



Benchmarking Innovation Using the Patent Asset Index Methodology

Why is it important to use reliable metrics when making strategic decisions?

“Being at least as good as the leader is a prerequisite to being competitive.”

Peter Drucker

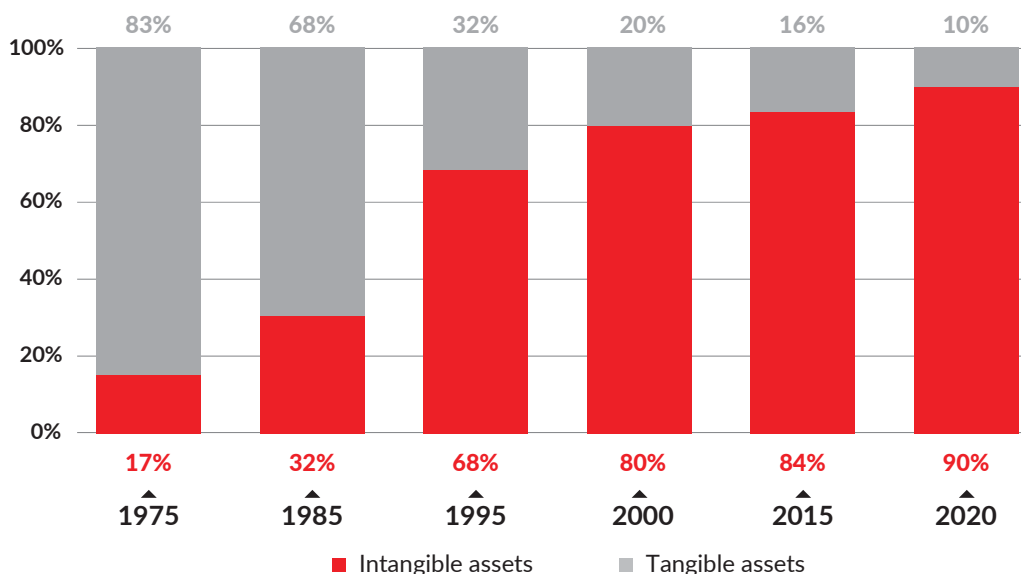
A pioneer of modern management theory

Benchmarking has been used by humans to stay focused on our goals for ages. From feats of sportsmanship like the Olympics, to setting records for the Guinness Book of World Records, to marking the heights of our children on a door jamb as they grow up, to the amount of pollutants in the air, benchmarks help us compare progress and set achievable targets. In business, much like in any other competition, it is imperative to keep your competitor’s progress in mind while making decisions for the future. Benchmarking has been a proven method for this. A major issue that decision makers face with organizational benchmarking is that if the right targets are not set, your organization runs the risk of achieving mediocre or unintended results. This is true for all the metrics that are benchmarked, as is the case with patent portfolios.

Competition Benchmarking: Why consider patent data?

The ratio of tangible to intangible assets of industry leaders around the world has been seeing a gradual change over the past four decades. As technological advances began driving innovation, the size and diversity within company asset portfolios began increasing consistently. This dramatic shift is evident in the market capitalization of the S&P 500 in 2020, which was made up of 90% intangible assets. In 1975, intangible assets only made up less than 20% of the total asset value. In such a situation, where a majority of the investment is in intangible assets, it is only prudent to be employing the best in class techniques for research and benchmarking, to ensure that the decision is based on data of the highest quality.

