LexisNexis®

PatentSight®

Using the Patent Asset Index™ for Patent Portfolio Benchmarking

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

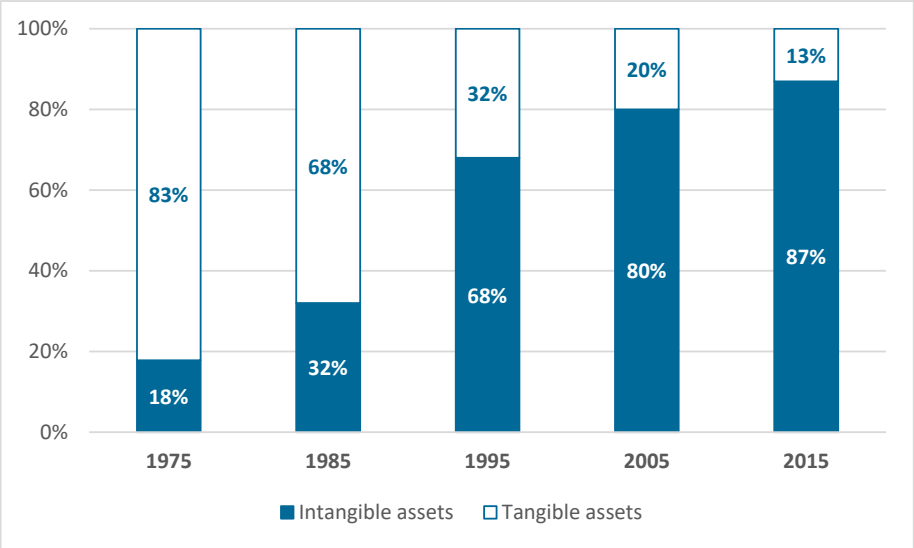
Peter Drucker

Benchmarking has been used by humans to stay focused on our goals since 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 have been employed since ages to compare and set 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 organisation 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, yet drastic, 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 capitalisation of S&P500 in 2015, which was made up of 87% 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

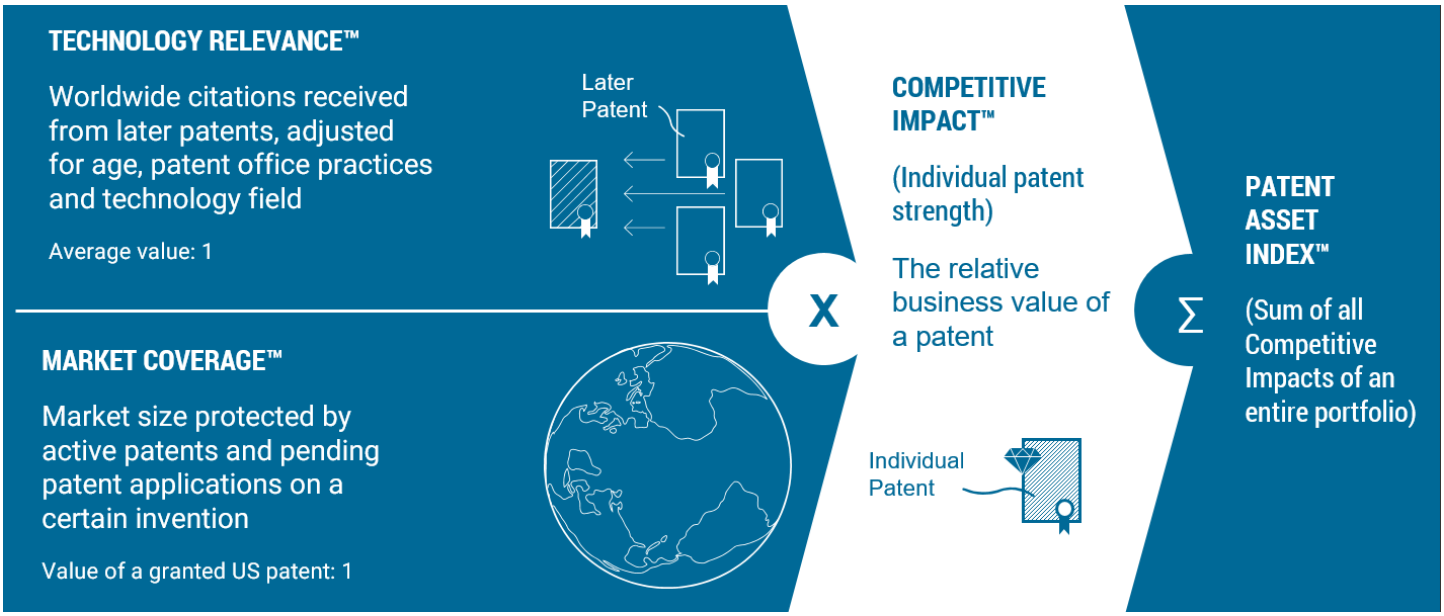
Traditional patent portfolio benchmarking: Limitations and Challenges

