The unsettled story

No one method has come out ahead in this new arena of needing consumer surveys to moderate the entire market value rule, say Gabriel Gelb and Betsy Gelb

As the US patent battlefield is being almost forcibly reconstituted, many attorneys are having to learn new ways of addressing patent damages.

A quick summary of what's happening in the very active patent infringement arena is that the 'entire market value rule' (EMVR) is being modified by a much stronger emphasis on the concept of 'consumer demand'. Court of Appeals for the Federal Circuit judge Randall Rader is partially responsible for this sea change in damages assessment.

This shift is most evident in the field of consumer and electronics products, where one source has estimated that more than 200 patent lawsuits are underway at any one time.

In recent lawsuits that are familiar to most patent attorneys—Lucent Technology v Gateway, Cornell University v Hewlett Packard Company, and IP Innovation v Red Hat Inc—patent holders who allege infringement

are finding it more difficult to claim royalties applied to the entire value of a product that contains the patented feature.

In Lucent Technologies v Gateway, (and indirectly, Microsoft), the jury in 2008 awarded $357 million in damages to Lucent for a patent that allowed entering data without use of a keyboard, in the principal application a 'date picker' function employed by Microsoft in its very popular Outlook software. This 'mega award' was vacated by the Court of Appeals for the Federal Circuit, which said that the jury had improperly used the EMVR. The court concluded that "numerous features other than the date-picker appear to account for the overwhelming majority of the consumer demand and therefore significant profit". A new damages trial was ordered.

A similar finding was the conclusion of Rader in Cornell University v Hewlett Packard Company. In this case, the jury found infringe-

ment of a part of what is called a CPU brick and awarded $184 million to the university based on an 8 percent royalty of the CPU brick that contained the patented item. Rader reduced the award to $53 million because no evidence was offered to show "a connection between consumer demand for that product and the patented invention".

And in the Red Hat case, Rader said that EMVR may be in play only when the patented feature forms "the basis for consumer demand" for the larger product in which it is contained.

Thus, courts are increasingly moving to an emphasis on to what extent, if any, the alleged infringing patent provides the basis for consumer demand.

To address this need for quantification, several types of surveys have been implemented, including the statistical approach of conjoint analysis, importance, satisfaction or

usage scores, and scenarios. None of these appear to have the upper hand.

Asking consumers in a survey why they purchased a particular product is useful but typically results in a distorted picture. Consumers, upon reflection, usually respond that the majority of a product's features are 'very important'. This response is not useful when, in a case of alleged patent infringement, an important issue for damages is the relative impact of a patented item on sales or market share.

In a recent damages case, the senior author rebutted the plaintiff's survey that involved asking which features of a product were important, saying "on average virtually all of the features studied for the [product named] were rated as important on the monadic rating scales".

As noted in the textbook, Consumer Behavior (3rd edition, Hoyer and MacInnis): "Our memory of details decreases over time. Thus, the attribute information we recall tends to be in summary or simplified form rather than in its original detail."

The reason that consumers are likely to say that every feature or benefit is somewhat or very important is that they have, over time, discarded many of the original motivations and summarised what is left in memory.

Another problem is that asking consumers to evaluate features one at a time does not take into account the multiple trades-offs that consumers are simultaneously making. These may include quality versus price, famous brand name against a lesser brand, and so on.

Conjoint analysis, which is a 30-year-old mathematical concept that measures the trade-offs that people make in decision-making, is now being applied to damages assessment. It is also used in a wide variety of fields, including financial decision-making, sports, procurement, healthcare, retirement considerations and operations research.

What conjoint analysis does is learn how consumers value and choose among products that consist of multiple attributes when trade-offs are involved across attributes. This is especially useful in designing new products.

Our firm has been using conjoint analysis since the 1980s and a firm in Boston, Applied Marketing Science, has successfully employed conjoint methods in two damage assessment cases, Barbara Schwab et al v Philip Morris et al, and in the US District Court for the Eastern District of Texas, TiVo v EchoStar.

A product or service consists of a bundle of attributes. When conjoint analysis is employed, consumers view sets or a 'package' of features at the same time and are asked to choose among those sets. The sets themselves systematically combine attributes, and when many individuals have made choices, the relative valuation of each individual attribute can be determined through software designed for that purpose.

Today, because there are several forms of conjoint analysis such as discrete choice modelling, care must be taken in organising the design of the research. But the results are quite clear in formulating how consumers value each particular attribute or variations of that attribute.

Thus, for the purposes of assessing how a particular patented item contributes to consumer demand, conjoint analysis may offer a useful solution, especially when the courts require that consumer input be considered a crucial part of damages assessment. But the technique only applies when a limited number of patented features/attributes are in play. Most experts agree that basic conjoint can be most effective when six to 10 attributes are being measured.

Therefore, other survey approaches should be employed when a product has many more features than 10. And that is especially the case in patent infringement cases involving smartphones. They are a single product offering virtually hundreds of features. In a recent case, Oracle v Google, the survey expert only measured seven features while acknowledging that many more existed. Judge William Alsup refused to admit a major portion of the survey.

One method we are experimenting with to address multiple features in a smartphone is called loss aversion, an important component of behavioural economics. It is based on the Nobel Laureate Daniel Kahneman's work that people prefer avoiding losses to seeking gains. For example, in a portfolio held by an individual, he or she will typically hold on to stock that has declined in value and sell one that has gained to avoid actually incurring the financial loss. Loss measurement is believed to be more realistic in evaluating patent benefits because it mimics the irrational decisions we make to avoid a loss.

Loss aversion is the bedrock of the new field of behavioural economics. John List, chair of the University of Chicago's economics department, stated: "It's a deeply engrained behavioural trait ... that all human beings have this underlying phenomena that 'I really, really dislike losses and I will do all I can to avoid losing something.'"

We've applied loss aversion to patent damage cases in two smartphone cases. That means that instead of asking respondents how much they would pay to receive a particular feature, we asked them to picture their phone as currently constituted "with all its features" and then asked how much less it would be worth without the patented feature, for which infringement was claimed. We also asked, as a control, a second question about another feature, and then subtracted the value that they attributed to that control from the value of the patented feature, to control for overestimation.

"Loss aversion has important implications for positive analysis of law," according to professor Cass Sunstein of the University of Chicago Law School. In a working paper, he concluded: "With all the recent advances, behavioral research remains in an early stage. There is much to learn. An understanding of its implications for questions of law will take a long time."

Today, with several types of surveys measuring consumer demand, no one method has emerged as best in this new arena of needing consumer surveys to moderate the entire market value rule. The patent attorney or litigator should select only the most highly experienced survey expert and work closely with that expert to thread through the complexities of measuring the consumer value of disputed patents. **IPPro**

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