
Perspectives Standard Essential Patents and Anti-Competitive Agreements in Light of The Ericsson Case and Dolby Case

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Abstract

This paper analyses the relationship and the difference between Standards Setting Organizations (SSO) and Standard Essential Patents (SEP). In order to accentuate the same, the authors have referred to two landmark cases in this area, namely: Telefonaktiebolaget Lm Ericsson v. Mercury Electronics & Anr and Telefonaktiebolaget Lm Ericsson v. Competition Commission of India & Anr and Ors., and Dolby International AB and Anr. v. GDN Enterprise Private Limited & Ors. On that note, this paper deals with the aspect of essentiality in Standard Essential Patents, SEP licensing and its attributions, which include - FRAND terms, royalty rates, and licensing agreements. The pro-competitiveness of SEPs concerning SEP holders and anti-competitiveness concerning licensees have also been brought to light. Besides, the concept of abuse of dominance has also been brought to light in this context.

Keywords: Competitive Agreements, Standard Essential Patents, Standards Setting Organizations.

Introduction

India being one of the highly 'developing' countries, there are numerous complexities concerning the competition regime and it is, in fact, one of the most interesting and crucial issues that transcend territorial boundaries. There is an inherent overlap between competition issues and the issues in the intellectual property when it comes to 'Standard Essential Patents' and 'Standard Setting Organizations'. The Competition Act of 2002 governs competition matters, and this research piece focuses on the interplay between 'Standard Essential Patents' and 'Standard Setting Organizations' in light of licensing agreements. To facilitate an elaborate understanding of this matter, the authors have chosen two prominent case studies, namely: Ericsson's Case, and Dolby & Vivo, Oppo's Case. The same has been explained using competition analyses of the above-mentioned companies.

Case Studies:

Telefonaktiebolaget Lm Ericsson v Mercury Electronics & Anr[1] and Telefonaktiebolaget Lm Ericsson v Competition Commission of India & Anr[2]:

In the year 2013, Ericsson sued Micromax for alleged violation of the Standard Essential Patent since Micromax did not sign the license agreement proposed by Ericsson and claimed a compensation of INR 100 crore, in addition to a royalty of 1.25-2% on each phone sold. Micromax, on the other hand, contended abuse of the dominant position against Ericsson. The Competition Commission of India detected a prima facie case, directed the Director General (DG) to investigate the claim, and delivered an interim order. Ericsson's primary or, rather, ultimate objection was regarding the jurisdiction of CCI. As a result, it filed a suit at the Delhi High Court challenging the order of the CCI and its jurisdiction. The five years long dispute was settled by the Delhi High Court in the year 2016.

The Delhi High Court looked into the aspect of whether there was any inconsistency between the Patents Act and the Competition Act and upheld the jurisdiction of the CCI. It further noted that Ericsson did not abuse its dominance as contended by Micromax. In the meantime, Ericsson and Micromax inked a Global Patent License Agreement (settling issues without the court's interference.), and Micromax further entered into a non-disclosure agreement and consequently, it withdrew its complaint against Ericsson.

Dolby International AB And Anr. V. GDN Enterprise Private Limited & Ors. [3]

Dolby's patented sound technology can be used by other manufacturers on the basis of a license agreement by paying the due amount of royalties. BBK Electronics Corporation manufactured and sold Vivo and Oppo smartphones by illegally using Dolby's [4] patented sound technology sans royalties. As a result, Dolby filed a suit against Vivo, Oppo and other local entities for patent infringement at the High Court of Delhi.

Competition Analyses:

A competition analysis provides data regarding the pros and cons of various players in a chosen industry. This data helps us to comprehend the various competitive advantage that one player has over the other. A calculation between and among current and potential market players facilitates a picture of who is in a better position than whom. Besides, it also aids us in understanding companies that are working in favour of consumers.

In this paper, authors have attempted to throw light on three relevant competitive analyses according to the year 2021, namely: 1. Competition Analysis of Ericsson and Micromax; 2. Competition Analysis of Dolby Laboratories Inc and IMAX; and 3. Competition Analysis of Vivo and Oppo. This is to bring a general idea on the present matter and to entertain exploration.

