

Introduction

Many countries have formulated policies and re-oriented their economy to foster innovation as it is a major source of economic growth. Intellectual property (IP) rights, patents in particular, are necessary to foster technological innovation in a globalized world. Several transitional and emerging economies have increasingly embraced a stronger IPR regime to facilitate inflow of foreign investment and promotion of trade in goods and services. Open and well-integrated markets not only induce growth in domestic industries, but also enable entrepreneurial ventures to innovate and play a prominent role in nation building. The objective ought to be on promoting innovation in niche technological areas, such as computing, health-care, mobility and mobile connectivity, thereby directly promoting human well-being and economic growth. In this context, legal challenges, economic constraints and technological complexities play a vital role.

Governments in developing economies play vital role in fostering innovation, which is seen as the engine for economic growth. For instance, the current Indian government, under Prime Minister Modi, has rolled out elaborate plans to boost manufacturing in vital sectors. Further, the government is working towards making India's IPR regime friendly towards investors and innovators. Since technological advancement is a proven potent driver of economic growth, the government is trying to incentivize innovation to ensure '*Make in India*', '*Digital India*', '*Startup India*' and '*Invest India*' initiatives are successful in the long run. The emphasis, particularly in R&D-intensive sectors, ought to be on promoting technological innovation and manufacturing, rather than importing finished or semi-finished units, replicating products or creating generics. The National IPR Policy unveiled in May 2016, is one such effort of the government where it proposes the primary use of IP as a financial asset and marketable tool for promotion of innovation to ensure economic growth and socio-cultural development. The policy proposes several strategic actions as well as legislative measures to achieve the given objective.

As a follow-up to the National IPR Policy, it is imperative to understand factors that influence innovation. Further, we ought to discuss the role of IP in driving innovation in order to recognize the diversity of approaches undertaken by

organizations. There is a need to understand why different firms adopt different strategies to protect their investments towards innovation. Answering these questions will bring coherence and effectiveness in policy-making. For instance, with patented technology standards (say for example, WiFi or 3G/4G/5G network in mobile devices) becoming increasingly common, the complexities and contradictions at the interface of IP and Competition Law have emerged strongly in the past few years. One needs to understand that interoperability is key to ensure that technologies owned by multiple players, sometimes competitors, connect with each other in a seamless manner across geographical borders and markets. To ensure interoperability we see a crucial yet complicated role played by Standards Setting Organizations (SSO) and Standards Developing Organizations (SDO). Given the rapid developments in the ICT sector, the role of SSOs and SDOs in setting up standards and the various players involved in implementing those standards in their devices tend to influence practices and internal dynamics of this sector.

Patents often protect technologies that eventually become standards. Those patents that are essential to the functioning of the standard (known as ‘Standard Essential Patents’ or SEPs) ought to be made available to everyone on **Fair, Reasonable And Non-Discriminatory (FRAND)** licensing terms. Complexities arise when both licensors and licensees of SEP differ on what they mean by “fair”, “reasonable” and “non-discriminatory” terms, often resulting in legal battles and/or investigation by competition or antitrust authorities. Regulators, legal practitioners, academicians and the businesses around the world are attempting to resolve such complicated legal issues related to determination and building consensus on FRAND rates as well as what amounts to appropriate royalty base.

This book discusses the role of SSOs/SDOs and various stakeholders involved in implementing the standards. It also addresses topics such as the appropriate royalty base, calculation of FRAND rates and concerns related to FRAND commitments and the role of Federal Trade Commission (FTC) in collaborative standard setting process. This book also unpacks how the regulatory agencies and courts in the United States, European Union and India are dealing with the rising allegations of anti-competitive behaviour by SEP holders.

Jorge Contreras in his chapter on “**National Disparities and Standard Essential Patents: Considerations for India**” discusses the increase in patenting of technologies that are being declared as standards. The chapter elicits the role of SSOs that are enabling patent holding entities to voluntarily declare their technology as a standard so that it is adopted by product manufacturers. The SSOs formulate disclosure and licensing policies. Disclosure policies require patent holders participating in the development process to disclose patents essential in the development of standards and licensing policies require patent holders to grant licenses on FRAND terms. While SSOs formulate these policies, it is observed that issuing licenses on the above terms may not always be smooth and equitable as product manufacturers based in different countries might perceive FRAND in the context of their own economic settings. A FRAND rate that is acceptable in a country may not be equitable in some other country. This has led to several disputes in various countries. It is also observed that SEP holders are largely based in

developed countries while product manufacturers situated in developing countries are barely contributing to the development of the standard process. It is therefore necessary to address this anomaly by encouraging product manufacturers based in developing economies to engage in more research and development. Such activities could also be incentivized by their respective governments, which may lead to technological contribution in standards development process and increased participation in such processes.

