

# THE FINANCIAL VALUE OF INTANGIBLES

## SEARCHING FOR THE HOLY GRAIL

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### Abstract

In many publications intangible resources are presented as the most important company resource missing on the balance sheet. This leads to the conclusion that this 'weightless wealth' should be valued and capitalized on the balance sheet. Finding a method to estimate the financial value of intangibles can be seen as a search for the Holy Grail. This paper presents this quest for the Holy Grail and the six problems that need to be solved along the way. It also gives two practical examples of the valuation of intangible resources

**Keywords:** Valuation, Intellectual Capital, Accounting, Core Competence

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## 1. Introduction

In many publications intangible resources are presented as the most important company resource missing on the balance sheet (Edvinsson and Mallone, 1997; Sveiby, 1997). This line of reasoning often leads to the conclusion that this 'weightless wealth' is responsible for the difference between a company's book value and market value (Roos et al., 1997). Therefore Tobin's Q (the difference between market value and the replacement cost of assets) is suggested as a measure for the value of intangible resources (Stewart, 1997).

The inability of the accounting system to cope with intangibles often is seen as problem. As a consequence proper management information on intangibles is lacking, leading to an inability of management to manage intangibles properly. Authors like Kaplan and Norton (1996), Stewart (1997), and Kerssens (1999) use phrases like "If you can't measure it, you can't manage it" to justify the search for new measures to fill the gap.

Externally, the lack of public information on intangibles results in information asymmetry (Edvinsson and Malone, 1997). Lev (2001) has shown that information deficiencies about intangibles result in abnormal gains to informed investors, undervaluation of companies and increasing cost of capital, which impedes investments and growth.

Over the years many practical systems have been proposed to resolve the information deficiencies that occur both internally and externally (Petty and Guthrie (2000), Andriessen and Tissen (2000)). Basically they fall into two categories:

- Measurement Methods: These use indicators to give managers more insight into their company's intangible resources.
- Valuation Methods: These attempt to place a value in monetary terms on the intangibles within a company.

Measurement methods dominate the literature on Intellectual Capital. The reason for this is not completely clear. It could be a result of the bad experiences gained from the experiments with Human Resource Accounting (HRA) in the 1970's. Existing HRA methods approach the subject from two seemingly contradictory viewpoints: the first from the costs involved in employing people - wage costs, training costs, office or factory space and so on; the second from the return which the employees generate.

The greatest difficulty with all the current HRA approaches is deciding exactly what the costs are or returns are. "It is almost impossible to calculate the economic value of labour in isolation. Many aspects of the production process are so inter-linked, that it is almost impossible to attribute the costs or returns to any single entity" (Bulte, 1975).

Another reason could be that many authors claim that financial valuation of intangibles is impossible or unnecessary. Sveiby (1997) writes: "Still, there exists no comprehensive system for measuring intangible assets that uses money as the common denominator and at the same time is practical and useful for managers. Depending on the purpose for measuring, I don not think such a system is necessary, either. Knowledge flows and intangible assets are essentially non-financial. We need new proxies".

This paper argues there are important reasons for the financial valuation of intangibles. Each of these purposes requires a specific approach. Two examples are demonstrated of approaches that provide managers with important strategic information about the financial value of intangible resources.

## 2. Wrong reasons for the financial valuation of intangibles

From the fact that the accounting system is unable to cope with intangibles one might conclude that we need to 'repair' the balance sheet. Existing financial statements recognize intangible assets only when they are acquired from others. To repair the balance sheet one might argue that we also need to develop a basis for the recognition, valuation and capitalization of internally generated intangible resources.

A strong argument can be made that this is impossible (Andriessen, 2001). The system of double-entry bookkeeping is based on transactions. Intangible resources are a spoilsport. Their unique characteristics do not fit in a transaction-based system. They are no rival assets. Their value can increase or decrease without a transaction. The benefits of intangible resources are much more uncertain than the benefits of tangible assets. If at all it is possible with intangible resources to talk about depreciation or impairment, it is much more a function of the competitive advantage of the company than is the case with tangible assets. And finally intangible resources are impossible to add up.

Another reason for the financial valuation of intangibles could be to fill the gap between the market and the book value of enterprises. That also seems impossible because comparing the two is like comparing apples and pears. The book value represents the historic value of the assets of a company not yet amortized. The market value is equal to the perceived present value of the future cash flow of the company (Figure 1).