Competition Analysis of Ericsson and Micromax:

Telefonaktiebolaget LM Ericsson, a Telephone Stock Company of LM Ericsson, is a Swedish multinational telecommunications company which is also a member of the European Telecommunications Standards Institute (ETSI), a standard-setting organization. [5] In brief terms, it is known as – Ericsson, and it is engaged in inventing communication technology and developing standards for the same. To name a few landmark inventions: 2G, 3G,4G, and 5G equipment, Edge, GSM and the likewise. [6] It is a company that operates in more than 180 countries and holds Standard Essential Patents for more than 57,000 patents in the area of mobile communication. [7] On the other hand, Micromax Informatics, initially an IT software company, later entered into a mobile manufacturing venture. Micromax is an Indian company that has acquired the epithet of 'the tenth largest smartphone vendor in the world.' [8] Besides mobile phones, it has also specialized in consumer devices or home appliances. [9]

Features	Ericsson	Micromax
Areas of Operation	180 Countries [10]	Worldwide but main focus – India [11]
Market Share	15% (Globally) [12]	Less than 1% (Globally) [13]
Total Revenue	232.390 billion kr (2020) [14]	Rs 2,443 crore (2019) [15]

Table No. 1

Although Ericsson and Micromax are not from the same roots considering competition since Ericsson is a Standard Essential Patent holder and Micromax is only an implementer. The author herein analyses the competition of the above-mentioned companies to throw light on what is the actual decree of competition between the said companies. From a brief understanding of the table, it is pertinent to note that there is a significant difference in areas of operation, market shares, and revenues between Ericsson and Micromax.

Competition Analysis of Dolby Laboratories Inc. and IMAX:

Dolby Laboratories Inc is an American Company expertizing in audio technology. Dolby is renowned for licensing its nuanced audio technologies to other manufacturers of consumer electronics. IMAX, on the other hand, is a proprietary system that specializes in high-resolution audio and video formats. The table below highlights various aspects of market shares, total revenues, sales growths and quality ranges of Dolby Laboratories Inc. and IMAX.

Features	Dolby	IMAX
Market Share	\$8.92 Billions [16]	\$779 Millions [17]
Total Revenue [18]	5.1 % (increase)	51.93 % (increase)
Sales Growth [19]	9.7 %	10.76 %
Quality [20]	500 times higher contrast ratio and 4 times more resolution.	40% larger screens and 26% taller ratio.

Table No. 2

From a brief understanding of the table, it is pertinent to note that Dolby has a comparative advantage over IMAX in terms of ‘quality’, and IMAX has a comparative advantage over Dolby in terms of ‘market shares, revenues, and sales growth.’ The said analysis is according to the data in the year 2021

Competition Analysis of Vivo and Oppo:

Vivo Communication Technology Co. Ltd is a technology company based in China. It develops smartphones and all associated accessories and gadgets. It serves its products globally. Similarly, Guangdong Oppo Mobile Telecommunications Corp., Ltd is also a mobile communications company in the technology industry based in China. Per contra, BBK Electronics Corporation, a Chinese multinational conglomerate and one of the World’s largest smartphone manufacturers, is the owner or the parent organization of the Vivo and Oppo brands of smartphones.

Features	Vivo	Oppo
Market Share [21]	15%	10%
Total Revenue	45% (increase) [22]	79% (increase) [23]
Advertising [24]	High-profile sponsorship	High-profile sponsorship
Consumer Preference [25]	59%	41%

Table No. 3

From a brief understanding of the table, it is pertinent to note that ‘vivo’ has a competitive advantage over Oppo in terms of ‘market share’ whereas Oppo has a competitive advantage over Vivo in terms of ‘total revenue.’ Interestingly, both Vivo and Oppo share the competitive advantage of advertising.’ The author collected responses from about 50 people and came to the conclusion that Vivo has more consumer preference than Oppo due to better ‘user-friendliness’. The said analysis is according to the data in the year 2021.

Case Analyses:

Case Analysis of Ericsson and Micromax:

The Competition Commission of India and the Delhi High Court enormously contributed to establishing the jurisdiction of CCI concerning competition issues in a matter of patent rights. The Delhi High Court went one step further and detailed on the relevance and consistency between the Indian Patents Act of 1970 and the Competition Act of 2002. However, one crucial aspect that was not considered or rather elaborated by the Delhi High Court was regarding the unresolved issues in SEP-FRAND jurisprudence. [26] This holds an extremely important point owing to the SEP landscape in India where the majority of the companies are implementers of a standard or licensees. Therefore, the multitude of issues concerning FRAND terms and Royalty rates are untouched and this further aggravates the scope for sprouting competition issues.

