FINDING
PATENT LITIGATION STRATEGIES
THAT MAKE ECONOMIC SENSE:

WHAT DOES YOUR CLIENT
REALLY NEED?

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FINDING PATENT LITIGATION STRATEGIES THAT MAKE ECONOMIC SENSE: WHAT DOES YOUR CLIENT REALLY NEED?

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I. INTRODUCTION

In your next patent infringement case, how can you advise your client, ABC Company, on the best way to proceed? At the outset of any case, your client may be emotional; it may feel wronged, or wrongly accused. If ABC is the patent owner, it may be quite upset that the infringing competitor has stolen its product. After an initial look at its patent claims, a search for prior art and reverse-engineering the allegedly infringing product, this client may ask you to send a letter to the competitor that puts it on notice — it is infringing and must stop selling the copycat product immediately. For this paper, let us assume that the infringer does not stop and, ultimately, ABC asks you to prepare and file a complaint.

It is at this early point in the life of a case that your client should be thinking about the ultimate objective of the litigation. It may want to file the litigation, perhaps push for a preliminary injunction, say they want to put a stop to the infringement, "whatever it takes" — but then caution you to keep your costs to a minimum. Particularly when emotions might still be playing a role, it is important to try to keep their focus: *a win is a win in the marketplace*! ABC is in business to make money from selling products. While the infringement may be emotionally distressing, ABC's problem really boils down to money. Unfortunately, at the early stages of the litigation, many clients may forget this basic fact and, consequently, may need guidance.

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Of course, you can follow your client's wishes and file the litigation. But, to best serve their interests, you also need to help them figure out what is really at stake. What do they want the litigation to accomplish for them *in the marketplace*?

To answer this question, it is helpful to remember that, particularly at this early stage of the litigation, your client faces a decision tree. At its simplest, if ABC is the plaintiff, it must choose whether to litigate and, if so, whether to file for a preliminary injunction. Ultimately, it must choose whether to settle the case or go to trial in the hopes of being awarded damages, being aware, of course, that each path has its own set of litigation costs. On the other hand, if your client is the defendant, it must decide how hard to fight the case and come to terms with the fact that the litigation is going to cost it money — both as ongoing litigation expenses and, ultimately, at settlement or perhaps as an unfavorable judgment at trial.

Your experience as a litigator can inform your judgment about the probability of success and the litigation costs associated with each path along that decision tree. But, which path your client should choose depends on the ultimate payoff — or, for a defendant, pay*out* — from each possible outcome: from winning, or from losing, or settling. Consequently, as a practical matter, for the litigation to make economic sense for your client, you need to do some work *at the very beginning* of the case to determine what is at stake. The relevant question is: *What is the ultimate goal*?

No doubt, ABC wants to protect its investment in the patented product. But, how should it do that? Does it ultimately want to exclude the infringer completely? Or, now that the infringement has occurred, might ABC and the infringer both be better off with a licensing arrangement? How you answer these questions is central to how you advise your client at the early stages of — and, even, before filing — the litigation.

II. ABC'S STRATEGIC OPTIONS: ELIMINATING THE INFRINGER VS. LICENSING

A. Economic Factors

The way to determine a litigation strategy that stays focused on winning in the marketplace is to think about a number of economic issues.[1] For example,

- To what extent are there acceptable non-infringing alternative products to which end-customers can turn?
- Is ABC sufficiently *able to produce* the product and bring it to market to satisfy the infringer's sales volume? That is, does it have the necessary production and marketing capacity?
- Even if it has that capacity, can ABC actually *reach* every customer that is buying the infringing product?
- If it were not for the infringement, would ABC be likely to *persuade* all of those customers to, instead, buy its own?
- Does the infringer have a cost advantage in producing the patented product compared with ABC? and
- What is the role, if any, of the Court's decision in *Rite-Hite*?[2] That is, what if ABC expects that infringement is causing it to lose substantial sales of other items, but those other items are not necessarily *functionally related* to the patented product?

These all are important questions, but we need to organize our thinking about them. Depending upon the answers, ABC might find that its interests are best served by quickly settling the case and awarding the infringer a license agreement. Alternatively, the answers

[1] In fact, these same issues are frequently left unexplored until the late stages of litigation. That is, the questions that lead to an economically sensible litigation strategy at the get-go turn out to be the same questions that need to be confronted in the damages phase of the case.

