions have been taken in Europe and the United States (US). Antitrust bodies, like DG competition and Federal Trade Commission (FTC), have actively published various reports on SEP issues and have implemented several regulations.

Approaching from a policy perspective, the drafters should not merely extend their regulations to the rest of the world without understanding the specificities of our setting. There is a significant difference in the market realities. Initially, Europe, Japan, and the US had major SEP holders, especially in wireless communication standards but now, the rapid emergence of Chinese and Korean SEP holders has resulted in a staggering decline in the numbers of SEPs owned by the Japanese firms. In contrast with the increasing impact of Chinese companies, India, one of the largest emerging market, has seen very few SEP holders. Such differences may affect the policy decisions on regulation of SEPs.

This chapter discusses the SEP regulation in implementer-oriented countries, by comparing the recent policy change in India and Japan. In past five years, both these two countries have taken serious measures to introduce a series of regulations on SEPs. Their experiences provide various implications for public policies concerning the SEP issues.

Before entering into a specific discussion, it is important to clarify the general background of SEP issues, especially in the smart phone market. Smart phones are categorized upon the basis of standards that are required to classify a smartphone as 2G, 3G or 4G. These standards are set by the SSOs, which are important institutions that set out various technical standards in the field of technology. These standards are to be adhered by all the companies that are members of these SSOs. SSOs have been playing a major role in bringing a harmonization amongst the different market players, by making them voluntarily participate in maintenance of these standards.

SSOs play a major role in making available the SEPs to all the new entrants at fair, reasonable, and non-discriminatory (FRAND) rates. They prevent the SEP holders from abusing their dominating positions by ensuring that they trade their licenses only on FRAND terms. As the FRAND commitment does not specify any specific royalty rates, it forms a subject of dispute between various SEP holders and implementers. Nevertheless, SSOs have not yet touched royalty issues since any SSOs' actions requesting specific royalties potentially constitute a buyers' cartel.

As an inevitable result, national courts and competition law authorities have ruled on this issue. However, their decisions are not uniform. In India, for example, both the courts and the Competition Commission of India (CCI), a competition

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<sup>2</sup>Ashish Bharadwaj, Indranath Gupta and Sunita Tripathy, 'Introduction to the JGLR special issue on standardization, patents and competition issues: global developments and perspectives' (2017) 8(2) Jindal Global Law Review 117.

regulatory authority, have taken completely different approaches. While the CCI alludes to Smallest Saleable Patent Practicing Unit (SSPPU) as an appropriate base for royalty calculations, the Delhi High Court has relied on the end market price of the device. In Japan, only a single case has been decided on a reasonable royalty rate by multiplying the end market price of the device, contributions of the focal standard, and contributions of litigated patents.

Other than reasonable royalties, there are several legal issues over SEPs. Patent hold-ups, patent hold-outs, aggregated royalties, and an injunctive relief for FRAND committed SEPs are some of them. In the next two parts, the authors review case laws over SEPs in both India and Japan.

## 2 Indian Cases and Their Background

### 2.1 Overview of the SEP Cases in India

#### 2.1.1 Global SEP Owners v Local SEP Implementers

Beginning of SEP litigation in India was marked by the case of *Philips v Bhagirathi*.<sup>3</sup> For the first time, Delhi High Court used interim measures as a remedy and directed the defendant to deposit ₹ 45 per DVD player. Not a long time has passed since smartphone litigation has started in India particularly, Ericsson has filed a number of infringement suits against the Indian manufacturers.<sup>4</sup> In *Ericsson v Kingtech*,<sup>5</sup> Ericsson had filed an application before the Commissioner of Customs, complaining against the goods imported by Kingtech. It was reported that the said goods infringed several of the SEPs owned by Ericsson. As a result, the commissioner detained those goods. Aggrieved by these restrictions, Kingtech approached the Delhi High Court, which decided against Ericsson on two grounds: (i) the commissioner in this case did not have the authority to make such determinations and (ii) the due procedure was not followed by Ericsson. Consequently, Ericsson filed for an appeal against this order and got a decision in its favour. It was decided that a fresh order be issued by the commissioner recording an adequate reason to believe that Kingtech's goods infringed the patent rights owned by Ericsson. Later, the High Court passed an order restraining Kingtech from importing any goods that could infringe Ericsson's patent rights.

Interestingly, there are many cases between Ericsson and various other market players concerning the same issue of SEP infringements. It is important to see how

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<sup>3</sup>*Koninklijke Phillips N.V v Bhagirathi Electronis & Ors.* (2017) Delhi High Court, CS (OS) 1082/2009.

<sup>4</sup>Ashish Bharadwaj, 'A note on the neglected issue of reverse patent hold-up' (2018) 13 (7) *Journal of Intellectual Property Law & Practice* <<https://doi.org/10.1093/jiplp/jpx224>> accessed 3 May 2018.

<sup>5</sup>*Telefonaktiebolaget LM Ericsson (PUBL) & Ors. v Kingtech Electronics (India) & Ors.* (2016) Delhi High Court, CS (COMM) 239/2016.

the Indian jurisprudence has evolved over time, attempting to reconcile the market realities with policy discourse. Following the *Kingtech* case, Ericsson filed another case against Micromax Informatics Limited claiming an infringement of eight of its SEPs including 3G, AMR and Edge technologies. The High Court of Delhi passed an interim relief in its favor directing Micromax to pay adequate royalties.<sup>6</sup> Post this; Micromax approached the CCI, complaining against the abusive use of power by Ericsson. The CCI challenged the said order in the High Court, which decided that while deciding this case the CCI has overstepped its authority as defined under the Competition Act. It prevented the CCI from passing any final order on this matter until the court proceedings were completed and an interim royalty was fixed that was to be paid during the pendency of the suit. Meanwhile, Ericsson made several complaints of non-compliance by Micromax. In 2016, the High Court of Delhi finally decided favorably on the competence of CCI to conduct investigation in this case. This highlights an intersection between the The Competition Act 2002 and Intellectual Property (IP) provisions. Courts have suggested a harmonious reading of both the Acts as they provide for different recourse. IP Act aims exclusively at protecting the individual rights, where as, on the other hand, the Competition Act is set up to regulate the market so as to introduce a fair play mechanism.<sup>7</sup> Recently, on 5 February 2018, Delhi High Court passed an order stating that Ericsson and Micromax have entered into a Global Patent License Agreement on 26 January 2017. Both the parties have agreed to withdraw all their pending disputes. Court also held that the amounts agreed should be released as decided by the parties.<sup>8</sup> In 2016, Ericsson also sued Gionee,<sup>9</sup> a Chinese vendor over the infringement of the same eight SEPs as in *Micromax*. Hereby an interim royalty was fixed by the Delhi High Court, calculated on the basis of the royalty rates awarded in the case of *Micromax*.

In a similar case of *Ericsson v Intex*,<sup>10</sup> a complaint was filed against Ericsson for abusing its dominant position to the deterrence of other players in the market. It was argued that the licensing terms proposed by Ericsson were discriminatory and unreasonable. Intex claimed that the non-disclosure agreement as required by Ericsson constituted undue restraints. It also prevented Intex from evaluating its licensing terms as opposed to any other company dealing with Ericsson for the

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<sup>6</sup>*Micromax Informatics Limited v Telefonaktiebolaget LM Ericsson (PUBL) & Ors.* (2016) Delhi High Court, FAO(OS) 75/2016.

<sup>7</sup>Sahithya, 'Ericsson v Micromax—A Kick-Start to SEP-FRAND Antitrust Jurisprudence in India' (*Kluwer Competition Law Blog*, 13 July 2016) <<http://competitionlawblog.kluwercompetitionlaw.com/2016/07/13/ericsson-v-micromax-a-kick-start-to-the-sep-frand-antitrust-jurisprudence-in-india/>> accessed 4 May 2018.

<sup>8</sup>*Telefonaktiebolaget LM Ericsson (PUBL) v Mercury Electronics & Anr.* (2017) Delhi High Court, CS (COMM) No. 155/2017.

