



Accountancy Modeling on Intangible Fixed Assets in Terms of the Main Provisions of International Accounting Standards

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ABSTRACT

Intangible fixed assets are of great importance in terms of progress of economic units. In recent years new approaches have been developed, additions to old standards so that intangible assets have gained a reputation both in the economic environment and in academia. We intend to develop a practical study on the main accounting approaches of the accounting modeling of the intangibles that impact on a company's brand development research PRORESEARCH SRL.

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1. Introduction

Currently, the global economic system is in a process of extensive restructuring, moving from the classical approach of wealth represented by physical assets, to one based on knowledge, where the creation is the key to competitiveness. In other words, aside from the goods and services, competition is released from intangible assets valued as the main pillar of economic development.

The purpose of this paper is to highlight the characteristics of intangible assets and the added value generated by intangible assets recognized or not as being a part of the patrimony of an enterprise, once they are subject to evaluation. Intangible assets have a major importance, given the ease with which a product can be copied, even with less costs by the competition, therefore a company must have the ability to protect their products and to preserve knowledge in order to achieve a sustainable profit.

2. Boundaries and structures regarding intangible fixed assets

Intangible fixed assets held by a company may be identifiable and unidentifiable. In the identifiable category there are the patents, trademarks and all other types that can be distinguished and the unidentifiable category encompasses those assets that remain hidden until a given time.

The accounting treatment for recognizing and measuring intangible fixed assets in the financial statements is presented in International Accounting Standard 38 (IAS 38). Intangible fixed assets are recognized in the financial statements if they meet the definition and recognition criteria simultaneously.

The definition of intangible fixed assets depends on the following: identifiability, control over a resource and existence of future economic benefits.

An intangible fixed asset is recognized from an accounting standpoint only if the company owner estimates:

- The obtaining of future economic benefits;
- Reliable determination of costs.

IAS 38 states that intangible fixed assets are identifiable from the moment of their definition, which means that they are distinguished from goodwill.

IFRS 3 Business Combinations,, "defines goodwill in a business combination as any excess of acquisition costs over the share in the identifiable assets and liabilities of the owner, acquired at fair value at the date of the exchange transaction. IAS 38 states that goodwill is subject to an annual impairment test. Internally generated goodwill is not recognized.

We can say that an intangible asset is identifiable if:

- the asset is distinguished from other assets of the company and is available to be sold, transferred, assigned, rented or exchanged, either individually or together with a related contract, identifiable asset or liability.
- it arises from contractual or other legal, regardless of whether those rights are transferable or separable from society.

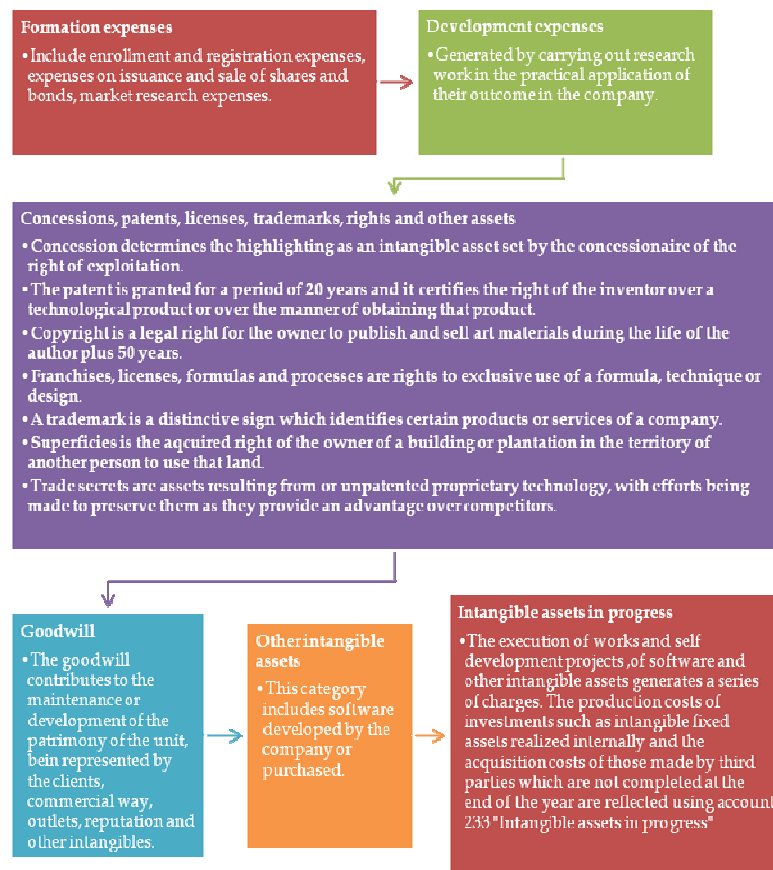


Figure 1. Classification of intangible fixed assets
Source: drawn by the authors

Regarding the control of an intangible fixed asset, it occurs when the entity is able to obtain future economic benefits from it and impose restrictions on future economic benefits other companies "by legal rights upheld in court"

Future economic benefits of an intangible fixed asset can result in revenues from the sale of goods, services or works to which those assets contribute, reduction costs or achievement of other benefits from the asset by the company.

