ASSESSMENT METHODS OF INTANGIBLE ASSETS USED IN ROMANIA. HOW SITES SHOULD BE ASSESSED

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Abstract

In the context of the new reality and trends of XXIst century, most of the countries are committed, with different intensity and results, to promoting a development process based on knowledge; in the most advanced countries, the knowledge-based society is already a present fact. It is to be noticed that the enterprises allocate major resources for performing intangible investments, that contribute to maintenance and development of the company’s potential, such as human capital investments and investments for the increase of company’s sales force. According to the Romanian law, the recognition of an intangible fixed asset in the balance sheet is conditioned by estimation of future economic benefits, and determination of a cost that could be assessed reasonably. Unfortunately, most of intangible assets do not meet the requirements for recognition and registration in the traditional financial statements (for instance: lists of customers, internally generated goodwill, etc.)

JEL Classification: G12; M21; M41

Key words: intangible assets, income capitalization approach, assessment

1. Income capitalization approach – concept, methods, specific

The income capitalization approach estimates the value of an intangible asset or the property rights on the asset, by calculation of discounted value of anticipated benefits [8, p.82].

The income generated by the intangible assets may have the following forms [9, p.26]:

- Gross operating profit;
- Net operating profit;
- Net current profit;
- Gross or net royalty;
- Additional profit obtained from a higher sales price or a profitable contract;
- Gross operating cash flow;
- Net cash flow.

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The two methods of this approach are the following:
- Direct capitalization of income
- Discounted cash flow analysis (DCF)

The direct capitalization of income can be calculated as a ratio between the representative level of income and a capitalization rate, or the representative level of income multiplied by an income multiple (capitalization factor).

The discounted cash flow analysis supposes estimation of cash flow proceeds for each of the future periods. These proceeds are transformed into value by application of a discount rate.

The specific characteristics of intangible asset assessment method used in the income capitalization approach are the following:
- Only the types of income related to the intangible asset to be assessed shall be discounted, unlike the assessment of an enterprise, in which case the total income shall be discounted;
- With respect to the assessment of depreciable intangible asset, the fair value of the asset is made of two elements:
  a. Fair value after taxation (in order to recognize the fiscal deductibility of the replacement cost)
  b. Fiscal benefit resulted from amortization of intangible asset (tax amortization benefit – TAB – equation (1))

\[
TAB = VAT \times \left( \frac{n}{n - (F_{cap} \times s)} - 1 \right) \quad (1)
\]

Where:
VAT = total net discounted saving (total discounted income)
TAB = fiscal benefit resulted from amortization of intangible asset
n = number of years in which the intangible asset is depreciated
m = \([1-(1+k)^{-n}] / k\)
F_{cap} = capitalization factor related to „n” and „k”
s = profit taxation quota
k = selected discount rate
Intangible asset value = VAT+TAB

2. The on-line environment in the context of global economic

In order to create a true image of the on-line environment during the economic crisis, at national and international level, we shall present several relevant studies in this respect.
The most relevant image of the European on-line market is presented in the fourth edition of ADEX report. This report was been elaborated based on the information provided by 23 IAB Europe [2] member countries. The data were aggregated by Screen Digest Company, and reflect the values and dimensions of online advertising markets from Austria, Belgium, Bulgaria, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Holland, Norway, Poland, Slovenia, Romania, Russia, Spain, Slovakia, Sweden, Switzerland and Great Britain.

The study shows that the total value of on-line advertising market in 2009 was 14.7 billion Euro, with an increase of 4.5% from 2008 (13.2 billion euro). The percentage of on-line environment within the entire advertising market reached 20%, and almost doubled in the latest 2 years. Although they represent 76% of the total European on-line advertising market, the first 6 countries registered a relative small increase: Great Britain +4.6%, France +1.7%, Germany +5.2%, Holland +1.9%, Spain +7.7% and Italy +6.5% [2].

Regarding Romania, we can mention the report elaborated by Internetics concerning the evolution of on-line environment during the economic crisis, based on questions asked to Romanian on-line industry players. The Internetics report confirms that the Romanian on-line environment will experience a growing development in the next period [6].

Other relevant research in this field is the ROADS study ("Romanian Online Advertising Study") [7] elaborated by IAB Romania and PricewaterhouseCoopers (PwC) Romania, which shows that the total value of Romanian on-line advertising market was approx. 17 million euro in 2009; this reflects a decrease of 10% from 2008. However, at the end of 2009, the market registered an increase of 3% (semester II 2009 against semester II 2008). Despite the decrease of 10%, in the crisis year 2009 the on-line advertising market was 53% higher than the market of 2007 [1].

