Journal of Modern Accounting and Auditing, ISSN 1548-6583
December 2012, Vol. 8, No. 12, 1780-1788

Pricing and Valuation of Intangible Assets

Jesús Timoteo Álvarez, Sonia A. Ferruz González
Complutense University of Madrid, Madrid, Spain
Jesús Calzadilla Daguerre
Polytechnic University of Madrid, Madrid, Spain

Intangible assets are parts of the companies' balance sheet, but given their intangible nature, they cannot be qualified as financial assets as other incomes can be. Therefore, the valuation, even if reflected in accounting reports, is far from objective, and each company considers it in accordance with their sectors or auditors. Auditors, consultants, and business schools are developing alternative tools for measuring these assets, but there is not a consensus formula that quantifies the business value of intangibles. In recent years, communication analysts and consultants have developed brand valuation and reputation methodologies, which are starting to have a relative weight in business management. The proposed research work is a review of the current methodologies of reputation valuation as a starting point for creating a reference model formula for the valuation of intangibles that provide professionals and experts in the field with a worldwide recognized tool.

Keywords: intangible assets, accounting valuation of intangibles, intangibles and reputation, intangible communication, reputation management

Introduction

Known corporate scandals in the last decade, the social activism of citizen organizations joined with the amplification of messages and ideas that allow the Internet, the need for corporate transparency, corporate social responsibility (CSR), and the understanding with all the stakeholders with which current companies interact, make it necessary for them to internalize a new paradigm of business model, a model marked not only by the importance of financial accounting, but also and crucially by the management of intangibles as a key tool to create a shared value for all stakeholders (Porter & Kramer, 2011). And, if companies were to improve the management of their intangible assets, they had to integrate the measurement of intangible assets into their management systems (Kaplan, 2012).

Conceptually, intangibles are parts of the assets within an organization together with tangible assets, human resources, and financial ones. The European International Accounting Standard (IAS) mentions some of them with the name of "intangible assets" and explicitly lists among them for example, goodwill, licensing, trademarks, and patents, etc., which, translated into more common language, are activities that a firm develops to inform, retain customers, and occupy public space, such as CSR activities, sponsorships, corporate culture, and self-knowledge (databases, "know how"), etc.. When translated into the language of communication, it

Jesús Timoteo Álvarez, professor, Department of Social Communication History, Complutense University of Madrid. Email: jesustimoteo@ccinf.ucm.es.
Sonia A. Ferruz González, Ph.D. student, Department of Social Communication History, Complutense University of Madrid.
Jesús Calzadilla Daguerre, Ph.D. student, Department of Economy and Social Sciences, Polytechnic University of Madrid.

means all the activities that an entity develops for internal staffs and external audiences in terms of image, brand, information, culture, social responsibility, reputation, and the like.

The management of these intangible assets answers, of course, to its own rules, but is probably very similar to the management of financial resources with more and more fiduciary in a globalized world. These own rules try to find a stated goal that the authors define as reputation and have supported all the classic economic thoughts: (1) Marx recognized that the products had a use value and an exchange value; (2) Schumpeter assumed that the value components of an economic asset were both tangible and intangible; and (3) Baudrillard added to the values of use and changed the values of symbol, etc.. In short, the final value and the market price of goods, service, or any product are determined by its utility (use value) and its intangible value, symbol, or equivalent (Timoteo Álvarez, 2008).

Literature and Professionals' Practice Review

Managing "the intangible" means being in charge of the dominant value in the total valuation of a corporation. Further, most professionals and specialists think that the management of the intangibles is the management of the reputation capital of a company and that it is not optional (Reputation Institute, 2011).

It is a common doctrine that the social response, in the form of reputation and market share, to the overabundance of information is diverse, accessible, fast, and available in a global media market. It is imperative for corporations to retain their best employees, to cultivate long-term customers' loyalties, to convince shareholders, and to maintain or increase their market shares (Timoteo Álvarez, 2010). These values are especially important in times of crisis, when it is necessary to conduct a real evaluation of the corporation. Companies enter brand value, reputation, and other intangibles through their own ways. Repeated recent corporate experiences (bank acquisitions like Santander and Zachodni, airlines mergers like Iberia and British Airways, and companies' crises such as Toyota cars' security or Sony's security failures of its products) show that there is no reference model in accounting valuation of intangibles or way to evaluate the reputation capital that permits corporations to know their weight in the overall company assets.