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, that Lexis Nexis PatentSight has performed, 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 1000's 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

LexisNexis PatentSight's Patent Asset Index™, 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 viz. Technology Relevance™ and Market Coverage™. These values are adjusted, considering various dissimilarities, for uniformity.



The scientific publication was made in: Ernst, H., Omlan, N. (2011): The Patent Asset Inex - A New Approach to Benchmak Patent Potolios. Wold Patent Inormation 33, pp. 34-41. An overview can be found in the document "Introduction to the Patent Asset Index" available from PatentSight.

Technology Relevance™

Technology Relevance™ refers to the number of forward citations a patent family has received over time. This indicates the importance of the technology protected by the patent. This value is adjusted for age, as older patents tend to have more citations than recently filed patents; for patent office where the patent is filed, since the propensity to cite varies among the different patent offices worldwide; and finally, for technology field, since different fields of technology have different citation practices. Thus, the Technology Relevance™ of a patent family is adjusted using three factors in order to level the playing field between the different patents families that are considered.

Market Coverage™

Market Coverage™, on the other hand, addresses the size of the markets in which a patent is actively protected in or in which a patent is filed for protection. For this metric, the size of the US market has been selected as a comparison means. Since pending patents are also considered as part of a company's portfolio, they are adjusted for probability of being granted. So, the market coverage value of those patents has been corrected with a factor to signify the probability that a patent has, on average, to be granted in the respective market that it is filed.

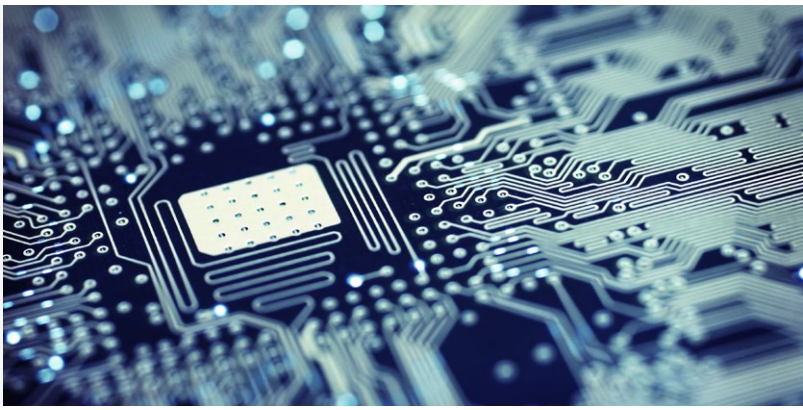
Competitive Impact™ and the Patent Asset Index™

The two indicators, Technology Relevance™ and Market Coverage™ are used to derive individual patent quality or Competitive Impact™. This value is calculated for each patent family in the portfolio. It signifies the average quality of individual patent families.