Case Analysis of Dolby and Imax:

Dolby’s patents are standard essential patents owing to the reason that all its inventions set a global standard in audio technology. Consequently, any company that wants to use the invention of Dolby ought to obtain a license from them by paying royalties to them. Therefore, when BBK Electronics Corporation manufactured and sold Vivo and Oppo smartphones by illegally using Dolby’s [27] patented sound technology sans royalties, Dolby moved the Delhi High court and the latter was ordered by the Hon’ble Court to pay royalties at the rate of Rs.34/unit for being able to manufacture products by using Dolby’s licensed audio technology. The relevant portion of the Court’s order is provided below:

“Depositing in this court by the 8th day of the succeeding month the royalty which may be so becoming due to the plaintiffs at the rate of Rs.34/per unit for the order dated 20th October 2016 is modified by permitting the Indian entities impleaded as defendants in the two suits in which the applications have been made to continue manufacturing, selling and importing the goods subject matter of the suits.” [28]

The rate of royalty demarcated by the Delhi High Court was not accepted, and thereafter, it was brought to the Court’s notice that the parties had settled an interim arrangement during the pendency of the suit. The Delhi High Court deliberated on the rate of royalty payment, but it could have issued guidelines as such, and thereby, it could have eliminated the scope for future disputes along the same lines. An exhaustive elaboration on royalty rates in relation to FFRAND terms was not achieved, and there is ample need for the same, given the competition regime in India.

Standards-Setting Organizations and Standard Essential Patents:

Standards Setting Organization (SSO) or Standards Developing Organization (SDO) [29] is a body that is typically engaged in developing, designing or setting standards for a particular invention. Standards, in other words, could mean a benchmark. The invention which sets a benchmark is said to hold a 'Standard Essential Patent' [30] for safeguarding the ultimate innovation in it. These benchmarks, when developed and fixed, provide a standard for other discoveries in a chosen arena. A standard essential patent essentially deals with technological inventions.

Such technological inventions can be licensed to other companies for their use through a licensing agreement, and in return for that, the companies that use the inventions ought to pay royalties to the companies that created the inventions. When the former company fails to act accordingly, the latter company sues for royalties or patent infringement. [31] Although setting up of standards has a hue of anti-competitive behaviour, the technical qualifications and associated nuances knock it down to be a pro-competitive behaviour.[32] In order to understand this aspect, we must first understand the existence and the purpose of SSOs.

Standards Setting Organizations (SSO):

The need for SSOs boomed with the onset of industrialization. Massive growth in industries all around the world leads to conflicts in determining the standards for a particular product. As a result, the world's first national standards body was founded in London in 1901 - The Engineering Standards Committee later renamed the British Standards Institution. [33] Thereafter, numerous National Standards Boards were established in different parts of the world. Besides these National organizations, we also have International Organizations for cross-boundary inventions.

International Standards Organizations:

International standards organizations are in place to mandate international standards. The International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU) are the largest and well-reputed international standards organizations that have developed multifarious standards for a wide variety of products. Among the three international organizations, the ITU is the only organization that is based upon a treaty – the "Constitution and Convention of the International Telecommunication Union." [34]

Indian Standards Organizations:

Indian Standards Organizations (ISO) are required to be in place in order to enable other countries to adopt technological advances from India. When ISOs are not in place, then Indian standards cannot be integrated with global standards. In that light, the two main privately owned standard-setting organizations in India are the Global ICT Standards Forum of India (GISFI) and the Development Organization of Standards for Telecommunication in India (DOSTI).

GISFI functions as a collaboration of and among the following entities[35], namely: Telecommunication Technology Committee (TTC); Telecommunications Industry Association (TIA); International Telecommunication Union; Association of Radio Industries and Business; European Standards Telecommunication Institute (ETSI). On the other hand, DOSTI is based on the collaboration of the public-private partnership model. However, the prime law in the country - the Competition Act of 2002 [36] does not deal with any aspect of standard setting at any level. That is an area for a potential lacuna in the existing legislation.

Disclosure & Non-Disclosure of Intellectual Property:

Standard Essential Patent holders are required to reveal their patented technology for effective implementation of the same by the licensees. On the other side, the licensees are required to sign a non-disclosure agreement in order not to reveal the licensed technology from the SEP holders. This one-way yet two-way process is entirely complicated. [37]

SEP holders have the obligation to make the information of their patented technology available to the respective Standard Setting Organizations and SSOs are mandated to have firm policies on non-disclosure of intellectual property. There is a compulsion upon the SEP holders to reveal their patented technology for effectively assessing the standard and for efficiently implementing and integrating the said standard with the global standards.