Depending on the method of acquisition, measurement bases are specified as follows: intangible fixed assets acquired separately are measured at acquisition cost, those internally generated at the cost of production, the ones acquired under a government grant are measured at fair value or at face value , the intangible fixed assets acquired in exchange for other assets and those acquired in business combinations are measured at fair value.

Accounting for intangible fixed assets comprises:

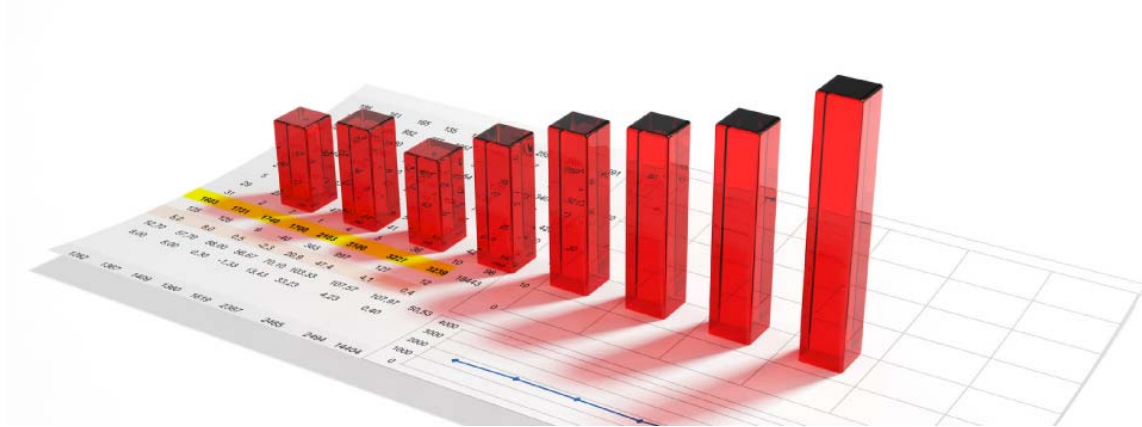


Figure 2: Accounting for intangible fixed assets
Source: drawn by authors

In what follows, we used the program STATAPL to achieve modeling for the intangible fixed assets owned by the company PRORESEARCH SRL.

3. Evaluation of programmes of statistical analysis

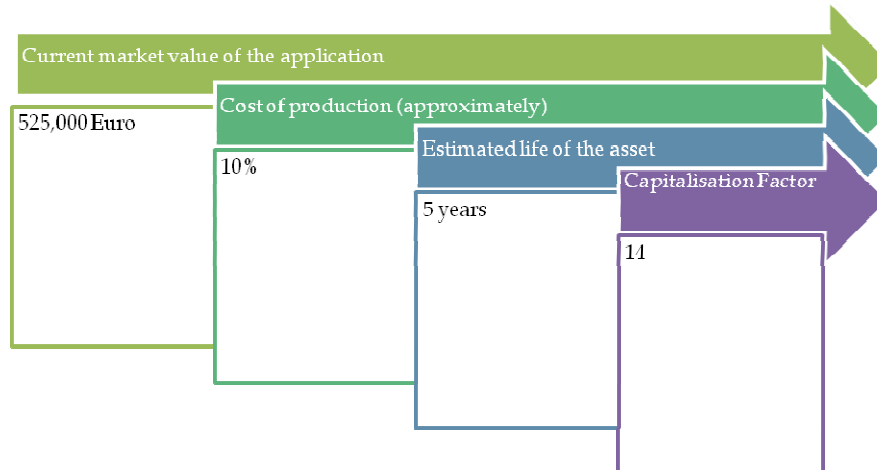
We mention that STATAPL is a client - server application developed to facilitate the processes of mathematical modeling with statistical indicators.



Source: https://www.google.ro/search?q=aplicatie+statistica+foto&biw=1587&bih=785&tbn=isch&tbo=u&source=univ&sa=X&ei=wqWpV0jKH8qrUcfogaAL&ved=0CCEQsAQ#facrc=_&imgdii=_&imgsrc=zAcGc_v2ybn50M%253A%3Bim4lq3nBXe mn7M%3Bhttps%253A%252F%252Fstatistica.ancom.org.ro%253A8000%252Fsscups%252Fimages%252Fflex-slider%252F2.png%3Bhttps%253A%252F%252Fstatistica.ancom.org.ro%253A8000%252Fsscups%3B980%3B360

The application is evaluated by means cost savings. Reasonable determination of the contribution to profit or price advantage may prove difficult in some cases or cannot be applied in practice. On the other hand, one may encounter situations in which intangible assets are "responsible" for measurable cost savings. By creating this advantage, intangible elements contribute directly to the achievement of additional profit. This cost advantage can be created by a process or method that saves work and reduce material costs.

