

A Conceptual framework of intangible assets and its Valuation Models

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Abstract: *There is a dramatic increase in the number of companies whose value lies largely in their intangible assets; with relatively little or no value associated with their tangible assets. Traditional methods of valuation, based on accounting principles, where the value of the firm's assets is a portion of the value, have systematically undervalued companies. This article discusses the various categories of intangible assets and approaches for valuation of intangible assets in a company and problem of valuing intangibles for determining their value for future economic benefits of the organization.*

Intangibles are all around the business world. What intangible assets are, have been under a lot of study for more than forty years and still there is no generally accepted approach on how to measure their value or what makes them to increase or decrease.

Key Words: *Intangible assets, Valuation Models, Business value, Future economic benefit.*

Introduction:

Intangible assets are non-physical assets (such as franchises, trademarks, patents, copyrights, and goodwill) that grant the potential for certain rights and privileges as well as the possibility for economic benefits to the owner. The economic benefits may be fruitful or fleeting, depending on the nature of the intangible asset and the company exploiting it. Unlike physical or tangible assets, which you can see and touch, intangible assets cannot be physically distinguished. On the other hand, similar to tangible assets, in the appropriate circumstances an intangible asset can be exchanged, purchased, or licensed. For some companies intangible assets may have such a bearing on the business' value that shareholders are willing to go great lengths and expend funds to define their intangible assets, monitor and manage them, and protect them from infringement and damage. Nonetheless, an intangible asset's influence on business value may be simply ephemeral, subject to the gyrations of the stock market, consumer sentiment, and unrelenting competition.

An enterprise controls an asset if it has the power to obtain the future economic benefits flowing from the underlying resource and also can restrict the access of others to those benefits. Market and technical knowledge may give rise to future economic benefits. An enterprise controls those benefits if, for example the knowledge is protected by legal rights such as copy rights, or a restraint of trade agreement, where permitted.

The capability of companies to create economic value, i.e. customer value, shareholder value, and stakeholder value, is increasingly dependent on intangible assets – on immaterial resources and production factors. Today, intangible assets are predominantly responsible for a company's capacity to innovate and thus for its capability to create added value in a highly dynamic, highly competitive global business environment and to "make a difference".

So it is no surprise that companies in all industries are investing more in intangible assets than ever before – with trend values arcing even higher. A clear "symptom" of this is the fact that the gap between market values and book values of corporations has been constantly growing over the last few years. As a result, even companies of the "old industries" possess today significant intangible assets (Gu/Lev, 2001, p. 12) – although they are not visible in their balance sheets or internal management accounts and reports.

And that is the very problem; our enterprise management concepts and control instruments have failed to keep up with this development. They provide a much too narrow angle, and exclude the most important factors of production of our companies and economies of today, which are increasingly knowledge-based and service-oriented: the intangible assets along with their intrinsic production forces and risks.

Methodology:

The article has been written on the basis of secondary information. The secondary information was collected from published books, journals and research papers

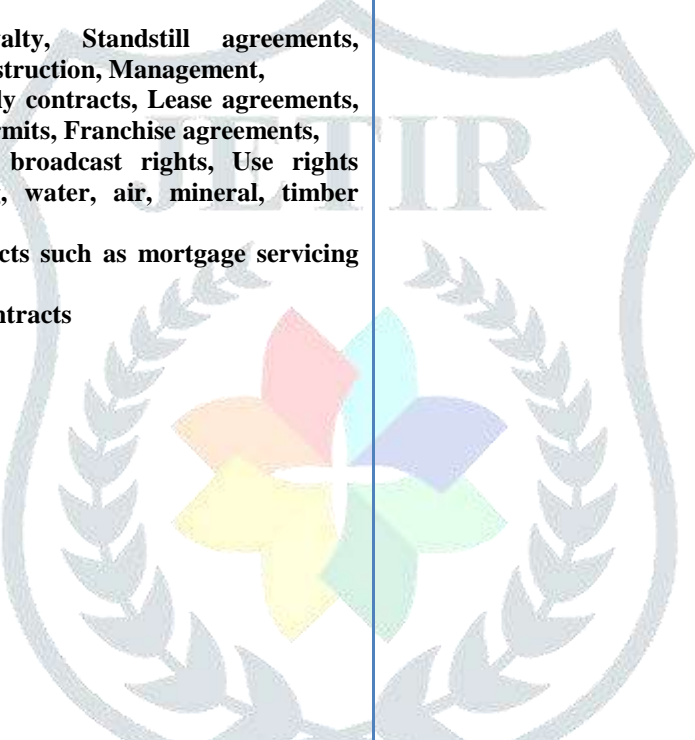
Objectives of the study

1. To have an insight into various categories of intangible assets.
2. The review the models most commonly applied to estimate the value of intellectual property and other forms of intangible assets

Categories of intangible assets:

