

Intangible Assets in Business Combinations

Violeta SACUI¹
Miclea Camelia SZATMARY²

Abstract

In business combinations, following IFRS 3 and SFAS 141 the acquiring company must recognize the entirety of intangible assets of the acquired company either as separately identified assets or under the aggregate asset "goodwill". The identifying and separating of intangible assets is a difficult activity. The intangible assets identified in each transaction vary across the industries. This situation can be explained by the fact that the key intangible value drivers differ significantly across industries.

In this paper I have concerned with identification of intangible assets specific to a number of industries characterized by having a high proportion of intangible assets. In many companies and industries can be identified both common (well accepted) types of intangible assets such as intellectual property (such as trademarks, copyrights, patents, or research and development), technology, customer base, brand names and unique intangible assets specific to that industry or enterprise.

Keywords: *intangible assets, purchase, price strategy, industry identification*

JEL classification: G32, G34

Introduction

The accounting for business combinations within the US GAAP and IFRS accounting systems has changed fundamentally since the introduction of SFAS 141 in 2001, and IFRS 3 in conjunction with IAS 38 in 2004. According to these new accounting frameworks (FAS 141, IFRS 3), a business combination occurs when an enterprise acquires the net assets that constitute a business or equity interest of one or more enterprises and obtains control over that enterprise or enterprises.

The accounting standards (IFRS 3, FAS 141) require the application of the acquisition method to all business combinations. Under this method, businesses acquisitions have to be accounted for like "asset deals". That is, the acquiring

¹ Violeta SACUI, Faculty of Economics and Business Administration Timisoara,
E-mail: violeta.sacui@e-uvt.ro

² Miclea Camelia SZATMARY, Faculty of Economics and Business Administration
Timisoara, E-mail: elena.szatmary@yahoo.com

company must recognize the individual assets and liabilities of the acquiree (including contingent liabilities) in its financial statements.

The acquiring company must recognize and measure (at fair value in most cases) 100 percent of the assets and liabilities of the acquiree even if less than 100 percent of the acquiree was obtained.

The new accounting standards require the international companies to report the fair value of assets and liabilities acquired in their financial statements. As a consequence the acquiring company must determine the current fair values of all identifiable tangible and intangible assets, liabilities and contingent liabilities of the purchased company.

According to IFR 3 and FAS 141 the fair value is defined as "the amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties in an arm's length transaction."

The application of the acquisition method involves the following steps:

- the identification of the acquirer and acquiree;
- the identification of the acquisition date (the date on which the acquirer obtains control of the acquiree);
- the determination of the purchase price;
- the purchase price allocation.

The working paper is organized as follows:

In section number two I have presented the steps implied by the purchase price allocation process in business combinations and I have focus on one important stage of this process, namely, identification of intangible assets. I have presented types of intangible assets that can be identified according to IFRS 3 and SFAS 141.

In section number three I have focus with identification of intangible assets specific to a number of industries characterized by having a high proportion of intangible assets. Different industries have different industry specific intangible assets. This situation can be explained by the fact that the key intangible value drivers differ significantly across industries. In many companies and industries can be identified both common (well accepted) types of intangible assets such as intellectual property (such as trademarks, copyrights, patents, or research and development), technology, customer base, brand names and unique intangible assets specific to that industry or enterprise.

1. The types of intangible assets in Purchase Price Allocation process

Purchase Price Allocations (PPA) is required by the US Financial Accounting Standards Board (FASB) and International Financial Reporting Standards (IFRS) for all acquisitions. PPA is the process of allocating the purchase price paid for acquired company to its tangible assets, intangible assets, and assumed liabilities. The accounting standards requires that the purchase price to be allocated to all tangible and intangible assets acquired and liabilities (including contingent liabilities) assumed, based on their respective fair values.

The purchase price allocation (PPA) is carried out in three steps:

- identification of the acquired assets and liabilities;
- the measurement of fair values of all identifiable assets and liabilities (including contingent liabilities);
- the determination of purchased goodwill

The first step in the purchase-price allocation process implies identification of all assets and liabilities of the acquired company (including intangible assets and contingent liabilities).

The second step implies the determination of the fair values of those assets and liabilities.

In the third step, is determined the amount of purchased goodwill.

In business combinations, following IFRS 3 and SFAS 141 the acquiring company must recognized the entirety of intangible assets of the acquired company either as separately identified assets or under the aggregate asset “goodwill”.