Standard Essential Patents:

Standard essential patents (SEP) determine and provide standards for the global community to follow with respect to technologies. SEP holders allow other companies to use their invention by licensing the same to them with a commercial interest. [38] There are manifold of issues concerning licensing and related matters. However, the criteria for holding a SEP in itself is a nuanced one. One of the basic requirements for an invention to be marked with a SEP is its ‘essentiality.’

Essentiality Check for SEPs:

All standard essential patents do not automatically contribute to be of an ‘essential’ standard. There are instances where SEP declared patents are not at all essential. The essentiality check is not shouldered by the Standards Setting Organizations. The issue of ‘essentiality’ spurs a discussion only when such patents are challenged in the courts of law. Interestingly, Cyber Creative Institute [39] notes that only 56% of the patents declared as SEPs by the European Telecommunications Standards Institute holds the criteria for being of an essential standard.

In order to tackle this issue, a recent report suggests employing AI-based semantic claim[40] to verify SEPs claim. There’s a long way to bring that into action, but if incorporated, its level of success will be beyond boundaries.

SEP Licensing:

Standard Setting Organizations oblige the Standard Essential Patent holders to license their patent, which has gained the recognition of a global standard to enable other companies to use their patented invention. To safeguard the interests of all the parties involved in licensing, several protocols must be followed. These protocols further make this entire complicated process a bearable one. All such relevant ones are explained below.

FRAND Declaration:

FRAND and RAND are the acronyms used for fair, reasonable, and non-discriminatory terms and reasonable and non-discriminatory terms, respectively and these acronyms are used interchangeably. FRAND terms denote a voluntary commitment from the side of the Standard Essential Patent holders enforced through Standard Setting Organizations for the benefit of the licensees. [41]

This commitment is undertaken essentially to harmonize the interest of the above-mentioned parties. FRAND declaration is not per se a contract but is contractual terms that are to be used in such a way to protect the interests of all the beneficiaries and SSO[42]. There are no formal definitions for the FRAND terms, and therefore, the aspect of open interpretation serves to create agreements in a fair, reasonable, and non-discriminatory manner.

Royalty Rates:

In the context of Competition law and Intellectual property, royalties are payments made by the licensees to the licensor (SEP holders) for using their asset or, in other words, the patented technology[43]. To prevent SEP holders from abusing their position of dominance and to mitigate anti-competitive behaviors, there is a mandate under FRAND commitment to fix reasonable and non-discriminatory rates of royalty. [44]

There are enormous ways to determine royalty rates, but the most preferred one is royalty fixed as a percentage of gross revenue. When licensees use the patented technology of the SEP holders without paying due royalties, it becomes a fertile ground for patent infringement.

Licensing Agreements:

A licensing agreement involves two parties, namely: the licensor and the licensee. The Licensor grants a non-transferable license to the licensee for the use of certain sources. In intellectual property, the Standard Essential Patent holders are the licensor, and the patent users are the licensees. A licensing agreement ensures that the rights and interests of all the parties involved in such licensing are protected. On that note, there are three main types of licensing agreements, namely: Compulsory licensing, Cross-licensing, and Defensive Patent License. [45]

In the first place, a license agreement is created for the benefit of the beneficiaries, but it is prominently used to serve the interest of the licensor in a way that there can be no misuse of their patented invention. This agreement ensures that royalty payments are in line with FRAND terms on that part of the licensees.

Eminent Practices:

Eminent practices in India can be understood by taking a brief look at a study conducted by Clairvolex from the year 2005 to 2010, [46] which noted the following:

“Qualcomm is the front runner in a patent filing in India. It filed 1951 patents from 2005 to 2009, followed by Ericson with 1232, Nokia with 1154, Samsung with 1103, Motorola with 626, Research in Motion (RIM) with 558, LG with 403 and Sony Ericson with 363 patents. xxxviii Qualcomm has the largest patent filing in Electric Communication Techniques and Measurement. Nokia has the largest filing in the Acoustics and Musical Instruments segment and Ericsson has the largest patent filing in the Electronic Circuitry segment. Samsung is the largest in filing a patent application in the computing segment.” [47]

It further noted that of the above-mentioned companies, few of them were also members of the Global ICT Standards Forum of India. These attributions make India one of an integral part of the global standards forum.