- **Marketing-related intangible assets:** Trademarks, Trade Names, Service marks, Collective marks, Certification marks, Trade dress (unique color, shape, or package design), Newspaper mastheads, Internet domain names and Non- competition agreements.
- **Customer-related intangible assets:** Customer lists, Order or production backlog, Customer contracts and related customer relationships and Non-contractual customer relationships.
- **Artistic-related intangible assets:** Plays, Operas, Ballets, Books, Magazines, Newspapers, other literary works ,Musical works such as compositions, Song lyrics, Advertising jingles, Pictures, photographs, Video and audiovisual material, including motion pictures, Music videos, and television programs
- **Contract-based intangible assets:** Licensing, Royalty, Standstill agreements, Advertising, construction, Management, Service or supply contracts, Lease agreements, Construction permits, Franchise agreements, Operating and broadcast rights, Use rights such as drilling, water, air, mineral, timber cutting, Servicing contracts such as mortgage servicing contracts and Employment contracts.
- **Technology-based intangible assets:** Patented technology, Computer software and mask works, unpatented technology, Databases, including title plants and Trade secrets, such as secret formulas, processes, recipes. Specifically intangible assets may be defined as
- **Patents:** Patents provide exclusive rights to produce or sale new inventions.
- **Copyrights:** Copyrights provide their owner with the exclusive rights to reproduce and sell artistic works, such as books, songs or movies.
- **Trademarks and Trade names:** Trademarks and trade names include corporate logos, advertising, jingles and product name that have been registered with the government and serve to identify specific companies and products.
- **Franchise licenses:** The purchaser of a franchise licenses receives the right to sale certain products or services and to use certain trademarks or trade names. This right is valuable because they provide the purchaser with immediate customer reorganization.
- **Government licenses:** The purchaser of a government licenses receives the right to engage in regulated business activities.
- **Goodwill:** Goodwill equals the amount paid to acquire a company in excess of its net assets at fair market value. It should be noted that while goodwill is technically an intangible assets, it is usually listed as a separate item on a company's balance sheet.

Intangible assets arising from contractual or legal rights (regardless of being separable)	Other intangible assets that are separable
<ol style="list-style-type: none"> 1. Marketing related: <ol style="list-style-type: none"> a. Trademarks, trade name, collective marks and certification marks. b. Trade dress(unique color, shape or package design) c. News paper Mastheads d. Internet domain names e. Non-competition agreement 	
<ol style="list-style-type: none"> 2. Customer related <ol style="list-style-type: none"> a. Order or production backlog b. Customer contracts and the related customer relationships 	<ol style="list-style-type: none"> a. Customer lists. b. Non-contractual customer relationships

<p>3. Artistic related</p> <ol style="list-style-type: none"> a. Plays, Operas, Ballets , b. Books, Magazines, Newspapers c. Musical works such as compositions, Song lyrics, Advertising jingles, d. Pictures, photographs, Video and audiovisual material, including motion picture 	
<p>4. Contract based</p> <ol style="list-style-type: none"> a. Licensing, Royalty, Standstill agreements, Advertising, construction, Management, b. Service or supply contracts, Lease agreements, Construction permits, Franchise agreements, c. Operating and broadcast rights, Use rights such as drilling, water, air, mineral, timber cutting, d. Servicing contracts such as mortgage servicing contracts and e. Employment contracts 	
<p>5. Technology based</p> <ol style="list-style-type: none"> a. Patent technology b. Computer software and mask works c. Trade secrets, such as secret formulas, processes or receipes. 	<ol style="list-style-type: none"> a. Unpatented technology b. Databases, including title plants

Valuation models:

Valuation of intangible assets is a complex exercise. The non-physical form of intangible assets makes it very difficult to identify future economic benefits that the enterprise can expect to derive from the intangible assets. Intangible assets normally do not have an active market, many times, they are not separable from the business and hence it becomes difficult to value them separately from the business.

The choice of model for the valuation is largely driven by the goals and concerns of the party developing the valuation. The most common models are: cost-based, market-based and income-based.

Cost-Based Models

A cost-based valuation model focuses on the costs incurred to develop the intellectual property and intangible assets. It provides an estimate for the value of the asset that is tied to the cost to create or acquire the asset (Pitkethly, 2002). The cost-based model does not generally address the potential future benefits that can be derived from the asset (e.g., licensing revenue). A cost-based model is generally backward looking and often

includes some form of adjustment for depreciation of the asset over time. Different companies will likely choose to incorporate different costs into their model. For this reason, cost-based models commonly vary from industry to industry and from company to company.

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. For example, cost-based valuation is commonly applied when intangible asset valuation is needed for accounting purposes. This approach to valuation is also often used for tax purposes. Cost-based valuation models have the virtue of being simple and accepted by regulators for tax or audit purposes.