Hypotheses relating to the evaluation of intangible assets:



Source: drawn by the authors

4. Determination of capitalization rate

The capitalization rate can be calculated by dividing the annual income from the letting of the asset to its selling price. This rate is often known as a general rate because it includes all the variables and risks associated with that revenue stream.

After analyzing capitalization rates obtained from market analysis of comparable assets and, if it is the case, correcting them subject to the characteristics of the matter, one can extract a proper capitalization rate.

If the capitalization rate cannot be determined based on market information (there is no comparable sales of assets), the capitalization rate can be determined by a theoretical model in two steps:

- **First step:** setting the discount rate by one of the models that will be presented at the DCF method (denoted by k);
- **Step two:** determining any annual change of this revenue.

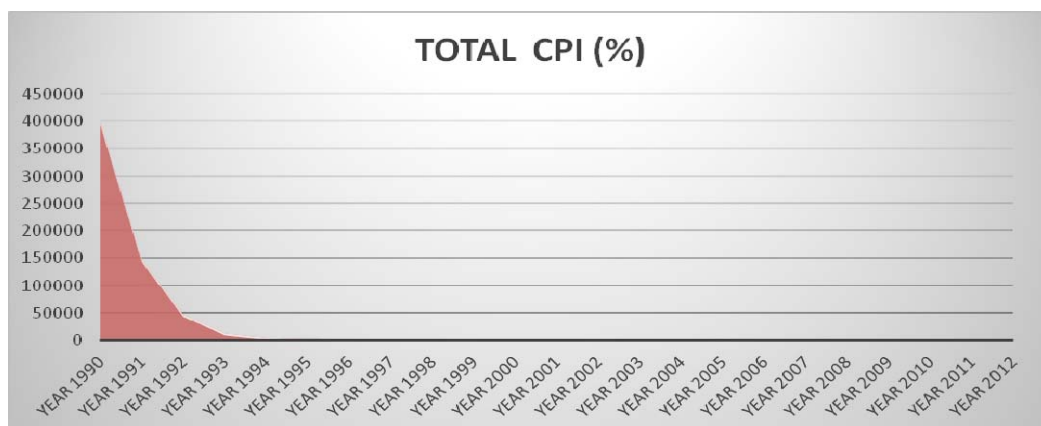
The capitalization rate (*c*) contains all the elements that any investor normally has to consider, such as return on investment (probable profit brought by the investment), the risk degree of that investment, quality of investment or degree of liquidity of the investment (measured how fast the realized and analyzed investment can be transformed into cash) if he wants to know what decisions need to be taken in terms of the investment.

Supporting elements in determining the capitalization rate

Consumer price index (CPI) evolution

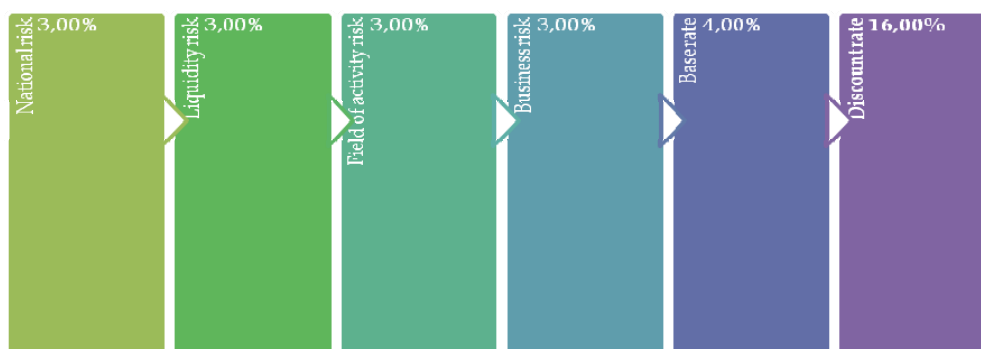
Current period	Reference period	TOTAL CPI (%)	CPI Foods (%)	CPI Non-foods (%)	CPI Services (%)
Year 2013	Year 1990	397221,30	289728,24	433040,73	720201,92
	Year 1991	147010,10	101232,79	161703,04	305558,73
	Year 1992	47355,90	30073,51	54961,38	108956,42
	Year 1993	13298,34	8619,79	14894,43	32016,09
	Year 1994	5616,90	3648,83	6396,65	12765,46
	Year 1995	4246,81	2767,41	4934,66	8945,27
	Year 1996	3059,46	2029,41	3547,80	6087,52
	Year 1997	1200,90	807,36	1404,95	2201,86
	Year 1998	754,83	543,95	876,74	1146,48
	Year 1999	517,70	425,46	575,60	622,97
	Year 2000	355,40	296,05	399,73	404,89
	Year 2001	264,30	218,17	300,39	299,01
	Year 2002	215,69	184,43	239,34	235,88
	Year 2003	187,11	160,84	206,16	205,39
	Year 2004	167,25	146,93	182,12	179,03
	Year 2005	153,42	138,47	163,67	161,98
	Year 2006	143,97	133,34	150,89	149,70
	Year 2007	137,33	128,35	143,72	140,39
	Year 2008	127,34	117,52	135,12	129,31
	Year 2009	120,60	113,82	127,21	118,66
Year 2010	113,67	111,22	115,88	113,25	
Year 2011	107,45	104,91	109,16	108,42	
Year 2012	103,98	102,96	105,19	103,19	