While SSO activities are recognized as potential sources of economic efficiency, the nature of the SSO process facilitates and requires communication and agreement among parties that may otherwise compete in the marketplace, thus leading to antitrust agencies and private counsel to require caution in the standard setting process. The industry-wide, international scope of technological agreement in SSO activities is a potential source of market power for IP owners. The risk of such market power has led technology adopters to seek assurances from technology contributing SSO participants that technologies adopted in the standard are made available on FRAND terms. In addition, it has become increasingly common for technology contributors to provide FRAND commitments in conjunction with their SSO participation. **D. Scott Bosworth, Russell W. Mangum III and Eric C. Matolo** in their chapter on “**FRAND Commitments and Royalties for Standard Essential Patents**” address some of the conceptual and practical effect of FRAND commitments to SSOs on royalties for SEPs. They discuss some recent decisions by US courts and regulatory agencies clarifying that FRAND commitment can be binding on technology contributors, and that determination of FRAND royalty rates on standard essential technology can be meaningfully different from that applicable to technology unencumbered by FRAND commitments. They contend that determination of FRAND royalty rates likely requires inquiry into the apportionment of inherent technology value from value that resulted from the SSO process and standard itself. Their chapter addresses various methods to evaluate the sources of economic value of SEPs, to apportion inherent technology value from that resulting from a standard, and the implications of such apportionment on the royalties for FRAND encumbered SEPs.

It is widely agreed that FRAND commitments impose certain constraints on the terms and conditions that patent holders may seek from licensees in comparison to licensing patents without a FRAND commitment. But exactly what those constraints might entail has been the subject of heated debate for at least a decade. **Anne Layne-Farrar and Michael Salinger** in their chapter on “**The Policy Implications of Licensing Standard Essential FRAND-Committed Patents in Bundles**” discuss the policy implications of licensing of essential and FRAND-committed patents in bundles. The particular constraint discussed in their chapter is whether FRAND prohibits patent portfolio licensing, where both FRAND committed and non-essential, non-FRAND-committed patents are bundled together into a single license. They explain that the answer to that question is “No, FRAND does not create a blanket prohibition against portfolio licensing.” Whether such a patent portfolio license honors a FRAND commitment depends on the specific licensing terms and conditions comporting with FRAND.

Assessment of FRAND licensing terms for SEPs has not been an easy task in the ICT sector. There are existing debates encompassing FRAND terms and it is important to have a nuanced understanding of the attributes that cumulatively would add up to FRAND. **Gustavo Ghidini** and **Giovanni Trabucco** in their chapter titled “**Calculating FRAND licensing Fees: A Proposal of Basic Pro-competitive Criteria**” while assessing the FRAND licensing terms for SEPs, discuss the idea of a balanced criteria based on certain guidelines. These guidelines, based on four progressive cumulative steps are “... consistent with the overall evolutionary and pro-competitive juris-political inspiration” as witnessed in the European Union. These possible steps include: identifying licensing fees strictly proportionate to the technology adopted by the willing licensee; fixing royalty rates of the patent based on the value prior to the completion of standard setting; resolving royalty stacking issues at the time of determining the licensing fees and finally adopting dynamic approach to determine FRAND royalty rates.

Antitrust regulators, specifically in Europe, have focused on SEPs in recent years. Be it the investigations in *Samsung* and *Motorola* or the *Huawei v ZTE case*, the European Commission and the Court of Justice in the European Union have laid down the scope of the EU competition law. In the past, SEP holder’s right to seek injunctive relief was limited, however, the *Huawei v ZTE case* laid down the specific conditions under which a SEP holder can seek injunctive relief against an unwilling licensee. **Roberto Grasso** in his chapter titled “**Selected Issues in SEP Licensing in Europe: The Antitrust Perspective**”, suggests that regardless of the developments in the above instances, it is unclear as to what circumstances would amount to abuse of dominance by an SEP holder, what kind of licensing strategy adopted by the portfolio license holder would be seen as illegal, and whether transfer of a subset of patents to the Patent Assertion Entity (PAE) would amount to a breach of EU competition law. Grasso explores the concept of FRAND as it is defined in the European Commission’s Horizontal Guidelines. He analyzes the issues stated above in the context of the EU Competition law.

