

VALUATION OF INTELLECTUAL PROPERTY RIGHTS

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The assertion of commercial rights adjoining an intellectual property can be established through laws pertaining to Valuation. The Paper concentrates on the study of the various valuation techniques that can be employed in the valuation of intellectual property. Valuation of Intellectual Property is an evolving branch of knowledge and occupies a unique position between substantive and procedural laws. Therefore the law of Valuation in assessing the market value of the newly developed IPR plays a pivotal role. Different analytical models are presently being applied to estimate the value of intellectual property. A number of new methods to value intellectual property have been developed in recent years. Although each of these methods has its own limitations, together they provide intellectual property managers with a set of very useful decision-making tools. For the purposes of valuing an intellectual property no single method is employed. Infact a, combination of various valuation methods are often employed to reach a final determination of value.

I. INTRODUCTION

Valuation of intellectual property asset has gained utmost significance in today's corporate world. Such valuation of intellectual property becomes essential considering the corporate mergers and acquisitions, sales and joint ventures that make it necessary to determine the value of a company to a buyer or seller. Again for the purposes of Licensing of an intellectual property, it becomes essential to value the intangible property in question. This is necessary to determine the value of a license to the licensor and licensee. Similarly, for any investment or further development of a particular Intellectual Property it becomes necessary to determine the value of the same.

The valuation of Intellectual Property is more difficult than the valuation of tangible property given the intangible nature of the property itself. The valuation of intellectual property becomes more difficult than other tangible property because of the problem of amortization [gradual extinguishments] over the life of an intellectual property. Additionally, the uncertainty over the length and strength of protection given to an intellectual property influences its valuation. Several other criterions that make the valuation of Intellectual property more difficult is the fact that no public trading markets exist for intellectual property assets as they do for financial and physical assets. The exchanges in relation to intellectual property assets are sporadic and specialized, which are motivated by strategic advantages unique to the firms involved. Intellectual property assets are also inherently dissimilar, thus making valuation difficult. Lastly, because the details of intellectual property transfers are rarely made available to the public makes the valuation of such intellectual assets more difficult.

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II. VALUATION OF INTELLECTUAL PROPERTY

The first concept that needs to be understood is the concept of valuation itself. Valuation very simply put is the science that involves the art of estimating the value of a property, as it ought to be. Four essential characteristics of valuation flow from the abovementioned definition.

a) Valuation as a science as it is systematized body of knowledge

b) Process of valuation is the art of estimating the value. Valuation of any intellectual property would be to merely estimate of future value of the property at hand. What valuers can do is to merely assess the future circumstances and reach at a rough estimate of what could be the values of the newly created property. Therefore it must never be confused that the process of valuation would provide us with the perfect and precise value of an intellectual property. Valuation therefore is not a perfect record but only an estimate.

c) The estimated value is as it ought to be and not as it is. The process of valuation reaches at an estimation of price, as it ought to be and not as it is. Hence the criterion is the valuation of a newly created asset, in consideration of certain existing factors, as it ought to be. Hence the real value is never estimated.

d) The process of valuation of assets deals with the estimation of value of that asset which is different from the estimation of price. The concepts of Price and Value are different. The difference between the two can be simply stated as - that the market determines Price. However the market may not necessarily determine Value. The estimation of value is thus independent of the availability of the product in the market.

Therefore the buying and selling of product in the market may not be a necessary criterion for valuation. Even if a certain product is not floated in the market its valuation is perfectly possible.

Valuation of an intellectual property cannot be stated in the abstract. All that can be stated is the value of that property in a certain context namely value of the property at a particular place, at a particular time, and in particular circumstances. Certain pertinent questions needs to be asked before delving into the complex arena of valuation of any intellectual property. Some such pertinent questions can be, valuation for whom? Who are the target consumers for a given property? What is the span of legal protection for a given property? And what is the purpose of valuation? Failure to take such circumstances into consideration would lead to meaningless valuation.

