

2016 UPDATE: The Role of Surveys in Assessing Damages in Patent Infringement Cases



Gelb, An Endeavor Management Company

2700 Post Oak Blvd
Suite 1400
Houston, Texas 77056

P + 281.759.3600
F + 281.759.3607
www.gelbconsulting.com

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The New Role of Surveys in Assessing Damages in Patent Infringement Cases

1. Background

Five years ago, we discussed how and why consumer surveys were increasingly relied on to provide the basis for economists' estimation of damages when patent infringement is found by a court or jury.

In this update, we add two new methods to the original description of conjoint analysis' place in patent litigation. These are known as MaxDiff and Proportional Valuation (PV).

Federal courts are now moving toward assessing damages in patent infringement cases with the (newer) key criterion of consumer demand generated by the patents at issue rather than the traditional Entire Market Value Rule (EMVR). In effect, judges are asking: how does the consumer value one or more features found in the patent-in-suit?

Scott Breedlove, Vinson & Elkins LLP partner in the international law firm, put it this way at the 10th Annual Texas State Bar's Advanced Patent Litigation Course:

“Courts also appear to be requiring more real-world evidence of a nexus in addition to experts' opinions, and expecting to see consumer surveys to show consumer demand for the patented features.”

Damages based on EMVR have been set aside in such cases as *Cornell Univ. v. Hewlett-Packard Co.* and *Lucent Technologies Inc. v. Gateway Inc.* Numerous legal authorities have discussed how decisions by retired Federal Circuit Chief Judge Randall Rader, among others, have modified the entire market value rule toward considerations of consumer demand.

In *Cornell University*, for example, the trial judge excluded an economist's testimony because

“despite the court's repeated exhortations to supply economic proof linking any proposed entire market value royalty base to the market and consumer demand [the expert] simply could not identify any reliable evidence to support his position.”

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2. Adding survey results to the mix

This emerging trend suggests integrating the expertise of economists with that of survey experts in supporting or defending against a damage claim in a patent infringement case.

Based on our work in helping to rebut damage claims against such technology clients as Apple, Amazon and Dell, we suggest several guidelines for the use of surveys to support damage claims based on patent infringement.

a) First, don't over-claim

Accurately define the scope of the feature that relies on the patent-in-suit in the final product. We have rebutted surveys claiming damages for software patents that have presented concepts to consumers that “over-reach” what the patent actually contributes.

Every survey requires asking unbiased questions of a relevant population, but that's just the beginning. A decision (April 2011) in the E.D. of Texas illustrates our first point where in *Fractus, S.A. v. Samsung Electronics*, two consumer surveys were excluded because they over-reached, that is, measured reaction to the product, an antenna, as a whole instead of focusing the survey on the specific feature associated with the antenna itself.

b) Second, plan to be attacked

Any survey on consumer demand will be subject to searching scrutiny by a rebuttal expert. This is important for patent attorneys to appreciate, as they may not be as well versed in the “battle of the survey experts” as are trademark attorneys. Working toward a “bullet-proof” survey calls for a researcher who is highly experienced in litigation surveys.

Otherwise, your survey may generate this type of rebuttal:

“I found that Dr. _____’s survey did not reflect the relevant population, mismanaged the conjoint survey to produce results favorable to the Plaintiff, had limited relevance to the marketplace during the 12 months between _____ and _____, the period of hypothetical negotiation, and did not and could not replicate the actuality of consumer purchase decisions as they would have been undertaken in that period.”

(Actual Gelb conclusion, redacted)

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c) Assess who's consequential

As in all surveys for litigation, the patent infringement survey is most open to criticism if it fails to accurately determine the relevant population. Survey experts therefore need to be particularly careful about defining the relevant population. For example, in a recent patent case we participated in for the defendants, the plaintiff's expert queried retail users but failed to appreciate that the Defendant's actual customers were businesses; the purchasers were chief information or chief technology officers.

The survey experts in patent infringement litigation should be well versed in data gathering and analysis techniques like conjoint analysis, which examines how purchasers or decision-makers "trade off" various product attributes, as well as two other methods discussed later in this blog.

3. Survey methods must match the situation

a) Conjoint, the original standard

Conjoint analysis is a 35-year-old statistical technique that generates hard data that has been used successfully in damages cases, including

- *TiVo v. EchoStar*, in Eastern District of Texas
- *Barbara Schwab et al. v. Philip Morris USA*, in Eastern District of N.Y.
- *U-Haul Int'l v. Jartran Inc.*, in District of Arizona
- *Robert Kearns v. Ford Motor Co*, in Eastern District of Michigan
- *Continental Airlines v. American Airlines*, in Central District of California

What is so useful about it?