<sup>9</sup>*Telefonaktiebolaget LM Ericsson (PUBL) and Ors. v Gionee Communication Equipment Co. Ltd & Anr.* (2016) Delhi High Court, CS(COMM) No. 1533/2016.

<sup>10</sup>*Telefonaktiebolaget LM Ericsson (PUBL) and Ors. v Intex Technologies(India) Ltd* (2014) Delhi High Court, CS(OS) No. 1024/2014.

same license. On the aforementioned basis, the CCI decided to investigate the matter against Ericsson. It was convinced about a prima facie case of abuse of dominance by Ericsson. This decision was then appealed in the High Court of Delhi contending the jurisdiction of the CCI on this matter. Ericsson argued that any issue regarding a claim for royalty would fall exclusively within the scope of Patents Act 1970. Following from the judgement of Micromax, the court decided that nothing in the IP Act ousts the jurisdiction of the CCI and hence both the acts have parallel application. However, while deciding on the issue of patent infringement by Intex, the court decided in the favour of Ericsson and ordered that royalties be paid by Intex.

In another case of *Ericsson v Xiaomi*,<sup>11</sup> an infringement claim was filed against Xiaomi for using various SEPs owned by Ericsson without acquiring a license for the same. As a result, an interim injunction was imposed on Xiaomi for further selling its products which infringed the said SEPs. Xiaomi appealed this order and got a decision in its favour. On 22 April 2016, while deciding this case Delhi High Court found out that Xiaomi already had a license from Qualcomm, which in turn had a license with Ericsson. Hence, a decision was passed in the favour of Xiaomi.

Recently, Ericsson filed a case against Lava claiming an infringement of the eight SEPs. Rejecting the defence presented by Lava, the Delhi High Court decided in favour of Ericsson.<sup>12</sup> It was recorded that Ericsson had produced a prima facie case of the essentiality of its patent and was willing to negotiate with Lava on FRAND terms. On enquiry, it was found that Lava itself was responsible for delaying an amicable contract.

In another case, Best IT World (India) Private Limited (iBall) brought a complaint against Ericsson before the CCI. It was alleged that through its exorbitant royalty rates and inflexible non-disclosure agreement, Ericsson was attempting to abuse its dominant position in the market.<sup>13</sup> On perusal of the facts and evidence, the Commission decided that Ericsson was not complying with its FRAND obligations and was in contravention with Section 4 of the Competition Act.<sup>14</sup> It was found that the royalty rates demanded by Ericsson was not based on an objective evaluation of the functionality of their product but on the final price of the product on which the patented product is used. The case was finally settled outside the court.

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<sup>11</sup>*Xiaomi Technology and Anr. v Telefonaktiebolaget LM Ericsson (PUBL) and Ors.* (2016) Delhi High Court, FAO(OS), 2016.

<sup>12</sup>*Lava International Limited v Telefonaktiebolaget LM Ericsson (PUBL)* (2016) Delhi High Court, FAO(OS) (COMM) 45/2016.

<sup>13</sup>*Best IT World(India) Private Ltd v Telefonaktiebolaget LM Ericsson* (2015) Competition Commission of India, Case No. 4 of 015, Order dated 12 May 2015.

<sup>14</sup>The Competition Act 2002, s 4.

## 2.1.2 Litigations from Indian SEP Holders

Apart from Ericsson, there are several other players who have managed to set their foot in the Indian IP market and have added substantially to the understanding of SEP litigation herein. In 2014, Vringo Infrastructure Incorporation filed a patent infringement suit against ZTE and its Indian subsidiaries alleging infringement of their patent titled ‘a method and a device for making a handover decision in a mobile communication system’.<sup>15</sup> Similar suits were filed by Vringo against ZTE in various other jurisdictions. Initially, the Delhi High Court granted an ad interim ex parte injunction on the manufacture, import, sale, use, or advertisement of ZTE’s infringing products. However, ZTE challenged the injunction and received an order in its favour. The court agreed with ZTE that Vringo was unable to make a prima facie case and that despite being aware of the infringement it did not take any action against ZTE for a long time. The court decided that the balance of convenience fell in favour of ZTE and that no irreparable harm was caused to the plaintiff. Hence, the Injunction granted to Vringo was vacated. However, conditions of bank guarantees were levied on ZTE.<sup>16</sup> The matter was finally resolved outside of court when ZTE paid a sum of \$21.5 million to Vringo in order to acquire a non-exclusive right over its SEP portfolio.

In another case, Vringo sued AsusTek Computer Inc. and one of its distributors for infringement of a non-SEP, entitled ‘Method and system for providing wireless communication using a context for message compression’.<sup>17</sup> In its response, Asus claimed that the technology it was using was licensed to it by Google. Later, Google requested for attachment as a party to the suit. However, the case was withdrawn in late 2016, as the parties decided to reach a settlement outside of court.

In 2016, Dolby filed a suit against two major Chinese companies namely, Oppo<sup>18</sup> and Vivo.<sup>19</sup> Dolby claimed that both these companies infringed its patent rights by using its audio technologies without having acquired a license for the same. As per the order passed by the Delhi High Court, both the companies were directed to pay the arrears to Dolby at a royalty rate of ₹ 34 per handset. In return,

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<sup>15</sup>*Vringo Infrastructure Inc, & Anr. v ZTE Corporation & Ors.* (2014) Delhi High Court, FAO(OS) 369/2014.

<sup>16</sup>*ibid.*

<sup>17</sup>*Vringo Infrastructure Inc, & Anr. v ZTE Corporation & Ors.* (2014) Delhi High Court, CS(OS) 1050/2014.

<sup>18</sup>*Dolby International AB & Anr. v GDN Enterprises Private Limited & Ors.* (2016) Delhi High Court, CS(COMM) 1425/2016.

<sup>19</sup>*ibid.*

they were allowed to continue selling and manufacturing. Meanwhile, parties decided to refer to mediation for setting up of further licensing terms of their contract.<sup>20</sup>

### 2.1.3 Discussions on Case Laws

The aforementioned case laws highlight the constantly evolving SEP jurisprudence in India. While many new players are entering the domestic market, it is important to clarify the Indian legal position on some relevant issues. As seen above, the Delhi High Court and CCI have often taken different positions on various issues. They gain their jurisdiction from two different statutes namely, The Patent Act 1970 and The Competition Act 2002. Both the institutions have different objectives which in turn leads to completely different outcomes. CCI uses the approach of Smallest Saleable Patent Practicing Component (SSPPC) while the Delhi High Court has relied upon the net price of the Downstream Product and also resorting to the comparison of the licenses.

It is difficult to set a standard for deciding the interim royalty rates. However, it is important that courts also consider necessities of the domestic market in order to come up with effective solutions to these disputes. Most of the Indian litigants are licensees and not the patent holders. If an interim injunction is provided every time a complaint is filed, it will keep the prices of the products high and will act as a deterrent for the consumers.<sup>21</sup>

## 2.2 Adjudication Process/Legal Framework in India

There are five key SSOs in India namely, the Telecom Standard Development Society of India (TSDSI), Telecommunication Engineering Centre (TEC), Bureau of Indian Standards (BIS), The Global ICT Standardization Forum for India (GISFI) and the Development Organization of Standards for Telecommunications in India (DOSTI). TSDSI is public-private partnership entity run by participation of all the stakeholders together, the government, service providers, manufacturer, researchers and vendors. It evaluates and works on customised standardised solutions for the Indian telecom market.<sup>22</sup> TEC unlike TSDSI, is a completely

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<sup>20</sup>Anjana, 'Patent Infringement Suit by Dolby against Oppo and Vivo' (*Khurana & Khurana*, 27 December 2016). <[http://www.khuranaandkhurana.com/2016/12/27/patent-infringement-suit-by-dolby-against-oppo-and-vivo/?utm\\_source=mondaq&utm\\_medium=syndication&utm\\_campaign=view-original](http://www.khuranaandkhurana.com/2016/12/27/patent-infringement-suit-by-dolby-against-oppo-and-vivo/?utm_source=mondaq&utm_medium=syndication&utm_campaign=view-original)> accessed 18 February 2018.

