

Anti-monopoly Regulation on the Standard Essential Patent-On Huawei v. the US IDC

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Abstract

With the arrival of the Sci-Tech era and information era, the standards-essential patent becomes increasingly important and the educational circle is more and more concerned about the study on the anti-monopoly law of standard essential patent. Since many lawsuits on the standards-essential patent occur in recent years, the educational circle of China begins to think seriously over the new legal issue. From the perspective of the anti-monopoly law, this thesis gives an introduction to the concept of standards-essential patent and takes the specific case of Huawei suing the US IDC as an example to analyze how to make use of the anti-monopoly law in China to regulate the standard essential patent .

Keywords: Standard Essential Patent; Anti-monopoly; Regulation; Huawei v. The US IDC

1. Introduction

With the arrival of the knowledge economy era, there are more and more patents in the field of technical standards, which are called as the standard essential patent. The implementation of standards in order to make the products meet the technical standards of standardization organizations have to use standard essential patents in the system. Standards play a key role in many industries, including those critical for future growth. Intellectual property (IP) owners vie to have their technologies incorporated into standards, so as to collect royalty revenues. Therefore, once the formation of standard-essential patents, the patentee will use standard gain advantage in, through the control of patent license to competitors, or to control access to high patent licensing fees, and even more as the limit of the tools of market competition. Nowadays, there are a lot of intellectual property rights disputes among large multinational companies, and we should pay more attention on the negative effect resulted from the abuse of it. As we all know, if enterprise controls the standard essential patent and abuses it, it will implement monopoly behaviors, which will form monopoly status in related markets and cause the formation of international trade barriers moreover.

Standard-setting organizations (SSOs) perform three functions. The discovery function consists of learning about, and certifying the value of, various combinations of functionalities. The standardization function then steers market expectations toward a particular technology; the SSO usually selects one of several options. Patents that are ex ante dispensable to the extent that technology variants that do not rely on them were competing with the selected one may thereby become ex post, “standard-essential patents.” Most SSOs perform a regulation function, requiring the owners of patents covered by the standard to

grant licenses on fair, reasonable, and nondiscriminatory (FRAND) terms. Needless to say, such loose price commitments have been conducive to litigation. Both the antitrust practice and the legal literature (e.g., Swanson and Baumol 2005; Schmalensee 2009; Lemley and Shapiro 2013) emphasize that “fair and reasonable” must reflect the outcome of ex ante technology competition, not of the manufactured ex post monopoly situation.³ But it is difficult, if not impossible, for a court to determine ex post how valuable a given patent would have been in the ex ante world in which the standard was formed.

In order to regulate the abuse of standard essential patent, we should make full use of Anti-monopoly Law, which takes maintaining the market competition order as its primary task, puts more obligations to maintain market competition on standard essential patent, recognizes and regulates the abuse of standard essential patent monopoly more strictly. The US IDC in the standard advantage made negotiations with Huawei company about essential patents licensing with the unfair treatment to Huawei, because it made full use of patent licensing negotiations to seek specific performance control, to maximize their own interests. From the perspective of the monopoly law, this thesis gives an introduction to the concept of standard essential patent and takes the specific case of Huawei suing the US IDC as an example to provide some reflections and suggestions for the regulation of the anti-monopoly law of standard essential patent in China.

2. Materials and Methods

2.1. The Basic Facts of Huawei v. the US IDC

2.1.1. The Introduction of Two Parties

Huawei Technologies Co, Ltd. the plaintiff of this case, which has its own business scope mainly including development, production and sales of data communications equipment, broadband multimedia equipment, wireless communications equipment, electronics, terminal equipment and related maintenance and technical advisory services, is one giant of the world's main communication terminal manufacturing. In terms of patent holdings, the plaintiff Huawei company owns a number of patent technology at home and abroad and has joined the global 123 major standard organizations.

Inter Digital Group, namely the IDC company, the defendant of this case is a giant of global communication standard patents. Interactive digital group has a lot of standard essential patents in the field of global wireless communication technology ,which are the key standards of application of 2G, 3G and 4G. The defendant interactive digital group makes lots of profit with its essential patents by authorizing patent rights to other companies such as Huawei, and it does not produce any substantive business products.

