

Still A Long Way To Value-Based Patent Valuation

The Patent Valuation Practices Of Europe's Top 500

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Innovations and patents make important contributions towards corporate success. A survey on the top 500 patent applicants of the European Patent Office on behalf of PricewaterhouseCoopers conducted by the Institute of Technology Management at the University of St.Gallen, Switzerland and its innovation and intellectual property management advisory spin off BGW reveals the status quo of valuation procedures and methods.

Success Factors for Companies

Since innovations are of immense significance in the attainment of a competitive edge today, their protection may create durable corporate success. Innovations and patents are therefore considered to be success factors for companies of all sizes and industries. In view of companies' increasing capital requirements, and growing exploitation opportunities on inter-national financial markets, patents are also of considerable interest for stakeholders and investors. Accordingly, the management of immaterial assets is an important element of strategic management that is constantly increasing in significance.

As a consequence of the introduction of the International Financial Reporting Standards (IFRS) and the palpably increasing interest of the capital market in immaterial assets, a Europe-wide study was conducted seeking to investigate the status quo of patent valuation in corporate practice. The questionnaire was sent to the top 500 Europe-based patent applicants before the European Patent Office. In particular, the investigation focused on the current general importance of technologies and patents, valuation motives and valuation methods in companies, and the position of the value-oriented management of technologies and patents.

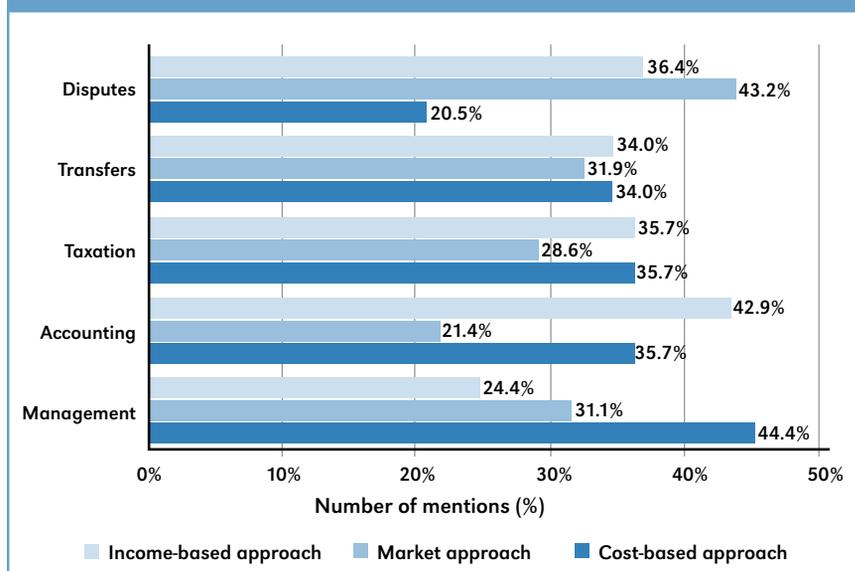
Status Quo of Valuation in Europe

More than 90 percent of the interviewees empha-

sized the importance of innovations and patents for corporate success. Innovative products account for 66 percent of the interviewees' turnover and for 60 percent of their profits. Patents, which are one segment of the overall field of innovation, are also held in high esteem as drivers of success. Fifty-eight percent of the interviewees confirmed the importance of patents. Correspondingly, 57 percent of the companies interviewed indicated that value-oriented innovation management is firmly entrenched in their organization; only 12 percent answered this question in the negative.

To determine the contributions of patents to corporate success patents should be managed and valued. This could happen through monetary and non-monetary valuation methods. While the costs for the issuance of a patent can be determined with relative ease, the actual valuation of a patent requires an appropriate set of tools. Monetary valuation can be carried out with the help of capital value, market price and cost oriented methods (a more detailed description is given in the last sections of this article). This high number of methods, combined with the non-standardized specific procedures they involve, result in a great deal of uncertainty in the valuation of patents.

Figure 1. Monetary Valuation Methods By Needs



The results with regard to monetary valuation methods came as a surprise. For one thing, the interviewees indicated that monetary valuations are conducted relatively rarely. For another, 44 percent of the companies stated that they use a cost oriented valuation process, sometimes even for management events (see Figure 1).