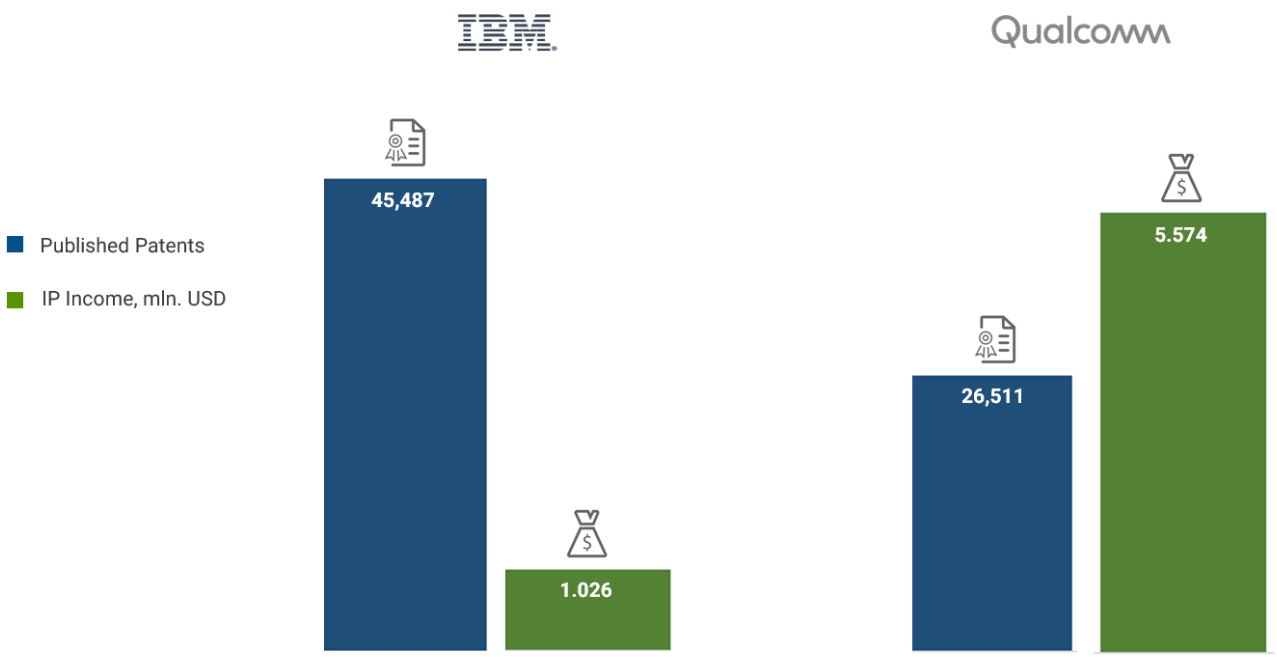
Patent Asset Index™, is the sum of all the Competitive Impacts™ of the patent families held within a portfolio. Thus, the Patent Asset Index™ provides a uniform value that is representative of a patent portfolio's strength. Since all values are adjusted for uniformity, they can easily be compared across technology fields and markets.

Apart from being easy to compare and to be used as a benchmark, the biggest advantage of using the Patent Asset Index™ is that it represents the intrinsic value of each patent family in the portfolio rather than a one-dimensional count of the patents held within the portfolio. We at PatentSight, have performed extensive research in all major patent filing offices to develop a comprehensive database of patent information and patent analytics. This database is, in turn, updated every week in order to maintain data quality and relevance. Since high quality and updated data is readily available, benchmarking can be done efficiently.

Use Case: IBM vs Qualcomm



IBM vs Qualcomm: Comparison of Published patents and IP income



Source: LexisNexis PatentSight, Data as of 31 December 2018 and Annual Repots 2018

On comparing active patent numbers and revenue generated from Intellectual Property (as seen from above), of two of the leaders in the IT industry; IBM and Qualcomm, it becomes obvious as to why an in-depth analysis of patent information is irreplaceable when benchmarking the best practices in IP management.