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

<sup>22</sup>Telecom Standard Development Society of India <<http://www.tdsi.org/>> accessed 21 February 2018.

government based organisation and develops standards for the telecom equipment and services. It also coordinates with the other SSO worldwide and participates in the global standardisation.<sup>23</sup> BIS on the other hand, is the National Standard Body of India established under the BIS Act 1986. It operates various industries, each through a division council. Currently, it works with 14 Division Councils and over 650 Technical Committees that have so far developed over 19,000 Indian Standards.<sup>24</sup> GISIF is another organisation that seeks to ensure a coherent standardisation regime for information and communications technology (ICT) sector. Its participants include domestic and foreign firms, policy makers, academicians and regulators.<sup>25</sup> DOSTI is a private SSO working on the development of standards. Its members include market players within India and outside. All of these institutions promote negotiations based on FRAND terms.

In case of non-compliance, parties have an option of reaching out to regulatory bodies. In India, there are two main regulatory bodies, the Intellectual Property Appellate Board (IPAB) and the CCI. The IPAB exercises its jurisdiction over matters pertaining to Trademarks, Patents, Geographical Indications and Copyright.<sup>26</sup> Section 77 of the Patents Act 1970 empowers the controller with certain powers of a Civil Court.<sup>27</sup> IPAB was formed for speedy disposal of appeals and applications, for the rectification of registered trademarks and the decisions passed by the Controller, which then lay before the High Courts.<sup>28</sup> Injunctions are granted if the plaintiff can prove a prima facie case of infringement, a balance of convenience in its favour and an irreparable loss that it would incur in case the injunction is not granted.<sup>29</sup>

Competition Commission on the other hand, stems from the antitrust legislation aimed at ensuring accessibility of goods to the wider consumer base and maintaining a healthy competition in the market in order to regulate the industry. Both the institutions have a parallel jurisdiction. The aforementioned Section on the Indian case laws is indicative of the different approaches adopted by the two institutions for similar issues. While the CCI has taken a stringent view on anti-domination policies, the High Court has made attempts to balance the antitrust concerns with the market realities. This tussle between the two institutions points towards the inconsistency in the Indian position.<sup>30</sup> It is important to protect the domestic Non-SEP holding companies and the foreign portfolio holders.

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<sup>23</sup>Telecommunication Engineering Centre <<http://www.tec.gov.in/>> accessed 18 February 2018.

<sup>24</sup>Bureau of India Standards <<http://www.bis.gov.in/>> accessed 21 February 2018.

<sup>25</sup>The Global ICT Standardization Forum for India (GISFI) <<http://www.gisfi.org/>> accessed 21 February 2018.

<sup>26</sup>Intellectual Property Appellate Board <<https://ipabindia.org/Jurisdiction.aspx>> accessed 21 February 2018.

<sup>27</sup>The Patent Act 1970, s 77.

<sup>28</sup>GISFI (n 25).

<sup>29</sup>Code of Civil Procedure 1908, Order 39 rule 1.

<sup>30</sup>J. Gregory Sidak, 'FRAND in India: The Delhi High Court's emerging jurisprudence on royalties for Standard Essential patents' (2015) 10 *Journal of Intellectual Property Law & Practice* 609.



Time is of key importance in any Intellectual Property Right (IPR) dispute and hence new developments have been made in the judicial system to accommodate such needs. The Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts Act 2015 (CC Act) has been enacted by the Indian Parliament to hear commercial disputes, including IPR disputes related to patents.<sup>31</sup> It provides with strict time limits and involvement of expertise in the field of commercial law. However, it is important to note that the requirement of expertise is limited to the knowledge of commercial law with no specific experience in IP or any other concerned issues.

## 2.3 *Recent Policy Developments in India*

### 2.3.1 **DIPP Discussion Paper on SEPs (2016)**

On 1 March 2016, the Department of Industrial Policy and Promotion (DIPP) came up with its Discussion paper on SEPs and their availability on FRAND terms, with an objective of inviting views and suggestions from various stakeholders in order to develop a suitable policy framework to define the obligations of SEP holders and their licensees.<sup>32</sup> It undertakes an in-depth analysis of the approach taken by various other jurisdictions in order to understand the issues that lie before the Indian system. They invite responses on various issues, namely:

- (i) The need for additional legislation apart from the existing Patent Act 1970 and the antitrust legislation; (ii) the requirement of an IPR policy to be used by the SSOs for developing standards for telecommunication sector and the other sectors in which SEPs are used; (iii) the need for prescribing guidelines for the working of these SSOs; (iv) the issue of prescribing a guideline for deciding the royalty rates with respect to SEPs by the Government of India or any other relevant authority; (v) the basis on which the aforementioned royalty rates need to be decided; (vi) the need to cap the total payment of royalty in case of particular product and the authority which can make such decisions; (vii) the use of non-disclosure agreement to misuse the dominant position in the market; (viii) the appropriate mode and remedy for settlement of disputes in matters related to SEPs, especially while deciding FRAND terms, focusing specifically on the remedy of injunction; (ix) methods that can be taken to make the practice of cross-licensing effective so as to ensure that the royalty rates are fair and reasonable; (x) steps that could be taken to ensure a transparent practice of patent pooling; (xi) tools to be used to determine whether a patent declared as SEP is actually an essential patent, particularly when bouquets of patents are used in one device; (xii) a need of setting up of an independent expert body to determine FRAND terms for SEPs and devising a methodology for such purpose; (xiii) a process to

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<sup>31</sup>Shamnad Basheer, 'Specialised Courts (III): Commercialising the High Courts?' (*SpicyIP*, 17 February 2016) <<https://spicyip.com/2016/02/specialised-courts-iii-commercialising-the-high-courts.html>> accessed 12 May 2018.

<sup>32</sup>Department of Industrial Policy and Promotion (DIPP), Government of India, 'Discussion Paper on Standard Essential Patent and their availability on FRAND terms' (2016) 3.

declassify such an SEP, in case where certain standards can be met without infringing any particular SEP, for instance by use of some alternative technology or because the patent is no longer in force.<sup>33</sup>

Several institutions have submitted their comments on the aforementioned issue put forth by the DIPP. In the response submitted by George Mason University School of Law, they have highlighted some of the key problems with the Indian way of understanding the issue of SEP litigation.<sup>34</sup> Most of the responses make an argument against the need of introducing a new legislation in order to deal with FRAND related problems. Antitrust laws as they exist today provide enough space for a case-to-case solution based on a uniform methodology grounded in economic analysis of the fact situation.<sup>35</sup> Furthermore, it is argued that imperfection in the market should not be a substantial reason for regulation unless the said regulation is capable of increasing the efficiency substantially.<sup>36</sup>

On the issue of IPR policy, while most of the institutes insist on a structural change of the system to enhance transparency and efficiency of the licensing mechanism, they also propose against the idea of providing a particular set of guidelines for the working of the SSO. The reason being that it will prevent the SSO from approaching the cases as per their specific needs.<sup>37</sup> Some of the key issues that SSOs need to consider include the essentiality of an SEP, disclosure rules requiring a timely provision of the information about an SEP to the SSO, need of interference by the SSOs to prevent the abuse of FRAND allowances by the licensees and promotion of negotiation as a tool to resolve the disputes over royalty.<sup>38</sup>

On the question of royalty rates, most of the institutions emphasize on the importance of party autonomy in deciding the issues. They argue that capping the royalty rate will meddle with the market forces and discourage innovation and business acumen. Many institutions have laid down their own standards for deciding the basis on which royalty rates in SEPs should be decided.<sup>39</sup> In cases where numerous SEPs are used in one particular device, it is suggested that certain factors be considered. For instance, it is important to differentiate between the cumulative value of the SEPs included in a given standard and the aggregate royalty burden that includes at least some supra-FRAND rates.<sup>40</sup> Perhaps the risk of hold-ups can be reduced by proper apportionment, that is, if the multi-component products are priced according to the value of each patent's contribution to the end

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<sup>33</sup>ibid 26–27.