This result is surprising since particularly the management who frequently asks to be informed about the potential value contribution of their patents will find it difficult to infer it from this method. It is also surprising in the light of the importance of value-oriented innovation management.

Even if all the monetary valuation processes are applied more frequently or more rarely depending on the various occasions, there appears to be a wide dispersion of their application (see Figure 2). On the strength of this wide spread it can be deduced, however, that cost and market-price-oriented processes tend to be used as specialized instruments, whereas capital-value-oriented procedures tend to fulfill more of a broadband function.

Still a Long Way To Go

The results of the study thus confirm that patents no longer are solely used for protection but started to be seen as a corporate success factor and as an asset. Even though companies are more aware of patents and their value proposition, the study's results identified still many problems and uncertainties regarding the valuation of patents. The uncertainty in valuation methods leads not only to a loose management of patents but also to insufficient utilization of

potential values in patents.

The path from a currently dominating risk and cost approach in patent portfolio management and patent valuation to an at least application dependent opportunity and market or income based approach still seems to be steep and breathtaking for Europe's top enterprises. Cresting this task aids to manage patents and patent portfolios suitable and also fosters the utilization of patents.

Appendix: Valuation Approaches

As a final completion to the interested reader, some general information is given in the following about the state-of-art in valuation approaches.

In order to value intangible assets, in principle, three valuation approaches can be used (source: IDW ES 5):

- a) *market approach*,
- b) *income approach*,
- c) *cost approach*.

Within these approaches, several valuation methods can be applied (see Figure 3).

a) Market Approach

In case a reason for valuation calls for a valuation which draws on market prices, this is generally only possible if and to the extent the market prices concern sufficiently comparable assets. In addition, the market concerned must be active.

A market is active if all the following conditions are fulfilled:

- a) the goods in the market are homogenous;
- b) purchasers and sellers willing to enter into agreement can generally be found at any time; and
- c) prices are publicly known.

Since intangible assets are generally not traded in active markets, it must be determined whether comparable

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Figure 2. Occasions for Valuation of Patents and Technologies

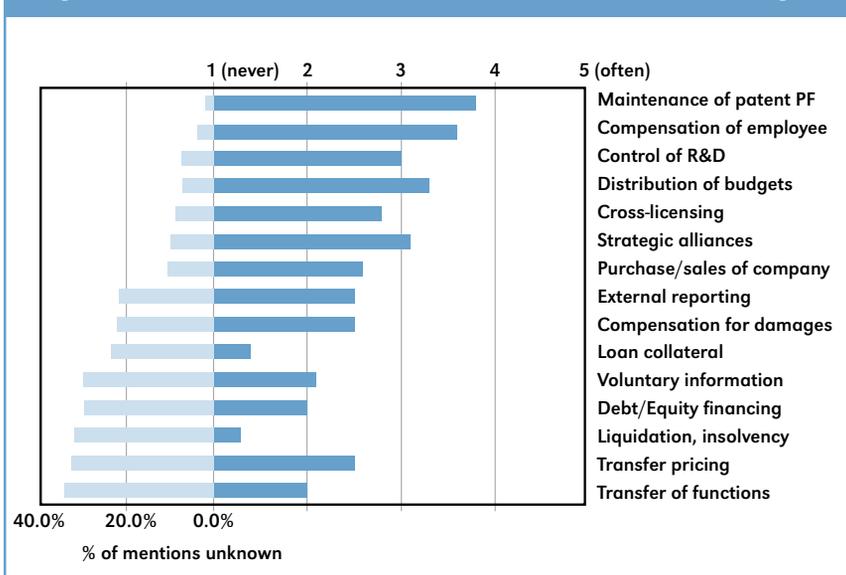
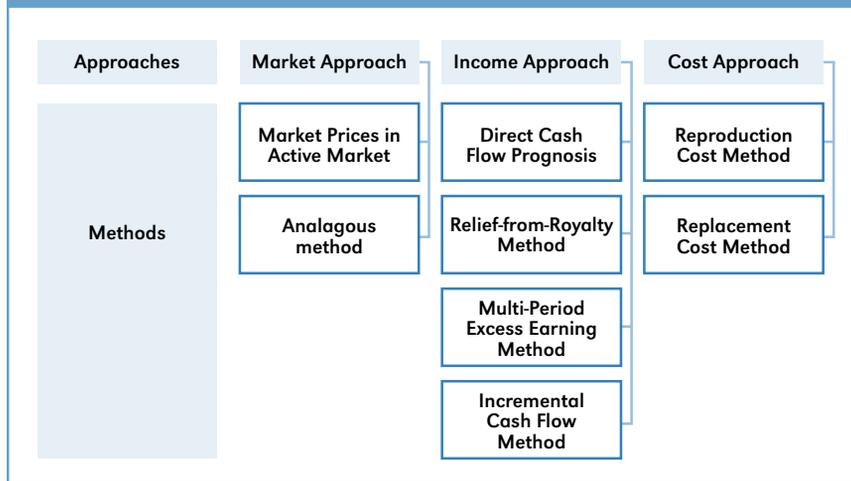