That is the reason why, nowadays, every large company presents in parallel to their accounting reports what the authors can generically call "CSR reports", which are named in different ways and serve to show that there is an increasing weight of the intangible over the tangible, and companies inform stakeholders of it, because they know that it is a key factor for business success. But there is still no internationally recognized methodology beyond International Standardization Organization (ISO) 26000 guidelines for the preparation of these reports[1]. There is also no method of assessment, analysis, or measurement of the elements that form them, that is, intangible assets, among which it is the corporate reputation that for most experts in management and communication the main one, because it is a "summation of intangibles", an intangible that goes throughout all the companies.

Corporate reputation is linked to the perception that stakeholders have about an organization. The higher the reputation, the stronger the foundations of a company will be, since it means that the company knows how to manage the reputation capital and satisfy the interests of stakeholders. Therefore, reputation is an intangible asset of corporations, which must be continuously cultivated inside companies managing the resources that

[1] The Global Reporting Initiative is currently working on integrating the financial and non-financial information in only one document.

produce value (IESE[2] Business School, 2010). It is especially powerful in times of crisis and when carrying out a real evaluation of a company mergers, acquisitions, etc.. Thus, the authors find themselves at a crossroad: How to quantify an intangible value?

Consulting firms, auditors, and business schools (Ernst & Young, Klynveld Peat Marwick Goerdeler (KPMG), Morgan Stanley, Deloitte, IESE Business School, IE[3] Business School, Spanish Industrial Organization Business School, London Business School, etc.) develop and implement their own audits and assessment methodologies in accordance with the IAS. In general, it is simple, since it is not a matter of analysis in this study. The consulting firms' methods for evaluating intangibles have in common the use of indicators to measure aspects that complement the financial ratios, for example, employee loyalty and working experience provided by new employees when it is about assessing the human capital, the number of research and development (R&D) projects when it is about assessing the innovation capital, and so on. Its main objective is to carry out a comparative analysis for observing the trend in its evolution (Lev & Hand, 2003).

Methodologies for the Valuation of Reputation

Beyond the methods of valuation of intangibles from an accounting perspective, different intangible assessment indicators have emerged and proliferated[4] in recent years, among which stand out the indices of external assessments of brands and reputation derived from qualitative or quantitative surveys that complement account reporting and serve companies to identify and quantify success factors that generate value for stakeholders. It is important not to confuse the two approaches and at the same time to bear in mind that they are not incompatible, but complementary.

From the perspectives of communication analysts and consultants and with regard to the above indicators of assessment of brand and reputation, there are also different formulas on the markets that have proliferated in the last decade. In general, they are published annually and are linked to media that give them coverage. The most renowned includes: Hay Group's global most admired companies for *Fortune*, Harris Interactive's reputation quotient, Reputation Institute's Global RepTrak™ Pulse, Millward Brown's Brandz™ Top 100, Barron's World's most respected companies for *Financial Times*, and Monitor Empresarial de Reputación Corporativa (Merco, Business Monitor of Corporate Reputation) in Spain and Latin America countries made by Análisis e Investigación (Analysis and Investigation) and Villafañe and Asociados in collaboration with the media group Vocento.

In parallel, there have been organizations that intend to work in the fields of reputation management and analyses, such as the Corporate Excellence Centre for Reputation Leadership[5] in Spain that recognizes among its working areas a specific topic that they call "metrics and training", but any in-depth study that deals with a quantitative methodology for calculating the value of intangible assets has not been presented yet.

---

[2] Instituto de Estudios Superiores de la Empresa (Institute of Higher Business Studies or International Graduate School of Management) is the graduate business school of the University of Navarra.

[3] Instituto de Empresa (IE) Business School is a graduate school located in Madrid, Spain.

[4] There are specific financial monitors, employment monitors, sustainability, and CSR like Dow Jones Sustainability Index, the Spanish Stock Exchange CSR Index, the Foretica's report, the Great Place to Work report, etc.. The authors are not going to consider them, because they are opposite to reputation and brand monitors that include intangibles in a more global point of view.

[5] The Corporate Excellence Centre for Reputation Leadership has born as a result of the Instituto de Análisis de Intangibles and the Corporate Reputation Forum (retrieved from http://www.corporateexcellence.org). Other centres of reference and interest are: the "CSR Europe" business network for CSR; the "European Centre for Reputation Studies"; the Ludwig-Maximilians Universitaet Muenchen Centre "Munich School of Management"; and the Oxford University Centre for Corporate Reputation.