The key consequence of IFRS 3 and SFAS 141 represents requirement to identify, value and disclose identifiable intangible assets separately from goodwill.

The standards differentiate between identifiable intangible assets and unidentifiable intangible assets or goodwill.

Only identifiable assets are recognised and accounted for independently from goodwill. As a consequence the acquirer must assess whether the intangible asset in question is identifiable.

According to accounting standards (SFAS 141, IFRS 3), an intangible asset is identifiable if it meets either the separability criterion or the contractual legal criterion.

An intangible asset meets the contractual-legal criterion if it arises from contractual or other legal rights (regardless of whether those rights are transferable or separable from the acquired business or from other rights and obligations).

An intangible asset meets the separability criterion if it is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so.

All identifiable intangible assets are presumed to be reliably measurable and should be recognised and measured separately at fair value on the acquisition date. If the recognition criteria are not met, the acquired intangibles will be subsumed under goodwill.

According to accounting standards (IFRS 3, SFAS 141) intangible assets that meet the criteria for recognition as assets apart from goodwill can be grouped in the following categories:

- Technology based intangible assets;
- Contract based intangible assets;
- Customer related intangible assets;
- Marketing related intangible assets;
- Artistic related intangible assets

The table 1 highlights examples of intangible assets that can be included in each of the five big categories.

Table 1. Categories of identifiable intangible assets according to IFRS 3 and SFAS 141

	Categories of identifiable intangible assets	The intangible assets included in each category
1	Technology based intangible assets	patented technologies, unpatented technologies, computer software and databases, trade secrets etc.;
2	Contract based intangible assets	licences, advertising contracts, supply contracts, lease agreements, construction permits, franchise agreements, employment contracts etc.;
3	Customer related intangible assets	customer lists, order or production backlog, customer contracts and the related customer relationships, non-contractual customer relationship etc.;
4	Marketing-related intangible assets	trademark, trade names, service marks, collective marks, certification marks, internet domain names etc.;
5	Artistic related intangible assets	Plays, operas and ballets, books, magazines, musical rights, pictures and photographs, video and audiovisual material etc.

According to accounting standards (IFRS 3, SFAS 141) certain resources that are commonly found in business combinations do not meet the definition of an identifiable intangible asset, and therefore, would not be recognised as separate intangible assets. These include: assembled workforce; market share, market potential, monopoly situations or similar 'strategic values'; high credit rating; unidentifiable "walk-up" customers, etc.

These intangible assets that are not identifiable at the acquisition date will be incorporated into goodwill. The goodwill was defined as future economic benefits arising from other assets in the business combination that are not separately identified and recognized (IFRS 3).

2. Identifiable intangible assets specific to different industries

Identification the assets and liabilities of the purchased company is an important step in purchase price allocation. A special attention in PPA is granted to identification of target company's intangible assets.

Intangible assets, such as technologies or patents, are often seen as value drivers of acquired company and, therefore, they present a strong interest for the acquiring company (even acting as a motivator for the transaction) (IFBC, 2012).

Intangible assets can be characterized as assets that are based mainly on information and knowledge. They have no physical existence and often are hard to be recognized. They need to be subject to a structured identification process.

This must happen irrespective of whether the assets and liabilities are already recognized or not on the target firm's balance sheet. In category of the assets that are not recognized in the target firm's balance sheet must be mentioned internally-generated intangible assets. These may form a remarkable part of the purchase price in a business combination but due to the general rule of expensing under IAS 38, these are not reflected in the financial situations of acquiree (KPMG, 2007). This situation is explained by the fact that many intangible investments are reflected in the accounting situations as operating expenses not as capital expenditures.

Internally generated intangible assets of the acquiree must be measured and recognized at their fair values in the acquirer's balance sheet. According to the acquisition method intangible assets like brands, customer relationships, patents, different types of contracts or, licenses have to be measured at their fair value.

Furthermore, more detailed disclosures in the financial statement footnotes are required in order to better inform investors, capital market participants and other stakeholders of the acquiring company (Glaum, M., 2005).

The purchase price allocation process allows providing to the capital market participants information that enables markets to properly evaluate acquisitions. Tuomola J. (2008) highlights that having accurate information on company's acquisitions (that often constitute a notable share of companies' growth) is very important in estimating the future value of the company by investors.