<sup>34</sup>George Mason University School of Law, 'Comment on the Discussion Paper on Standard Essential Patents' (2016).

<sup>35</sup>Jindal Initiative on Research in IP and Competition, 'Response to the questions raised in the Discussion Papers released by DIPP' (2016).

<sup>36</sup>DIPP (n 32).

<sup>37</sup>ibid.

<sup>38</sup>George Mason (n 34).

<sup>39</sup>DIPP (n 32).

<sup>40</sup>ibid.

product. Hence, the entire market value rule (EMVR) would be the preferred measure to determine royalties as it would account for the functional value of an SEP and it would also take into account the value added by the portfolio to an end device. It is also important to pay attention on the number of SEP holders instead of the number of SEPs. If most of the SEPs are held by one player, then the risk of monopoly increases. Even if the SEPs are held by different players, they might be more inclined to cooperate with each other, together they have an interest in standardisation of their product.

The next issue that they deal with is the use of non-disclosure agreement by the patent holders to assert their dominating position in the market. Delhi High Court's decision in *Ericsson v Intex*,<sup>41</sup> favours NDA as a legitimate constraint and considers it to be important to maintain the confidentiality regarding some sensitive issues. It is important to strike a balance between the desire for transparency and the fact that patent licenses often include the confidential business information of both the licensor and licensee.<sup>42</sup> For the similar reason, they also argue against the transparency of patent pooling and cross-licensing. This information can easily be requested in specific instances but to require the companies to share such information in public might affect their business strategies. Discriminatory licensing might, in fact, serve legitimate purpose of increasing the consumer welfare and helping the innovating company recoup their development cost.<sup>43</sup>

An injunction has always been seen as an important tool in patent licensing. It protects the right of the patent holder in case of any infringement. Unavailability of this remedy might promote the infringers to abuse the SEP system by demanding for rates less than the FRAND terms. It might be regulated in order to ensure a remedy to the SEP holder, in case the infringer is not willing to enter into a license on FRAND terms.<sup>44</sup> Regarding the issue of an adequate dispute resolution mechanism, the institutions have looked upon arbitration as a successful method that would provide flexibility and means for parties to arbitrate and resolve issues mutually by engaging experts in various subject matters instead of opting for complicated judicial procedures.<sup>45</sup>

### 2.3.2 TRAI Discussion Paper on SEPs (2017)

In 2017, another consultation paper was published by the Telecom Regulatory Authority of India (TRAI) inviting responses on key issues affecting the local

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<sup>41</sup>*Intex* (n 10).

<sup>42</sup>Joint Comments of the American Bar Association Section of Anti-trust law, Intellectual Property Law, International Law, and Science & Technology Law on the Government of India's Discussion Paper on Standard Essential Patents and their availability on FRAND terms' (*American Bar Association*, 2016).

<sup>43</sup>*ibid*.

<sup>44</sup>DIPP (n 32).

<sup>45</sup>George Mason (n 34).

telecom manufacturing unit. It discusses in detail the concerns that currently prevent the industry from growing. Telecom industry around the world is growing at an increasing pace and local manufacturers find it difficult to catch-up with the rapidly changing technology.<sup>46</sup> They also face heavy competition from the foreign companies who are able to provide products at a cheaper price. The industry is stuck in a vicious circle with zero import duties and high cost of domestic protection. In a previous recommendation submitted by TRAI in 2011, it suggested tax reliefs for the hardware-manufacturing units. However, no such benefits have been provided till date. Apart from this, lack of clarity on IPR issues is another problem that heavily impedes the growth of local industries.<sup>47</sup>

Post liberalisation, Government took various steps to enhance the efficiency of the telecom industry. This was a big step from a closed government-run sector to completely open market. In 1994, first National Telecom Policy (NTP) was introduced with the aim of opening up competition in the market for basic and other value-added services. In the next NTP of 1999, the objective was to increase the accessibility of affordable and efficient communication services to a larger consumer base. The idea was to encourage development of telecommunication in all the remote, hilly and tribal areas. In 2012, NTP finally started to focus on the manufacturing and standardisation of the telecommunication equipment by the local companies. Investments were made to promote indigenous research and development. The vision was to make India a hub of telecom equipment manufacturing. Another Policy on Electronics was formulated in the same year, in order to boost the domestic manufacturing units and improve their presence in the global market. In order to cater to the ever-growing need for research and development, an Electronic Development Fund was established. Apart from this, various other steps including creation of a joint task force on mobile manufacturing unit, laying down of skill development policies and encouragement of local manufacturers through preferential market access schemes, were also taken to ensure a structural change.<sup>48</sup>

In light of these advancements, TRAI proposed several issues that need to be dealt with in order to achieve its goal of boosting the local manufacturing units. Following are the issues put forth for consultation:

- (i) Reasons behind the lack of investments in the telecom equipment sector and the poor performance of local telecom manufacturing industry in spite of numerous initiatives by the government/industry;
- (ii) Required measures to boost innovation and productivity of local telecom manufacturing;
- (iii) Sufficiency of the existing patent laws in India to address the issues of local manufacturers;
- (iv) Adequacy of the existing mechanism of Standardisation, Certification and Testing of Telecom Equipment to support the local telecom manufacturing;
- (v) Suggestion for appropriate dispute resolution mechanism for determination of

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<sup>46</sup>Telecom Regulatory Authority of India, 'Consultation Paper on Promoting Local Telecom Equipment Manufacturing' (Consultation Paper No. 12/2017), ch 2.

<sup>47</sup>ibid.

<sup>48</sup>ibid, ch 3.

royalty distribution based on FRAND terms; (vi) Sufficiency of the current fiscal incentives; (vii) Determination of other issues under ITA which need to be addressed for making the local Telecom Manufacturing more competitive and robust; (viii) Suggestion to increase foreign investments in order to promote innovation and (ix) evaluation of the current preferential market access regime.<sup>49</sup>

Responses submitted by the stake holding institutions have a detailed analysis of each of these issues. It has been argued that the poor performance of the manufacturing industry is because of the unproportionate consumer demands in the sector. Although, the demands are expected to increase in the coming years, the present demand rates do not justify a substantial investment. Hence, introduction of export-friendly mechanism would be a better approach.<sup>50</sup> For a very long time Indian markets have followed standards developed by the international institutions. This creates an additional pressure on the local industry to meet those standards. Instead, it is important to work on customised standards for the Indian market.<sup>51</sup> Changes are not required in the existing patent regime. They incorporate a wide range of provisions to deal with the concerned issues. However, policies can be made to strengthen the mechanism of Standardisation, Certification and Testing of Telecom Equipments adequate to support the local telecom manufacturing. Although this might help improve the standard of products in the market, and also expected to increase the end costs.<sup>52</sup>

The consultation paper raises some very important questions regarding royalty rates and efficiency of the existing system. However, certain wordings of the paper suggest a lack of understanding of TRAI on the core issues. The paper assumes that SEP holder is obliged to provide a FRAND undertaking. It is important to acknowledge that FRAND commitments are entered into voluntarily by the patent holders.<sup>53</sup> Royalty rates are at the core of any SEP-related issues. Amongst the responses submitted, there's a consensus that arbitration would be an appropriate mechanism for dealing with these issues. It provides with a confidential environment, expert engagement and is based on a party autonomy model.<sup>54</sup> Other Alternative Dispute Resolution (ADR) methods including negotiation and mediation, based on party centric models, would also be preferable.

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<sup>49</sup>*ibid*, ch 4.

<sup>50</sup>Europe India Chamber of Commerce, 'Written comments on the Consultation Paper "Promoting Local Telecom Equipment Manufacturing"' (2017).