Reliefs For Seps Infringement - India:

The Indian Patents Act of 1970 does not deal with infringement related to SEPs in explicit terms, but certain sections under the said Act cover areas related to penalties and reliefs. Section 108 of the Indian Patents Act of 1970 deals with ‘reliefs in a suit for infringement.’ [48] Reliefs under the said section include injunction, either damages or an account of profits, seizure, forfeiture or compensation in some instances. To illustrate the different types of reliefs in the Indian jurisprudence, the author would like to cite a relevant paragraph from the case - Bajaj Auto Ltd vs Tvs Motor Company Ltd:

“The suit filed by the plaintiff was not one for injunction alone. It was a comprehensive suit for declaration and that too for a decree of non-infringement. The plaintiff has also claimed damages against the defendant. Since the plaintiff sought relief from non-infringement, they were naturally required to lead their evidence first.” [49]

Abuse Of Dominance by Sep Holders:

The Standard Essential Patents grant is said to entertain anti-competitive behaviour. It is said so because SEP holders enjoy unlimited power in terms of market shares, market power, and dominance. The area where SEP holders exercise a maximum of dominance is with respect to licensing agreements. The reason for that is – that SEP holders have the mandate to follow FRAND terms, but more often than not, incidents happen wherein such protocols are either abused or neglected. [50]

In any business, the aim is to maximize profits, and when it comes to SEP holders, their business itself is locked up with a standard, essentially patented technology or invention. As a result, they tend to maximize their profits by abusing or taking advantage of their position or, in other words, their dominance.

Case Studies (Contd):

A leading case law in this light is the case of Micromax v Ericsson at the Competition Commission of India. The relevant paragraph has been cited below for better understanding:

“hold-up can subvert the competitive process of choosing among technologies and undermine the integrity of standard-setting activities. Ultimately, the high costs of such patents get transferred to the final consumers.” [51]

It is important to note that although there is no law explicitly dealing with SEPs abuse of dominance issue in India, the concept of abuse of dominance is dealt under section 4 of the Competition Act of 2002 and the same applies to all issues connected to it.

Anti-Competitive Use by Sep Licensees:

Owing to the dominance that SEP holders get in a particular market because of their patented invention, it is said to attain a colour of anti-competitiveness if matters under the FRAND declarations are not adhered to. However, it can be rightly said that the pro-competitiveness obtained through SEPs outweighs the tint of anti-competitiveness in the game. Besides, the SEP licensees pose a threat through cartelisation. [52] If not all, there are chances for a few licensees who are competitors in a particular industry to use the license of a particular technology to collaborate and misuse the license agreement in the name of cartels. This is one of the prime concerns regarding anti-competitiveness from the side of licensees.

In India, Section 4 of the Competition Act of 2002 deals with anti-competitive agreements and practices. Furthermore, the formation of cartels is strictly prohibited and is a punishable offence under section 3 of

the said Act. On this note, one of the landmark decisions by the Competition Commission of India was deliberated in the case of Fx Enterprise Solutions India Pvt. Ltd. & St. Antony's Cars Pvt. Ltd. v. Hyundai Motor India Limited [53] and the relevant portion of paragraph 92 is highlighted below:

"It is known that Resale Price Maintenance (RPM) as a practice by multiple manufacturers is conducive for effective monitoring of cartel. Higher prices under RPM can exist, even when a single manufacturer imposes minimum RPM. Further, this leads to another likely anti-competitive effect of higher prices across all brands even if there is no upstream or downstream conspiracy because preventing price competition on a popular brand would result in higher prices of competing brands as well."

Case Study:

Predatory pricing is also one of the contours of anti-competitive practices. When Meru Travel Solutions Private Limited filed a suit against Uber at the Competition Commission of India (CCI), alleging predatory pricing and anti-competitive practices on the part of Uber in the year 2015, the CCI ruled in favour of Uber. As a result, the CCI's order was appealed to the Competition Appellate Tribunal (COMPAT). The COMPAT ruled in favour of Meru, and consequently, Uber chose an appeal to the Hon'ble Supreme Court of India. The Supreme Court in 2019 dismissed the appeal preferred by Uber and upheld the order of COMPAT. [54] The most crucial issue at the CCI, COMPAT, and the Hon'ble Supreme Court was concerning predatory pricing strategy. In that light, the Supreme Court noted the following:

"Uber was losing Rs. 204 per trip in respect of every trip made by the cars of the fleet owners, which does not make any economic sense other than pointing to Uber's intent to eliminate competition in the market..." [55]