From an accounting point of view, intangibles identification is the first step towards a better financial reporting.

Accounting standards (FAS 141, IFRS 3) highlight that the identification of intangible assets must be realized from the eyes of a market participant. This means that acquiring company must recognize all assets that possess a value, whether or not the buyer will retain or utilize the intangible assets it acquires. In addition, fair value should reflect market expectations about the probability that the future economic benefits associated with the asset will flow to the acquirer. The synergistic values that are unique to a particular buyer must be excluded.

Some of the most important questions in purchase price allocation process are the following (KPMG, 2007):

- what are the types of intangible assets identified as part of a transaction?
- how these asset types differ depending on the industry being analyzed?

Identifying and valuing the intangible assets can be a difficult activity. These activities represent a big challenge for the acquiring company as well as the target company (KPMG, 2007).

The identifying and separating of intangible assets require the understanding of the business of the acquired company, what intangible resources

it depends upon to be successful, and how these assets can be separated into identifiable intangible assets (McNulty, T., 2013).

The intangible assets identified in each transaction vary across the companies and „depend greatly on the industry of the acquired business and the circumstances of the business combination” (Thornton, G., 2008).

Different industries have different industry specific intangible assets. This situation can be explained by the fact that the key intangible value drivers differ significantly across industries. The importance of a particular class of knowledge assets can vary widely by industry (Rothberg & Erickson, 2005). The intangible asset that can be a source of advantage are likely to be of a different nature in different industries and sectors (Villalonga, 2004).

The identification of intangible assets within each of the five potential categories presented above requires a sound understanding of the main value drivers of the industry. Each industry has its own competition structure, principles and value drivers (Thornton, G., 2008).

Several industries have companies with a high proportion of intangible assets.

The highest percentages occur in the companies operating in high-technology sectors, entertainment and media, healthcare and food and beverages. Advertising is the most intangible sector globally, with virtually all of its aggregate value being intangible (Brand Finance 2015).

The high technology companies sector is regarded as the sector with the largest use of and dependence on the so called special means of production – knowledge and human resources (Zakrzewska, A., 2010).

It is most frequently assumed that high technology sector represents the industries, which are generated at the meeting point of science and industry, and which are based on processing of scientific research results in industry (Davis Ch. K, 2003; Bessant J., 2003).

In the category of high technology industries can be included: aerospace, equipment sector, computers, telecommunication devices and technologies, advanced technologies sector based on CAM, CAD, CIM, optical equipment, biotechnological sector, pharmaceutical industry, laser devices, nuclear sector, power and technical machines and equipment etc. (OECD, 2009).

In many companies and industries can be identified common (well accepted) types of intangible assets such as intellectual property (such as trademarks, copyrights, patents, or research and development), technology, customer base, brand names, and goodwill. The value of these assets can have a high proportion in the value of many companies depending on the industry.

There are also unique intangible assets specific to an industry or enterprise. For example:

- core depositor relationships (in banking industry);
- publishing rights (in publishing companies);
- licenses to fly (in air transportation sector), etc.

Intangible assets relating to technology and brand names are arguably the most important, or at least the best known, specific assets which are intangible (Barth et al., 2001). The companies operating in high-tech industry sector recognize more technology related intangible assets. On the other hand, brand names and brand equity are recognized as important intangible assets in food and beverage industries. Brands were considered to be the symbols of the values and identities of firms and the products they produce (Ipsos MORI, 2010).

In the table number 2 are presented the most important intangible assets that can be identified (meet the identifiability condition imposed by accounting standards) in a number of industries recognized as having a high proportion of intangible assets in their enterprise value.

Table 2. Identifiable intangible assets specific to different industries

Type of industry	Types of Identifiable Intangible Assets	Identifiable Intangible Assets specific to Industry
Internet companies	Technology related	<ul style="list-style-type: none"> • technology patents; • R&D projects; • trade secrets; • number of links to a company's web-site (Yeung, B., Sohmshtetty, R., 1999).
	Customer related	<ul style="list-style-type: none"> • number of users; • customer databases.
	Marketing related	<ul style="list-style-type: none"> • domain name; • trademarks
	Art related	<ul style="list-style-type: none"> • copyrights; • online content.
Software Industry	Technology related	<ul style="list-style-type: none"> • technology ; • software; • R&D projects
	Customer related	<ul style="list-style-type: none"> • customer lists; • customer contracts; • customer relationships.
	Marketing related	<ul style="list-style-type: none"> • trade names; • trademarks; • non-compete agreements
Telecoms industry	Technology related	<ul style="list-style-type: none"> • internally developed software; • other technology-related assets.
	Contract-Related	<ul style="list-style-type: none"> • licenses for mobile operators
	Customer related	<ul style="list-style-type: none"> • customer relationships and contracts.
	Marketing related	<ul style="list-style-type: none"> • brands • trademarks
Biotechnology Industry	Technology related	<ul style="list-style-type: none"> • patents; • proprietary technology; • R&D projects.

