

Aligning Damages for Patent Infringement with Competition: A Comparison of Japan, Germany, the US and China (*)

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This research explores how to determine patent damages that closely replicate the market value of an invention. This research first discusses how does competition impact patent damages. The patent system aims to promote innovation, the competition policy also trigger innovation. Damages that protect the exclusivity under the patent system meanwhile avoid distorting competition are beneficial to the innovation target to the greatest extent. From the standpoint of a justice, this research concludes three issues essential to the kind of patent damages and the magnitude of patent damages: the kind of the patented technology (disruptive or non-disruptive), the existence of the patent product, the existence of competition between the litigants. Upon clarifying the correlation between competition and patent damages, this research conducts a comparative examination of the legislation of compensation and relevant precedents in the US, Germany, Japan and China. The comparison finds that: (1) the US, Germany and Japan emphasize the “but-for” test, accordingly give much weight to the role of the competition vis-à-vis the issue of determining damages, such consideration is embodied with the alternative to the patented product or patented technology; (2) Chinese precedents barely demonstrate consideration of competition. Chinese courts have insisted on unrealistic standards of proof for the Art.65 para. 1 of the Chinese Patent Law. The application of the three methods featured by the “all-or-nothing” approach. Therefore, the damages are not in proportion to the competition degree. This research holds that observation of the category of damages, the lost profits or the lost royalties, is as significant as the issue of the damages magnitude; and both issues necessitate considerations of competitions. Further, it provides triple suggestions for China.

Under the TRIPs (Trade Related Intellectual Property Rights) Agreement, the member states must empower their judicial authorities to order the infringer to pay the right holder damages adequate to compensate for the injury he has suffered because of an infringement of that person’s intellectual property right by an infringer who knowingly, or with reasonable grounds to know, analogies to calculate the amount of damages.¹ Under Art.13 para.1 lit. b of Directive 2004/48/EC, in appropriate cases Member States set damages as a lump sum on the basis of elements such as at least the amount of royalties or fees which would have been due had the infringer requested authorization to use the IPR at issue.

Originating from these treaties and precedents, most countries established three methods of

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¹ Directive 2004/48/EC, Art. 13.

determining damages to patent infringement: the lost profits, the infringer's profits and reasonable royalties. The three methods aim to facilitate the calculation process under the "differential method" in the civil law. The U.S. law originally admitted the method of infringer's profits, but it was deleted in 1946. Accordingly, in the U.S. patent damages are determined in the form of either lost profits or reasonable royalties. As an alternative to damages under the three methods, Chinese Patent Law allows courts at their discretion to determine the quantum of damages on the specific facts, a remedy known as "statutory damages".² It exists as a floor for those who cannot discharge evidentiary burdens under the three methods. The reason to establish the statutory damages is that it is sometimes difficult to determine compensation through the three methods.³ Currently, statutory damages are applied extensively.

In terms of patent damages, before come to the issue of gauging the range of losses, it is necessary to identify what kind of losses are lost due to unauthorized use of the patented technology. The losses can be divided into two kinds: lost selling profits of the patented product, lost royalties. Existence of competition relationship between litigants suggests the happening of lost profits for the patentee, *i.e.* but for the infringement the patentee would have gained the sales or profits taken by the infringer. By contrast, the lost profits would not arise in cases where the competition relationship is absent. In this case, the patentee is entitled to the reasonable royalties because the reasonable royalties are interpreted as a floor damages in case that the evidences supporting the lost profits are insufficient, aiming to ensure that the patentee would be awarded with damages in any case. To better coordinate the civil law and patent system, it is suggested an understanding from the standpoint of the concept of damages. That is, but for the infringement the patentee would have gained reasonable royalties, under which lies a presumption that the patentee would likely to license his or her patent to the infringer because of absence of competition relationship between the litigants. If the difference between two kinds of losses is ignored, then over/under-compensation is likely to arise. To be specific, when the losses are selling profits, but damages are awarded in the form of reasonable royalties, then under-compensation arises. On the other hand, when the losses are royalties, but lost profits or infringer's profits are awarded, then over-compensation arises. For example, in China, the infringer's profits can be awarded even if the litigants are not competitors; given that the infringer's profits are normally higher than the reasonable royalties, a result of over-compensation is very likely.

Following the issue of identifying the kind of damages comes the issue of gauging the

² Chinese Patent Law, Art. 65 para. 1.

