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The Technology Factor Approach to Valuing Assets

The value of technology to a business can be difficult to measure since traditional intangible asset valuation methods are more suited to value non-technological assets. With the rise in technology-dependent companies, a new method was needed to appropriately place a market value on the underlying technology unique to specific businesses. Thus, the Technology Factor Approach was created.

Traditional Approaches to Asset Valuation

There are four traditional approaches for valuing intangible assets:

1. Cost Approach: This approach is useful for intangibles such as technologies in early stages of development when the potential economic activity of the asset is unknown.
2. Income Approach: This method is usually applicable to most intangible asset valuation situations, but it can be easy to overvalue an asset using this method because the owner must estimate the asset's future income.
3. Market Approach: It is easy to use this method if similar intangible assets are already in the marketplace; however, most intangibles are unique by definition, so determining an asset's value based on similar assets in the market might prove to be difficult.
4. Relief from Royalty Approach: This method depends on the application of an appropriate royalty rate to the intangible, which can be difficult, depending on the abundance of similar assets in the market.

The Technology Factor Approach

The Technology Factor Approach is applicable only to technology, and is gaining popularity with the digitalization of so many intangible assets.

This approach measures the contribution of technology to the total revenue of a business and uses a hypothetical negotiation between a buyer and seller to determine its "Technology Factor," which can then be used to determine an asset's value.

When deciding how much cyber liability coverage to purchase for your technological intangibles, businesses have found that using the Technology Factor Approach has resulted in the most accurate values for technology assets.

How to Determine an Asset's Technology Factor

- The first step to determining an asset's Technology Factor is to forecast the future cash flow for the business using the technology.
  - The present value of the cash flow can then be calculated by using a discount factor, which should include all potential risks associated with using the technology (obsolescence, market/industry risks).
- Then, set an upper limit for the contribution of value provided by the technology.
  - The upper limit of contribution is the maximum percentage of business value that can be credited to the asset.
  - Since nearly every business has tangible assets in addition to intangibles, the upper limit for the contribution of the technological asset will be lower than 100%. Use the traditional asset valuation methods to determine what other tangible and intangible assets are worth.

    - The pharmaceutical and medical device industries, for example, rely more on specific technologies than the food service or agriculture industries, so their upper limit will be higher.
    - If, for example, a company's future profits total $1 million, and the company determines that the upper limit for the contribution of a certain technology will be 70%, then the maximum value for that technology will be $700,000.
- After the upper limit has been determined, create a list of the asset's strengths and weaknesses from the aspect of a hypothetical buyer and seller by placing them in two categories: utility and competitive.
    - Examples of questions to ask when thinking about strengths and weaknesses in the utility category are:
        - At what stage of development is the technology?
        - Can the technology be mass produced?
        - How big is the market for the technology?
    - Examples of questions to ask when thinking about strengths and weaknesses in the competitive category are:
        - Is there a risk of the technology becoming obsolete in the near future?
        - Are there similar technologies already in the marketplace?
        - Is the technology replacing another method or creating a new method for doing things?
- Weigh and score the attributes on how a hypothetical buyer and seller would view them to determine the asset's attribute factor.
    - Some attributes may increase value, while others may decrease value. Some may have no effect on value. Assign values from +2 to -2, keeping in mind that higher numbers equate to a higher selling price which favors the seller, and lower numbers favor the buyer and a lower selling price.
    - Score equivalents: -2 = 0, -1 = 0.25, 0 = 0.50, +1 = 0.75, +2 = 1. Ideally, you want the highest selling price for the technology, so scores that favor the seller are worth more than scores favoring the buyer.
    - The equations for determining the Technology Factor are as follows:
        - (Upper limit x (weight x score)) = attribute factor
        - Sum of attribute factors/sum of weights = Technology Factor
- Multiply the Technology Factor by the asset's net present value to determine its value.

Why Value Your Technology?

It is important to value your technological assets if you plan to purchase another company or sell your own, and also to determine how much insurance to buy to protect those assets. Chances are the technology you use on a daily basis is key to keeping your business profitable, so it's important to take the necessary steps to protect it from various types of risks.

We Can Help Protect Your Assets

Intangible assets are an enormous part of nearly every company, and valuing them can be difficult. We have the tools necessary to ensure you have the proper coverage to protect your intangible assets against many types of risk. For more information, contact us today.