Type of industry	Types of Identifiable Intangible Assets	Identifiable Intangible Assets specific to Industry
Pharmaceutical industry	Technology related	<ul style="list-style-type: none"> • drug patents; • technology patents; • R&D projects.
	Contract-Related	<ul style="list-style-type: none"> • licenses
	Marketing related	<ul style="list-style-type: none"> • trademarks
Health Care Industry	Technology related	<ul style="list-style-type: none"> • computer software.
	Contract-Related	<ul style="list-style-type: none"> • medical licenses; • certificates of need; • facility operating licenses and permits; • equipment use or license agreements • operating leases; • management contracts.
	Customer related	<ul style="list-style-type: none"> • patient relationships • patent files and records (manual and electronic).
	Marketing related	<ul style="list-style-type: none"> • service marks and service names; • non-compete agreements
Media and Entertainment	Technology related	<ul style="list-style-type: none"> • patented and unpatented technology; • computer software and databases; • trade secrets;
	Contract-Related	<ul style="list-style-type: none"> • franchises; • licenses; • contracts with key employees; • contracts with producers, actors, athletes, musicians, or other personalities; • publishing rights, mastheads;
	Customer related	<ul style="list-style-type: none"> • contractual and non-contractual customer relationships; • customer lists.
	Marketing related	<ul style="list-style-type: none"> • brand; • trademarks/name; • service marks; • internet domain names; • newspaper/magazine mastheads • non-competition agreements.
	Artistic related	<ul style="list-style-type: none"> • copyrights and literary, musical, or artistic compositions
Air Transportation Sector	Technology related	<ul style="list-style-type: none"> • R&D projects; • software and databases • preventive maintenance programs.
	Contract-Related	<ul style="list-style-type: none"> • licences to fly; • fly share agreements; • quality certificates;

Type of industry	Types of Identifiable Intangible Assets	Identifiable Intangible Assets specific to Industry
		<ul style="list-style-type: none"> airports certification; management contracts; other employment contracts (pilots) contracts between air transportation companies.
	Customer related	<ul style="list-style-type: none"> customer relationships; customer databases.
	Marketing related	<ul style="list-style-type: none"> brands; trademarks; logos.
Banking Industry	Technology related	<ul style="list-style-type: none"> computer software; manuals, systems, and procedures.
	Customer related	<ul style="list-style-type: none"> customer databases; customer relationships that can be divided into certain types of categories (Reilly R.F, 2010) core depositor relationships, mortgage and other loan servicing relationships; credit card customer relationships; consumer /commercial finance customer relationships; leasing customer relationships)
	Marketing related	<ul style="list-style-type: none"> service marks and service names
Food and Beverage Industries	Marketing related	<ul style="list-style-type: none"> brands

Conclusions

The accounting standards (IFRS 3, FAS 141) require the application of the acquisition method to all business combinations. Under this method, the acquiring company must recognize the individual assets and liabilities of the acquiree (including contingent liabilities) in its financial statements.

The most important step implied by application of the acquisition method in the case of business combinations is the purchase price allocation process (PPA). This procedure consists of allocation the cost of the acquired entity to the fair value of its assets and liabilities. The acquiring company needs to identify all assets acquired and liabilities assumed and assess their fair values at the acquisition date.

A large component of the PPA is the identification and assignment of the fair market value of intangible assets acquired in a business acquisition. The intangible assets are becoming an increasingly important economic resource for many firms and make up a larger proportion of the assets acquired in many

transactions. Companies need to identify and value a wide range of intangible assets.

The process of identifying of intangible assets is particularly difficult because in the most situations the acquirer has to identify and measure a large number of intangible assets that are not reflected in the target company's balance-sheet.