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1 IAB Europe is a federation of national Interactive Advertising Bureaux (IAB) across Europe. Its mission is to promote the growth of the on-line advertising markets on behalf of its clients and national members. Supported by every major media group, advertisers, agency, portal, technology and service provider, its voice represents the interest of more than 5000 company members. IAB Europe coordinates activities across Europe including EU authorities relationships, public affairs, benchmarking, research, setting standards and best practices. The member countries are: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine and the UK. The corporate members include: Adobe, ADTECH, Alcatel-Lucent, AudienceScience, BBC.com, CNN, comScore Europe, CPX Interactive, Ernst & Young, Expedia Inc, Fox Interactive Media, Gemius, Goldbach Media Group, Google, GroupM, Hi-Media-AdLink, InSites Consulting, Koan, Microsoft Europe, Netlog, News Corporation, nugg.ad, Nielsen Online, Orange Advertising Network, Publicitas Europe, Sanoma Digital, Selligent, Truvo, United Internet Media, Value Click, White & Case, Yahoo! and zanox. The associate members are: Advance Media International, Banner, Business Week/Bloomberg, Dynamic Logic, Emediate, OMD and Right Media.
We consider that a decisive factor, which determines the on-line market evolution, is the budget allocated to advertising by the large companies. For instance, in the first 5 months of 2010 the largest advertising investors were Procter & Gamble, Unilever, Orange, Vodafone and Henkel [4]. Procter & Gamble is one of the major advertising investors on the local market; some of the brands promoted by this investor are Ariel, Gillette, Head & Shoulders, Lenor, Pampers; the total investments have reached 122.216.461 euro. Other important actors were Unilever, with investments of 84.300.813 euro in advertising (Dove and Dero), Orange with 76.927.493 euro, Vodafone, 72.264.093 euro and Henkel Romania, with 68.495.195 euro (Persil, Palette and Ceresit).

We consider that the on-line budget will continue to grow, despite the economic crisis, due to the companies’ intent to increase sales, which shall lead to a stabilized on-line market.

According to the PwC report, „Global Entertainment and Media Outlook” 2010, at the end of 2010 the advertising market shall reach 308 million euro, decreasing by 9% from the value registered in 2009, in compliance with the estimates of the yearbook Media Fact Book [3] elaborated by Initiative Romania. In accordance with the Initiative representatives, the optimism of the first months of 2010 resulted in a market increase by approx. 3%. The Media Fact Book study shows that the on-line market will never come back to the past situation, but despite all crisis-generated problems, which may continue for a while, the industry is developing. With regard to the overall advertising costs, an increase by approx. 5% is expected until 2014 [3].

We can conclude that, although affected by the economic and financial crisis and considerable budget cuts, in general, the on-line market evolution registered a growth, because the on-line environment is the most dynamic and accessible communication media, cheaper than the off-line, with real results achieved in a short period.

3. Web-site assessment by income capitalization

We will use the example of the trade company TransNet S.A. 3, Romania. We have selected this company because we consider that the IT firms are representative

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2 Media Fact Book is the only paperwork that analyses the mass media and advertising market in Romania; it is a guide elaborated by Initiative agency in 1997. Initiative is one of the largest independent media network at international level; it provides specialised services such as media planning and media purchasing, media strategy and consulting, new media services. The agency has been operating on the Romanian market for 17 years, and it is member of the group: Lowe&Partners, Brand Connection, Lowe PR, HyperActive, Medic One and Scholz&Friends

3 The company’s name was changed, in order to protect data confidentiality. In addition, the company’s financial statements data have been multiplied by a coefficient, and thus the evolution and real trends of the indicators have been maintained.
for the category of knowledge-based companies. TransNet S.A. is a top company in the web design field; the sites of its portfolio cover a large range of domains, and are adapted to the market demands and internet consumers’ needs. By means of these sites, S.C. TransNet S.A became famous as a market leader for the segment of 17 – 29 year old people. Its main sites comprise over 100 million pages accessed monthly by approx. 14 million visitors [10].

Our intention is to assess the TransNet sites – as intangible assets, by means of the income capitalization method. The „income” element used is the net residual income. For the assessment, we have used the data and information of the annual financial statements, and the internet documentation.

The objectives of our research are the following:

- Estimation of sites value
- Final conclusion on the value.