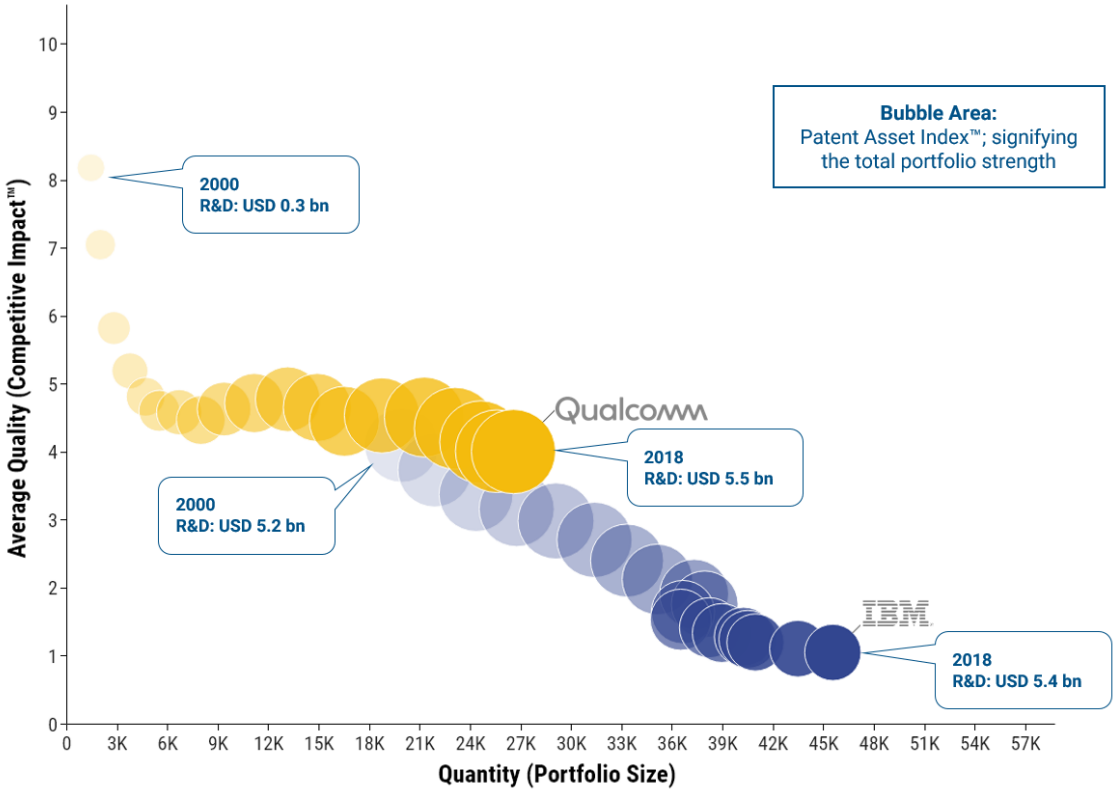
IBM vs Qualcomm: The patent scenario

As can be seen from the chart above, IBM has a greater number of active patents (45,487) in comparison to Qualcomm (26,511). In contrast, their respective incomes from intellectual properties were $1.026 mln (IBM) and $5.574 mln (Qualcomm). That means, with a little over half the number of patents, Qualcomm was able to generate more than 5 times the IP revenue as compared to IBM. A company in this industry, that uses the traditional methods to benchmark its patent portfolio would, therefore, be at a great disadvantage as they consider only the number of patents and hence do not get to see the full picture.

IBM vs Qualcomm: Using the Patent Asset Index™

A comparison of the companies, using the LexisNexis PatentSight BI Custom Analysis™ tool can shed some more insights. Based on their Patent Asset Index™ (see the graph below), the reason behind differences in the effective incomes generated from their respective portfolios becomes clearer.

IBM vs Qualcomm: Comparison of Portfolio Size in relation to Portfolio Strength



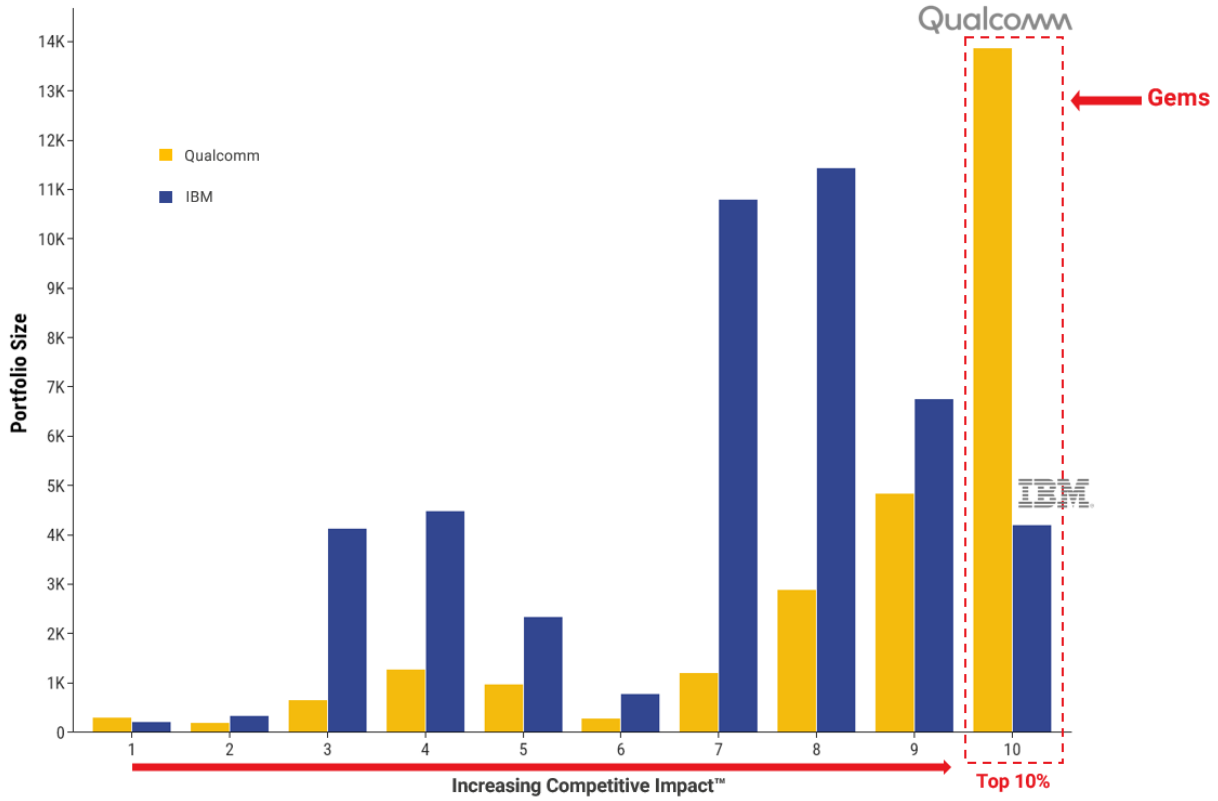
Source: LexisNexis PatentSight, Data as of 31 December 2018 and Annual Repots 2018

