How to evaluate new inventions and technology
Basic concepts of valuation

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This is Pacyinz Lyfoung, from Public Interest Intellectual Property Advisors (known as PIIPA). In this segment, we will be looking at basic terminologies, concepts and valuation methods focusing mostly on specific technologies.

It is important to have clear terminologies to understand valuation.

Therefore, we will start with definitions…

Value:

Value is what a willing buyer and a willing seller will agree upon as the basis for the exchange of property, in this case intellectual property. This means assigning realistic values that both partners can agree upon.

Valuation:

Valuation is the process of estimating a mutually agreed upon value for a product or IP that will enable the transfer from seller to buyer. Perfect valuation occurs when both seller and buyer think they got the best deal.

Valuation: Basic concepts

The buyer's perspectives focus on cost benefit and competing alternatives.

Seller's perspectives focus on: How much can be charged? What is the demand? How many different alternatives are there? How is my product distinct and superior to the alternatives?

Different valuation approaches require different amounts of data and serve different purposes, with limitations for each method.

Valuation complexity lies in how to determine present value against future technology or product.

Value is typically a negotiated figure – therefore the enquiries process is all about what method will best result in a value that both the seller and the buyer will accept.

Next, we will look at a few valuation methods that focus on the technology itself.

So, the discounted cash flow method…

…is the most common valuation method. The present value reflects the price a purchaser of IP is willing to pay now, with expectations of future cash profits.

The closer to the final product, the more realistic the estimate of future cash flow. But waiting longer makes reaching a negotiated settlement more difficult.

This method relies on market data, which only provides a range of probable values.

As there is no market data for revolutionary new products, the method uses proxies of existing products on the market. The challenge is to identify useful and appropriate proxies.

Understanding how specific proxy values that vary widely are statistically distributed helps estimate value for the new product with more accuracy and with more probability.

The cost approach method…

…is based on covering costs of developing a new product, charging a one-time fee to cover all research and possible patenting costs.

It is rarely used, as the cost of development is not usually related to the value of any IP it contains.

One version calculates the anticipated future costs of developing similar technologies, meaning using the proceeds from this sale to pay for developing the next one. It is highly subjective and difficult to justify.

This method is more useful joint ventures in comparison to licensing: knowing what was contributed to development helps determine the share assigned to each party.

The income approach method…

…discounts future anticipated revenues (cash flows) several years into the future. The licensor asks how much licensee is willing to pay now for a certain return in the future.

There may be no sales, market or cost data to use to predict future revenues.

The method relies heavily on the allocation of risks: What are the chances of disappointing returns? Who should take the risk?

However, risk estimates are often gut feelings.

In the market approach…

…one must find a similar or comparable technology and rely on sufficient data about similar transactions to arrive at an accurate estimate of the value of the new product.

The weakness of this market approach method consists of a lack of ability to obtain data for a truly novel product.

Then there are several hybrid approaches:

Hybrid approaches are hybrids of income and market methods of valuation that combine benefits of market comparability and the business community's familiarity with the income approach

They use experiences with similar products to estimate what prices buyers will be willing to pay and how quickly the market would grow to produce the projected income.

Usually applicable where there is prior experience and sufficient information, e.g. in-house development with historical information

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Finally, there is the royalty rate method…

Royalties give the inventor a return on sales of the final product and are often used to share the risk between the inventor and the developer

Royalty rates will be similar for like-technologies

This is a common approach to licensing technology, however it does not always result in a valuation of a technology, as royalty rates tend to be determined arbitrarily with little or no relation to the added value the technology may give to the products.

If a new product uses many technologies, royalty rates will be competing and therefore, low for each technology.

This concludes this first part on valuation. In the next segment, we will look at valuation methods that are focusing more on the whole of a company and the whole of its IP assets.