<sup>51</sup>Jindal Initiative on Research in IP and Competition, 'Response to the questions raised in the Consultation paper on promoting local telecom equipment manufacturing' (2017) 3.

<sup>52</sup>*Intex* (n 10) 11.

<sup>53</sup>Fraunhofer- Gesellschaft, 'Consultation paper on promoting local telecom equipment manufacturing (Response)' (2017) 4.

<sup>54</sup>*ibid*; *Intex* (n 52); George Mason (n 34).

### 3 Japanese Policy Changes and their Background

#### 3.1 *Legal Framework in Japan*

In contrast to India, Japan has adopted the continental legal framework. Three written codes set the majority rules in this field. The Patent Law lays down the legal rights of patent holders. The Anti-Monopoly Act regulates the general principles against monopoly and unfair trades. Detailed principles on unfair trades are disclosed in Designation of Unfair Trade Practices (Designation) and multiple guidelines specify criteria for implementation of Anti-Monopoly Act and the Designation.

The Patent Law is silent about the technology standard. However, a couple of provisions are related to SEPs. Article 92 of the law defines a compulsory license for the improvement of inventions and Article 93 set up another type of compulsory license based on public interest. There are no specific rules or ordinances on Article 93, but lawyers and policymakers refer to a report published in 1968 from an experts group under Foreign Capital Council. The report states that such license should be permitted only when it is directly connected to lives of the citizens and the refusal of the license would result in crippling the development of the related industries. Their interpretation emphasizes limited applications of this compulsory license. Also, Article 92 has been substantially suspended in accordance with the US-Japan Agreement in 1994. The Agreement stipulates that any compulsory license based on improvement inventions should not be ordered without a court or administrative decision, which proclaims the violation of anti-monopoly laws. As a result of these strict conditions, no compulsory license has been directed so far.<sup>55</sup>

The anti-monopoly laws regulate some part of the SEP issues. In 2007, Japan Fair Trade Commission (JFTC), a government body which has jurisdiction on anti-monopoly regulations, published a new guideline on the assertion of IPRs, titled 'Guidelines for the Use of Intellectual Property under the Antimonopoly Act'. The guideline, prefacing that the license refusal in principle does not always constitute a monopoly, referred that in case of any assertions, which deviate from the nature of IPR protection, can be constituted as an unfair trade practice. However, there was no direct mention of SEPs before 2016.

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<sup>55</sup>Japan Patent Office, 'Wagakuniniokerusaiteiseidonitsuite [Reports on compulsory license of patents in Japan]' (Report, 2004) <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/strategy\\_wg07/paper08.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/strategy_wg07/paper08.pdf)> accessed 4 January 2018 (In Japanese).

## 3.2 Cases Over SEPs

### 3.2.1 *Apple v Samsung* Tokyo District Court Decision and IP High Court Decision

The first of SEP litigation in Japan appeared in 2011. As a part of global smart-phone patent war, Apple and Samsung battled in Japanese courts. In April 2011, Samsung filed a lawsuit, which claims a temporary injunction to stop infringement of Samsung's SEPs of UMTS standard. These SEPs are under FRAND declaration of European Telecommunications Standards Institute (ETSI). Apple soon offered a license agreement and two parties sat at the negotiation table, but to no avail. In September, Apple filed a counterclaim requesting a confirmation of the absence of any damage to Samsung. Apple raised several arguments to support their request. Firstly, Apple claimed that they did not implement concerning SEPs. Secondly, even if they implemented it, Apple does not infringe these SEPs due to the exhaustion doctrine. These SEPs are implemented on a baseband chipset, which was allegedly sold by Intel. Thirdly, they advocate that Samsung already entered into a licensing agreement due to their FRAND declaration. Finally, Apple claimed abuse of dominance by Samsung on the grounds that it breached its obligation to negotiate in good faith and of timely disclosure of SEPs, and violated the anti-monopoly laws. Apple's argument on good faith negotiation was based on Article 6.1 of the ETSI's IPR Policy.

Tokyo District Court on 28 February 2013 found that, based on ETSI's IPR Policy, Samsung was obliged to disclose their SEPs at the right time and to negotiate in good faith with those willing to obtain license, but the company breached both its obligations. The court also added that Samsung's lawsuit for a temporary injunction could engage them in patent hold-up. Regarding the good faith negotiation obligation, Samsung refuted Apple's willingness to license since their proposed royalty rate was far from Samsung's request and thus it did not make an offer based on FRAND terms. However, the court did not mention whether the proposal satisfies FRAND condition.

These decisions have received a wide range of criticism against the validity of their conclusion and their unpredictability. According to the decision, SEP holders cannot claim any royalty once they have breached the obligation. Subsequently, Samsung appealed to IP High Court.

In its appeal, Chief Judge Imura made a challenging attempt. The court announced an invitation of public comments on restrictions of injunctions and damages of SEPs. It is similar to an amicus brief, as known to the common law jurisprudence. Japan, however, does not have any such system officially.<sup>56</sup> 59 opinions were submitted from academia, IP experts, lawyers, business firms, and individuals. These comments included both the industrial and legal concerns. Many

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<sup>56</sup>For the sake of formality, public opinions were submitted to attorneys of both plaintiff and defendant, and they presented them to the court.

of the debates on Japanese law interpretation, mention three legal basis to restrict injunctions or excessive royalty requests—based on FRAND committed SEPs; a third-party beneficiary contract and immanent limitations of patent injunctions, and an abuse of patent rights.<sup>57</sup> These comments confirmed the legal discussion raised by leading scholars.<sup>58</sup>

The Grand Panel of IP High Court, on 16 May 2014, dismissed Samsung's request for injunctions against the willing licensees, regarding it is an abuse of their patent rights. The decision considered both the reasonable expectation of the licensors and willingness of the licensees of these FRAND committed SEPs. It pointed towards the negative influence of the injunction of these SEPs to the sane development of the industry.

The panel also prohibited claiming damage outside of FRAND condition.<sup>59</sup> In other words, contrary to District Court decision, the court ordered royalty payment within FRAND condition. To calculate FRAND royalty rate, the bench firstly computed the proportion of contributions of UMTS standards according to their use in Apple's products. Secondly, the ratio of contribution of focal SEPs is estimated within the proportion. Subsequently, the court set the maximum rate to prevent excessive aggregate royalty. Finally, the ratio is multiplied by the number of Samsung's SEP families per total SEPs' families. In this case, the ratio is stated as 5% of contribution of UMTS. Calculated royalty was almost 10 million Japanese Yen (approximately 10 thousand US dollars).

### 3.2.2 *One Blue Case*

The second SEP case in Japan was decided in 2017. Imation Co., a US-based Blu-ray disc manufacturer, had been negotiating with One Blue LLC to receive a license. While One Blue requested the same royalty rate with all the other licensees, Imation claimed lower royalties within the FRAND condition. In 2013, One Blue sent warning letters to distributors of Imation's products to suspend the sales of Blu-ray discs. These recipients soon stopped selling Imation's products. Imation filed a suit against One Blue in the District Court of Tokyo requesting the court to

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<sup>57</sup>Toshifumi Futamata and Shogo Matsunaga Shogo, 'Apple v Samsung daigougi hanketsu ikensho no gaiyou to bunseki [An analysis of public comments on Apple v Samsung IP High Court Grand Panel Decision]' (2015) 55(3) Journal of LES Japan 113 (In Japanese).

<sup>58</sup>Institute of Intellectual Property, 'Hyozuyun kikaku hissu tokkyo no kenri koushi ni kansuru chosa kenkyu [Research on the assertion of SEPs]' (2011) <[https://www.iip.or.jp/summary/pdf/detail11j/23\\_iip\\_main.pdf](https://www.iip.or.jp/summary/pdf/detail11j/23_iip_main.pdf)> accessed 4 May 2018 (In Japanese); Institute of Intellectual Property, 'Hyozuyun kikaku hissu tokkyo no kenri koushi ni kansuru chosa kenkyu (II) [Research on the assertion of SEPs (II)]' (2012) <[https://www.iip.or.jp/summary/pdf/detail12j/24\\_01\\_full.pdf](https://www.iip.or.jp/summary/pdf/detail12j/24_01_full.pdf)> accessed 4 May 2018 (In Japanese).