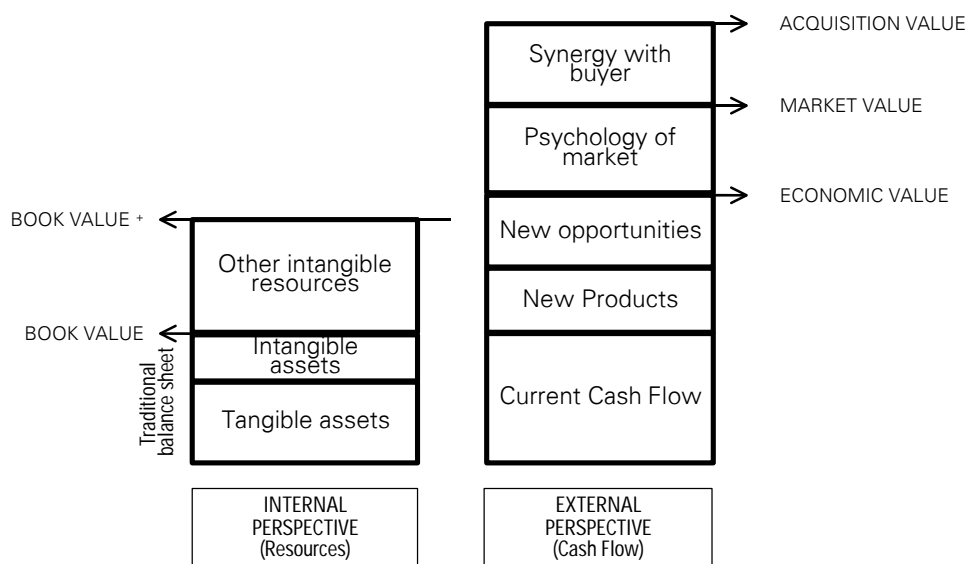


Figure 1 Two perspectives on company value

Talking about book value means taking an internal perspective on the company and listing its resources: tangible, intangible or financial. Talking about market value means taking an external perspective on the company looking at cash flows that will be generated by current products, new products, and new opportunities. It also involves the psychology of the market, including puffery or pessimism. These two perspectives cannot be subtracted. Pike et al. (2001) add another argument by stressing the fact that all resources of a company combine and interact with each other. The equation  $\text{Market Value} = \text{Book Value} + \text{Intellectual Capital}$  is incorrect since the variables are not separable as required by the equation.

### **3. Good reasons for the financial valuation of intangibles**

There are many good reasons for conducting an intangible resource appraisal (adapted from Reilly and Schweihs (1999)):

- Transaction pricing & structuring, for the sale, purchase, or license of an intangible asset.
- Financing securitization & collateralisation, for both cash flow-based financing and asset-based financing.
- Taxation planning & compliance, with regard to all sorts of possible deductions, tax compliance and estate planning.
- Management information & planning, including investment planning and strategic decision-making.
- Bankruptcy & reorganization, including the value of the estate in bankruptcy and the assessment of the impact of proposed reorganization plans.
- Litigation support & dispute resolution, including infringement of intellectual property rights and breach of contract.
- Bookkeeping & goodwill impairment testing, including the impairment testing of goodwill according to the new FASB guidelines for goodwill (FASB Statement No. 142).
- External reporting & accounting, including the reporting of fair-value estimates in notes to the annual report.

Each purpose will require a specific valuation approach. For example, the sale of an intangible asset (like a patent) to a specific buyer would result in the 'acquisition value' of that asset: "the price that a particular, specifically identified buyer would be expected to pay for an intangible asset with consideration given to any and all unique benefits of the intangible asset to the identified buyer" (Reilly and Schweihs, 1999). That value can be substantially different from its 'owner value': "the value of an intangible asset to its current owner, given that owner's current use of the intangible asset and current resources and capabilities for commercially exploiting the intangible asset" (Reilly and Schweihs, 1999). The conclusion is that the same intangible resource can have many different values.