[2] *Rite Hite v. Kelley Company* (*Rite Hite*), 56 F.3d 1538, 1544-45 (Fed. Cir. 1995).

might suggest that the goal of the litigation should be to eliminate the infringer entirely from the marketplace.

B. Factors Favoring Exclusion

To organize our thinking about these issues, let us begin by asking the following question: when should you recommend a litigation strategy in which the goal is to keep the infringer out of the market entirely? The answer is straightforward: you should pursue this strategy if allowing the infringer to remain in the market would cause ABC to lose more money than if it were to grant it a license. Put differently, you should pursue exclusion if market conditions favor high lost profits and relatively low royalties.

How do *you* know, before the fact, if ABC faces this situation? To answer this question, assume the following:

- ABC has the ability to make and sell the product to all of the infringer's customers.
- ABC can reach those customers and, all other things equal, there's no impediment to persuading them to buy ABC's version of the product.
- There are *no* non-infringing alternatives available to consumers.[3]
- The patented product is sold as a stand-alone item — that is, there are no ancillary or follow-on sales.

Given these assumptions, you might be tempted to quickly conclude that your client faces an ideal lost-profits situation and, therefore, you might recommend a strategy of keeping the infringer out of the marketplace entirely.[4] However, before you jump to that conclusion, there are still some economic factors that should be considered.

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[3] More precisely, assume there are no other non-infringing products available to consumers that offer all of the *technical* advantages of the patented product.

[4] By the *Panduit* test, to claim lost profits ABC has to prove: (1) demand for the patented product in the market; (2) an absence of acceptable non-infringing substitutes; (3) the manufacturing ability to exploit the demand; and (4) the lost profits it would have earned. [*Panduit Corp. v. Stahlin Bros. Fibre Works*, 575 F.2d 1152 (6th Cir. 1978).]

1. Elasticity of Demand

What happens when ABC eliminates the infringer from the market? Since this is the same as reducing the number of sellers, the simple answer is that prices will go up. As prices go up, the law of demand tells us that people will buy less. This means that if the infringer is forced from the marketplace, ABC will not make *all* of its sales. But, whatever ABC does sell, the higher price means it will earn more; put differently, ABC's profit per unit will be higher. Other things equal, a higher profit per unit would make an exclusion strategy more attractive.

This raises a question: is there any easy way — or any particular market signal — that can tell you whether eliminating the infringer is more or less likely to result in a meaningful increase in price? The answer is yes. The market information you need is the *elasticity of demand*.[5] A small elasticity of demand is associated with a demand curve that is fairly steep. This means that if quantity changes, even just a little — say, because an infringer enters the market — then price will change relatively more.

The implication is that, all other thing equal, if the elasticity of demand for the patented product is relatively small, then the infringement itself will likely have a relatively large depressing effect on price and, therefore, on ABC's profits. Consequently, ABC would be relatively more likely to lose more money from allowing the infringement than it might gain from a licensing agreement. All other things equal, therefore, if you see that the market is characterized by a small elasticity of demand, you could support a litigation goal of driving the infringer from the marketplace.

While it is easy for an economist to refer to the elasticity of demand as the primary marketplace evidence that can support this strategy, there are several economic factors *you* can observe that may suggest that the elasticity is small. The most important of these are the number and quality of alternatives available to consumers.

[5] The elasticity of demand refers to the sensitivity of sales to a change in price. More precisely, the own-price elasticity of demand is the percentage decrease (increase) in sales that would result from a one percent increase (decrease) in price.

If, as we assumed above, there were *no* non-infringing alternatives, consumers would probably be unresponsive to price changes; they would have no place to turn. Put differently, the elasticity of demand would be small. However, what happens when that assumption is relaxed? In particular, what if there are no products that have the same *technical* specifications, but there are alternatives to the patented product that, in practice, consumers can and do turn to — *i.e.*, so-called *economic* alternatives.[6]

If such alternatives exist and the patented invention is only a minor improvement over them, then the elasticity of demand will probably be large. Accordingly, you need to look not only for an absence of technical substitutes, but also of meaningful *economic* substitutes and the extent to which the patented product is an improvement over them. Again, all other things equal, when the elasticity of demand is small, an exclusion strategy makes economic sense.

2. Infringer Behavior

Of course, price changes — and elasticities — are not the only piece of marketplace evidence that is relevant to determining an economically rational strategy. Indeed, the way the infringer typically competes in the marketplace may also play a role in this decision.