2.1.2. The main Facts of the Lawsuit

The plaintiff Huawei and the defendant the US Interactive Digital Group (hereinafter referred to as the IDC) are the members of the European Telecommunications Standards Organization. According to the ETSI policy provisions of related standard patents, before the holders' relevant patent technology are included in the ETSI standard, the holder must be committed to grant an irrevocable license of the patent technology with the principle of "fair, reasonable and non-discriminatory (FRAND requirement)" . In

September 2008 to August 2012, the defendant has sent patent license offer to the plaintiff four times in totally. In the offer, the defendant has granted the plaintiff Huawei company related standard essential patents in the field of 2G, 3G global communication, and the plaintiff Huawei must pay the necessary fees for these licenses. However, the offer of licensing fees is too harsh for Huawei, which is obviously much higher than rival companies such as Apple, Samsung and etc. moreover, the IDC asked for the plaintiff giving all of its patents to the defendant for free license. In the process of the talks, in order to force the plaintiff Huawei company to accept its offer authorized conditions, the defendant IDC applied for "337 investigation "United States international trade commission on July 26, 2011. At the same time, the IDC companies as the plaintiff also sued a lawsuit against Huawei as the defendant to the US Federal Court, which charged that Huawei company has violated the IDC's seven standard essential patents, and asked the court to award a "ban" on Huawei company to relieve defendant's losses for Huawei's infringement of its standard patents . Finally. the United States Federal Court only recognized one standard essential patent as a infringement and rejected the defendant's ban on Huawei for requesting.

2.1.3.The Litigation Process and Result of the Lawsuit

On December 6, 2011, after a bona fide negotiations to the US IDC, the plaintiff Huawei company sued a case to the Shenzhen Intermediate People's Court, which accused the defendant the IDC company abusing its dominant market position in the field of communication, in violation of the principle of fair, reasonable and non-discrimination as FRAND requirement and the relevant provisions of the Anti-monopoly Law in China and its behavior had formed a monopoly statue. The plaintiff Huawei requested the Shenzhen Intermediate People's Court to order the defendant IDC to stop its monopoly and claimed 20 million RMB as the licensing fee loss in accordance with the principle of fair, reasonable and non-discrimination. Finally, the Shenzhen Intermediate People's Court made a conclusion to support the plaintiff's requirements. It concluded that the defendant's act has constituted substantial monopoly in the field of communication, in violation of the anti-monopoly law in China, and the IDC paid 20 million RMB to compensate the plaintiff. After the first-instance judgment of Shenzhen Intermediate People's Court, both the plaintiff and the defendant appealed to the higher court. On October 29, 2013, Guangdong Higher People's Court make final judgment on the case, where the judge dismissed the appeal and upheld the verdict.

2.2. *The main Legal Theory Related to Huawei v. the US IDC*

2.2.1.The Key Legal Disputes of the Case

From the point of the global market, legal disputes of standard essential patents mainly include two aspects: the first problem is that the patentee who owns the standard essential patent may misuse his dominant market position to form monopoly; the second one is about the application of the FRAND requirement principle. The main legal dispute involved in the case of Huawei v. the US IDC is whether the IDC abused his dominant market position according to Anti-monopoly Law in China. How the patentee of standard essential patents abuse his dominant market position is mainly refers to the righter

make full use of standard dominance to engage in the high pricing, advertising, etc which violate the fair, reasonable and non-discriminatory principle (FRAND requirement). Due to exclusivity of the standard, the standard essential patentees are generally considered to have dominant market position, unless the licensee have strength enough to fight against it. If the standard essential patentee is not in line accordance with the principle of "fair, reasonable and non-discriminatory licensing", it may be considered abusing its dominant market position. This main legal dispute of Huawei company v. United States IDC case is the analysis in the standard essential patents under special environment, to judge whether the obligee has abused his dominant market position .In Anti-monopoly Law, the problems related to standard essential patents mainly includes the definition of relevant market , market dominant position, and the definition of the abuse of dominant market position, which are the keys for us to analyze this case.