## 4. The nature of value

Value is "the degree of usefulness of something, especially in comparison with other things" (Longman Dictionary of Contemporary English, 1978). Usefulness seems to be a rather subjective matter, but Axiology, or Value Theory, states that value is objectively measurable with respect to a well-defined context. This context should include referent objectives of a particular stakeholder against which the value will be measure (M'Pherson and Pike, 2001).

So value is indeed subjective in the sense that the same intangible resource typically has different value to different parties. But once the party is identified and the objectives of that party are expanded into a set of necessary and sufficient measuring attributes, value becomes measurable (M'Pherson and Pike, 2001).

In the Middle Ages money developed as a means to quantify value. Everything developed a price, which allowed for the comparison of the usefulness of any item against any other item, including time (Crosby, 1997). As economics developed it cornered the word 'value' for the monetary exchange of goods and services.

## 5. Approaches to financial valuation

Any valuation first requires the selection of the appropriate 'standard of value'. This standard provides an answer to the question: "Value to whom?" Reilly and Schweihs (1999) list ten different standards including fair market value, market value, acquisition value, owner value and insurable value.

Second, the appropriate premise of value needs to be selected. "The premise of value is the assumed set of intangible asset transactional circumstances under which the subject intangible asset will be analysed" (Reilly and Schweihs, 1999). Often the highest and best use for an intangible asset is selected as premise of value. It states that the use of the asset is legally permissible, physically possible, financial feasible and aimed at maximum profitability.

The valuation of intangible resources with the purpose of generating meaningful management information often will require the premise of 'value in continued use, as part of a going-concern business enterprise'.

Finally the appropriate approach to valuation needs to be chosen. In general there are three approaches to financial valuation (Lee, 1996; Smith and Parr, 1994; Reilly and Schweihs, 1999):

- Cost approach;
- Market approach;
- Income approach.

The cost approach is based on the economic principles of substitution and price equilibrium. These principles assert that an investor will pay no more for an investment than the cost to obtain an investment of equal utility (Reilly and Schweihs, 1999). Thus, the price of a new resource is commensurate with the economic value of the service that that resource can provide during its life.

In many cases cost is not a good indication of value. Many of the most important factors that drive value are not reflected in this approach. These factors include (Smith and Parr, 1994):

- The amount of benefits associated with the resource;
- The trend of the economic benefits (increasing or diminishing);
- The duration over which the economic benefits will be enjoyed;
- The risks associated with receiving the expected economic benefits.

This approach often is appropriate to value intangible resources when setting transfer prices, royalty rates or when estimating the amount of damages suffered by the resource owner in an infringement or other type of litigation.

The market approach is based on the economic principles of competition and equilibrium. These principles assert that in a free and unrestricted market, supply and demand factors will drive the price of any good to a point of equilibrium (Reilly and Schweih, 1999). An analysis is made of similar resources that have recently been sold or licensed. This market data is used to estimate a market value. This approach can only be used if data is available on the transaction of intangible resources that are similar to the subject resources. When the subject resources are unique, which is often the case, this approach is not appropriate.

The income approach is based upon the economic principle of anticipation. The value of intangible resources is the present value of the expected economic income generated by these resources.

## 6. Specifying the challenge

It is now clear that, in order to come to a financial valuation of intangibles, we need to specify the purpose of the valuation, the appropriate standard and premise of value as well as the appropriate valuation approach:

- This paper focuses on the valuation of intangibles with the purpose of providing management information on the financial value of intangibles.
- The intention is to measure the 'owner value' of the intangible resources.
- The intangible resources are analysed as part of a mass assemblage of resources. The corresponding premise of value is 'value in continued use, as part of a going concern business enterprise'.
- Management wants to gain insight into the earning potential of intangibles to be able to anticipate to future conditions. For this purpose the income approach is the most appropriate.

## 7. Six problems to solve

There are at least six problems to solve when designing an income-based method for the financial valuation of intangible resources:

- Identification problem
- Income projection problem
- Income funnel problem
- Income allocation problem
- Useful life estimation problem
- Income capitalization problem

### 7.1 Identification problem

When valuing intangibles, one first needs to solve the problem of identifying intangible resources. This requires a clear definition that is consistent with a classification of different types of intangible resources. The classification of intangible resources that will be used in this paper is shown in Figure 2.