Source: INSSE (National Statistics Institute)



Source: drawn by authors

In view of the above, the evaluator considers appropriate the use of the following capitalization rate, the step method:



Source: drawn by authors

$$c = a - g = 16\% - 2\% = 14\%$$

Given an average GDP growth for Romania 2%, there results a capitalization rate of 14%, motivated by the ability to generate revenue.

Evaluation of stat apl 2006 program (244.290 lei - production cost)

Market value of the application (Next Gen Networks 2008)	Euro	350,000
Correction Fabrication year (2011) 39%	Euro	136,500
Current market value	Euro	486,500
Production cost	Euro	56,553
Total annual savings	Euro	429,947
Capitalization factor @ 14 and n=5 years		3.433
Updated total savings	Euro	1,476,008
Tax amortization benefit	Euro	174,676
Patent value	Euro	1,650,684

Source: Adapted from V. Sorin Stan, Ion Anghel, Veronica Gruzniczki, Intellectual capital of the company, Assessment of intellectual property and other intangible assets, IROVAL Publishing, Bucharest, 2006, p. 108

EVALUATION OF THE STATAPL APPLICATION VERSION June 2009 (482.823 LEI - PRODUCTION COST)

Market value of the application (Next Gen Networks 2008)	Euro	350,000
Correction Fabrication year (2011) 39%	Euro	136,500
Current market value	Euro	486,500
Production cost	Euro	111,772
Total annual savings	Euro	374,728
Capitalization factor @ 14 and n=5 years		3.433
Current market value	Euro	1,286,440
Tax amortization benefit	Euro	152,241
Patent value	Euro	1,438,681

Source: Adapted from V. Sorin Stan, Ion Anghel, Veronica Gruzniczki, Intellectual capital of the company, Assessment of intellectual property and other intangible assets, IROVAL Publishing, Bucharest, 2006, p. 108.

By applying the method of the patent contribution to the profit made by the company, the estimated value is much higher than that with which the patent appears in the balance sheet. If the company management decides to include this surplus in the accounts, there will be created under liabilities an account, represented by "re-evaluation reserves" that will increase the value of equity. In this situation, the balance sheet will also be increased. The main financial indicators will record an optimization of values, which will generate an increase in the company's credibility in the current market.

Conclusions

Following the research, we can conclude that in the current global economic environment, the performance of an enterprise is influenced to an extent ever deeper by the attention paid to intangible assets, in terms of volume and quality of amounts invested in their development. However, the performance of an enterprise is also ensured by creating and marketing of goods produced in an innovative manner that customers can differentiate from all the goods which exist on the market.

Intangible assets, such as those in the category of intellectual property, represent a source of competitive advantage and constantly provide superior performance, to the extent that companies use them actively in productive activities and in marketing.

Intellectual property can be considered as the basic lever in economic development, and therefore protection of intellectual property rights is of particular importance, the essence of which is to protect the product of human intelligence, and also to stimulate creative ability. Also, research and development is closely linked to the ability of a company to be creative, and the primary objective of a competitive company is to meet the new challenges in terms of intellectual property issues.

References

1. *Horomnea, E., Scientific fundamentals of accounting. Doctrine. Concepts. Lexicon, Tipo Moldova Publishing, Iasi, 2008*
2. *Misu, N., The finances of the company, Ed Europlus, Galați, 2010*
3. *Moraru, A., IAS 38 Intangible Assets, ASE Publishing House, Bucharest, 2011*
4. *Ristea, M., Financial accounting of the company, University Publishing House, Bucharest, 2005*
5. *Paraschivescu, M., D., Radu, F., Financial accounting management, Publisher Tehnopress, Iasi, 2008*
6. *Stan V. S., Anghel I., Gruzniczki V., Intellectual capital of the company, Assessment of intellectual property and other intangible assets, IROVAL Publishing, Bucharest, 2006*
7. *Government Decision no. 704/1993*