In the mix of the debates concerning SEPs and antitrust issues, the role of antitrust agencies in creating the right balance for future innovators is of paramount importance. **John Dubiansky** in his chapter on “**Competition, Intellectual Property Rights and Collaboratively Set Standards: Federal Trade Commission Advocacy and Enforcement**”, illustrates the important role that FTC has played over the years in relation to competition and consumer protection. There are two overarching themes in this chapter. First, FTC’s role in collaborative standard setting and FRAND commitment of SEP holders. Secondly, FTC’s advocacy and enforcement to address contentious issues at the intersection of IP and Antitrust Law. Either through reports and guidelines or by presentations or comments, FTC has carried out its objective of competition advocacy. Further, there have been workshops, filing of *amicus curiae* briefs and written comments and presentations submitted to legislatures and agencies. Dubiansky has talked about how FTC has addressed the issue of FRAND commitment of the patent holder and the scope of seeking an injunction by a patent holder citing infringement of patent where the patent holder has already committed to FRAND terms at the

outset. There have been suggestions made by FTC in relation to contentious issues of patent hold-up and policies and procedures followed by SSOs in connection with licensing practices. The chapter also reflects upon the extensive use of Section 5 of the FTC Act in number of antitrust cases, which prevents “unfair methods of competition”.

It is usually alleged in the instance of SEP that there is a possibility of hold up once a patent is declared as a standard whereas there is no empirical evidence that points towards the same. **Donald E. Knebel** in his chapter on “**Standard Setting Organizations and Competition Laws: Lessons and Suggestions from the United States**” discusses the possibility of patent holders involved in standard setting processes to engage in what may be alleged as anticompetitive behavior. He discusses this in the context of the US jurisdiction wherein the courts have held conducts of non-disclosure and royalty demands as anticompetitive behavior. The strategy of refusing to license until demands for higher royalties are met is seen as an instance of hold-up. While RAND terms developed by SSOs aim to prevent SEP holder from demanding excessive royalties, it has been ineffective in preventing hold-ups due to the fact that parties to such licensing tend to interpret the terms to their own convenience. Vagueness has resulted in uncertainty and further resulted in increased costs for the users of such standards as they are unsure as to how much it will cost them to adopt the patented technological standards in their products. Knebel explores the possibility of ex ante disclosure of royalty rates and whether it runs afoul of antitrust laws in the US if SSOs mandate such royalty rate disclosures.

The controversies surrounding SEPs and the role of Competition Commission of India (CCI) have taken the centre stage. **Koren Wong-Ervin et al.**'s chapter on “**FRAND in India**” is set in the backdrop of the CCI's investigation orders against Ericsson and the discussion paper issued by the Department of Industrial Policy and Promotion (DIPP) on concerns relating to hold-up, royalty base, royalty rates, injunctive relief for SEPs under FRAND commitment, and application of Non-disclosure agreements (NDAs). As a point of reference, this chapter relies on the jurisprudence and the existing debates in the US and the EU surrounding the treatment of the above concepts. The developments in US and the EU will provide some degree of guidance and clarity to the Indian courts and the CCI about these inherently complex yet important matters. Contrary to the existing practices in US and EU, Wong-Ervin points at the different treatment of NDAs in the CCI investigation orders. The chapter points to a measured approach in the absence of actual evidence showing FRAND licensing practices as anti competitive and against consumer welfare. The perception is otherwise contrary to the views expressed by the authors. Any radical change undertaken by Indian regulators and policy makers may disrupt the balanced FRAND ecosystem.

The Courts in India have suggested that the process followed by the CCI for initiating an investigation of alleged abuse of dominance is merely a departmental inquiry and not adjudicatory in nature. **Indranath Gupta, Vishwas H. Devaiah** and **Dipesh A. Jain** in their chapter on “**CCI's Investigation of Abuse of Dominance: Adjudicatory Traits in Prima Facie Opinion**” which is set in the backdrop of an investigation concerning alleged abuse of dominance in the ICT

sector, observes the process adopted by CCI to initiate an investigation. This chapter illustrates that the practice adopted by CCI is more of adjudicatory in nature as opposed to what has been suggested by the Courts.

The chapters are a true reflection of the existing range of disagreements that persist between the SEP holders and the implementers who rely on those standards. As a result, we have come across a surge in litigation in various jurisdictions. Further, interventions on the part of antitrust authorities are quite common. Given that most of the cases concerning antitrust issues and SEPs are pending in India, the diverse range of ideas expressed in the above chapters would go a long way in providing guidance about many complex issues.

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