Conclusion

When 'Standard Essential Patents (SEPs)' and 'Standard Setting Organizations' (SSOs) are unregulated, then the same pose undeniable threats like unreasonable royalty rates and violation of FRAND terms. The Indian Competition Act of 2002 and the Indian Patents Act of 1970 are elaborate and precise. Still, the said Acts do not serve to protect the interests of the SEP holders and the licensees in the sense that there is no mention of the same in either of the Acts. In order to fill the lacunae, the scope of both the Competition Act of 2002 and the Indian Patents Act of 1970 should be extended to include royalty rates, FRAND terms, FRAND licensing, AI algorithms and related matters under the purview of the respective Acts. Besides, cases like the Telefonaktiebolaget Lm Ericsson v Mercury Electronics & Anr[56] and Telefonaktiebolaget Lm Ericsson v Competition Commission of India & Anr[57] Dolby International AB and Anr. v. GDN Enterprise Private Limited & Ors. [58] assert the ever-growing pace of competition issues worldwide. SEP-FRAND jurisprudence holds an extremely important point owing to the SEP landscape in India where the majority of the companies are implementers of a standard. Therefore, the multitude of issues concerning FRAND terms and Royalty rates are untouched. This research paper urges for a prospective environment in the Competition regime in India.

References

- [1] Telefonaktiebolaget Lm Ericsson v Mercury Electronics & Anr [2013] MANU DE 4579.
- [2] Telefonaktiebolaget Lm Ericsson v Competition Commission of India & Anr [2016] W.P(C) No. 464 of 2014.
- [3] [2016] CS(COMM) 1426.
- [4] TECH2, 'Dolby Drags Oppo and Vivo to Court; Demands Royalties for Unlicensed Use of Proprietary Technology' (First Post, 11 November 2016)
- [5] <<https://www.firstpost.com/tech/news-analysis/dolby-drags-oppo-and-vivo-to-court-demands-royalties-for-unlicensed-use-of-proprietary-technology-3692107.html>> accessed 08 November 2022.
- [6] Ericsson, 'Annual Report 2020' (Ericsson, 5 May 2021)
- [7] <<https://www.ericsson.com/494193/assets/local/investors/documents/2020/annual-report-2020-en.pdf>> accessed 08 November 2022.
- [8] Singh S, 'Ericsson v. Micromax – A Case of Abuse of Dominance and Unambiguous Laws of India' (Libertatem Magazine, 28 October 2021) <<https://libertatem.in/blog/ericsson-v-micromax-a-case-of-abuse-of-dominance-and-unambiguous-laws-of-india/>> accessed 08 November 2022.
- [9] Kapko M, 'Ericsson Nips Huawei, Nokia in Gartner's 5G Vendor Ranking' (sdxCentral, 24 February 2021) <<https://www.sdxcentral.com/articles/news/ericsson-nips-huawei-nokia-in-gartners-5g-vendor-ranking/2021/02/>> accessed 09 November 2022.