Figure 3. Valuation Approaches and Valuation Methods According to the IDW ES 5 Standard



transactions can be drawn upon for the valuation of an intangible asset. By means of analogies a comparison between the observable price for a comparable object and the value sought for the (to be valued) intangible asset can be made. Since adequate data from comparable transactions are very rarely accessible, it is necessary to provide a detailed background and reasoning for the choice of comparable transactions and the key indicators deducted therefrom.

b) Income Approach

The income approach is based on the assumption that the value of an intangible asset results from the future success which will be generated by the asset in the form of cash flows.

The value of an asset is considered to be the sum of the present value of the future cash flows that can be generated as of the day of valuation (*Discounted Cash Flow*) from the use of the intangible asset within the expected economic useful life and possibly its divesture/disposal. The central tasks within a valuation are therefore the prognosis of the cash flows relevant for the valuation and the determination of the capitalization interest rate/capitalization cost rate depicting the risk of the concerned intangible asset.

A major task in connection with the valuation of single assets is isolating the specific cash flows that can be credited to the asset to be evaluated. These cash flows are a type of added value to the cash flows that could be generated without the specific asset.

The planning period for the cash flows is to be based on the economical useful life of the intangible asset or its remaining useful life. The useful life of intangible assets is usually limited wherefore a valuation may not consider revenues in perpetuity from

such an asset. In exceptional cases, revenues in perpetuity may be considered in case the useful life of the asset is sufficiently long so that it becomes irrelevant whether the present value of a limited series of cash flows is considered or whether the present value of cash flows in perpetuity is considered.

The income approach allows valuations from different perspectives. Aside from standardized concepts of value, e.g. the fair value, which are relevant for company external objectives, it is possible to include individual and subjective

components and thereby reach strategically relevant decision values. This is relevant in cases in which the valuation is carried out not only for tax or accounting purposes, but for example shall be used for a purchase price finding or shall facilitate other decision making processes.

There are basically four different methods to evaluate intangible assets based on an income approach each of which allows for a different way of isolating the specific cash flow for the relevant intangible asset. These methods are generally equivalent. In individual cases, one method or the other may be better suited than another due to the importance of the specific intangible asset for a company or the fact that the information required for the application of one specific method may be difficult to come by.

Within the income approach, the following methods are applicable:

- Direct Cash Flow Prognosis Method,
- Relief-from-Royalty Method,
- Incremental Cash Flow Method and
- Multi-Period Excess Earnings Method.

c) Cost Approach

The third approach for the evaluation of intangible assets consists of the Reproduction Cost Method and the Replacement Cost Method. However, this approach has a major conceptual weakness since it is not use driven and since the data used always refers to the past. For these reasons, the cost approach for the valuation of intangible assets can generally only be used to verify plausibility or to determine minimum price thresholds, e.g. in purchase price negotiations.

In applying the cost approach, either the costs

required to create an exact duplicate of the asset in question (Reproduction Cost Method) or the costs for the manufacture or acquisition of a use-equivalent asset (Replacement Cost Method) can be used. It has to be verified whether discounts are to be applied to properly consider economical, technical or functional obsolescence.

The depreciation must be oriented towards the expected useful life defined by economical criteria. ■

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