The utility of cost-based models is limited, however, as the models do not present a complete picture of the potential applications for the assets. 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 do not capture the full impact of legal aspects of intangible asset management. Although cost-based models account for legal costs associated with obtaining and maintaining intellectual property rights (costs of patent protections and maintenance, for example), they do not reflect the impact of other legal activities on the value of the asset. For example, cost-based valuation models do not evaluate, in any way, the future enforceability of patent or other intellectual property rights.

Market-Based Models

Market-based valuation models estimate the value of intellectual property assets by looking to the marketplace (Pitkethly, 2002). 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.

A significant problem associated with market-based valuation models is appropriate choice of comparable intangible assets. The accuracy of a market-based estimate is largely driven by selection of a model asset that provides an appropriate point of comparison. It is often difficult to identify an appropriate, and truly comparable, asset. For this reason, market-based models work well when there is an established marketplace for the asset in question, and they are ineffective when there is no clearly defined marketplace relevant to the asset.

The market-based models fail to account for the full range of legal activities that affect intangible asset value. To the extent that the comparable assets that form the basis for the valuation model have legal characteristics comparable to those of the company applying the model, the legal attributes included in the model are more likely to be valid. For instance, if the asset in question is a patent for a pharmaceutical product, and if the product used as the market model was commercialized by a company with access to resources comparable with those of the company applying the model, then the model may be appropriate as to the impact of legal rights on the asset value. If, however, the model product was commercialized by a very large pharmaceutical company, but the new asset was developed by a small company with access to far more limited resources, then the model will be far less appropriate. Patent rights obtained by the large company are more likely to have greater value, as that company will have the resources to enforce those rights in the future, than will similar rights held by the smaller company which is less likely to be in a position to enforce the patent rights. A patent held by a company with resources adequate to enforce the patent in the future has greater economic value than that same patent held by a company lacking the resources to enforce it.

Income-Based Models

Income-based valuation models make use of forecast future revenues to develop a current estimate of asset value (Pitkethly, 2002). Under this valuation model, an intellectual asset's value is primarily established by the royalty revenue it can generate in a licensing structure. 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 calculations take the cash receipts of a company or a product (net profits plus amounts deducted for depreciation, amortization, and depletion) over a given period of time and subtract all cash payments over that same period of time. 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.

An important challenge associated with use of income-based models that apply a discount rate for uncertainty is the selection of an appropriate discount rate. The discount rates should address both the time value of money and the risk that the estimated income flow will be inaccurate. Selection of an appropriate discount rate poses a major challenge, particularly with regard to the estimate of risk. The accuracy of the overall forecast hinges significantly on the accuracy of the selected discount rate.

Income-based models do not fully account for the impact of legal rights on intangible asset value. Those models can effectively capture the costs associated with obtaining and maintaining intellectual property rights. However, they do not assess the costs associated with enforcement of the legal rights that are tied to the asset. While these models may capture the costs of patent prosecution and maintenance, for example, they do not incorporate costs of future litigation to enforce the patent (including risks associated with enforceability of the patent) or to enforce licensing agreements built around the patent.

Recognition and measurement:

The recognition of an item as an intangible asset requires an entity to demonstrate that the item meets:

- (a) the definition of an intangible asset and
- (b) the recognition criteria

This requirement applies to costs incurred initially to acquire or internally generate an intangible asset and those incurred subsequently to add to, replace part of, or service it.

The nature of intangible assets is such that, in many cases, there are no additions to such an asset or replacements of part of it. Accordingly, most subsequent expenditures are likely to maintain the expected future economic benefits embodied in an existing intangible asset rather than meet the definition of an intangible asset and the recognition criteria in this Standard. In addition, it is often difficult to attribute subsequent expenditure directly to a particular intangible asset rather than to the business as a whole. Therefore, only rarely will subsequent expenditure—expenditure incurred after the initial recognition of an acquired intangible asset or after completion of an internally generated intangible asset—be recognised in the carrying amount of an asset.

An intangible asset shall be recognised if, and only if:

- (a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- (b) the cost of the asset can be measured reliably.

An entity shall assess the probability of expected future economic benefits using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset.

An entity uses judgment to assess the degree of certainty attached to the flow of future economic benefits that are attributable to the use of the asset on the basis of the evidence available at the time of initial recognition, giving greater weight to external evidence. An intangible asset shall be measured initially at cost.

Conclusion:

Intangible assets cannot be seen and physically measured but have immense value for the business. Although yet there are a number of intangibles assets but a few are very popular in the parley of intangible assets such patents, copyright trademark and trade names, franchise licenses, government licenses and goodwill. The present study also highlights the economic models most commonly applied to estimate the value of intellectual property and other forms of intangible assets, a variety of different analytical models are presently applied to estimate the economic value of intellectual property and intangible assets. All models have important strengths and weaknesses.

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