- Conjoint Analysis forces people to make trade-offs
 - This approach provides much better data than simply asking people the importance of each component of the product
 - The results are better in that they predict future outcomes more accurately, and there are greater (and more believable) differences between features in their importance to buyers
- Conjoint basically asks consumers to select among "packages" of features and randomly distributes these features so that a respondent may only have to answer 12 or so screens. Here is an illustration of one screen:

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Conjoint: How a consumer selects 'packages'

	Dodge	Ford	Ford
Brand	Dodge	Ford	Ford
Cab Type	Regular Cab (B-Cab)	Regular Cab (B-Cab)	Regular Cab (B-Cab)
Engine	4.6L V8 Gasoline, 305 hp, 325 ft-lbs torque	5.7L V8 Gasoline, 375 hp, 395 ft-lbs torque	4.6L V8 Diesel, 300 hp, 480 ft-lbs torque
Total Combined MPG	21 mpg	26 mpg	21 mpg
Payload	1,750 lbs	2,750 lbs	2,750 lbs
Towing	12,500 lbs	10,000 lbs	10,000 lbs
Total Price	\$26,000	\$27,350	\$20,500

20 or fewer choices to go

Conjoint is best with a limited number of features, say 6 to 12. When more features are relevant to the purchase process, but still a manageable number like 15 to 20, an alternative to make the survey task easier for respondents is a variant on conjoint analysis known as MaxDiff.

b) MaxDiff, easiest for respondents

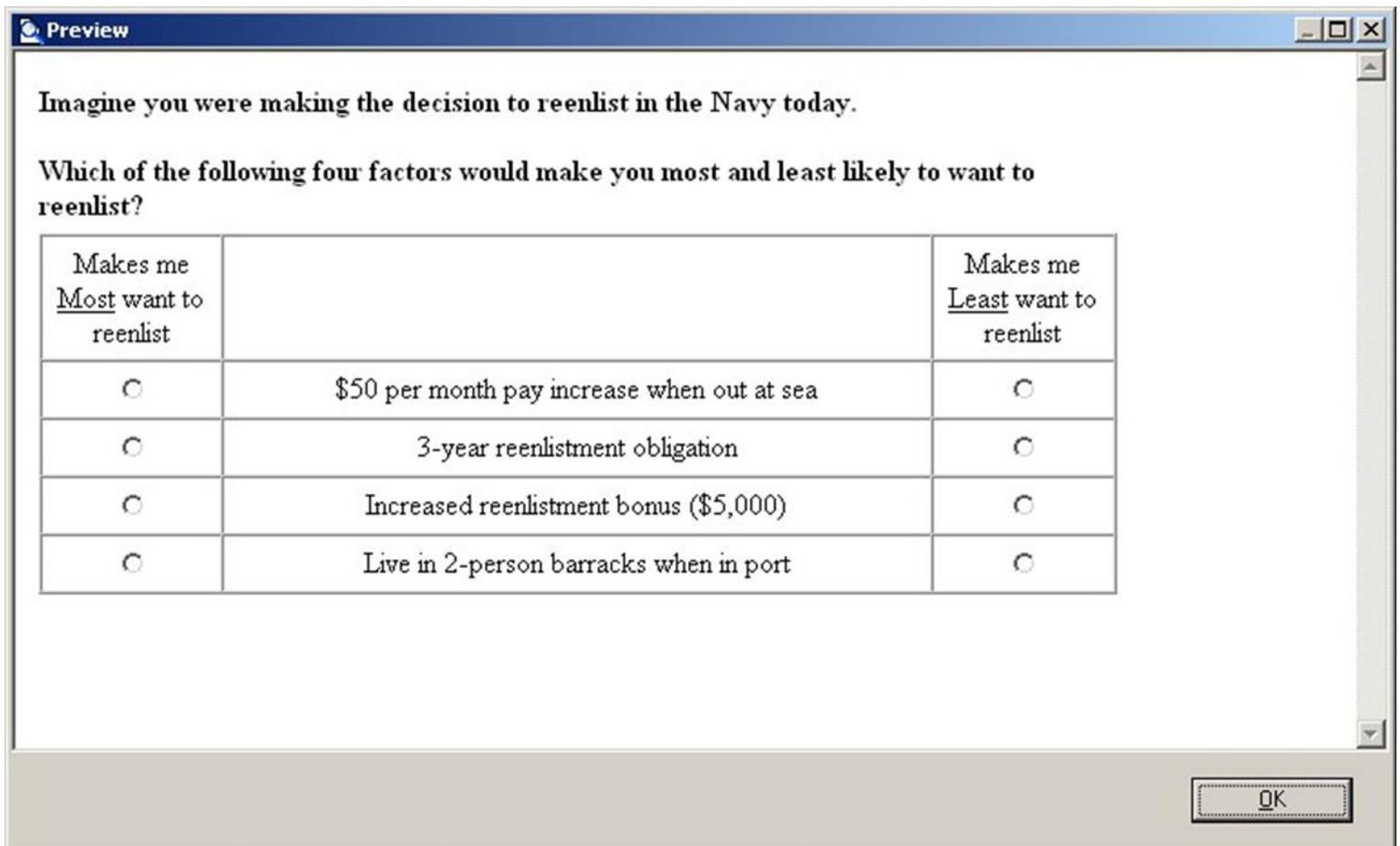
MaxDiff is described by developer Sawtooth Software as follows:

“The structure of our MaxDiff survey is straightforward. Survey respondents are presented with a set of items and asked to choose which is most preferred and which is least preferred. Dozens of items can be tested, but the task is manageable, because a respondent considers only four or five items. The outcome is a MaxDiff score for each item that indicates both absolute and relative importance based on preference, importance or relevance of the items.”