The standards differentiate between identifiable intangible assets and unidentifiable intangible assets or goodwill. An intangible asset is considered identifiable and is recognized apart from goodwill if it arises from contractual or legal rights, or if it is considered separable, meaning capable of being separated from the acquired entity and transferred, individually or in combination with a related asset or liability. The difference between the purchase price and the sum of assets and liabilities is recognized as goodwill.

According to accounting standards (IFRS 3, SFAS 141) intangible assets that meet the criteria for recognition as assets apart from goodwill can be grouped in the following five categories: technology based intangible assets; contract based intangible assets; customer related intangible assets; marketing related intangible assets; artistic related intangible assets.

The identification and valuation of these assets is a difficult activity. Intangible assets can be characterized as assets that are based mainly on information and knowledge. They have no physical existence and often are hard to be recognized.

Different industries have different industry specific intangible assets. This situation can be explained by the fact that the key intangible value drivers differ significantly across industries. Different intangibles performed different roles for different industries and companies.

In many companies and industries can be identified common (well accepted) types of intangible assets such as intellectual property (such as trademarks, copyrights, patents, or research and development), technology, customer base, brand names, and goodwill. There are also unique intangible assets specific to an industry or enterprise.

In this paper I have tried to identify the most typical intangible assets specific to different industries. The companies operating in high-tech industry sector recognize more technology related intangible assets. On the other hand, brand names and brand equity are recognized as important intangible assets in food and beverage industries.

References

1. Barth, M., E., Ron Kasznik and Maureen F. McNichols, (2001), “Analyst Coverage and Intangible Assets”, *Journal of Accounting Research*, Vol. 39, No. 1 (Jun., 2001), pp. 1-34
2. Bessant, J., (2003), *High Involvement Innovation*, John Wiley & Sons Ltd, Chichester.
3. Brand Finance, (2015). “Global Intangible Financial Tracker 2015”, An annual review of the world’s intangible value
4. Bramhandkar, A., Erickson, S. and Applebee I., (2007) “Intellectual Capital and Organizational Performance: an Empirical Study of the Pharmaceutical Industry.” *The Electronic Journal of Knowledge Management*, Volume 5 Issue 4, pp. 357-362, available online at www.ejkm.com
5. Chen, Lei (2012) *A mixed methods study investigating intangibles in the banking sector*. PhD thesis, Business School College of Social Sciences University of Glasgow.
6. Davis Ch. K., (2003) *Technologies & Methodologies for Evaluating Information Technology in Business*, Hershey, PA: IRM Press.
7. Deloitte (2006), *Valuing Intangible Assets, What are they really worth?*
8. Deloitte (2007), *Accounting for Business Combinations, Goodwill and Other Intangible Assets, A Roadmap to Applying Statements 141 and 142*
9. Ernst & Young LLP (2009), *US GAAP vs. IFRS, The basics: Telecommunications*.
10. Financial Accounting Standards Board, Statement of Financial Standards No. 141: Business Combinations (June 2001).
11. Financial Accounting Standards Board, Statement of Financial Standards No. 142: Goodwill and Other Intangible Assets, (June 2001).
12. Gandre R. A., Pogge J. C., (2012) *Mind the Gap: Market Pricing and Business Combination Trends in the Software Industry*.
13. Glaum, M., Street D., L., Vogel S., (2007), *Making Acquisitions Transparent, An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2005*, PWC.
14. Glaum, M., Wyrwa, S., (2011), *A analysis of how European companies dealt with IFRS disclosures in the field of M&A accounting (IFRS 3, IAS 36) in 2009 financial statements*. Making Acquisitions Transparent Goodwill Accounting in Times of Crisis.
15. Goldstein, K., Doorley, J. and Turner, P., 2011. *Corporate reputation management in the US pharmaceutical industry*. Gainesville, FL: Institute for Public Relations.
16. Harasim J., (2008), “The role of intangible assets in bank’s competitiveness and effectiveness”, *Journal of Economics and Management*, The Karol Adamiccky University of Economics in Katowice, vol.4.