For example, if the infringer is a price leader — or particularly innovative or aggressive in its selling practices or promotional policies — then, all else equal, allowing it to stay in the marketplace will cause a relatively large decrease in price. This, in turn, will hurt ABC's profits. On the other hand, eliminating the infringer under these circumstances would protect ABC's relatively more than the royalty income it would forego from choosing not to coexist with, and license the infringer.

[6] For example, consider an invention for a bracket, made out of a new type of ceramic material, that can be used to hold auto mufflers in place. While there may not be anything that is *technically* comparable, the old types of metal bracket and, even, a metal coat hanger might be used in practice. These are clearly *economic* alternatives for the invention.

C. Factors Favoring Licensing

When would you favor litigation as a strategy to bring the infringer to the bargaining table and get a licensing agreement? Again, the answer is straightforward: try to use litigation to force a licensing agreement if the royalty stream ABC will likely earn is more than ABC would lose from co-existing with the infringer. What are the market conditions that favor this strategy?

1. Large Elasticity of Demand

Following the same logic as described above, a licensing strategy makes economic sense when the elasticity of demand is large — *e.g.*, because there are many non-infringing economic alternatives and/or the invention is only a minor improvement over them. This means that entry by an infringing competitor — or, for that matter, forcing it out — will not cause much of a price change.

But, again, elasticity is not the only marketplace factor that you can observe that informs this decision. You should also consider the infringer's relative costs, whether it can expand the market and the extent to which ABC's losses derive from lost ancillary, or follow-on sales.

2. Infringer's Costs

What would happen if the infringer's incremental costs of making and selling the product are lower than ABC's?[7] In this situation, the infringer would be able to reduce price below that offered by ABC and, all else equal, be able to capture a relatively larger share of overall sales. Of course, this could have a severe impact on ABC's profits. Indeed, if the infringer's costs are low enough, it may even be able to drive ABC out of the marketplace entirely.

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[7] The appropriate costs for determining price are always *incremental* costs. These represent the additional (or, incremental) costs that the firm would incur in order to make and sell one more item. Alternatively, they represent the costs the firm would avoid from making and selling one fewer item.

While it is true that this price and profit reduction can be prevented by eliminating the infringer, that may not be the profit-maximizing litigation strategy. Since the infringer has a cost advantage, all else equal it can earn more money than ABC on each item it sells. This means that the infringer is better able to pay royalties than if it had no particular cost advantage. In this situation, ABC could view the litigation as an opportunity to get a share of this larger profit base in the form of relatively high royalty payments.[8] In fact, whenever market conditions allow the infringer to make more money than ABC on any particular sale, ABC's strategy should be to find a way to let the infringer make those sales and, then, give over a share of its profits as royalty payments.

3. Can the Infringer "Expand the Market"?

A licensing strategy also makes sense if there are certain customers that only the infringer can reach or who only the infringer is likely to persuade. If the infringer can "expand the market" in this way, then it certainly is going to be able to make more money on those particular sales than would the patent owner.[9] Accordingly, it would be in ABC's interest to try to get a share of the profits the infringer earns on those sales.

Again, to the extent that the patent owner doesn't have the manufacturing capacity, or the selling ability, or cannot reach, or cannot persuade the infringer's customers, then, other things equal, the infringer is probably able to "expand the market" and the litigation strategy should focus on bringing the infringer to the bargaining table.

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[8] More precisely, depending on the extent to which the infringer has a relative cost advantage, it may be that the royalty income ABC might earn would exceed its own profits from making and selling the product. In the extreme, this situation suggests ABC should forego participating in the market and, instead, earn royalty income from the low-cost infringer.

[9] Alternatively, consider the situation in which the patent owner is a relatively small, unknown firm while the infringer sells large, well-known brands. Here, the infringement may result in the patented product becoming more well known, more quickly than if the patent owner kept the market entirely to itself. In this situation, the market is expanded such that the patent owner's own sales are greater, more quickly than would otherwise have been the case. Its profits on this (incrementally) larger volume of sales may exceed its losses from the infringement — either in sales lost to the infringer or from price erosion. Faced with this type of infringement, a licensing strategy would appear to be the economically sound litigation strategy.

4. The importance of History

There is one other group of factors that can be fairly easily observed that may affect whether licensing makes economic sense:

- ABC's historical licensing and marketing *policy*;
- historical royalty rates ABC received for the patent itself or for related or similar inventions; and
- historical royalty rates paid by the infringer for comparable inventions.