2.2.2.The Definition of the Relevant market

When we judge whether a enterprise occupies a dominant position in relevant areas, the first and the most basic question for us is to identify clearly what the relevant market is. According to the Anti-monopoly Law in our country, the second paragraph of article 12 of the Anti-monopoly Law has some relevant provisions, it refers to "the operator has specific commodities or services in a certain competition period , the product range and regional scope." Therfor, it is obvious that the Anti-monopoly Law in China has divided relevant market into the scope of the relevant geographic area and the related products. To determine the relevant merchandise range is more difficult than to determine the geographic market area, which refers to the market on the basis of such factors as the nature of the goods ,the prices and the replacement of this kind of goods .Relevant geographic market, from the perspective of space definition, refers to areas of the main bodies of the related market supply or buy goods and the condition of competition in this area is basically consistent.

For the determination of relevant market, the degree of alternative of relevant goods as well as the relevant geographic market is a very important consideration element. When defining the relevant market, there are two main types of alternative analysis methods in academia, the first method is mainly based on the demand side (mainly consumers) as the starting point to alternatively analyze the demand, which is the main method. The second method is to supply alternative analysis when it is necessary (mainly from the perspective of the business operator analysis method), but no matter adopt what kind of method of relevant market shall be determined. moreover the masses of consumers' demand for goods need to be put in significant position. In the Anti-monopoly Law cases, how to scientifically define the relevant market is the foundation of subsequent antitrust problems. Without early the work, later analysis will also be a hindrance, this is also the premise of our analysis on Huawei v. the US IDC.

2.2.3.The Definition of the Dominant market Position

The provisions of article 17 of the Anti-monopoly Law in our country is about the definition of dominant market position, where the point is that: "the operator in the relevant market having the ability to control the commodity price, quantity or other trading conditions, or can block or affect other business operators

getting into the relevant market. " For the traditional anti-monopoly law, to decide a dominant market position is to evaluate market power, which is the evaluation of market forces depending largely on the size of the market share. The so-called market share refers to the offender's sales proportion in the relevant market of all the competitors. In the United States, the operator who has a market share of more than 1/2 can be presumed with relevant market dominant position; In the EU, if the company can independently take behavior in the business to do everything and doesn't have to consider other competitor, then this behavior will be considered as a dominant market position within the relevant market. In Asia, the significant reference is the Japanese law. In Japan. in the definition of dominant market position, in addition to market share, two factors about trade barriers and price control will also be considered. For China's Anti-monopoly law, the presumption is mainly in accordance with the market share to define a dominant market position, especially in article 19 of the Anti-monopoly Law, which provides three standards for the presumption such as, one half for one operator, two-thirds for two operators, three-quarters for three. But one of the operator's market share is less than one over ten, the presumption of it should not be considered as a dominant market position.

2.2.4. The Definition of the Abuse of market Dominant Position

Montesquieu in "the spirit of law" have a words of wisdom: "all who have the right but abuse the rights, this eons is an experience in constant time . " The operator of the dominant market position is not illegal, which is the embodiment of the operators strength and is also the result of the operator's hard work .But everything has a limit, the exercise of the right is also do the same thing. As we all know, because there is no absolute freedom in the world, rights must be limited. The patentee can not just follow his own inclinations to use his own standard essential patents. If he abuses his right, he will be punished by China's Anti-monopoly Law. The abuse of dominant market position is to point that:" enterprises who have dominant market position to make use of this status to make substantial restrictions on competition in the field of certain transactions, violate the public interest, which obviously damage the interests of consumers and is obviously prohibited by the anti-monopoly law. " For the provisions of article 17 of the anti-monopoly law in China, it has provided seven kinds of abuse, including:" to unfair charging or buy goods with higher or lower price ; to sell goods below cost price without justifiable reasons; to refuse the deal behavior without good reason ; to limit trading behavior without justified reason ; to sale with additional unreasonable conditions of behavior without justifiable reasons; to discriminate the transaction price without justifiable reasons and other abuses of antitrust authorities recognized. "In the environment of the standard essential patents, patent holder usually take obligation with the requirements of the standard principle" fair, reasonable and non-discriminatory (FRAND requirement". To violate the principle of FRAND requirement is usually regarded as the main basis of abuse of dominant market position. This case involves abuse in the request for the high price and discriminatory pricing, tying the abuse of unreasonable.

