

UNDERSTANDING INTELLECTUAL PROPERTY VALUE

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Introduction

To understand how to maximise the value of intellectual property rights, it is first necessary to understand the factors that affect the value of those rights.

IP Valuation Methodologies

There are numerous valuation methodologies which can be used to value intellectual property. No one methodology is appropriate in all circumstances.

The selection of an appropriate methodology will depend upon the circumstances surrounding the valuation, including the type of IP being valued, the purpose of the valuation, and the availability of data.

In general, a primary methodology will be selected and used to value the intangible asset. The methodology selected will depend on the specific circumstances surrounding the transaction. Alternative methodologies will also be used to test the accuracy of the value obtained using the primary methodology. This will allow the valuer to assess the reliability of the value indicated by the preferred valuation methodology whilst recognising that all valuation methodologies have inherent limitations.

Three basic theories of valuation are used for valuing intellectual property: cost, market and income approaches.

Cost-based

In essence, the value of the intellectual property is the cost to replace or recreate that intellectual property. This method looks at the historical cost incurred to develop and create the intellectual property. A purchaser or licensee can avoid these costs by purchasing or licensing the intellectual property from the owner.

The relevant costs may include research and development (labour, materials and overheads), testing and regulatory approval costs, IP protection costs, equipment and other capital investments, a profit margin based on the usual profit the developer would expect to make on material, labour and overhead costs, plus a component for entrepreneurial incentive representing the amount of economic benefit required to motivate the developer to enter into the development process. The entrepreneurial incentive component is essentially a measure of the opportunity cost of undertaking the development in terms of diverted resources.

Once the components of cost have been determined, it is necessary to adjust for obsolescence. The types of obsolescence relevant to intangible assets include functional obsolescence (inability to perform the function for which it was originally designed), technological obsolescence (improvements in competitive technologies) and economic obsolescence (external factors that prevent the technology from earning a fair rate of return over its useful life).

There are many inherent problems with the cost approach. The most significant is that it fails to reflect the earnings potential of the intellectual property. The value of intellectual property is derived from its earning potential, and not its cost. The cost approach assumes that the fair value of the asset will be the same as its cost, and that there is a direct relationship between cost and prospective profits. However, cost does not necessarily equate to value. Clearly there is potential for a high valuation to be placed on less successful assets on which high levels of expenditure have been directed and vice versa.

If the intellectual property offers significant economic advantage in an active market, the use of the cost method is likely to understate its value. If, on the other hand, development has been inefficient or lengthy, the use of the cost method might overstate its value. Also, for many identifiable intangible assets, it may not be possible to develop a replacement, or it may not be possible to estimate the replacement cost.

In its favour, the cost approach is useful as a readily calculated bottom-line valuation.

Market-based

Using the market approach, the value of the intellectual property is determined by the arm's length price paid in comparable transactions. This is based on the theory that a licensee or purchaser will not be willing to pay more than the amount others have paid for similar intellectual property.

The major requirements of this approach are that there is an active public market in which there is an exchange of comparable assets, together with good access to information regarding how the assets were exchanged (such as price and surrounding circumstances). Needless to say, there is often very little information in this regard available in the public domain. The transactions will also need to have been conducted at arm's length. The value of many types of intellectual property stems from the fact that the intellectual property is unique. A patent, for example, is a unique asset and consequently comparable transactions may not be available.

The market approach is often used to establish "ball park" values, especially for running royalties. The difficulty with this approach is that it is often very difficult to locate a suitable "comparable" transaction. It can be difficult to compare deals with multiple forms of compensation, such as equity, milestone payments, provision of associated goods/services and running royalties. However, the method is attractive as it is credible, and objective.

Income-based

The income approach measures the cash flow associated with ownership of the intellectual property. The value of the intellectual property is the net present value of the expected future income streams that the intellectual property is likely to generate. The parameters that determine the value include the size of the income stream, the duration of the income stream, and the risk associated with realisation of the income.

There are numerous variations of the income approach. One common method to value this cash flow is the royalty savings approach. The royalty savings is the amount that a company would be willing to pay to use the intellectual property. A royalty rate is used to measure the amount that would be paid for the use of the intellectual property. The value of the intellectual property is the present value of the royalty payments saved through ownership.

The inherent difficulty with the income approach is that poor assumptions relating to the parameters in the net present value calculation will lead to meaningless results. The method requires forecasts of income from the IP, duration of that income stream and an estimation of a discount factor to represent the degree of risk associated with the income stream. Determining the discount factor is an important part of the income approach, and even small variations in the discount rate can result in large differences in the final value.

At the most basic level, the discount factor must take into account the fact that \$1 in the hand today is worth more than \$1 at some point in the future (due to inflation and economic risk). The rate must reflect the risk associated with the investment in the technology. Analysts equate the discount rate to the cost of capital appropriate for an investment in the subject intangible.

Whether the technology is being valued as part of a going concern or as a discrete economic unit will also impact on the size of the discount rate. The discount rate used for valuing the technology as part of a going concern will be less than the discount rate used for valuing the technology as a discrete economic unit in an exchange.

A common mistake made in valuing intellectual property using the income approach is to use the total value of the income from the business unit utilising the IP rather than the incremental income attributable to the IP itself. Falling into this mistake means the valuer has failed to account for the complimentary assets that have contributed to generation of the income, such as tangible assets, staff know-how, marketing assets and such like. In effect, the valuer has valued the entire business unit, rather than any particular piece of IP within that unit.

Valuation issues

Considerable business judgement is necessary in any valuation approach. This judgement must be based on the analyst's specific understanding of the IP to be valued, the individual transaction, and the valuation process, and a general understanding of the business within which the transaction is occurring.

The value of an intangible asset should not be evaluated in the abstract. It must be assessed within the context of its use. Some of these factors include:

- a) What exactly is the intellectual property, and how does the protection it affords add value to the business?
- b) What is the useful economic life of the intellectual property (rather than say its legal life)?
- c) What is the strength of the intellectual property? Is the intellectual property completely new, or a modification of existing intellectual property? How broad are the patent claims for example?
- d) What is the likelihood of technological change, and what are the capital requirements for such change?
- e) Are there alternative technologies and/or competitive pressures? Are there any substitutes available and, if so, at what cost?
- f) What effect will the skills and depth of management have on the exploitation of the intellectual property?
- g) How will the market respond to the new technology? Will there be a resistance to change? Will there be any regulatory restrictions/difficulties?
- h) Are there any strategic factors at play that make the IP more valuable in the hands of the acquirer?

Summary

Ultimately, intellectual property is worth what someone will pay for it at any given point in time. As such, any valuation is merely a negotiation tool. Understanding the underlying assumptions and theories behind the various valuation methodologies will assist greatly in negotiations for the sale or licensing of intellectual property.