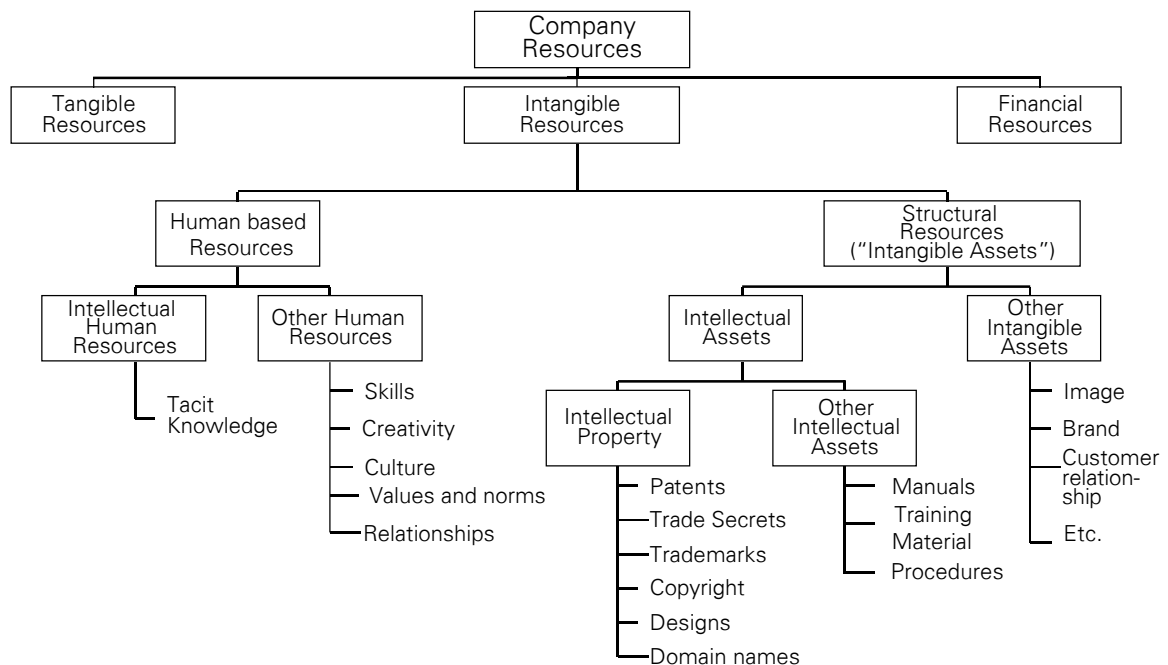


Figure 2 Classification of company resources

## **7.2 Income projection problem**

The income approach is based on a projection of economic income and thereby on predicting the future. Therefore it always contains a level of uncertainty and subjectivity. "All income approach analyses are based on the premise that the analyst can project economic income with a reasonable degree of certainty. (...) The term reasonable degree of certainty is, by its very nature, subjective" (Reilly and Schweih, 1999).

## **7.3 Income funnel problem**

Intangible resources are not the only source of business enterprise income. Tangible resources and net working capital also contribute to the income generated. The problem is how to assign the overall enterprise income to the constituent components of the business enterprise, including all tangible and intangible resources.

This problem is referred to as "a funnel of income adjustment because all of the income that is generated by a business enterprise can be analogised to the top (or wide) end of a funnel. For analytical purposes, we are only interested in that portion of the total enterprise income that gets down to the bottom (or narrow) end of the funnel - that is, that relates directly to the subject intangible asset" (Reilly and Schweih, 1999).

## **7.4 Income allocation problem**

The economic income that is left after the funnel of income adjustments can be attributed to the intangible resources of the business enterprise. The next problem is how to allocate this income among the various intangible resources.

## **7.5 Useful life estimation problem**

Crucial in any income approach analysis is the estimation of the remaining useful life of the intangible resources. There are least eight different ways to look at the remaining useful life of intangible resources (Reilly and Schweih, 1999) including economic life, technological life and physical life.

## **7.6 Income capitalization problem**

In order to come to a present value of future income, the economic income generated by the subject intangible is divided by an appropriate rate of return. This discount rate reflects:

- The expected growth rate of the income stream generated by the subject intangible;
- The cost of capital appropriate for an investment in the subject intangible;
- A compensation for inflation;
- The degree of risk associated with an investment in the intangible.