In a nutshell, the parties' historical behavior may provide very useful information on the amount of money ABC can reasonably expect to get from a licensing agreement relative to the avoided lost profits from keeping the market entirely to itself.[10]

III. THE DAMAGES PHASE: LOST PROFITS OR A REASONABLE ROYALTY?

A. The Bottom Line

When should you claim lost profits? When should you claim reasonable royalties? As should be clear from the discussion thus far, these are the same questions as asking whether ABC should exclude or license the infringer. Again, you should advise ABC to have a goal of excluding the infringer — and make a lost profits damages claim — if market conditions suggest a high level of lost profits from letting it stay in the market compared with any possible gain ABC might get from licensing. All other things equal, this occurs when the elasticity of demand is relatively small, the infringer has no major cost advantage and/or the infringer is a price leader (or a particularly aggressive competitor).

Conversely, you should advise ABC to use litigation as a means of bringing the infringer to the bargaining table — and make a reasonable royalty damages claim — if its gain from licensing would probably be greater than its losses from coexisting with the infringer. All

[10] In this connection, if there are a number of infringing competitors, there is the additional strategic question of who to sue first. Once you have determined that the proper strategy is to license the infringers, then which firm ABC sues first — depending, of course, on their cost advantages and abilities to expand the market — may establish a royalty rate that your client may have to live with in subsequent negotiations.

other things equal, this occurs when the elasticity of demand is relatively large, the infringer has a substantial cost advantage and/or the infringer can "expand the market."

Again, as a practical matter, the *same* economic factors go into forming the goal of the litigation *and* the damages claim.

B. Rite-Hite

Last, the Court's decision in *Rite-Hite* may also influence both ABC's damages case and choice of litigation strategy. Consider the case in which the patent owner, ABC, believes that infringement will cause it to lose substantial sales — and profits — of other, ancillary items.[11]

If those items are *not* functionally related to the patented product, then, under *Rite-Hite*, ABC would not be able to argue that it was entitled to those losses as part of a lost-profits damages claim. But, *Rite-Hite* does not prevent you from using those losses to support a claim that ABC is entitled to a relatively higher royalty payment — *i.e.*, enough to compensate not just for the lost sales of the patented product but, in addition, for lost ancillary sales. Depending on the volume of lost ancillary profits relative to that for lost sales of the patented product, all other things equal this distinction may tip the balance toward a decision to claim royalty rather than lost profits damages. Indeed, if much of ABC's losses are likely to result from lost ancillary sales then, other things equal, your should pursue a litigation strategy of eliminating the infringer, *but* you should pursue royalty damages.

In sum, with the exception of the *Rite-Hite* wrinkle, from an economic perspective, there is little, if any, difference in the economic factors that affect which litigation and damages theories will best serve your client's interest.

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[11]These are sometimes called convoyed sales, follow-on sales or ancillary sales.

IV. AN ASIDE: THE INFRINGER'S PERSPECTIVE

To make the discussion easier to motivate and present, this paper was organized primarily from the patent owner's perspective. The underlying economics, however, are the same for defendants. That is, the accused infringer would benefit from going to the bargaining table, sooner rather than later, if it is likely to earn more under a licensing agreement than the expected value of any award that the Court might impose.

As a general matter, defendants must come to the realization that a consequence of being served with a complaint is that litigation *will* cost it some amount of money — *i.e.*, in litigation expenses, a settlement payment or damages. How much money, of course, depends on the probability that the patentee prevails at trial; it also depends on precisely the same economic factors that were explored above.

If its product were better, if it can reach customers the patent owner cannot, if it has a meaningful cost advantage, if the elasticity of demand is large — *e.g.*, because there are many acceptable non-infringing alternatives, then the infringer may be better off, sooner rather than later, agreeing to settle the case with a licensing arrangement.

V. SUMMARY

For your patent infringement litigation strategy to make economic sense, you need to know, at the outset of a case and, perhaps, before filing the complaint, a few basic economic facts:

- What is the availability of *economic* alternatives?
- Is the invention a major improvement over them?
- What do these factors imply about the elasticity of demand?
- Will the patent owner lose substantial sales of ancillary items?
- What are the parties' historical licensing practices?
- Does the infringer have a meaningful cost advantage?
- Can it reach customers that the patent owner cannot or otherwise expand the market?

- Is it a particularly aggressive competitor?

By looking at these economic factors — not at the end of the case in connection with damages, but instead, at the outset — the litigation will more likely result in the only win that matters to your client: a win in the marketplace.