17. Holloway, B., (2013) *Transaction Financial Reporting Insights*, Intangible Assets in Purchase Price Allocations, Transaction Financial Reporting Insights.
18. IFBC, (2012), *Purchase Price Allocation according to IFRS 3–main challenges*, White Paper nr.18.
19. International Financial Accounting Standards 3, Business Combinations, 2004.
20. International Financial Accounting Standards 3 revised, Business Combinations, 2008.
21. Ipsos Mori, (2010), *Acquisition and development of intangibles Decision making and Intangible Assets: A qualitative evaluation of the UK Intangibles regime*
22. Johard, M., Löfgren H., (2012), *Cross-country differences in the reporting of business combinations*. An empirical study of purchase price allocations, Master Thesis in Accounting and Financial Management at Stockholm School of Economics.
23. KPMG, (2010), *Intangible Assets and Goodwill in the context of Business Combinations*. An Industry Study, Corporate Finance.
24. KPMG, (2011), *The Application of IFRS: Media Companies*.
25. KPMG, (2011), *The Application of IFRS: Telecoms*.
26. Lopes I., Rodrigues A. M. G (2007), *Intangible Assets Identification and Valuation – a Theoretical Framework Approach to the Portuguese Airlines Companies” The Electronic Journal of Knowledge Management*, Volume 5, Issue 2, pp 193-202, available online at www.ejkm.com
27. McNulty, T., (2013), *Too Much Goodwill? Value Your Intangibles!*, Sirius Solutions' Thought Leadership Blog.
28. Morales, R., M., (2009), *Market Valuation and Intangibles in the Biopharmaceutical Industry*, Copenhagen Business School.
29. Newsad, A., N., Matuga T., A., Mello T., J., (2014), *Intangible Assets in Healthcare*, HealthCare Appraisers, Inc.
30. OECD, (2009) *Science, Technology and Industry Scoreboard*,
31. Ott C., (2012), *Mergers&Acquisitions and Intangibles*, Dissertation, Fakultät Wirtschaftswissenschaften Lehrstuhl BWL, insb. Betr. Rechnungswesen/Controlling.
32. PWC, (2008), *On Media Navigating Choppy Waters Managing through the credit crunch – intangibles must play their part*.
33. PWC, (2014), *Business combinations and no controlling interests, Application of the U.S. GAAP and IFRS Standards, Global edition Guide*,
34. Reilly, R.F., (2015), *Intangible Asset Valuations in Health Care Industry Transactions*, Corporate Transaction Pricing and Structuring Insights.
35. Reilly, R.F., (2010), *Intangible Asset Identification and Valuation in the Bank and Thrift Industries*, Intangible Asset Valuation Insights.

36. Rothberg, H.N. and Erickson, G.S. (2005) *From Knowledge to Intelligence: Creating Competitive Advantage in the Next Economy*, Elsevier Butterworth-Heinemann, Woburn, MA.
37. Russell, M., (2015) *The Valuation of Pharmaceutical Intangibles*, The University of Queensland
38. Thornton, G., (2008), *Intangible Assets in a Business Combination, Identifying and valuing intangibles under IFRS 3*.
39. Thornton, G., (2010), *IFRS in the media sector. A survey highlighting accounting policies and practices covering business combinations, revenue and IP rights*, UK LLP.
40. Thornton, G., (2013), *Intangible Assets in a Business Combination, Identifying and valuing intangibles under IFRS 3*, Grant Thornton International Ltd.
41. Thornton, G., (2014), *Priceless Thinking. Valuing Intangible Media Assets for Confidence*, India LLP.
42. Torsten J. Gerpott, Sandra E. Thomas, Alexander P. Hoffmann, (2008) "Intangible asset disclosure in the telecommunications industry", *Journal of Intellectual Capital*, Vol. 9 Iss: 1, pp.37 - 61
43. Tuomola, J. (2009), *Accounting Discretion in Purchase Price Allocation, Finnish evidence*, Master's Thesis in Accounting, Helsinki School of Economics.
44. Villalonga, B., (2004), "Intangible Resources, Tobin's Q, and Sustainability of Performance Differences". *Journal of Economic Behavior and Organization*, Vol 54.
45. Yeung, B., Sohmshtetty, R., (1999) *Investment option value drivers of the internet companies: in search of the intangible assets of the internet companies*, Ross School of Business at the University of Michigan, Independent Study Project Report.
46. Zakrzewska – Bielawska, A., *High Technology Company – Concept, Nature, Characteristics*, (2010), Recent Advances in Management, Marketing, Finances, N. Mastorakis, V. Mladenov, A. Zaharim, C. Aida Bulucea (red.), A Series of Reference Books and Textbooks, Published by WSEAS Press, Penang, Malaysia, s. 93–9.