## **8. Example 1: Brand valuation**

To show how these problems are solved in practice this paper describes two examples of intangible resource valuation. The first example is the valuation of brands. Companies like Brand Finance plc and Interbrand [1] are specialized in the valuation of brands for applications like taxation planning, financing securization and management information. Each year Interbrand publishes its ranking of the World's Most Valuable Brands, based on an income approach.

### **8.1 Identification problem**

The identification of a brand is not very difficult as it is based on a trademark. The problem starts when we try to demarcate the brand from other intangible resources. Interbrand defines a brand as "a relationship that secures future earnings by securing customer loyalty". This definition shows that brand includes elements of other intangible asset like customer relationships.

Smith and Parr (1994) state that a strong trademark is the keystone of a brand but other assets may be included like products, protection, market position, trade dress, advertising themes and unusual features or quality. This problem of demarcation becomes relevant when we try to allocate the proper amount of earnings to the brand intangible.

### **8.2 Income projection problem**

Starting point for brand valuation is the estimation of future earnings attributable to the brand. Interbrand calls this Branded Revenues. The earnings must relate only to the brand being valued and not to other unbranded or branded goods. So, for the estimation of the Coca-Cola brand, earnings from Fanta or Sprite are not included. For these earnings a 5-10 year forecast is produced, based on market research. This forecast is based on the premise of 'value in continued use, as part of a going concern business enterprise'. This means potential new applications of the brand are not included.

### **8.3 Income funnel problem**

To calculate the earnings generated by intangible resources, all operating costs, corporation tax and a fair charge for the value of the tangible assets employed and net working capital are deducted. The result of this Interbrand calls Intangible Earnings. Brand Finance talks about 'Residual Earnings attributable to all intangible assets employed in the branded business' (Haigh, 1999).

### **8.4 Income allocation problem**

The next step is to establish what portion of the intangible earnings relates to the brand as opposed to other intangible resources. This is the most difficult step in the valuation process: How to decide what portion of earnings is the result of the brand and not the result of other intangible assets or human-based resources (like a company's sales staff)?

Interbrand uses a 'Role of Branding analysis', which identifies and weights the key drivers of customer demand and their dependence on the brand. "Interbrand uses market research and interviews with industry executives to sift through those variables" (Khermouch, 2001). Brand Finance uses a 'Brand Value Added BVA™ Index' (Haigh, 1999). It uses large sample customer research to identify the importance of the brand to the purchase decision. The idea is that the relative relevance of the brand for the decision to buy a branded product can be used to separate the portion of intangible earnings that can be attributed to the brand.

## 8.5 Useful life estimation problem

In many brand valuations the useful life of a brand is presumed to be infinite. This means it is assumed the cash flow will be generated indefinitely. This time period is often divided into two periods - the explicit forecast period and the period after the explicit forecast period. This results in a total value of the brand being equal to the present value of cash flow *during* a period with an explicit forecast, plus the present value of cash flow *after* a period with an explicit forecast. This last value often accounts for a large percentage of the total value of a brand (Copeland, 1990).

For example, Brand Finance calculates a specific valuation of the first five years of discounted cash flows and then includes an 'annuity'. This is a mathematical summation of all the future earnings beyond the initial valuation period and reflects the fact that brand earnings continue in perpetuity.

## 8.6 Income capitalization problem

The discount rate used in brand valuations reflects a risk free borrowing rate (often represented by the yield on a government bond) and premium based on the specific risk profile of the individual brand to be valued. To calculate this premium Interbrand uses a Brand Strength analysis, which includes the brand's market, stability, leadership, trend, geography and protection. Brand Finance uses a *brandbeta*® Analysis that includes time in market, distribution, market share, market position, sales growth rate, price premium, elasticity of price, marketing spend/support, advertising awareness and brand awareness.

## 8.7 Calculating value

The Top-10 of The World's Most Valuable Brands Ranked by Interbrand is shown in Table I. The value shown is the present value of the future intangible earnings attributable to the brand using a discount rate that includes brand risk.