There are four main value Concepts that are used while valuing any intellectual Property are Owners value, Market value, Fair value, and Tax value. Owner's value is the proprietor's view of value if he is deprived of the property. However, the concept of Market Value entails that if a comparable property has fetched a certain price then the property in question would fetch a price something near to it is the philosophy advocated by the market value concept. Estimating the Fair value of an asset entails that the transaction is not in an open market where the free forces of demand and supply are working solely on economic principles. In estimating fair value the seller and purchaser are brought together through a privately held deal where the deal is fair to both the parties. The tax value concept directly relates the concept of valuation to the position of tax on the same. The higher the tax the lesser would be the incentive of the companies to invest in the product

and hence lesser would be its value. Hence what is essentially required is not a very high rate of tax but only an efficient mechanism of tax collection.

III. METHODS OF INTELLECTUAL PROPERTY VALUATION

The current section would deal exhaustively with the various methods employed by professional valuers for the valuation of Intellectual Property. Although each of these methods has limitations, together they provide intellectual property managers/valuers with a set of very useful decision-making tools. It is essential to point out that no single valuation method is ever definitive. In the realm of tangible assets, the cost, market, and income methods are often combined in valuing plant and equipment. Likewise, with intellectual property assets, multiple valuation methods are often employed to reach a final determination of value. Different valuation methods provide different perspectives on an asset's value. Research on the current valuation methodologies will never finished, as it is a growing ranch of knowledge. However existing valuation methods will continue to be refined and new methods will continue to develop at their own pace.

A. The Cost Method

A cost-based valuation model focuses on the costs incurred to develop the intellectual property. It provides an estimate for the value of the asset that is tied to the cost to create or acquire the asset. The Cost method measures the value of an asset by the cost to replace the asset with an identical or equivalent asset. Hence it is often opined by academicians that the Cost Model has heavily drawn from the Principle of Replacement Cost wherein the cost of an asset is determined not by its substance but by the cost that the manufacturer had to pay for replacing the same with an identical or equivalent asset.

Another principal that the cost model bases itself on is the principle of substitution that in the view of the author is similar if not same to the Principle of Replacement. Herein also the model assess itself on the prime criterion of what cost would the manufacturer have to pay for the substitution of an asset from an identical asset.

The cost method takes into account the physical depreciation and functional obsolescence of an asset in calculating the replacement cost and is useful in determining the maximum value of an asset to the buyer. However, "cost does not equal value" and the cost of an asset to the seller is irrelevant to the value of an asset to the buyer.

The essential cost concepts used for estimating the value of the property through the Cost method are Sunk Costs, Opportunity Costs, and Switchover Costs. The costs of an intellectual property asset to the owner, whether the asset was created or acquired, is a sunk cost. Sunk costs cannot be used to price an intellectual property asset. If the intellectual property asset is no longer useful to the owner, the owner should sell the asset at any price, which exceeds the transaction cost of the sale, regardless of whether the price covers the owner's sunk costs.

The concept of Opportunity Costs provides that the value of an intellectual property asset to a prospective buyer, on the other hand, is a function of the buyer's opportunity costs – the cost to develop the asset independently or the cost to acquire the next best asset from another party.

The concept of Switchover costs entails that the value of an intellectual property asset to a prospective buyer is also a function of the buyer's switchover costs, which are the costs to adopt and utilize the intellectual property asset. Only if the buyer perceives the value of the intellectual property asset to be greater than the buyer's opportunity and switchover costs will the buyer negotiate with the seller.

The cost based valuation model suffers from an inherent disadvantage, as it is unable to provide a true estimate of value. Cost-based valuation models are generally not intended to provide a true estimate of the value of intangible assets. Instead, these models are often applied in response to specific regulatory requirements. As the models do not present a complete picture of the potential applications for the assets they have been called to be of less utility. Most significantly, because of their historical perspective, these models do not account for future benefits that can be derived from the intangible asset. For example, revenues derived from licensing and value created through direct use of the asset are not effectively captured or recognized in most cost-based valuation models. Cost-based models therefore do not capture the full impact of legal aspects of intangible asset management. Another disadvantage of a cost based valuation model is that although cost-based models account for legal costs associated with obtaining and maintaining intellectual property rights, they do not reflect the impact of other legal activities on the value of the asset.