3. Result and Discussion

3.1. The Relevant market of Huawei v. the US IDC

In this case, the relevant commodity market which the plaintiff Huawei has claimed is every essential patent market under 3G wireless communication technology standard which the defendant the United States IDC companies have. The relevant geographic market includes American market and Chinese market. While the IDC company claimed that 2G, 3G and 4G should be regarded as the same commodity markets and the global market should be regarded as relevant geographic market. The court finally supported the plaintiff's Huawei company's claim. For the following reasons: due to the particularity of standard essential patents, if the plaintiff Huawei want to foothold in the field of global communication, it must be able to produce communication products in line with international standards . In order to achieve this goal, standards essential patent owned by the defendant the US IDC is the only and essential patent technology which the plaintiff must implement. Therefore, the defendant IDC company in the United States has the incomparable advantage in the alternativity of goods. However, the plaintiff Huawei company can not find other techniques to circumvent the defendant's advantage in the relevant market. In the field of 3G communication, there's no substitute for each standard, and each standard constitutes an independent relevant market.

Therefore, we can make a conclusion that: in the condition of standard essential patents, every standard essential patent that the patent holder has constitutes an independent relevant market, rather than different types of standard technology patents constitute a common market. If the court accepted the defendant America IDC company's claim that all the standard essential patents in the field of communications are considered as a complete market, the market share percent of the defendant IDC companies in the entire market is not enough to constitute a monopoly statue. moreover, the defendant can make full use of its essentially monopoly strength without any restriction. It will be harmful to the interests of consumers and this target is contrary with the value of anti-monopoly law at the end. Secondly, on the basic of the dimension of the relevant geographic market analysis, intellectual property is a kind of regional power. In different places, there are different types of content of the intellectual property rights, and there are also different legal regulations on intellectual property rights . It is necessary for us to consider the definition of the relevant market under the relevant regulations of the local intellectual property law. Both Huawei company and the US IDC company in this case are the members of the European telecommunications standards institute. The defendant IDC companies in the United States respectively put forward its application with respect to its standard essential patents to the United States court and China court. The intellectual property rights in the United States and China should be regulated on the local intellectual property laws, rules and regulations respectively. If the global market is considered as a relevant geographic market, the regulatory body is ambiguous. As a result, the IDC company has 3 g standard essential patents related to regional markets in China and the United States, which must be within the scope of their respective geographical exercise of essential patent rights.

In the relevant documents enacted by the anti-monopoly commission have mentioned that the relevant market is made up of close substitute markets issued by demands. It has been mentioned above no matter what kind of method is adopted to define the relevant market, the need of the consumers is an important factor that should be fully considered. Therefore, the dispute of this case has arisen, "who the real needs of the case is." There is a wrong opinion that no matter how we want to give full consideration to the

needs of consumers, the demand of this case is telecommunication terminal consumers. If we agree with the above opinion, the US IDC company is not dominant in the relevant market. In fact, the view is obviously wrong. Because the core problem of this case is that the defendant had standard essential patent licensing, however, telecommunication terminal consumers in fact don't need to get the defendant's standard essential patent licensing so that they are not the real consumers of this case. As a result, according to the specific analysis of specific case ,not all consumers are the really demanders of such cases. But the interests of the consumers should be taken into account ultimately no matter what happen .In this case, Huawei company is the real demander of the US IDC's patent licensees,so that the need replacements of Huawei should be considered when we define what the relevant market is .