<sup>59</sup>*Imation v One Blue* (2014) Intellectual Property High Court, Case No. 10043(ne) of 2013, Order dated 16 May 2014.



prevent them from sending these letters. They claimed that these warning letters to the distributors of Imation were to demonstrate their right of injunction of SEPs, are an abuse of rights and amounts to a false allegation of infringement of relevant patent rights, which is prohibited under Unfair Competition Prevention Act.

Before the court passed its decision, JFTC announced a closing of investigation in an Anti-Monopoly case.<sup>60</sup> JFTC regarded One Blue's behaviour as amounting to interference with the competitor's transaction, which violates the Unfair Trade Practices. However, they also found that there was no on-going violation after April 2016, thus they did not grant any cease and desist orders.

Tokyo District Court, on 18 February 2017, decided that the warning letters amounted to a false allegation.<sup>61</sup> The court while referring to IP High Court Decision in *Apple v Samsung* case, prohibited injunctions against willing licensees. The judge also applied the criterion of a willing licensee presented at the decision. In this case, the court concluded that Imation is a willing licensee, considering that Imation proposed a specific royalty rate but One Blue substantially rejected any negotiations.

In contrast to India, very few SEP litigations were filed in Japan. Both cases emphasized upon the good faith negotiation. However, these decisions did not show a concrete criterion of faithful negotiation.

### ***3.3 Amendment of Guideline on Antimonopoly Law***

The first policy change happened in Japan was in 2015. JFTC, recognizing the importance of clarification of criteria for regulating SEP issues, announced the draft of partial amendment of 'Guidelines for the Use of Intellectual Property under the Antimonopoly Act'. The agency also collected public opinions. They received 54 comments from various stakeholders including government agencies (FTC, and Fraunhofer Society), IP expert societies (American Intellectual Property Law Association, Intellectual Property Owners Association, and Licensing Executive Society Japan), firms, lawyers, and scholars. Multiple organisations commented on its broad definition of SEPs and several other ambiguous phrases.

As a reaction to these opinions, JFTC published a modified amendment in January 2016. The amendment clarifies that a refusal of license or request of injunction against willing licensees can be an interference with a competitor's transaction and would constitute a violation of the Designation. The document also states that a willing licensee is determined by individual situations of license

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<sup>60</sup>The Japan Fair Trade Commission, 'Closing the investigation on the suspected violation by One-Blue, LLC of the Antimonopoly Act' (18 November 2016) <<http://www.jftc.go.jp/en/pressreleases/yearly-2016/November/161118.html>> accessed 2 May 2018.

<sup>61</sup>Tokyo District Court, Case No. 2138(wa) of 2013, Order dated 18 February 2017.

negotiations, based on various factors such as disclosure of exact SEPs in concern and actual conditions of these implementations, presenting of license terms and their reasonable grounds, immediate response to these proposals and provide a rational alternative, and whether their attitude is faithful. It is notable that original draft described that a refusal of license or injunction to willing licensees constitutes a violation. However, the modified draft has relaxed this criterion.

### ***3.4 Intellectual Property Dispute Resolution System Review Committee<sup>62</sup>***

While JFTC referred to the abuse of injunctive relief, IP experts debated extensively the restrictions on injunctions. In 2015, following the trend, Intellectual Property Strategy Promotion Headquarters, an advisory board under the Prime Minister of Japan, set the issue as the point of discussion for its special committee, i.e. the IP Dispute Resolution System Review Committee. The committee aimed at discussing all the major issues in an IP dispute like evidence collection procedures, damage calculation, and restrictions on injunctions.

Even this topic was combined with the issues from patent assertion entities. The final report of the committee, published in March 2016, did not support any unified restrictions. Instead, they concluded that no legal change was needed and that the restrictions should be judged on a case-by-case basis. Regarding SEPs, the report mentions that unified restrictions may, in fact, reduce incentives for the standardization and induce a weaker patent protection regime in emerging economies.

### ***3.5 Intellectual Property System Study Group for the 4th Industrial Revolution<sup>63</sup>***

The rapid growth of ‘Internet of Things (IoT)’, ‘Industries 4.0’, or ‘connected industries’ raises further concern about SEPs. They have been an issue mainly in the wireless telecommunication industry, but in the IoT era entities involved in automobiles, home electronics appliances, and industrial equipment industries are predicted to be involved in SEP disputes more frequently. Ministry of Economy,

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<sup>62</sup>Intellectual Property Dispute Resolution System Review Committee <[http://www.kantei.go.jp/jp/singi/titeki2/tyousakai/kensho\\_hyoka\\_kikaku/2016/dai5/sankou2.pdf](http://www.kantei.go.jp/jp/singi/titeki2/tyousakai/kensho_hyoka_kikaku/2016/dai5/sankou2.pdf)> accessed 4 January 2018 (In Japanese).

<sup>63</sup>Ministry of Economy, Trade and Industry, ‘Intellectual Property System in Consideration of the Fourth Industrial Revolution’ (April 2017) <<http://www.meti.go.jp/press/2017/04/20170419002/20170419002.html>> or <[http://www.meti.go.jp/english/press/2017/0419\\_001.html](http://www.meti.go.jp/english/press/2017/0419_001.html)> accessed 5 January 2018.

Trade and Industry (METI) established a study group on IP system in 2016. This group covered a wide range of IP issues, such as the legal protection of data, the IP protection on Artificial Intelligence (AI) creations, and resolutions of SEP disputes.

In April 2017, the study group published a report, which mentions two concerns regarding SEPs. Firstly, a growing number of SEPs and limited coverage of patent pools over SEPs that increases the cost of license negotiations and patent disputes. This cost erects a barrier to entry for Small and Medium Entities (SMEs). They are also anxious about the social cost from these patent transactions as the IoT can be an essential part of the social infrastructures. Secondly, non-practising entities (NPEs) could probably disrupt the SEP licensing market. Even though NPEs are not active in Japan, many Japanese firms reported the influence of NPEs.

At the same time, the report from IP Dispute Resolution Committee quoted they are sceptical about uniform restrictions of injunctions based on SEPs. Instead, they propose an ADR system, in which the government decides the reasonable royalty. Their report argues as follows:

It will be necessary to take initiatives to deal with SEPs, which will become a part of public infrastructure in line with the popularization of IoT. We will need to find ways to reduce the costs of licensing negotiations and settling disputes that may hinder the smooth use of the SEPs.

First, the government will consider introducing an ADR system (licensing award system for SEPs) designed to deal with disputes on licensing of SEPs, which have a significant influence on society. Under this system, government will work on disputes between patent holders and possible licensees based on request by the latter, when the parties cannot reach agreements on licensing, deciding appropriate licensing fees of SEPs with due care of not unfairly harm the interests of the patent holders.<sup>64</sup>

### ***3.6 Recent Policy Developments in Japan***

#### **3.6.1 Intellectual Property Strategic Program 2017<sup>65</sup>**

Following the report from the study group, in May 2017, the Intellectual Property Strategy Headquarters announced that the government started a policy consideration on the special ADR system for SEPs. In their ‘Intellectual Property Strategic Program 2017’, they requested the METI to discuss the necessity and design of such a resolution, which determine a reasonable royalty of SEPs. The new ADR is scheduled to be under discussion in the next year. The policy document also

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<sup>64</sup>ibid 21.

<sup>65</sup>Intellectual Property Strategy Headquarters, ‘Intellectual Property Strategic Plan 2017 (2017) <[http://www.kantei.go.jp/jp/singi/titeki2/kettei/chizaikeikaku20170516\\_e.pdf](http://www.kantei.go.jp/jp/singi/titeki2/kettei/chizaikeikaku20170516_e.pdf)> accessed 4 February 2018.

requests to give the same attention to the right of SEP holders as the benefit of potential licensees.