B. The Market Method [Comparable Market Valuations]

Market-based valuation models estimate the value of intellectual property assets by looking to the marketplace. Assets that are comparable to those in question are identified, and the licensing revenue actually derived from those comparable assets in the marketplace is used as an estimate of the value of the new assets. When comparable intangible assets can be readily identified, market-based valuation models are relatively easy to apply, and can yield accurate projections. Different companies choose different markets as the basis for the valuation; there is substantial variety from company to company even when they each apply a market-based valuation approach.

Finding comparable transactions is the key to the market valuation method. This is relatively easy in the case of residential real estate. The neighborhood, school district, square footage, number of rooms, and construction quality, for example, can be used to compare past home sales and prices in order to value a prospective sale. Finding comparable transactions is more difficult in the case of intellectual property. As there is no public trading market for intellectual property assets, the terms and conditions of intellectual property assets, the terms and conditions of intellectual property asset transactions vary widely, intellectual property assets are inherently dissimilar, and the details of intellectual property asset transactions are rarely available to the public. Additional factors that affect the comparability of intellectual property transactions include the relative balance of power between the buyer and the seller, industry concentration, market size, barriers to market entry, the growth outlook for products incorporating the intellectual property asset to be valued, and anticipated new product introductions.

As has been explained earlier the market method relies itself upon the identification of comparable transactions to reach at a market value of the asset in question. However it must be noted in this regard that such comparable transactions can be between unrelated parties. Parties that have no

connection whatsoever between them in terms of their consumer base or manufacturing specializations. This makes it more difficult to find accurate comparisons.

Experts in the field of valuation of Intellectual Property asset have identified four basic requirements for the market method to be functional. They are-

- An active market must exist for the asset
- There must be as sufficient number of similar asset exchanges in the recent past
- Price information on similar asset exchanges must be available to the public.
- The exchanges must be between independent parties

C. The Income Method

Income-based valuation models make use of forecast future revenues to develop a current estimate of asset value. Under this valuation model, the royalty revenue it can generate in a licensing structure primarily establishes an intellectual asset's value. These models adopt a forward-looking perspective, estimating future earnings that can be derived from commercial use of intangible assets. Different companies apply different definitions and projections regarding "revenue forecasting". As a consequence of this diversity, the income-based valuation model differs, in practice, from company to company.

Basic income-based models can be expanded into models that assess asset value based on estimates of cash flow. Cash flow figures provide a sense of the financial health of a business over a specific time period. Income-based models are commonly built on future cash flow estimates associated with a particular asset. These models project future earnings and expenditures attached to the asset. Those estimates are also discounted to account for the time value of money and the uncertainty as to the accuracy of the projected cash flow. The net present value of the future earnings is calculated so that the estimated potential value of the asset can be compared with similar estimates for other potential projects, and current resource allocation decisions can be made based on comparative future value of different projects.

As is the case with market-based models, income-based models function best when there is accurate information to support the future income and cash flow projections. Such information is more likely to be available when the asset in question is very similar to one already in the commercial marketplace or when the asset will reach a clearly defined and well-established market. Income-based models are less effective when market information is sketchy or speculative.

There are four parameters that need to be looked into estimation asked on income method into the quantification of four parameters. They are

1. The amount of net income the asset is expected to generate
2. The time period over which the income is expected to be received
3. Determination of the present value discount rate for future income
4. The risk of realizing the future income

For the tangible assets, it is relatively easy to calculate the amount of net income, which the asset is expected to generate. If the tangible asset is already generating income, for example, under a lease agreement, net income is calculated by simply subtracting the expenses associated with the lease

from the rental payments. If the tangible asset is not currently generating income, net income can be calculated from the market lease rates for comparable assets and average lease expenses. However the real problem arises with respect to the calculation of net income that the product is expected to generate in case of intangible assets.