3.2. The Dominant Market Position of Huawei v. the US IDC

In this case, although the defendant IDC thinks that in the field of global communication, there are a lot of companies similar to it, such as Qualcomm, Motorola and etc, which are large multinational companies own many standard essential patents, so that the share of defendant in the market field of all essential patents is far less than 50%, but it obviously belongs to obfuscate. The defendant US IDC company has many essential patents in 3g wireless technology standards. There's no substitute for each standard in the field of 3G communication, because each standard constitutes an independent relevant market and occupies an absolute dominant position in the relevant market. In this case, it is difficult for the other business operators with competitive relationship to enter the relevant market. Actually, the defendant has fully market shares in each of its standard essential patents, which is far beyond the market share construed dominant market position in accordance with the related regulations in our country anti-monopoly law. The defendant has a strength in the field of 2g, 3g, because almost all involved related products manufacturers need to use the its standard essential patents. It is difficult for other competitors to have the strength to compete with the US IDC. It has been a long time for this situation will not change. The defendant IDC companies in the United States will continue to occupy a dominant market position in the field of cellular. So the defendant's claim that its number proportion of its own essential patents to all necessary patent communication in the communication field be calculated as its market share is unreasonable. We actually should use the market share to each standard presumption of dominant market position, so the court found the defendant has a dominant market position. Also the accused the United States by the profit pattern of IDC is necessary patent license fee, not like other companies also substantial related products for production operation mode. Therefore, the plaintiff Huawei is actually unable to effectively restrict to the defendant, cannot like other production products between technology companies through cross licensing patents to get both sides need.

To sum up, in this case, comparing to the situation of both sides, we can see clearly that the defendant is in a strong position and the plaintiff is obviously in a weak position in the negotiations. The plaintiff has no capacity to compete with the accused, because the accused can make use of its advantages by controlling any permits prices. Therefore, the defendant in this case should be considered with relevant market dominant position. When the defendant IDC companies in the United States with its advantage position force the plaintiff Huawei to accept unfair terms of the license, it is suspected of using its

monopoly and abusing its dominant market position. The significance of Huawei v. United States IDC made the standard essential patents environment more clear and relevant market dominance can greatly simplify in the analysis process. It is namely that the licensee has the power to fight, not cases, standard necessary to the patentee is thought to have a dominant market position.

3.3. The Abuse of Market Dominant Position of Huawei v. the US IDC

3.3.1 The Request for High Price or Discriminatory Pricing

In this case, fee of standards essential patent licensing that the defendant the US IDC company awarded to the plaintiff Huawei is much higher than that it awarded to Samsung, Apple and other companies. Huawei's cell phone sale is far less than that of industry giants such as Apple, Samsung in the mobile phone market, but the approval rate of the former is more 19 times than of Apple's, more than 2 times of Samsung's rate. In addition, according to other data, it shows that patent licensing fees that the defendant awarded to the plaintiff accounted for the proportion of total sales of Huawei company is also significantly more than other major competitors. What's more, the defendant doesn't have any substantive production, which make the plaintiff company can not reach a cross-licensing agreement with that defendant the US IDC. However, the accused IDC companies in the United States would forced the plaintiff Huawei company to give the defendant free license of in the global range, which is clearly a "loss" of the business account for the plaintiff. If it comes true, the defendant the IDC can gain not only the high licensing fees, but also can "squeeze" the extra benefits from the plaintiff Huawei. It is obvious that this is a imbalance benefit of trade, which belongs to the existence of excessive pricing and discriminatory pricing behavior, violation of "fair, reasonable and non-discriminatory" principles of FRAND requirement.

In the process of negotiation between the plaintiff and the defendant, the plaintiff has been in a good state, which expected to make proper solved negotiation at a reasonable price for the defendant's standard essential patents. On the contrast, when they both are in the process of negotiating, the defendant the plaintiff claimed a ban in the field of essential patents against Huawei in the United States, which required the plaintiff Huawei immediately to stop the infringing act and the plaintiff should be forbidden to use the necessary patent, which in essence belongs to force the plaintiff to accept the behavior of the high licensing fees. To sum up, the defendant awarded an unfairly high sales of standard essential patents to the plaintiff, which is suspected of abusing discriminatory pricing in the request for the high price and abusing of dominant market position behavior. The IDC violated the standard of FRAND requirement. Finally, as a patentee, the IDC must abide the promise of necessary and should be subject to regulation of our country's Anti-monopoly Law.