All reputation assessment monitors or rankings mentioned above take different factors into consideration to evaluate reputation. Named in different ways, in general, the authors can divide them into six groups of attributes: economic performance, commercial quality, labour quality, innovation, globalization, and ethics and CSR (Villafañe, 2004). However, the results they get are very different, as shown in Table 1, where the ranking of the 10 most reputable companies of the major global indices[6] cited above is compared. The authors see that there are only two companies that appear in all indexes: Apple and Google.

Table 1
Comparison of Reputation Monitors (2011)

Rank	Global most admired companies	Global Reptrak^{TM} Pulse	Brandz Top 100	World's most respected companies	Reputation quotient*
1	Apple	Google	Apple	Apple	Google
2	Google	Apple	Google	Amazon.com	Johnson & Johnson
3	Berkshire Hathaway	Disney	International Business Machine (IBM)	Berkshire Hathaway	3M Company
4	Southwest Airlines	Bavarian Motor Works (BMW)	McDonald's	Amazon	Berkshire Hathaway
5	Procter & Gamble	Lego	Microsoft	McDonald's	Apple
6	Coca Cola	Sony	Coca Cola	Google	Intel
7	Amazon.com	Daimler	American Telephone & Telegraph (AT&T)	3M	Kraft Foods
8	FedEx	Canon	Marlboro	Coca Cola	Amazon.com
9	Microsoft	Intel	China Mobile	Pepsico	General Mills
10	McDonald's	Volkswagen	General Electric	Procter & Gamble	Disney

Notes. (1) *Although this is not a worldwide monitor like the others included in Table 1 (It only refers to USA companies), the authors have included it because of its relevance; and (2) Source: Self-made compilation.

Having a look at the above comparison, it seems reasonable to harbour doubts about the methodologies used and consequently about the objectivity of the results of these monitors.

Entering briefly in the analyses of those reputation monitors, in particular in the methodology they use for the appraisal, the authors corroborate the significant differences of criteria. The authors consider only four aspects when making a review of them: variables taken into account, assessment method, number of evaluations performed, and the type of people that evaluate the factors given.

Starting with the monitor—Hay Group's global most admired companies, it takes into account nine different variables: quality of management, quality of products and services, innovation, financial soundness, use of corporate assets, long-term investments, human resources management, social and environmental responsibility, and global business perspective. The method used to gather information from these variables is revealed in a survey conducted among 4,170 people, who are well-informed citizens (executives and managers) and professionals (analysts). They have asked about 667 companies from 33 countries, both in general and by sectors. It only makes one assessment in a ranking format.

The Harris Interactive's reputation quotient uses fewer variables in its analysis and gives more weight to the variables "soft". Variables considered include emotional appeal, products and services, vision and leadership, working environment, social responsibility, and environmental and financial performance. It also

[6] Merco is excluded because of its local nature.

uses an online survey to collect information. In this case, more than 30,000 people are surveyed, unlike Hay Group's monitor, which considers only the general public. The survey is conducted in a two-step process: (1) the first phase, which collects information to identify the companies considered as the best- and worst-reputed companies and (2) the second phase, in which respondents are randomly assigned to rate two of the companies with which they are "very" or "somewhat" familiar. Thus, again, it only makes one assessment in a ranking format.

Regarding the Reputation Institute's Global RepTrak™ Pulse, it uses an evaluation methodology in two phases. In the first phase, it performs two levels of analyses. The first step considers four variables: admiration, respect, trust, and good impression that a firm raises among its stakeholders. The second step uses a set of attributes of reputation to rationalize the results of the first phase. The mathematical algorithm on which RepTrak™ is based groups the attributes into seven dimensions: leadership, finance, supply, innovation, working environment, integrity, and citizenship. In the second stage, it performs a statistical analysis that relates the above attributes with a set of stakeholders' behaviours towards the company. For data collection, it uses an online survey, which is sent to more than 100,000 consumers who are asked about the 2,000 largest companies (by turnover and by their familiarities with the general public).