The second parameter is the time period over which income is expected to be received, which is determined by the economic life of the asset. This calculation of economic life of an asset can further be determined differently for tangible and intangible assets. For tangible assets, economic life is a function of depreciation (physical wear and tear that renders the asset less useful) and obsolescence (newer technology that renders the asset less efficient) For intangible assets, the economic life is a function of the period of protection (duration of patent, copyright, trademark, license, franchise etc.) and obsolescence. For many intangible assets, economic life is significantly shorter than the period of legal protection

The third parameter, the present value discount rate for future income, is determined by the opportunity cost of a risk free investment and the rate of inflation. In this regard the discount rate for future income is a risk free rate of return plus an inflation adjustment.

The fourth parameter, the risk of realizing the future income, is comprised of two types of risks namely the technical risks and the market risks respectively. The risk that a technology fails to achieve development milestones is the technical risks involved. The market risk is when a technology fails to achieve sufficient market acceptance The risk adjustment to net income can range from as low as 15-20% for very low risk investments, such as incorporating a new but well understood technology into an existing production line which enjoys strong market demand, to 50-70% or higher for extremely high risk investments, such as creating a start-up company to make an entirely new product based on an unproven technology.

D. Competitive Advantage Valuation

Competitive Advantage Valuation Method is a new method to value intellectual property assets. The Competitive Advantage Valuation method was developed over a number of years through a series of research projects. These research projects assessed the commercial potential of many different types of early-stage technologies by analyzing the engineering, marketing licensing, and intellectual property advantages and disadvantages associated with these technologies.

The Competitive Advantage Valuation Model is easy to use. Its simplicity lies in the fact that its calculations are quite simple. The calculations are based on simple algebra. The information required for such calculations are easily obtainable from various sources. In addition, the Competitive Advantage Valuation Model provides an intuitively logical association among the valuation elements.

The major premise of the Competitive Advantage Valuation method is that intellectual property assets have no inherent value; the value of intellectual property resides entirely in the value of the tangible assets, which incorporate them. The minor premise of the Competitive Advantage Valuation method can be best measured by the competitive advantage that that asset contributes to a product, process or service.

In the Competitive Advantage Valuation method the intellectual property asset to be valued in for of an Intellectual Property is not done in the abstract. It is always calculated in association with a product at hand. It is only after this that the product's net present value is calculated.

E. Auctions Method

This is the most straightforward and simple method of asset valuation especially with regard to IPR. The present method calls for the seller to invite multiple potential buyers for the product at hand to an auction of the product. The response of the buyers in the auction can determine the seller's valuation. Experts consider this method of entering into auctions most feasible when the seller has certain bargaining power. One of the biggest advantages of the auction method is that it uses existing offers for precisely the technology being valued and does not rely on information for previous transactions of similar nature.

F. Industry Standards Method

The Industry Standards Method requires the existence of as strong database of previous deals in sufficient number. This method uses previous standard as norm/guide for the valuation of the current product. It is with the help of such data that buyers and sellers can by reference to such data; estimate the value of the asset in question. However one of the limitations of this method is that it requires that there should exist sufficient number of similar transactions for comparison.

G. Discounted Cash Flow method

The Discounted Cash Flow method assesses the overall commercial risk related to an asset. The primary work is to undertake the present calculation of future cash flows keeping in mind the commercial risks of the future. While calculating the same, regard has to be given to several risks involved.

IV. CONCLUSION

Different analytical models are presently being applied to estimate the value of intellectual property. A number of new methods to value intellectual property have been developed in recent years. Although each of these methods has its own limitations, together they provide intellectual property managers with a set of very useful decision-making tools.

All models have their corresponding strengths and weaknesses. One weakness common to all models is their failure to account adequately for legal aspects of intangible asset development, protection, and transfer. To account for those legal aspects effectively, the valuation models should include estimates of the costs associated with creation and enforcement of the legal rights. In addition, the models should estimate the value of the legal rights of ownership and control of the assets. More diligent evaluation of costs of patent prosecution and maintenance should not be difficult, and can be incorporated into the basic valuation models.

For the purposes of valuing an intellectual property no single method is employed. Infact a, combination of various valuation methods are often employed to reach a final determination of value. Different valuation methods provide different perspectives on an asset's value. Research on valuation methodologies is also never finished. Existing valuation methods will continue to be refined and new methods will continue to be developed.

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