**Table I The Top-10 of The World's Most Valuable Brands Ranked by Interbrand [2]**

Interbrand Ranking	Brand	2001 Brand value (\$MM)	Brand Value as % of Market Cap (@July 2001)
1	Coca-Cola	68,945	61%
2	Microsoft	65,068	17%
3	IBM	52,752	27%
4	GE	42,396	9%
5	Nokia	35,035	34%
6	Intel	34,665	17%
7	Disney	32,596	54%
8	Ford	30,092	66%
9	McDonald's	25,289	Na
10	AT&T	22,828	15%

The valuation of brands is a good example of the possible financial valuation of intangible resources. It shows that when an income approach is used, six problems need to be solved in a specific way. It also shows that this cannot be done without the use of particular assumptions and estimations that contain a margin of error. This is especially true for estimation of the importance of the brand, which is needed to separate the earnings caused by the brand from the earnings caused by other intangible resources.

## 9. Example 2: The Value Explorer<sup>®</sup> Valuation add-on

The Value Explorer<sup>®</sup> is a method for the identification and measurement of strategic intangible resources (Andriessen and Tissen, 2000). This method has a 'Valuation add-on'; a separate module for the financial valuation of intangible resources [3].

The purpose of the Valuation add-on is to support strategy development and decision-making. So the add-on is primarily used to provide management information. Therefore, what the add-on intends to measure is the 'owner value' of the intangible resources. The intangible resources are analysed as part of a mass assemblage of resources. The corresponding premise of value is 'value in continued use, as part of a going concern business enterprise'. The Valuation add-on wants to provide insight into the (relative) earning potential of bundles of intangibles and is based upon the economic principle of anticipation. For this purpose the income approach is used.

### 9.1 Identification problem

The Value Explorer<sup>®</sup> Valuation add-on identifies those combinations of intangible resources that represent the uniqueness of a company. In order to identify these combinations a link is made with the theory of core competencies (Hamel and Prahalad, 1994). Analysis of many core competencies shows that they primarily consist of intangible resources. By defining the core competencies of a company the intangible resources that are to be valued are identified.

Andriessen and Tissen (2000) give the example of Pieces of Fun, a fictional example of a company in the toy industry. This example will be used to illustrate the application of the Value Explorer<sup>®</sup> Valuation add-on.

Pieces of Fun has three core competencies:

- Printing and Die-cutting: the ability to print and cut difficult materials in order to produce special games for customers.
- Graphic Design: the ability to develop graphic designs, images and virtual worlds using desktop publishing software.
- Intellectual Entertainment: the ability to design innovative and creative intellectual entertainment.

Each core competence consists of a number of different intangible resources like skills, tacit knowledge, values, norms, patents and processes.

## 9.2 Income projection problem

Determining the financial value of the core competencies starts with an analysis of the products to which the core competencies make a contribution. Within Pieces of Fun four groups of products are identified:

- Jigsaw puzzles
- Puzzle books
- Round games
- Computer games

The basis for the valuation is the contribution margin of these products. For the projection of the contribution margin into the future, a Potential factor is estimated, based on the expected growth rate of the product earnings (Table VI).

## 9.3 Income funnel problem

The contribution margin is determined by deducting the direct costs from the gross margin (sales revenue minus cost of goods sold expense) generated by a product. Direct costs include those costs, which can be directly accounted to production or service. Overheads are not included.

A product or service is not realized solely through intangible assets, but also with tangible and financial assets, and by maintaining net working capital. The contribution margin of the products is corrected by a 5% compensation for these assets. This percentage is equal to the average costs of capital in the firm. The total sum of fixed assets and net working capital in Pieces of Fun is 31.7 million US\$ (Table II).

**Table II 1999 Contribution margin Pieces of Fun per Product**  
 (in US\$ million)

	Jigsaw puzzles	Puzzle books	Round games	Computer games	Total
<b>Gross margin</b>	31.3	23.8	16.0	25.0	96.1
<b>-/- Direct costs</b>	-18.9	-16.8	-14.6	-11.5	-61.8
	12.4	7.0	1.4	13.5	34.3
<b>-/- Compensation</b>	-0.6	-0.3	-0.1	-0.6	-1.6
<b>Contribution margin</b>	11.8	6.7	1.3	12.9	32.7

## 9.4 Income allocation problem

Next, the contribution margin of the products needs to be allocated to the underlying core competencies. The contribution of a core competence to the realization of a product varies. The core competence can make an essential, substantial, or supporting contribution, but may also make no contribution at all.