Regarding Millward Brown's Brandz™ Top 100, it uses a methodology similar to the one used by analysts and accountants. The value given to each company is based on the intrinsic value of the brand, which is derived from its ability to generate a demand: The economic value of the brand is the sum of all future earnings that the company expects to generate, discounted the present brand value. It uses two sources of data collection: (1) Brandz™ index of consumers' behaviours and brand perception, an annual quantitative brand equity study in which consumers and business customers are familiar with a category evaluate brands; and (2) financial data provided by Bloomberg, analysts, and industry reports, as well as company filings with regulatory bodies. Additionally, they use the Kantar Worldpanel as a source of information about sales in certain categories. With all these financial data, Millward Brown makes financial models for each brand that link brand perceptions to company earnings, valuation, and ultimately to shareholder and brand value. Regarding the valuation process, the brand value is calculated in three steps: (1) Firstly, they identify the portion of total company earnings generated by each business that carries the brand-subtracted capital charges; (2) Secondly, they measure the "brand contribution" that describes the degree to which brand plays a role in generating earnings and is established through an analysis of country-, market-, and brand-specific customer researches from the Brandz database; and (3) Finally, they take into account the growth potential of these branded earnings using both financial projections and consumer data.

As for the Barron's World's most respected companies for *Financial Times*, it is an annual survey conducted to investigate firms and professionals in business and financial accounting about their opinions regarding the 100 largest companies of the world. It is based on the total market capitalization at the year end, as determined by Dow Jones Indices. The methodology of this survey is to ask participants to select one of the four options that reflect their views of each company: (1) highly reputed; (2) renowned; (3) little reputed; and (4) not reputed. They give a numerical value to each option and take the average score of each company considered in the survey. In the case of several companies achieving the same score, the more reputable they are, the more "highly reputable" votes they will have. They also ask respondents to consider the most important factors to determine corporate respect or reputation.

And finally, Merco is based on a methodology developed in several stages designed to collect data from different sources: (1) manager's survey; (2) expert's assessment; (3) direct assessment; (4) Merco Tracking Index; and (5) Merco Personas Index (two indexes that have their own methodologies). All of which are used as a basis for collecting information by postal or online surveys. Regarding the former, the core of the survey is composed of the main managers of major companies in Spain with a turnover over 50 million euro. In this survey, those managers are asked to conduct two evaluations: (1) Firstly, respondents are asked to state both the 10 companies considered as the country's best-reputed and the two most-reputed companies on the sector in which they work; and (2) Secondly, respondents are asked to evaluate those companies according to the following dimensions or variables: financial performance, the quality of the commercial offer, the internal reputation, ethics and corporate responsibility, international dimension enterprise, and innovation. All variables are scored with a system of coefficients and weights predetermined by Merco. After defining the provisional ranking of well-known firms, the second phase of assessment starts, where the companies selected in the above process are evaluated by five groups of experts: financial analysts, consumer associations, non-governmental organizations (NGOs), unions, and economic journalists. Each panel evaluates, from 0 to 100, only those variables that are related to its expertise area. In the third phase, an assessment is made directly to the 90 companies in the provisional ranking by applying a questionnaire collecting indicators designed to assess corporate reputation, structured in seven chapters. Then, it takes into consideration the evaluation of companies selecting reputation by the general population through a specific assessment conducted within Merco Tracking Index. Finally, the Merco takes into account the results of Merco Personas Index, a monitor that tries to evaluate the attractiveness of different companies as workplaces, based on the views of workers, students, former students of business schools, general population, and human resource managers. All previous assessments will result in a score between 0 and 100 points, which will be computed to calculate the final ranking. The final ranking is calculated as the weighted sum of the scores obtained in the previous stages with different weights: 37% overall ranking, 8% sector ranking, 8% financial analysts, 6% unions, 6% consumer associations, 6% NGOs, 8% economic journalists, 6% Merco Tracking Index, 9% Merco Personas Index, and 6% direct assessment.

The authors see from the brief analysis of the main indices of reputation that there is a great diversity of evaluation criteria, methodologies to quantify the results, and the public taken into consideration for the evaluation. Table 2 summarizes that the indices and the differences are obvious.

Table 2
Indexes Comparison Through the Variables They Consider, Method of Assessment, Number of Evaluations They Make, and People Who Evaluate

Index	Variable	Method of assessment	Number of evaluation	Evaluator
Global most admired companies	9 ("hard" and "soft")	Survey to 4,170 people	1	Professionals and informed public
Reputation quotient	6 (more "soft")	Survey to 30,000 people	1 in two phases	General public
Global Reptrak^{TM} Pulse	4 ("soft") valuating seven dimensions	Survey to 100,000 people and stakeholders' behaviours	1 in two phases	Consumers and groups of interest (informed public)
Brandz Top 100	Economic − financial + brand equity	Survey and accounting reports	2	Consumers and experts

(Table 2 continued)

Index	Variable	Method of assessment	Number of evaluation	Evaluator
World's most respected companies	Economic – financial	Survey	1	Only experts
Merco	6 (4 "hard" and 2 "soft")	Surveys	3	General public, experts, and companies

Note. Source: Self-made compilation.