Amidst the spreading of IoT, for the promotion of smooth use of standard specifications for technologies to serve as social infrastructure, reach specific conclusions as to the prospective legal measures within FY2017 and take necessary measures for an ADR system for determining reasonable license fees for standard essential patents with significant social impact (standard essential patent awarding system), while paying attention not to give undue impact on the right of patentees, with a view to submitting a bill to the next ordinary session of the Diet.<sup>66</sup>

Although the document is silent about the governing body of the ADR, a Japanese newspaper leaked out that the Japan Patent Office (JPO) will establish a new ‘adjudication’ system.<sup>67</sup> This choice of words followed the argument in Patent System Subcommittee.

### 3.6.2 Patent System Subcommittee of Industrial Structure Council

As a response to the report from Intellectual Property System Study Group for the Fourth Industrial Revolution, JPO started a policy discussion in Patent System Subcommittee of Industrial Structure Council, an advisory board. In the 20th meeting, held in April 2017, JPO proposed two distinct ADRs: an ADR, which would determine the reasonable royalty rate of SEPs, and a general ADR for patent disputes. Regarding the former ADR, JPO named it as SEP adjudication.

This proposal initiated a heated debate in the committee. Several committee members from the industry or patent attorney association supported an introduction of SEP adjudication.<sup>68,69</sup> However, some industrial associations raised their discomfort with the said idea. Their main concerns are regarding effectiveness and social impact of this new proposition.<sup>70</sup> Firstly, the coverage of this adjudication will be too small in the current business environment. It will cover only Japanese patent while the vast majority of SEPs have multiple international patent families. Secondly, it increases the complexity of legal dispute resolution process. As long as there are no special restrictions, SEP holders can bring a patent infringement

<sup>66</sup>ibid 28–29.

<sup>67</sup>‘License ryo kuni ga saitei: hyouzyun kikaku ni saiyou no tokkyo [The government arbitrage the royalty rate of SEPs]’ *Nikkei Newspaper* (April 27 2017) 4 (In Japanese).

<sup>68</sup>Japan Patent Office, ‘Shorthand notes of the 20th meeting of Patent System Subcommittee of Industrial Structure Council’ <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/tokkyo\\_seido\\_menu/newtokkyo\\_020.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/tokkyo_seido_menu/newtokkyo_020.pdf)> accessed 8 March 2018.

<sup>69</sup>In the debate in Intellectual Property Strategy Headquarters, one advisory who are from chemical industry sector and corporate executive association was in the favor of the introduction of ADR.

<sup>70</sup>See comments from Japan Electronics and Information Technology Industries Association (JEITA). <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo\\_shiryoutou22/01.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo_shiryoutou22/01.pdf)> and Keidanren <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo\\_shiryoutou22/02.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo_shiryoutou22/02.pdf)> (In Japanese).

lawsuit to the court. This way the resolution processes will become double-tracked. Thirdly, JPO has no experience to judge a reasonable royalty. Industry associations requested for an intensive capacity building to this effect. Finally, such a public ADR could probably distort the private ADR activities. Another opinion fears a negative perception of Japanese SEP regulation in the global industry. Keidanren warned that the SEP adjudication could be regarded as a compulsory license, which is unpopular among the industry. Keidanren also has opposed it in India.

Faced with these objections, JPO sought a complementary policy option. In September 2017, they started the collection of public opinions regarding the guidelines on SEP license negotiations. This proposal aimed at collecting practical knowledge in these negotiations and clear up opinions on fair and reasonable royalty. Such knowledge is useful not only for the adjudication body but also for firms outside the telecommunication industry. In the call for public opinion, they did not show a specific draft of the guidelines but simply made an open question of items to be included therein. Generally, the guidelines will not be legally binding, but the public opinion collection legitimizes its power in litigations.<sup>71</sup>

Finally, JPO gave up the idea of introducing the SEP adjudication. *Nikkan Kogyo Shinbun*,<sup>72</sup> a Japanese newspaper, reported in November 2017 that they recognized the unfairness of the adjudication in concern, which only SEP implementers can claim. The newspaper also reported the difficulty in deciding reasonable royalty caused due to the variety of appropriate royalty rate accepted in the industry. Their recognition is in line with the report<sup>73</sup> published by the same subcommittee in February 2017 as a response to Intellectual Property Strategic Program 2016, which requested for consideration of construction of general patent royalty database to stimulate time-saving license negotiations and to increase compensations in patent infringement cases. In the report, they concluded that a royalty database is meaningless considering the wide variety of patent licensing practices.

Alternatively, JPO suggested the introduction of a SEP licensing negotiation guideline as proposed in September and an advisory opinion system on the technological essentiality of SEPs.<sup>74</sup> They explained that the guideline does not aim to set new regulations but to collect court decisions from around the world and show

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<sup>71</sup>NTT Data Institute of Management Consulting, Inc., 'Kuni no gyousei kikan ga kouhyou shita guideline tou no zittai haaku no tameno chosa [A survey report on guidelines published by the government]' <[http://www.soumu.go.jp/main\\_content/000424429.pdf](http://www.soumu.go.jp/main_content/000424429.pdf)> accessed 31 December 2017 (In Japanese).

<sup>72</sup>'Tokkyocho ga ADR seido miokuri: License ryo no settei konnann (JPO gave up the introduction of ADR because of the difficulty in setting reasonable royalty)' *Nikkan Kogyo Shinbun* (November 27 2017) (In Japanese).

<sup>73</sup>Patent System Subcommittee of Industrial Structure Council, 'To strengthen IP dispute resolution systems' <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo\\_shiryou019/01.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo_shiryou019/01.pdf)> accessed 8 February 2018.

<sup>74</sup>Japan Patent Office, 'Hyozyun hissu tokkyo wo meguru kadai to seidoteki taiou ni tsuite [Policy actions on SEP related issues]' <[https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo\\_shiryou23/01.pdf](https://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/newtokkyo_shiryou23/01.pdf)> accessed 8 February 2018 (In Japanese).

examples of faithful licensors and faithful willing licensees. In March 2018, JPO published a draft of ‘Guide to Licensing Negotiations involving Standard Essential Patents’ and invited public comments on the same.<sup>75</sup> The guide covers multiple issues from the faithfulness of parties in a negotiation, efficient negotiation process, to reasonable royalties. JPO mainly enumerates considerations mentioned by the international case laws and have not had any clear legal interpretations. This measured content is a reflection of JPO’s attitude to be an objective information provider to support SMEs or large firms outside the telecommunication industry. The guideline will be published in spring 2018.

In addition to that, concerning an advisory opinion, JPO has announced the introduction of a new policy whereby it would extend the scope of its scrutiny to the essentiality of a SEP. Although this determination would not have any legal nature, it would be beneficial in creating a platform for parties to set their negotiation terms without approaching the court for these issues. To prevent malicious abuse of this advisory opinion system, the draft of its procedure manual describes that petitioners have to be involved in litigations in which essentiality of specific declared SEPs are the issues.<sup>76</sup> A newspaper reported that the advisory opinion process would be designed to provide a conclusion within three months after the filing of the petition.<sup>77</sup>

## 4 Conclusion

As the Japanese ‘Fourth Industrial Revolution’ argument mentions, implementer-oriented countries are highly motivated to regulate SEPs to protect fair competition in the wide range of ‘connected’ manufacturing sectors. Especially, automobile industry or manufacturing machineries, manufacturers will need to receive SEP licenses in wireless telecommunications without any sufficient experience to negotiate with giant SEP holders. Under this condition, Indian and Japanese governments have a strong interest in the cost reduction of SEP licensing transaction by introducing ADR measures for royalty negotiations. However, as Indian debates raised by DIPP and TRAI discussion paper indicate, and as Japan’s

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<sup>75</sup>Japan Patent Office, ‘Draft of Guide to Licensing Negotiations involving Standard Essential Patents’ (2018) <[https://www.jpo.go.jp/iken/pdf/180308\\_hyoujun/sep\\_guide\\_draft\\_en.pdf](https://www.jpo.go.jp/iken/pdf/180308_hyoujun/sep_guide_draft_en.pdf)> accessed 21 March 2018.