To determine this contribution a competence-product matrix is constructed (Table III). In each cell of the matrix the contribution each competence makes to the product is assessed using a simple scoring mechanism:

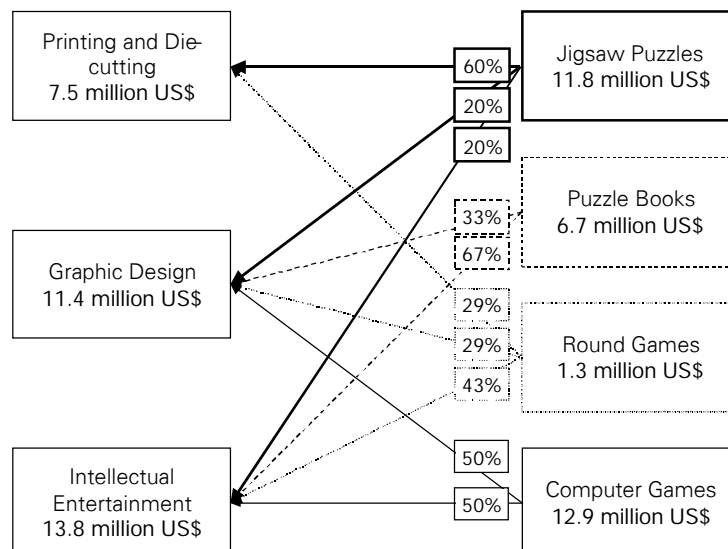
- 0 = No contribution
- 1 = Supporting contribution
- 2 = Substantial contribution
- 3 = Essential contribution

The various columns are added up and the relative weights are calculated.

**Table III Contribution of Core Competence to Products Pieces of Fun**

	Jigsaw puzzles		Puzzle books		Round games		Computer games	
<b>Printing and Die-cutting</b>	3	60%	0	0%	2	29%	0	0%
<b>Graphic design</b>	1	20%	1	33%	2	29%	3	50%
<b>Intellectual entertainment</b>	1	20%	2	67%	3	43%	3	50%
<b>Total</b>	5	100%	3	100%	7	100%	6	100%

This information is used to allocate the contribution margin of each product to each of the core competencies (Figure 3).



*Figure 3 Allocation of contribution margin*

## 9.5 Useful life estimation problem

Contrary to the brand valuation example, the Valuation add-on of the Value Explorer<sup>®</sup> does not assume core competence earnings to continue in perpetuity. Instead it uses an estimation of the useful life of the core competence that is in line with the overall purpose of the method: to support strategy development and decision-making. It introduces a definition of useful life called 'strategic life' which depends on the ability of a company to keep ahead of the competition.

This strategic life is expressed in a Sustainability Factor, the number of years it would take a competitor to build the same core competence. This is equal to the number of years the company's core competence is ahead of the competition (Table IV).

**Table IV Sustainability factor of the core competencies of Pieces of Fun**

	<b>Sustainability factor</b>
<b>Printing and Die-cutting</b>	2 years
<b>Graphic Design</b>	1 year
<b>Intellectual entertainment</b>	3 years

## 9.6 Income capitalization problem

The discount rate used by the Valuation add-on reflects a risk free borrowing rate (represented by the yield on a government bond). In addition to that a Robustness Factor is calculated for each core competence, which is based on the specific risk profile of the core competence involved. This risk reflects the chance of losing the core competence as a result of one or more of the following causes:

- The group of people which possess the skills and knowledge crucial for this competence is vulnerable
- The values and norms on which this competence is built are under pressure
- The technology and IT systems which form part of this competence are vulnerable
- The primary and management processes which this competence uses are unreliable
- The endowments this core competence depends on (like the corporate image or the installed client base) are vulnerable

Whenever an item on this checklist is considered true, an additional 20% risk of losing the core competence is added. The Robustness Factor is calculated as 1- risk of losing the core competence. For Pieces of Fun this results in the following Robustness Factors (Table V).

**Table V Robustness Factor of Core Competencies Pieces of Fun**

	<b>Robustness Factor</b>
<b>Printing and Die-cutting</b>	100%
<b>Graphic Design</b>	60%
<b>Intellectual entertainment</b>	100%

## 9.7 Calculating value

Last step in calculating the value of the core competencies is estimating the expected growth rate of the contribution margin of the core competencies. This growth rate is based on the income projection that was made for each of the product groups and is called the Potential Factor (Table VI).