- [10] Mint, 'Micromax world's 10th largest mobile phone brand in Q1: Gartner' (Mint, 02 June 2015) <<https://www.livemint.com/Consumer/NJWeTcXovj8YC7d7VN2TSN/Micromax-worlds-10th-largest-mobile-phone-brand-in-Q1-Gart.html> > accessed 09 November 2022.
- [11] Pratika, 'Micromax Becomes Number One Mobile Phone Company in India' <<https://web.archive.org/web/20140808054045/http://www.patrika.com/article/micromax-beomes-number-one-mobile-phone-company-in-india/48249>> accessed 09 November 2022.
- [12] Ericsson, 'Annual Report 2020' (Ericsson, 5 May 2021)
- [13] <<https://www.ericsson.com/494193/assets/local/investors/documents/2020/annual-report-2020-en.pdf>> accessed 10 November 2022.
- [14] Sharma H, 'India's Micromax, Once a Rising Star, Struggles' (REUTERS, 13 March 2016) <<https://www.reuters.com/article/us-micromax-management/indias-micromax-once-a-rising-star-struggles-idUSKCN0WF00M> > accessed 10 November 2022.
- [15] Kapko M, 'Ericsson, Cisco, Samsung Gain Telco Gear Share as Huawei, Nokia Suffer Losses' (sdxCentral, 14 September 2021) <<https://www.sdxcentral.com/articles/news/ericsson-cisco-samsung-gain-telco-gear-share-as-huawei-nokia-suffer-losses/2021/09/> > accessed 10 November 2022.
- [16] Sun S, 'Share of Micromax in the Mobile Phone Market in India 2019-2020' (STATISTA, 04 October 2021) <<https://www.statista.com/statistics/938451/india-micromax-share-in-the-mobile-phone-market/> > accessed 10 November 2022.
- [17] Ericsson, 'Annual Report 2020' (Ericsson, 5 May 2021)
- [18] <<https://www.ericsson.com/494193/assets/local/investors/documents/2020/annual-report-2020-en.pdf>> accessed 10 November 2022.
- [19] Banerji S, 'The Return of Micromax' (Business Today, 06 September 2016)
- [20] <<https://www.businesstoday.in/magazine/corporate/story/the-return-of-micromax-chinese-smartphone-anti-china-sentiment-270370-2020-08-18>> accessed 11 November 2022.
- [21] COMPANIES MARKET CAP <<https://companiesmarketcap.com/dolby/marketcap/>> accessed 11 November 2022.
- [22] NASDAQ <<https://www.nasdaq.com/market-activity/stocks/imax/institutional-holdings>> accessed 12 November 2022.
- [23] CSI MARKET <https://csimarket.com/stocks/compet_glance.php?code=DLB, > accessed 12 November 2022.
- [24] Ibid [18].
- [25] Jason, 'Dolby Cinema vs IMAX: Which Offers a Better Experience?' (Home Theater Academy, 07 May 2022) <<https://hometheateracademy.com/dolby-cinema-vs-imax/>, > accessed 12 November 2022.
- [26] Counterpoint <<https://www.counterpointresearch.com/india-smartphone-share/>>
- [27] accessed 12 November 2022.
- [28] The Economic Times <<https://economictimes.indiatimes.com/topic/vivo-revenue/news>>, accessed 08 December 2021
- [29] Exchange 4 Media <<https://www.exchange4media.com/announcements-news/oppo-mobiles-indias-fy20-revenue-rises-79-to-rs-385745-crore-111328.html>, > accessed 12 November 2022.
- [30] Dutta & Pinto, 'Brand strategy: Xiaomi Makes the Right Calls, Oppo and Vivo See a Lull' (Business Standard, 27 November 2017) <https://www.business-standard.com/article/companies/xiaomi-makes-the-right-calls-oppo-and-vivo-see-a-lull-117112600654_1.html > accessed 12 November 2022.
- [31] "The data for consumer preference was collected through a sample research survey conducted by the authors of this paper."
- [32] Muralidharan S, 'Ericsson v. Micromax – A Kick-Start to SEP-FRAND Antitrust
- [33] Jurisprudence in India' (Wolters Kluwer, 13 July 2016)
- [34] <<http://competitionlawblog.kluwercompetitionlaw.com/2016/07/13/ericsson-v-micromax-a-kick-start-to-the-sep-frand-antitrust-jurisprudence-in-india/>> accessed 13 November 2022.
- [35] TECH2, 'Dolby Drags Oppo and Vivo to Court; Demands Royalties for Unlicensed Use of Proprietary Technology' (First Post, 11 November 2016)
- [36] <<https://www.firstpost.com/tech/news-analysis/dolby-drags-oppo-and-vivo-to-court-demands-royalties-for-unlicensed-use-of-proprietary-technology-3692107.html> > accessed 12 November 2022.
- [37] Dolby International AB and Anr v GDN Enterprise Private Limited & Ors [2016] CS(COMM) 1426.
- [38] Ping W, 'A Brief History of Standards and Standardization Organizations: A Chinese Perspective' (Eas -West Center, 01 April 2011)