³ SPC's Memorandum Of Meeting of Partial Courts on Intellectual Property Trial (最高人民法院关于全国部分法院知识产权审判工作座谈会纪要), Part 3.5.

magnitude of damages. There are three elements influencing the kind and magnitude of damages: the type of the patented technology; the patentee's enforcing way of the patented technology; and the competition relationship between the patented product and the infringing product. The magnitude of the lost profits is influenced by double elements: (1) the competition relationship between litigants, or say the mutual-alternative relation between the patented product and the infringing product; (2) the competitions deprived from the non-infringing alternatives to the patented product. The magnitude of the reasonable royalties refers to the price that the reasonable licensee/licenser would have agreed on, which fundamentally depends on how competitive does the patented technology in comparison with its alternatives in the technology market.

Conclusively, to determine the kind and magnitude of damages, a justice must consider three issues:

(1) Is the patented technology a disruptive technology? In cases where the patented technology is the disruptive technology, given that the monopoly power entitled by the technology being partly grabbed by the infringer because of unauthorized application to the technology, the infringing products' selling profits usually can be presumed to be the losses. The damages causality between infringement acts and the losses of the patentee is clear. However, the situation of non-disruptive technology is very complicated, the damages causality always appears vague.

(2) In what way does the patentee enforce his or her patent? Damages to patent infringement meant to protect the patentee to earn the market rewards, which are in the form of either selling profits or license royalties. Some patentees manufacture product with the patented technology. In this case, he will try to exclude his competitors rather than license it to his competitors. Such lost profits due to infringement are mostly in the form of *lost sales* and *price erosion*. Then the patent rewards are the selling profits of the patented product, which are dependent on products competition, that is, the extent to which consumers prefer it over alternatives. While other patentees prefer to license his patent, normally, to his non-competitors. If a patentee does not manufacture products or provide services with his or her patented technology, he or she may intend to license it to others. While patent troll would be an exception, whose patent damages should be discussed individually. In this case, someone's unauthorized application of the patented technology lead up to lost royalties to the patentee.

(3) Supposing that the patented product exists, the kind and magnitude of damages are dependent upon the competition relation between the patented product and the infringed product in the same consumer market. It is rational and usually to presume that the patentee would have gain more profits had the infringement not happened. Such lost profits due to infringement are mostly in the form of *lost sales* and *price erosion*.

Upon clarifying the correlation between competition and patent damages, this research conducts a comparative examination of the legislation of compensation and relevant precedents in the US, Germany, Japan and China.

The US, Germany and Japan are sharing more similarities than differences. They all recognize that the special methods are meant to facilitate the issue of determining the amount of damages by alleviating the patentee's burden of proving the range of actual losses due to infringement. Therefore, the courts of these countries tend to hold a relaxed and flexible attitude toward the evidence rules, which makes it possible to add or reduce the amount of damages considering the competition situation.

Regarding the lost profits determination, the three countries all emphasize the question of "but-for": how many sales or profits the patentee would have gained had the infringement not happened? In Japan, the competition relation between the parties serves another precondition to apply the Art. 102(1). Japanese courts abandoned the approach of "all-or-nothing" after the proviso of the Art. 102(1) was established. Accordingly, the amount of lost profits can be in proportion to the competition degree between litigants and the existence of alternatives to the patented product.

The US court developed many ways to identify the scale of lost profits. To answer the but-for test, the US court particularly highlights the issue of alternatives to the patented product or the patented technology, which are embodied with the factor of consumer preference. The US court have long admitted that an accurate measure of the profit the patentee lost or the infringer gained due to the infringement cannot be determined without considering the possibility for the infringer to use the next-best available non-infringing alternative. If the infringer could have diverted to a non-infringing alternative which consumers would have been found indistinguishable from the patented invention, the patentee's position would have been precisely the same absent the infringement, compensation for lost profits would be denied as the "but-for" test would not be satisfied.⁴ To be specific, the Panduit rule necessitates a condition of "lacking non-infringing alternatives"; the "market share" rule lead up to damages corresponding to the patentee's market share; the EMVR (Entire Market Value Rule) presumes the entire sales of the infringing product to the sales would have been made by the patentee but-for infringement if the patented technology composes the main purchase reason.

⁴ Thomas F. Cotter, *Patent Damages Heuristics* (July 13, 2016). *Texas Intellectual Property Law Journal*, Forthcoming; Minnesota Legal Studies Research Paper, p.28.