The sites market value has been estimated in lei and euro.

The exchange rate of the national currency = 4.3771 lei/€ [5].

All values included in this research have been calculated without VAT.

In order to perform a correct analysis of the assessment objective, it is necessary to analyze the on-line environment in the context of the economic crisis.

The application of this method included the following phases (Table no. 1):

- establish the annual net operating income, generated by all assets involved into the operation of the assessed site;
- determine the market value of invested capital components involved into the site operation;
- establish the requested rate of return for each invested capital component;
- allocate the net operating income by invested capital components, based on the required rates of return and market value of the invested capital component;
- extract from the total net operating income (phase a) the net income allocated to invested capital components (phase d), and determine the residual net income to be allocated to sites only;
- determine the sites value.
Table no. 1 - Sites assessment by means of income capitalization method

<table>
<thead>
<tr>
<th>(a) <strong>Annual net operating income:</strong></th>
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<tbody>
<tr>
<td>Annual turnover, out of which:</td>
<td>260,273.35 Lei</td>
<td>100%</td>
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<tr>
<td>- Total operating costs</td>
<td>242,885.18 Lei</td>
<td>93.32%</td>
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<tr>
<td>- Gross operating income</td>
<td>17,388.17 Lei</td>
<td>6.68%</td>
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<tr>
<td>Income tax</td>
<td>2,782.29 Lei</td>
<td></td>
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<tr>
<td><strong>Net operating income</strong></td>
<td><strong>14,605.88 Lei</strong></td>
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<tr>
<th>(b) <strong>Market value of invested capital components (VCI):</strong></th>
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<tr>
<td>- Tangible fixed assets</td>
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<tr>
<td>- Working capital</td>
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<tr>
<td>- Intangible fixed assets</td>
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<tr>
<td><strong>VCI market value</strong></td>
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<tr>
<th>(c) <strong>Rate of return required for invested capital components (ROA)</strong></th>
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<tr>
<td>- Tangible fixed assets</td>
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<tr>
<td>- Working capital</td>
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<tr>
<td>- Intangible fixed assets</td>
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<tr>
<td><strong>Required return on assets</strong></td>
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<tr>
<th>(d) <strong>Allocate the total net operating income by invested capital:</strong></th>
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<tr>
<td>- Tangible fixed assets</td>
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<tr>
<td>- Working capital</td>
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<tr>
<td>- Intangible fixed assets</td>
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<tr>
<td><strong>Total net operating income allocated</strong></td>
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<tr>
<th>(e) <strong>Net operating income allocated to sites (net residual income)</strong></th>
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<td>Pnr</td>
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<td>- If the remaining duration of sites is 5 years and the discount rate is 8.08%, the result is:</td>
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<tr>
<td>- capitalization factor:</td>
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<tr>
<td>- site value before obtaining the fiscal benefit (VAT)</td>
</tr>
<tr>
<td>- Tax amortization benefit</td>
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<tr>
<td><strong>Site value</strong></td>
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<tr>
<td><strong>Site value (round)</strong></td>
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<tr>
<td><strong>BNR exchange rate on 04.02.2013</strong></td>
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<td><strong>Site value in euro (round)</strong></td>
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4. Conclusions

For evaluating intangible assets in Romania, we used the income capitalization method, a method presented by the International Valuation Standards, GN4 respectively. We chose this method because if intangible assets, and there is no active market, the sales comparison method can be applied. Also, calculate the replacement cost (cost approach) is often difficult or even impossible, because it cannot

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4 The rates were estimated taking into consideration the on-line environment evolution and site performance [10]
determine the market cost of purchasing an asset or similar (not on market sites content (content) similar) is also difficult to calculate the cost of production necessary to create a similar intangible asset, using the same resources (the cost of creating a website or similar). In the decision of choosing a method of evaluation of intangible assets should be considered the characteristics of each element and the reliability of the information available. Depending on them may be necessary to use one or more methods.

The values obtained were influenced by the estimated rates of return on invested capital components, that were calculated taking into account the effects of economic crisis on the Romanian on-line environment. In addition, we can state that the obtained value is an estimated value, calculated based on the financial statement data. Another limitation of the study is the absence of assessment methods for generally accepted intangible assets that would have an accurate basis and would be adaptable to each intangible element. In addition, one or several methods may be necessary, depending on the characteristics of each intangible element assessed and credibility of available information.

References:

[10]*** Websites for Sale and Buy Domains (Romania), www.websitebroker.ro