

An Introduction To Using Patent Attribute Analysis In Valuing Patents

Patents, as well as other intangible and tangible assets, can be valued using one of three general methodologies: the cost approach, the market approach, and the income approach. The relief from royalty¹ method can be considered a variation of either the income or cost approaches.² The difficulty in measuring intangible assets is that we cannot see, touch, or measure intangible assets directly. Instead, we must rely on proxies or indirect measures to say something about the impact of intangibles on some other variable that can be measured.³ One of the difficulties in valuing patents is in assessing market comparables and in determining an appropriate royalty rate when applying the relief from royalty approach.⁴

A patent provides the patent holder the right to exclude others from practicing the invention until the patent expires. Because, by definition, a patent represents a monopoly right to a unique invention, it stands to reason that no perfect comparable can exist. The question that the valuation expert must answer is how to evaluate comparability among patents or patent portfolios.

Patent licensing, and sales transactions involving technology related to the subject patent, can be identified through RoyaltySource.⁵ If market information is available, the valuation expert can analyze the attributes of the patent for which market data exists (the market patent or patents) and the attributes of the subject patent.

There are different schools of thought regarding what constitutes patent value: the economic benefit provided to patent owner. Economic benefits could include cash flows from licensing, manufacturing cost savings, unique products, enhanced product features, or operational freedom.

Various key attributes can serve as patent value markers. These

features can be compiled and evaluated using commercially available data bases and services.⁶ Eight key patent attributes are:

- the number of claims;⁷
- the number of independent claims;
- the claim length (number of words);
- prior art – U.S. patent citations;
- prior art – non-U.S. patent citations;
- forward citations (other patents citing the citing back to the subject patent);
- the grant lag (the number of days from application to issuance); and
- active term of the patent (the number of days from issuance through a date on or near the valuation date).

THE NUMBER OF CLAIMS

The number of claims in a patent can be evidence of the breadth of a patent. The more claims, the broader the patent. The broader the patent, the more valuable the patent. In addition to being an indication of broad scope, patents with more claims are more expensive to defeat in litigation – more claims to prove are invalid and more claims to prove are not infringed.

THE NUMBER OF INDEPENDENT CLAIMS

Total claims include both dependent and independent claims. While the total number of claims can be evidence of a patent's breadth, all claims are not of equal value. Independent claims, because they are not dependent upon other claims, are given more weight than dependent claims. All other things being equal, patents with more independent claims are more difficult to defeat than patents with fewer independent claims.

THE CLAIM LENGTH

Unlike the other attributes we analyzed, claim length is thought to have an inverse relationship with patent value, i.e., the shorter the claim, the more value. More concise claim lan-



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guage is easier to defend, there generally being less terminology to argue over and define.

PRIOR ART: U.S. PATENT AND OTHER CITATIONS

Citations to existing patents and other industry references (prior art references) can be evidence of a patent's validity. Because the burden is on the inventor to furnish prior art citations, fewer prior art citations do not necessarily indicate less prior art. On the other hand, more prior citations can show that the patent examiner endorsed the uniqueness of the patented invention after a more extensive review of prior art.

FORWARD CITATIONS

This relates to others citing your patent as prior art. Forward citations can be evidence of the patent's significance. It is an indication of the importance that other inventors give to the patent.⁸

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expert TIP

If market information is available, the valuation expert can analyze the attributes of the patent for which market data exists (the market patent or patents) and the attributes of the subject patent.

One factor affecting the number of forward citations is the length of time a patent has been in force from the date of issuance. One way to take this into account is by analyzing the number of forward citations based on how long the patent has been in force.

THE GRANT LAG


Like cited prior art, grant lag can be evidence of a patent's validity. The longer a patent has been in review by an examiner, the more time the examiner has had to determine a patent's validity. This measure does not consider the possible influence of patent prosecutors on this process or the possible bias of individual examiners in reviewing patent applications. Because of potential and likely biases, this attribute is assigned a relatively low weight.

ACTIVE TERM OF THE PATENT

The payment of maintenance fees on patents can be a strong indication of patent value. The correlation is that firms regularly assess patent value and cull lower value patents from portfolios. The longer the patent has been in force, the greater the value.

Attributes of the market patent and the subject patent can be compared directly on a one-to-one basis or the valuation expert can assign more weight to different attributes, e.g., putting more importance on the number of forward citations and independent claims than on the grant lag.