3.3.2 The Abuse of Unreasonable Tying

In the standards, essential patent can not be replaced, but the not necessary patent can be replaced. In this case, when the defendant the IDC is in negotiations with the plaintiff Huawei company, the IDC tied the necessary patents and unnecessary patents bound for selling to the plaintiff. The defendant think this sale

behavior conformed to the practices of industry and it can promote the effective competition of the market, and it does not constitute a tying sale. The court held that before the standard member joined to the organizations, what kinds of patents are necessary and which is unnecessary can be judged clearly. Therefore, standard essential patents of the defendant the IDC is clear, the plaintiff Huawei company didn't need to buy other non-essential patent. The defendant can only license the patent to the plaintiff on the inclusion of necessary standards. For non-essential patents, it can only get a deal by negotiating, it can not be forced to sell to the plaintiff as a necessary premise of patent license. In this case, the defendant IDC companies in the United States putted their non-essential patents as the premise of the granted patents necessary, so that their non-essential patents were bundling, which made the plaintiff Huawei company forced to must buy the defendant non-essential patents at the same time of purchasing standard essential patents, which has a negative influence in the market competition, because it is clearly beyond the reasonable scope, belongs to the unreasonable conduct for sale. As a result, the court concluded the defendant should not make use of its essential patent advantage to tying its non-essential to seek to maximize the interests of the patent. Because the patent should not be held for beyond a reasonable value of the standard itself. In a word, the defendant the IDC's sale behavior of its standard essential constituted the abuse of dominant market position.

4. Conclusion

Standard essential patents is the combination of patents and standards. Due to the contradiction of the public benefit of technical standards with the private benefit of patents right, the combination of product patents and standards caused many problems to be solved. Standard essential patent chargers tend to charge unreasonable licensing fees or command unfair bargaining position rely on their patent including in the standard. The development of FRAND principle proved to be an effective means to achieve a great balance between patentee and the public interest. However, due to the lack of an accurate understanding of the FRAND principle and the inaccuracy of how to calculate patent licensing rates, there are many disputes in practice.

Patent right abuse is the main performance of intellectual property abuse. When patent right is combined with the technical standard, the problem of right abuse becomes more complex and serious to deal with. The reason lies on the private interest of the patent conflicts with the public character of the technical standard. From the case of Huawei v. The US IDC, we can see that the problems related to standard essential patents mainly includes the definition of relevant market, market dominant position, and the definition of the abuse of dominant market position, which are the keys for us to analyze this case. In order to regulate the abuse of standard essential patent, we should make full use of Anti-monopoly Law, which takes maintaining the market competition order as its primary task, puts more obligations to maintain market competition on standard essential patent, recognizes and regulates the abuse of standard essential patent monopoly more strictly.

Reference

- [1] Josh Lerner and Jean Tirole, Standard-Essential Patents, *Journal of Political Economy* 123, no. 3, 547-586.2015.
- [2] Lemley, Mark A., and Carl Shapiro. "A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents." *Berkeley Technology Law J.* 28:1135–66, 2013.
- [3] Daniel G. Swanson, William J. Baumol. Reasonable and nondiscriminatory (RAND) royalties, standards selection, and control of market power [J]. *Antitrust Law Journal*, 2005(73).
- [4] Phillip E. Areeda et al. *Antitrust Law*. 3rd, ed. Oxford: Oxford University Press, 2007.
- [5] Kevin Coates. *Competition Law and Regulation of Technology Markets*. Oxford: Oxford University Press, 2011.
- [6] Mark A. Lemley. Ten Things to Do about Patent Holdup of Standards. *48 Boston College Law Review* 149, 158, 2007.
- [7] Herbert Hovenkamp. Standards Ownership and Competition Policy. *48 Boston College Law* 87, 2007.
- [8] Brenner, Steffen. "Optimal Formation Rules for Patent Pools." *Econ. Theory* 40 (3): 373–88, 2009.