- [39] <<https://www.eastwestcenter.org/publications/brief-history-standards-and-standardization-organizations-chinese-perspective> > accessed 12 November 2022.
- [40] Shapiro, Carl, 'Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting' (2001) 1(1) MIT Press <<http://faculty.haas.berkeley.edu/shapiro/thicket.pdf>> accessed 12 November 2022.
- [41] Sambhar I, 'India: Concept of Standard Essential Patent' (Mondaq, 30 June 2020) <<https://www.mondaq.com/india/patent/954588/concept-of-standard-essential-patent> > 14 November 2022.
- [42] Schellingerhout and Cavicchi, 'Patent ambush in standard-setting: the Commission accepts commitments from Rambus to lower memory chip royalty rates' (2010) 1(34) European Commission <https://ec.europa.eu/competition/publications/cpn/cpn_2010_1.html> accessed 14 November 2022.
- [43] BSI Group Annual Report and Financial Statements <
- [44] <http://www.bsigroup.com/upload/Corporate%20Marketing/Financial%20Performance/BSI_Group_Annual_Report_and_Financial_Statements_2010.pdf > accessed 15 November 2022.
- [45] Constitution and Convention of the International Telecommunication Union <https://treaties.un.org/Pages/showDetails.aspx?objid=08000002800b0730&clang=_en > accessed 15 November 2022.
- [46] JEDEC, 'Global Standards for the Microelectronics Industry' <<https://www.jedec.org/about-jedec/activities>> accessed 16 November 2022.
- [47] Ministry of Corporate Affairs, Report of Competition Law Review Committee (Government of India, 2019) accessed 16 November 2022.
- [48] Bhardwaj R, 'Standard Setting in India: Competition Law and IP Issues' (2013) 5(96) IMJ <www.iimdr.ac.in/wp-content/uploads/Standard.pdf > accessed 17 November 2022.
- [49] Hines D. J, Ming-Tao Yang, 'Worldwide activities on licensing issues relating to standard essential patents' (WIPO, February 2019) <https://www.wipo.int/wipo_magazine/en/2019/01/article_0003.html> accessed 17 November 2022.
- [50] Singh A, 'How to Check the Essentiality of Standard Essential Patents?' (GREYB) <<https://www.greyb.com/check-sep-essentiality/>> accessed 18 November 2022.
- [51] Iplytics, 'Using AI to Valuate and Determine Essentiality for SEPs' (Iplytics, 18 June 2021) <<https://www.iplytics.com/report/using-ai-valuate-determine-essentiality-seps/>> accessed 18 November 2022.
- [52] Sidak J.G, 'A FRAND Contract's Intended Third-Party Beneficiary'(CRITERION) <<https://www.criterioneconomics.com/a-frand-contracts-intended-third-party-beneficiary.html>> accessed 18 November 2022.
- [53] Botts B, 'Strategic Considerations in Litigating FRAND Royalty Rates for Standard Essential Patents' (Baker Botts, 25 June 2021) <<https://www.bakerbotts.com/thought-leadership/publications/2021/june/strategic-considerations-in-litigating-frand-royalty-rates-for-standard-essential-patents>> accessed 18 November 2022.
- [54] Kennedy D, Larry Tedesco, 'FRAND royalty rates in SEP licensing: comparable license agreements'(IAM, 20 November 2020) <<https://www.iam-media.com/global-guide/innovation-invention-yearbook/2021/article/frand-royalty-rates-in-sep-licensing-comparable-licence-agreements>> accessed 18 November 2022.
- [55] Scarpelli B, 'SEP Licensing: Know Your Rights, (WIPR, 17 July 2019) <<https://www.worldipreview.com/contributed-article/sep-licensing-know-your-rights.>> accessed 18 November 2022.
- [57] Bhardwaj R, 'Standard Setting in India: Competition Law and IP Issues' (2013) 5(96) IMJ <www.iimdr.ac.in/wp-content/uploads/Standard.pdf > accessed 19 November 2022.
- [58] Aayush Sharma, 'India: Penalties and Reliefs Under Patents Act' (WIPO Magazine, February 2019) <https://www.wipo.int/wipo_magazine/en/2019/01/article_0003.html> accessed 19 November 2022.
- [59] Bajaj Auto Ltd v TVS Motor Company Ltd (2009) 12SC 103.
- [60] INDIA BRAND EQUITY FOUNDATION <<https://www.ibef.org/industry/information-technology-india.aspx>> accessed 19 November 2022.
- [61] Competition Commission of India, [Case No. 50/2013].
- [62] Pedro Caro de Sousa, Licensing of IP Rights and Competition Law, OECD, 15 (2019), <<https://www.oecd.org/daf/competition/licensing-of-ip-rights-and-competition-law.htm>>
- [63] Fx Enterprise Solutions India Pvt. Ltd. & St. Antony's Cars Pvt. Ltd. v. Hyundai Motor India Limited [Case Nos. 36 & 82 of 2014].

- [64] AZB & Partners, 'India: Supreme Court Refuses to Interfere with Appellate Tribunal's Order Pertaining To Uber' (Mondaq, 18 December 2019)
- [65] <<https://www.mondaq.com/india/antitrust-eu-competition-/871174/supreme-court-refuses-to-interfere-with-appellate-tribunal39s-order-pertaining-to-uber>> accessed 12 November 2022.
- [66] Meru Travel Solutions Private Limited v Uber India Systems Private Limited and Ors [2015] Case No. 81.
- [67] [2013] CS(OS) No. 442/2013.
- [68] [2016] W.P(C) No. 464/2014.
- [69] CS(COMM) No. 1426/2016.