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Organizations that have employed MaxDiff methodology include: Google, Siemens, Dell, General Electric, IBM, Cisco, PepsiCo, Capital One, and Harvard University.

Gelb Consulting Group holds a license from Sawtooth Software and has utilized many of its analytics. How MaxDiff has been employed in a non-patent example is shown here, with an example of the MaxDiff question layout provided by Sawtooth in a study of recruiting for the U. S. Navy.



Imagine you were making the decision to reenlist in the Navy today.

Which of the following four factors would make you most and least likely to want to reenlist?

Makes me <u>M</u> ost want to reenlist		Makes me <u>L</u> east want to reenlist
<input type="radio"/>	\$50 per month pay increase when out at sea	<input type="radio"/>
<input type="radio"/>	3-year reenlistment obligation	<input type="radio"/>
<input type="radio"/>	Increased reenlistment bonus (\$5,000)	<input type="radio"/>
<input type="radio"/>	Live in 2-person barracks when in port	<input type="radio"/>

OK

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In MaxDiff, the respondent views a series of possibly 20 screens where multiple variables are selected at random, and a computer program analyzes the results.

Both traditional conjoint and MaxDiff are asking respondents indirectly to assess the relative value of all of the pertinent features of a patented feature within a product. But of course, the issue is not all features but rather those that distinguish a given brand from a generic. For example, in an automobile, we do not ask about a motor, a steering wheel or its four tires, but rather about the type of dashboard electronics, etc.

Typically, for a consumer product, we construct the list of features to be evaluated from a set of objective sources such as reviews in Consumer Reports and CNET. For business-oriented products, we consult with the client's technical expert to arrive at the features to be measured.

c) The Newest Measure: Proportionate Valuation

Any technique that requires the relative valuation of all features of a product may be overwhelmed in highly technological products, such as smartphones, where using conjoint or MaxDiff simply would not be possible. The law firm Wilmer Hale quotes a source that estimates that 250,000 patents are involved with modern smartphones.

One reason is that smartphones and tablets are actually combinations of products that formerly were sold separately. As this trend continues, litigation among such patent holders and their patent users is expected to continue to be the largest segment of patent litigation.

Thus, we see the arrival of a method amenable to increasingly technological products. That method is Proportional Valuation (PV), which our firm has pioneered.

Proportional Valuation (PV) addresses the problem that many technical products have far more features than users could rank. The solution we recommend is to ask users a simple question: assume that when you bought Product x its value to you was 100 points. Now suppose that the product lacked Feature Y at the time you purchased it. How many points would you subtract from its total value due to that limitation?

Notice that a user does not need to know all features of a product to say that if it lacked a particular feature it would lose 5% of its value, 10%... whatever a respondent believes. However, it is legitimate to question the validity of this technique on the grounds that calling attention to one feature may increase its perceived value, just because a survey respondent consciously or unconsciously thinks: If they are asking about that, it must be important.

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The solution we employ is to ask about a “control” feature in the same questionnaire, and randomly sequence a question about that feature before/after the question about the feature that depends on the patent-in-suit. For example, after screening respondents for ownership of the brand of smartphone involved in the lawsuit, we would ask the following two questions, one about the feature of interest and the other about a “control” feature:

Picture your current [x brand] smartphone as 100% complete, with all its features.

For the purpose of this exercise, let’s say you paid 100 points to obtain your smartphone with all its features. Now suppose that you had to manually switch your smartphone between [the patented capability] and cellular every time you entered and left a Wi-Fi hotspot. With this limitation in mind, how many points, if any, would you want to take away from the 100- point value of the phone?

You may specify any number from 0 to 100. If you indicate zero points, then this limitation does not reduce the value of the phone to you. If you indicate 100, it means that because of this, the phone has no value to you. The number you select represents the reduction in value, if any, for you.

|_|_|_| [RANGE 0-100] (or) I have no idea__

Picture your current [x brand] smart phone as 100% complete, with all its features.

For the purpose of this exercise, let’s say you paid 100 points to obtain your smartphone with all its features.

Now suppose your phone could be charged only up to 98% of its maximum battery level, rather than 100%. With this limitation in mind, how many points, if any, would you want to take away from the 100-point value of the phone?

You may specify any number from 0 to 100. If you indicate zero points, then this limitation does not reduce the value of the phone to you. If you indicate 100, it means that because of this, the phone has no value to you. The number you select represents the reduction in value, if any, for you.

|_|_|_| [RANGE 0-100] (or) I have no idea__