An analysis of patent attributes can provide support for adjusting market rates higher or lower to account for differences between the subject patent and the market patent. However, preparing a patent citation

analysis can be expensive when looking at portfolios of patents. When should the valuation expert go through the trouble and expense of preparing a patent citation analysis? Patent citation analysis should be considered when two key facts are present. First, when the valuation expert knows that a significant amount of a business's value resides in patent rights. Second, when there are known, relevant market data points for the amounts received for other industry patents. 

- ¹ The value of the royalties that a company is relieved from paying because it owns the patented technology.
- ² If the royalty that would be charged to replace the subject patented technology was based on a running royalty rate, then the relief from royalty would fall under the income approach. If the royalty that would be charged to replace the subject patented technology was based on a paid-up licensing fee, then, arguably, this is closer to replacement cost using the cost approach.
- ³ Michael J. Mard, James R. Hitchner and Steven D. Hyden, *Valuation for Financial Reporting: Fair Value Measurements and Reporting, Intangible Assets, Goodwill, and Impairment, Second Edition* (New York: John Wiley & Sons, Inc., 2007), p. 26, quoting Margaret Blair and Steve Wallman, *Unseen Wealth: Report of the Brookings Task Force on Intangibles* (Washington, D.C.: Brookings Institution Press, 2001), p. 15.
- ⁴ This article assumes that the subject patent was not recently acquired and is not currently being licensed, which would provide some market data.
- ⁵ <http://www.royaltysource.com/royaltyrates.html> Searches can be performed on specific industries, technological features, and patent classification.
- ⁶ Patent data is available directly from the United States Patent and Trademark Office (see www.uspto.gov). In addition, Patents 360 (www.patents360.com) and Delphion (www.delphion.com) offer a host of services related to comparative patent analysis.
- ⁷ Claims define the invention and what aspects are legally enforceable. The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery. See, <https://www.uspto.gov/main/glossary/index.html>.
- ⁸ Patent owners can potentially "inflate" this measure by referencing their own patents too freely.

New Study on Admissibility of Expert Financial Testimony: The *Daubert* Trilogy and Beyond

There is a new study on the admissibility of testimony from financial experts. *Challenges to the Admissibility of Expert Financial Testimony: 2005 - 2008*, Bruce S. Schaeffer, Susan Ogulnick and Sara Anne Schaeffer of Franchise Valuations, Ltd, Wolters Kluwer Law and Business. It is available free at www.business.cch.com/tradelaw/schaefferwhitepaper.pdf

The *Daubert* Trilogy consists of *Daubert v. Merrell Dow Pharmaceuticals* (1993), *General Electric Co. v. Joiner* (1997) and *Kumho Tire v. Carmichael* (1999). Prior to these three cases, *Frye v. United States* (1923) was mostly recognized, and still is in many states. The whitepaper includes brief summaries of 85 cases, including 53 state court appellate cases. It also discusses various issues and trends. Below are two excerpts that deal with the growing importance of expert witness challenges as well as useful information about what the various states are relying upon.

"The obligation of courts to exercise their 'gatekeeper' function has created an enormous stir since *Daubert*. In the 50 years following the *Frye* decision, it was only cited 96 times. In the 6 years following the *Daubert* decision, there were 1,065 federal court opinions issued on the admissibility of expert testimony. And the number has continued to grow."¹

"However, there is a common misperception that *Daubert* is unequivocally the law of the land. Although that is true in federal courts, it is not so with respect to the various states. In fact, only nine states have adopted the full *Daubert* trilogy. Other states have adopted either the *Frye* rule, the *Daubert* trilogy, or some hybrid, in determining the initial quality of the expert's proffer. Six states have adopted *Daubert* and *Kumho Tire* but have not adopted *Joiner*. Eight states have adopted *Daubert* (at least in part) but have not adopted *Kumho Tire* and/or parts of *Joiner*. Six states, while not adopting *Daubert*, have utilized part of its holding to develop their own tests. And there are other non-*Frye* states that nonetheless reject *Daubert*. Both *Frye* and *Daubert* require the expert's reasoning to be 'of a type reasonably relied upon by experts in the field' and many states continue to apply *Frye*."²

¹ P. 2

² pp. 2-3