The authors clearly identify a lack of measurement tools to quantify the intangibles in a system similar to the international accounting standards, which go beyond surveys to stakeholders and professionals.

Hypothesis Development and Methodology

In the Complutense University in Madrid (Spain), the authors are developing a research program called "Reference model in valuation and appraisal of intangible assets to be used in companies' acquisitions, mergers, etc.". After making a review of the structure of the reports that business consultants and business schools listed above prepare, the authors corroborate that there is not an accounting formula to assess the weight of intangibles. Based on the study of the intangible "reputation" and "brand equity", the authors expect to find a formula model that quantifies the value of intangibles, thus leading to the balance sheet of any company.

On such grounds, the "assessment and valuation of intangibles model" on which the authors are working looks for accounting definitions, which are quantitative and capable of being included with sufficient acceptance in the usual corporate balance sheets. The authors use a methodology as a hypothesis which, in short, complements the one used by the Reputation Institute by adding a set of numerical variables derived in accordance with the following outlines (see Figure 1[7]):

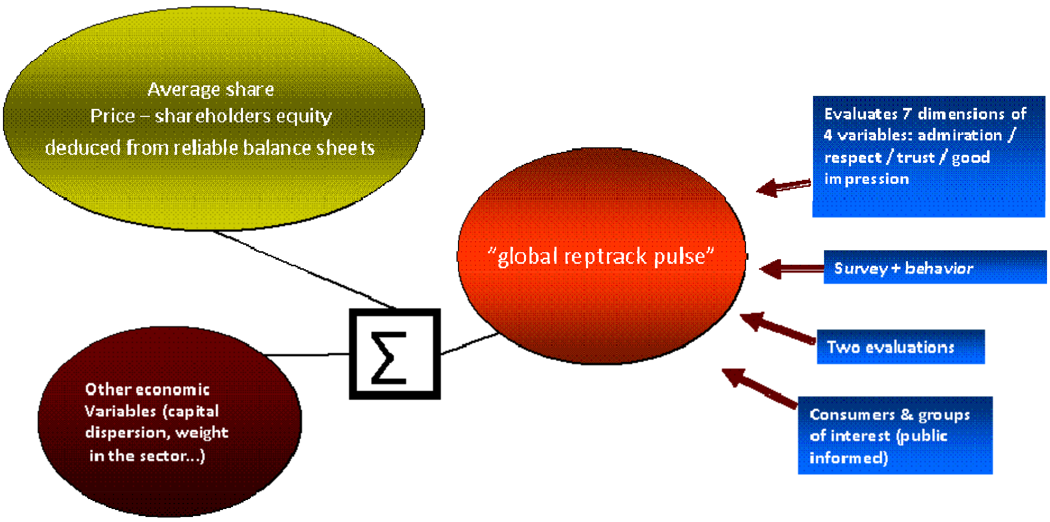

Figure 1. The methodology model to estimate the value of an intangible asset.

(1) The objective accounting value for the intangibles of a corporation is determined by: (a) the average share price for a given period, taking into account the number of outstanding shares; (b) subtracting the shareholders' equities deduced from reliable balance sheets (central banks, securities, exchange commission, etc.); and (c) the difference between these two values which must be the value of intangibles from the

[7] Figures 1 and 2 are made by the authors.

perspective of the market at any given time;

(2) The authors infer the specific objective accounting value for intangibles of a corporation directly from the sum of the values of the Global Reptrak^{TM} Pulse and other economic variables that measure business areas, structural dimension, geographical dispersion, capital dispersion, and relative weight in the sector and in the national and global economies. All these create two indexes of value: the net reputation and the compared reputation (with direct competitors).

To achieve a sound value, it is necessary to work with the data for a long period (between five and ten years) with reliable balances and credible and objective surveys. Companies or entities, which are unlisted or have less than five-year trading experience, must be analyzed separately.