S&P 500 market value by asset class



Source: Ocean Tomo LLC

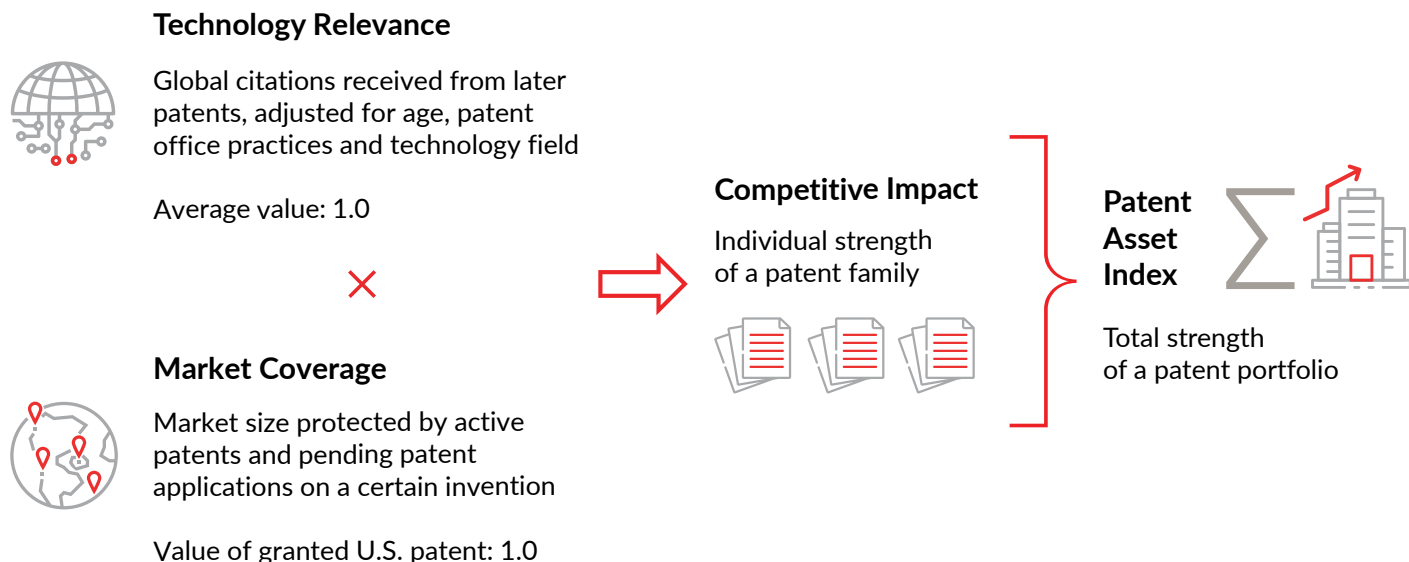
Traditional patent portfolio benchmarking: Limitations and challenges

Traditionally, benchmarking in an IP related context has been restricted to a simple count-based method; which means a higher number of patents owned by a company is considered best in class. The problem with such a unilateral approach towards patents is that individual patent worth is not accounted for and this leads to an unclear picture about a portfolio’s intrinsic value. In the words of Beat Weibel, the Head of IP at Siemens, “We don’t need many patents, we need the right ones.” Extensive research performed by LexisNexis Intellectual Property Solutions, clearly unveils that the total worth of a portfolio is a result of the intrinsic values of each patent family held within it.

This leads us to the next problem; typical industry leaders in a technology heavy industry holds patents numbering in the tens of thousands and more. Hence, comparing individual values of every single patent family owned by a company against those of the market leader can prove to be time consuming and costly, as opposed to being effective and efficient.

The Patent Asset Index: An efficient solution for benchmarking patent portfolio quality

In order to bring clarity to innovation, LexisNexis® relies on the Patent Asset Index methodology, which has been developed based on extensive scientific research, has established and proven that there’s much more to patents than meets the eye. Based on our model, the value of a patent is assessed by measuring two main indicators, that are derived from patent meta data, viz. Technology Relevance and Market Coverage.



Ernst, H., Omland, N. (2011): The Patent Asset Index - A New Approach to Benchmark Patent Portfolios. World Patent Information 33, pp. 34–41.

Technology Relevance

Technology Relevance is a measure of the importance of a patent family and the technological invention it protects. It is calculated based on the total number of worldwide citations that are received from other patent families and is adjusted for the facts that (1) older patents are cited more often, on average, than younger patents; (2) international patent offices follow different citation rules; and (3) different citation practices are prevalent in different technology fields.

Market Coverage

Market Coverage is measured as the size of the markets in which a patent family is protected, as benchmarked against the world's largest economy—the United States. In this context, the gross national income (GNI) of a country is used as a proxy for the relative size of its national market. Market Coverage is calculated based on granted and pending patents, adjusted for the patent family's protected market size.

Competitive Impact and the Patent Asset Index

Competitive Impact represents the individual strength of a patent family and is obtained by multiplying the Technology Relevance and the Market Coverage of each patent family. It is stated relative to the other patent families in the same field. For example, a value of three means that the patent family is three times as important as the average patent family in the field. The value obtained by adding up all the Competitive Impact values of all patent families constituting the portfolio is defined as the Patent Asset Index, which measures the overall strength of a patent portfolio.

Our patent analytics platform, LexisNexis® PatentSight+™, featuring the Patent Asset Index, has been used for several years by leading companies across many industries, as well as governmental bodies and organizations, e.g., in antitrust consideration or merger due diligence.

Start benchmarking your innovation against peers in your technology areas.
Schedule a meeting with us today: www.lexisnexisip.com/contact-us

LexisNexis® Intellectual Property Solutions
Bringing Clarity to Innovation

To learn more visit us at
LexisNexisIP.com/PatentAssetIndex