In Germany, apart from lost sales and price erosion, the lost profits can also compensate remote harms including those resulting from “market confusion” (Marketverwirrung) are also compensable.⁵ German courts do not presume that every sale deprived the patentee of a corresponding sale; rather the patentee must present evidences proving but for infringement how much sales he or she would have gained. Accordingly, in cases where the non-infringing alternatives exist, the causality chain between infringement act and lost profits may be doubtful. Under such circumstance, German courts may prefer to determine lost profits in accordance with the patented product’ market shares.⁶ Only when the infringing product was the “only product used for specific purpose” shall the causality be recognized.⁷ Whereas there exists a division on whether the opposite side of the “but-for” test must be considered: the sales of the patented products would decrease in any case, even if the infringement had not happened. German courts try to relax the proving standard, rejecting the “all-or-nothing” approach. Therefore, the infringer would not be exempted from making compensation just because of the “but-for” test’s opposite side is satisfied.⁸ It correspondent to a traditional approach in Germany---“Rechtmäßige Alternativverhalten”, which specifies that it is forbidden to exempt infringement responsibilities simply because that the same suffering would still arise even if the infringement had not happened.⁹ What’s unclear is whether German courts consider the infringer’s ability to compete by marketing a non-infringing alternative. Justice Meier-Beck has mentioned the possibility that such alternative would affect the calculation of lost profits.¹⁰

All in all, the US, Germany and Japan emphasize the “but-for” test, accordingly give much weight to the role of the competition vis-à-vis the issue of determining damages, such consideration is embodied with the alternative to the patented product or patented technology.

By contrast, Chinese precedents barely demonstrate consideration of competition. Chinese courts have insisted on unrealistic standards of proof for the Art. 65 para. 1 of the Chinese Patent Law. The application of the three methods featured by the “all-or-nothing” approach. The application of the statutory damages is too rough to provide convincing reasoning. Therefore, the damages are not in proportion to the competition degree. Observation on the relevant precedents in China suggests that the role of competition fall to receive sufficient consideration in terms of determining damages.

⁵ Markus Schönknecht, *Determination of Patent Damages in Germany*, IIC (2012) at 309.

⁶ Peter Meier-Beck, *Damages for Patent Infringement According to German Law—Basic Principles, Assessment and Enforcement*, IIC (2004) at 116.

⁷ Horst von der Osten, Schadensersatzberechnung im Patentrecht, 2000 MITTEILUNGEN DER DEUTSCHEN PATENTANWALTEN 95(95-96).

⁸ Oberlandgeticht [OLG] Hamburg Apr. 26, 2007, 3 Zivilsenat. Cited in Thomas F. Cotter, *Comparative Patent Remedies—A Legal and Economic Analysis*, Oxford University Press, p. 264.

⁹ Wolfgang Krüger ed., *Münchener Kommentar zum Bürgerlichen Gesetzbuch*(2007) Sec. 249 Rn. 213.

¹⁰ Peter Meier-Beck, *Damages for Patent Infringement According to German Law—Basic Principles, Assessment and Enforcement*, IIC (2004) at 116.

Against such background, this research makes three proposals for Chinese patent law and its practice:

(1) Proving standard should be relaxed, which accordingly creates discretion space in the three methods as well as mitigates the burdens of proof for patentees. Concerning the calculation methods of patentees' losses and infringers' profits, the approach taken by the German courts provide a desirable reference. That is, if only the patentee provides rough evidences proving the general extent of damage, causality of lost profits chain between the infringement act and losses of the patentee is deemed justified, accordingly damages in the form of lost profits or infringer's profits must be awarded. In terms of the reasonable royalties, courts should be allowed to adopt a general calculation standard in a relevant market at its discretion. In so doing burdens of proof on the patentees are mitigated, then the exact amount of damages can be determined.

(2) To specify all the calculation methods in the aspects of the legal nature, the preconditions and the burdens of proof. The Art.65 of the Chinese Patent Law and its judicial interpretations provide nothing but calculation formulas, plus the fact of "all-or-nothing" approach in practice, the special methods are more of stereotypes rather than living regimes representing the "but-for" test in varied profiles. On this point, Art. 102 (1), (2), (3) of the Japanese Patent Law and relevant practices provide valuable references. The precondition for the three special methods deprived from their legal nature-- "presumption". Hereinafter the burden of proving the range of actual losses is eliminated for the patentee. At the same time, given that the actual losses are not always corresponding to the presumption, the infringer is entitled to overturn the presumption by providing opposite evidences.

(3) The rule of sequential application should be cancelled. Instead, the patentee should be entitled with the right to *select* the calculation method. Putting the discussion of civil procedural theory aside, the main reason lies in the fact that the sequential application blocks the way to use different methods in accordance with different kind of losses as I proposed before.