From the hypothesis mentioned above, namely, there is not an accounting formula to assess the weight of intangibles, the authors expect to propose an analysis of the formula model and test it in 25 companies listed on the Spanish Stock Exchange that have carry out financial operations needed to count the value of the intangible assets over the past five years[8].

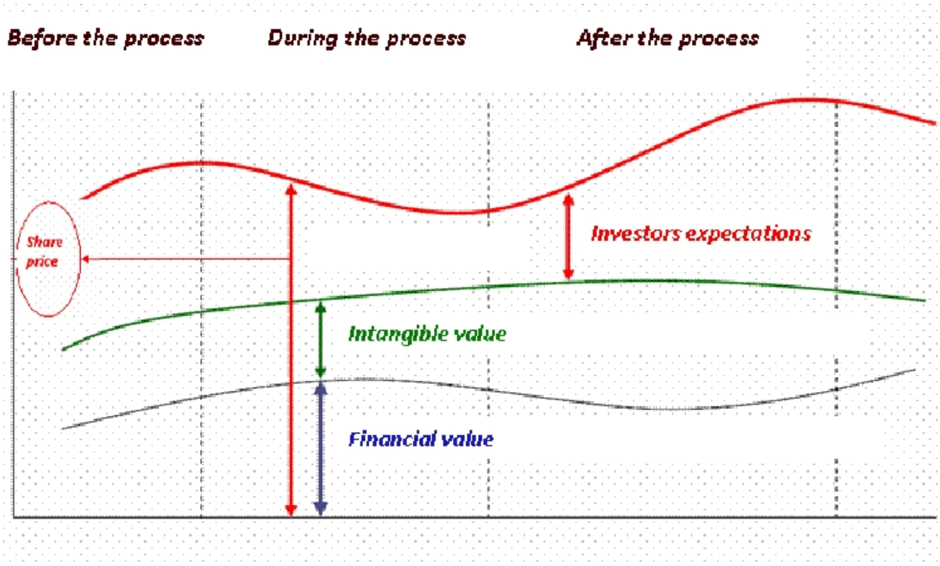

Figure 2. Hypothesis of the configuration of shares' price value along a process of accounting valuation of intangibles (mergers, acquisitions, etc.).

Therefore, the objectives of the research group are focused on achieving a maximum likelihood formula model (see Figure 2) to serve as a reference, if possible universal, for all types of cases where an appraisal and accounting valuation of intangibles are needed and also other sub-models to use with specific values, such as reputation, brand awareness, franchises, business intelligence tools, management, etc..

Conclusions

With this research, the authors are looking for the decisions that stock exchange market companies have made and studying what they later mean to the market. The authors will prove the assessment and valuation of

[8] The authors develop the study based on three phases: (1) the first phase, which is already performed to select companies and analyze their results; (2) the second phase, which is performed to prepare a questionnaire submitted to managers and to tabulate data (The authors are now in this phase, namely, receiving questionnaires and tabulating data); and (3) the third phase, which is performed to analyze the survey results and compare them with the data collected in the first phase.

the intangible model in these companies to test its usefulness as a formula model with the maximum likelihood to serve as a reference for all operations of accounting valuation of intangible assets.

References

IESE Business School. (2010). The art of managing the intangible. *Antiguos Alumnos IESE Magazine*, Vol. 117, 12-22.

Kaplan, R. S. (2012). The balanced scorecard: Comments on balanced scorecard commentaries. *Journal of Accounting and Organizational Change, 8*(4), 539-545.

Lev, B., & Hand, J. (2003). *Intangible assets: Values, measures, and risks.* USA: Oxford University Press.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review, 89*(1/2), 2-17.

Reputation Institute. (2011). Welcome to the reputation economy, where reputation management is not optional. *Reputation Intelligence, 3*(2), 5-9.

Timoteo Álvarez, J. (2008). Mixed environment to manage reputation and intangibles. In M. Fernández (Eds.), *Communication in the network society: The media building of the reality* (pp. 73-95). Avila: Catholic University of Avila.

Timoteo Álvarez, J. (2010). Communication management: Concepts, opportunities, and new tools. In N. R. Del Bianco, M. C. Ramos, F. S. Caballero, & J. A. Galindo (2010), *Cultural and communication policies: Academic contributions and social intervention*. Brasilia, Casa das Musas, Sao Paulo: Intercom.

Villafañe, J. (2004). *Good reputation. Factors of the intangible value of the companies.* Madrid: Piramide Editorial.