<sup>76</sup>Japan Patent Office, ‘Hyouzyun hissusei ni kakaru handan no tameno hantei no riyou no tebiki (an) [Draft manual of the advisory opinion (Hantei) system concerning essentiality of standard essential patents]’ <[https://www.jpo.go.jp/iken/pdf/180216\\_hantei\\_tebiki/01.pdf](https://www.jpo.go.jp/iken/pdf/180216_hantei_tebiki/01.pdf)> accessed 21 March 2018 (In Japanese).

<sup>77</sup>‘Zyuyou tokkyo 3 kagetsu de hantei: Tokkyo chou shinseido saiban nashi de [And advisory opinion for influential patents within 3 months: JPO’s new policy]’ *Nikkei Shinbun* (21 February 2018) (In Japanese).

failure in the introduction of new adjudication induces, there are a bunch of challenges and questions to regulate SEP negotiations.

The largest challenge is information asymmetry. Reasonable royalties vary upon conditions of SEP holders and implementers. Some of them sell components while some deal with final products. Some implementers have SEPs to be licensed and some have non-SEPs, which are attractive for SEP holders. These differences link a variety of licensing conditions. As *One Blue* case shows, a fixed royalty is not always the only FRAND licensing condition. However, there are limited disclosures of licensing terms and conditions. It is impractical for governments to know reasonable licensing terms and conditions. In contrast, courts and antitrust authorities can access such information in SEP litigations as plaintiffs and defendants voluntarily disclose available licenses.

Another challenge is the expectation of being future dominant in standards. Even in implementer-oriented countries, they have a huge potential to be SEP giants. Especially, technology standards often offer emerging economies like India with a big opportunity to manufacture standardized products.<sup>78</sup> At the same time, this couples with the improvement of technological capability by learning-by-doing.<sup>79</sup> To illustrate, China had been a follower of wireless communication technologies. They only manufacture mobile handsets and smartphones. But now, in 4G standard, Huawei or ZTE, Chinese telecommunication equipment manufacturers, are one of the leading SEP holders.<sup>80</sup> Therefore, governments are hard to stand on a specific position.

Moreover, private mechanisms can resolve the vast majority of these licensing issues. Firstly, other than antitrust issues, many SEP holders have incentives not to request excessive patent royalties in order to stimulate the diffusion of standards as the global diffusion brings a large volume of sales of their products or revenues from patent royalties. Even in concerns of aggregated royalties, their actual occurrences is doubtful.<sup>81</sup> They are well aware that an opportunistic behaviour is not beneficial as, at the worst, such a behaviour promotes the introduction of

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<sup>78</sup>Ogawa, Koichi, Junjiro Shintaku, and Tetsuo Yoshimoto 'Architecture-based Advantage of Firms and Nations' (2015) 4(3) *Annals of Business Administrative Science* 21 <[http://merc.e.u-tokyo.ac.jp/mmrc/dp/pdf/MMRC48\\_2005.pdf](http://merc.e.u-tokyo.ac.jp/mmrc/dp/pdf/MMRC48_2005.pdf)> accessed 8 February 2018.

<sup>79</sup>Linsu Kim, 'Stages of development of industrial technology in a developing country: A model' (1980) 9(3) *Research Policy* 254.

<sup>80</sup>Austin, 'New iRunway Report Shows 40+% 4G-LTE Patents in US Filed By Asian Entities' (*iRunway*, 27 March 2017) <<http://www.i-runway.com/technology-ip-news/press-releases/iRunway-4G-LTE-2016-update-report.html>> accessed 8 March 2018.

<sup>81</sup>Damien Geradin, Anne Layne-Farrar and Jorge Padilla, 'The complements problem within standard setting: assessing the evidence on royalty stacking' (2008) 14(2) *Boston University Journal of Science and Technology Law* <[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=949599](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=949599)> accessed 29 November 2017; Kirti Gupta and Mark Snyder, 'Smart phone litigation and standard essential patents' (Hoover IP Working Paper Series No. 14006) <<https://ssrn.com/abstract=2492331>> accessed 29 November 2017.

alternative standards.<sup>82</sup> SEP holders have invested in research and development, thus, they are locked-into focal standards. Exceptionally, specific non-practicing entities, which have small number of SEPs, are free from such a constraint as their investments are small. However, if their patent portfolio sizes remain tiny, major locked-in SEP holders might file invalidity trials against them.

Secondly, transaction costs have been minimized by patent pools or component suppliers. Although they are not mandatory for SEP holders, the majority of successful standards associates patent pools (e.g., MPEG-2, DVD, and W-CDMA). Patent pools not only reduce transaction costs between licensees and specific licensors who joined the pool, but also their royalty rates can be used as a reference of reasonable royalties.<sup>83</sup> Most importantly, patent pool management firms have a strong commitment to diffuse the standard and not to withdraw SEP holders from the pool. Likewise, influential component suppliers can encapsulate a part of SEPs into a single license. Once, a component supplier obtains a license of relevant SEPs, the doctrine of patent exhaustion lets its customers be free from the burden of licensing negotiations of these SEPs.<sup>84</sup> In 3G wireless telecommunications, Qualcomm took the initiative in the market by realizing this capsule license.<sup>85</sup>

In conclusion, there is limited efficiency of *ex-ante* regulations on SEPs. Instead, *ex-post* regulations, such as ad hoc court decisions and antitrust orders, seem to be an effective and efficient measure to resolve SEP issues. In this regard, the authors emphasized on need for the capacity building of court judges and national competition agencies. As the DIPP report mentions, IP and antitrust relations are often left uninvestigated. Except in the US and Europe, very few case laws are accumulated. Governments can help these two agencies by conducting international surveys on SEP disputes and reasonable licensing conditions. In other words, governments should remain as a think-tank for courts and competition agencies.

Exceptionally, governments can play a key role to reduce a negative impact of the so-called patent trolls. Latest Japanese policy consideration of an expert advisory system of essentiality of declared SEPs is an effective measure for regulating these trolls. As discussed above, such trolls have little incentives to consider reasonable royalties. Invalidity trials are a measure for implementers to defend themselves, however, not all patents are invalidated. SSOs do not judge essentialities; even the system provides no-legally binding opinions, which could be useful for implementers.

This chapter discussed governmental regulations over SEPs in implementer-oriented country perspectives by comparing two representative countries; India and Japan. Even though these countries are followers in major

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<sup>82</sup>For example, Nokia and Chinese firms developed alternative standards to CDMA2000, a Qualcomm dominant standard (see, Gawer, Annabelle and Michael A. Cusumano, 'How companies become platform leaders' *MIT Sloan Management Review* (1 January 2008)).

<sup>83</sup>*Microsoft Corp v Motorola, Inc* (2013) C10-1823JLR.

<sup>84</sup>*Quanta Computer, Inc v LG Electronics Inc* (2008) 553 US 617.

<sup>85</sup>Amelia Smith Rinehart, 'Contracting Patents: A Modern Patent Exhausting Doctrine' (2009) 23 *Harvard Journal of Law & Technology* 483.



global standards, like wireless communications, they do not take specific actions or failed to introduce implementer-side regulations. Rather, they seem to face a trade-off between the protection of their domestic manufacturers and the enhancement of prospects. The authors' arguments have two implications for policy makers. Firstly, governments should keep on providing information on SEPs. This knowledge sharing not only improves the capability of courts and antitrust authorities but also fulfils the information gap between global leading SEP holders and other firms. Secondly, governments should prepare some measures against small patent trolls.

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