Over the last 15+ years, Qualcomm has been consistently developing a patent portfolio that is made up of significantly fewer patents as compared to IBM. Nevertheless, the Qualcomm portfolio maintained its average portfolio quality over the years, as can be seen from the high Competitive Impact™ (owing to high Market Coverage™ and Technology Relevance™). During this same period, the IBM patent portfolio, despite increasing in size many-fold, can be seen to be progressively declining in average quality as indicated by its low Competitive Impact™.

IBM vs Qualcomm: Analysing the top decile of Patents w.r.t Competitive Impact™

A traditional approach to patent valuation, which considers only the mere number of patents held by each company, would lead any observer to believe IBM was making great progress in this front. They would also be perplexed at how IBM generates such little income from its huge portfolio. But when we look at the number of high-quality patents held by each company (as seen on the next graph), we can see that Qualcomm has about 3 times as many patent families that fall under the category of top 10% of Competitive Impact™ (top 10%), as IBM; which has hardly 5000 patent families in this category.

IBM vs Qualcomm: Identifying patent "gems"



Source: LexisNexis PatentSight, Data as of 31 December 2018 and Annual Repots 2018

Conclusion

It is only with this level of in-depth analysis, that the true quality of individual patent families, thus the strength of the entire patent portfolio of a company can be accurately assessed. This is what makes LexisNexis PatentSight a robust tool and the Patent Asset Index™ an accurate indicator of portfolio strength, with which stakeholders of a company, governments and other interested parties can make informed decisions about patent portfolio management.

	Traditional IP Benchmarking	Patent Asset Index™ IP Benchmarking
Indicator of portfolio strength	Quantity of patents owned	Quantity and quality of individual patents
Method	Simple counting	Scientifically proven method
Accuracy	Extremely low	High
Cost	Low	Medium

"Quality is more important than quantity. One home run is much better than two doubles."
Steve Jobs.

LexisNexis® PatentSight®

PatentSight launched its first Business Intelligence Software in 2012. Since 2018 PatentSight is part of LexisNexis IP. Its platform provides unique, reliable and relevant insights into the patent landscape for decision makers and patent experts in the fields of

- Competitive Intelligence & Benchmarking
- R&D Strategy
- Disruptive Technology Scouting
- M&A and Due Diligence
- Licensing & Monetization
- Portfolio Optimization

Patent Asset Index™

PatentSight is known for its development of the Patent Asset Index, a proven approach to assess patent quality and to benchmark patent portfolios. The Patent Asset Index is recognized by technology leaders to provide an accurate view of the strength, quality, and value of patent portfolios to reveal the impact and efficiency of an enterprise's investment in innovation.

Analyses delivered by PatentSight are regularly reported to top executives of leading companies. Benchmarks are often featured in the shareholder annual reports of some of the world's largest corporations. Excellent data quality is the foundation of any analysis and highest priority.

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