**Table VI Potential Factor per core competence, based on an annual growth rate per product**

	Potential Factor
Printing and Die-cutting	-4%
Graphic Design	13%
Intellectual entertainment	10%

The Valuation add-on uses a very simple formula to calculate the value of a core competence. It is based on the principle that the value of a core competence equals its added value x competitiveness x potential x sustainability x robustness. This formula means that the value of a core competence equals the added value of the core competence for the customer, given the current competitive environment, the growth that can be expected in the coming years (potential), and the number of years for which it can be exploited (sustainability). This is then corrected by a factor showing whether there is a risk that the company will lose the core competence prematurely (robustness).

In more mathematical terms, the present value of a core competence is calculated by multiplying all the factors over time, taking into account the cost of capital. This gives us the following formula:

$$V_{CC} = \left[ \sum_{t=1}^S \frac{CM * (1 + P)^t}{(1 + i)^t} \right] * R$$

V<sub>CC</sub> = Value of Core Competence

S = Sustainability in (years)

CM = Contribution Margin

P = Potential for the future (in %)

R = Robustness (in %)

i = Cost of capital

Applying this formula to Pieces of Fun results in a total value of its core competencies of 66 million US\$ (Table VII).

**Table VII Total value of the Intangibles of Pieces of Fun**  
 (in US\$ million)

	Value	%
Printing and Die-cutting	13.1	20%
Graphic Design	7.4	11%
Intellectual entertainment	45.5	69%
<b>Total</b>	<b>66.0</b>	<b>100%</b>

This information is very useful for strategic decision-making as it gives insight into the relative importance of the core competencies and their underlying intangible resources for the future of Pieces of Fun. It turns out that the competence on which Pieces of Fun historically was built (the printing and die-cutting of jigsaw puzzles) is no longer that important. The much more human based competence of creating intellectual entertainment overtook this 'industrial' competence. Pieces of Fun used this information to drastically alter its strategy.

## 10. Conclusion

The valuation of intangible resources is like the quest for the Holy Grail. In theory there are six problems that need to be solved along the road. In practice these problems can be solved in many different ways. How they are solved depends among other things on the purpose of the valuation and the standard of value and the premise of value that is used. The conclusion is that the same intangible resource can have many different values. Value is indeed 'in the eye of the beholder'.

This leads to the conclusion that measuring the value of intangibles is like taking a snapshot. What we see on the picture is the value they have for a company in its perspective in a specific moment in time. When a moment of inspiration leads to an idea for a new application of existing intangible resources, the value of those resources will rise (Andriessen & Tissen, 2000). Your intangibles are worth as much as your next great idea.

To solve the six problems a number of assumptions and estimations have to be made. This necessarily leads to certain margins of error. This is not unusual. Lev (2001) shows that the same happens in traditional accounting. "Despite widely held beliefs that corporate financial statements convey historical, objective facts, practical every material item on the balance sheet and income statement, with the exception of cash, is based on subjective estimates about future events". Lev continues by giving some examples:

- "The net value of accounts receivable (or loans of banks) depends on managers' estimates concerning future customers' defaults (loan loss reserves). (...)
- The net value of property, plant, and equipment depends on the validity of managers' depreciation estimates.
- Obligations for pensions and postretirement benefits rely on heroic, long-term assumptions concerning future wage increases and the rate of return on pension assets."

The margins of error incorporated in valuations of intangibles resources do not make these kinds of valuations less useful. The process of valuation itself can help to clarify assumptions held by management about the nature, size, importance and future of intangible resources. The outcomes produced by methods like the Value Explorer<sup>®</sup> Valuation add-on or brand valuation approaches can raise the awareness about the importance of intangibles and help improve decision-making about future investments in intangible resources.

## Notes

- [1] Information about the valuation methodology of Interbrand is taken from [www.interbrand.com](http://www.interbrand.com)
- [2] Source: [www.interbrand.com](http://www.interbrand.com)
- [3] For more details check [www.kpmg.nl/kas](http://www.kpmg.nl/kas)

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