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**THE COMMUNICATION OF
INTANGIBLES AND INTELLECTUAL CAPITAL:
AN EMPIRICAL MODEL OF ANALYSIS**

AUTHORS

Daniele Loro – Coordinator

Work team:

Andrea Agazzi
Daniele Castelnovo
Gianni Demichelis
Gianluca Dimartino
Luca D'Onofrio
Leonardo Grosso
Valeria Novellini
Marco Tramontin
Giampaolo Trasi
Stefano Zambon
Davidia Zucchelli

Presentation by prof. Stefano Zambon, University of Ferrara

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PRESENTATION

Prof. Stefano Zambon
University of Ferrara

Not more than three years ago, the authoritative International Accounting Standard no. 38 (IAS 38), in paragraphs 7-19, set the following criteria in order to be able to recognise and disclose intangible resources among the assets in a company's balance sheet:

- a) Identifiability of the asset;
- b) Separability, which is confirmed by its separate transferability or exchangeability on the marketplace;
- c) Measurability, which is, in part, a consequence of the previous characteristics, and is based fundamentally on the historic cost concept;
- d) Control over the asset by the company;
- e) Existence of probable future benefits that will be enjoyed by the enterprise (future usefulness).

These criteria represent effectively the official position of the various national accounting standard in relation to intangibles, and, are also largely shared by authoritative critics and experts in Italy¹. Although this accounting standard is recent (1998), technological developments and the sudden establishment of the "knowledge economy" and the New Economy, have radically modified the basic framework and have contributed to a shake up both in the general validity of the above-mentioned criteria for recognising intangibles, and to the credibility of the traditional accounting documents themselves.

On this matter, it should be noted that the ability of the financial statements to represent adequately the enterprise value is continuously being questioned. It is in fact well known that the price-to-book value ratio of companies on the stock markets grew to unimaginable dimensions up to five to ten years ago. Although this value has now fallen, it still remains at such a high level that the net equity disclosed in the financial statements is often three to four times lower than the company's market capitalisation. Numerous critics have thus begun to talk of the traditional accounting systems as being obsolete and no longer able to capture and represent on a timely basis the "new" events that are profoundly changing the economic framework.

This differential between market price and accounting net equity – that generally is defined as "goodwill" – is considered by all as being related to of a series of intangible factors that create value for the company, but that are not however identified in the traditional summary profit and loss – balance sheet schedules.

It may be noted that the change in concept is not related to the disclosure of "goodwill" as such, but in the need to understand better the intangible elements that support its existence and determine its value, and that in conclusion, contribute decisively to the creation of value for the enterprise (for example, market image, employee satisfaction, customer loyalty, innovative capabilities, the quality of management, human resources skills, strategic vision, and so on).

In other words, the element of discontinuity does not derive from the attention given to immaterial resources taken as a whole (the determination of the economic capital of an enterprise is definitely an "old" subject), but rather from the steadily increasing requirement to monitor the performance of these intangible assets using analytical methods and on a regular basis, which are considered the

¹ In Italy cf., for example, National Councils of Dottori Commercialisti and of Ragionieri, Accounting standard no. 24, *Immobilizzazioni immateriali [Intangible fixed assets]*, Milan: Giuffrè, 1999, pp. 12-13; and L. Guatri, *Valore e "intangibles" nella misura della performance aziendale [Value and "intangibles" in business performance measurement]*, Milan: Egea, 1997, pp. 165-166.

fundamental company value drivers. This requirement for knowledge results in a corresponding need to make use of suitable instruments and methods in order to identify, disclose, understand, value and follow over time the key intangible assets of a company.

In this sense, to claim that the primary, unavoidable objective of companies is the creation of value, and without having a valid, widely accepted instrument in place that is able to represent this process and the intangible items that form its basis, risks turning into a mere question of principle.

It is from this that new concepts, such as Intellectual Capital, and innovative forms of reporting, emerge named from time to time "Intangible financial statements", "Intellectual capital report" and other similar names, that aim to fill the information gap and to satisfy the knowledge requirements detailed above.

These new requirements and the related information tools that are currently being outlined also give rise to a number of problems.

1. Unresolved tension, that perhaps may not be resolvable, may be perceived between the traditional requirements for accounting records – that require certainty, verifiability and standardisation of rules and information (predominance of principle of reliability over importance) – and the new requirement for better and more timely information on the processes resulting in the creation of value and the related determinant factors, effectively represented by the intangible assets of an enterprise. These latter requirements in fact involve the preparation of information that is less precise and verifiable, but that is certainly more realistic and in keeping with the factors that contribute to the value of a company (predominance of principle of importance over reliability).

2. The traditional criteria for the definition of an intangible asset, presented at the beginning of this document, no longer seem sufficient for the purpose of identifying, disclosing, monitoring the more important and significant part of the intangible items of a company, which currently escape the year end profit and loss/balance sheet “picture” in that they remain outside the scope of financial statements and accounting records recognition. In this sense, linking the identification of intangibles to their separate transferability and measurability in strictly monetary terms would appear to be an extremely limited criterion that, although acceptable for accounting requirements, may not be considered satisfactory where the aim is to document analytically and regularly the “hidden assets” of an enterprise, or the above mentioned value differential and its related sources.

3. The wide use of non-financial information, that characterise these innovative forms of reporting, will most likely require both company information users and companies and their management to deal with new parameters and frameworks, not always comparable or alike, and frequently qualitative in nature. This potential process of collective learning may as a result require dynamic fine tuning both in relation to the interpretative models and the behaviour of companies and market operators.

It should also be noted that the experience matured to date and the research projects commenced at international level on the subject of intangible assets are numerous. As a result, only the main initiatives involving companies and institutions will be highlighted.

The pilot-experiences are located in Northern Europe. The first company to be interested seriously in the methods of presenting and valuing intangibles was in fact the Swedish insurance company Skandia in 1991, which since 1994 commenced preparation of an “Intellectual Capital Report” aimed at disclosing items and parameters linked to its intangibles.

A number of years later the Danish Ministry for Industry and Commerce started the “Intellectual Capital Statement” project that generated, in 1997, a report on ten companies that had prepared an intellectual capital report. This experience was then repeated in 1998, with the voluntary participation of nineteen Danish companies, and in 2001, with support for this project – again on a voluntary basis – of more than one hundred companies.

Again in Northern Europe, the Nordic Industrial Fund (a public financial institution shared by Norway, Sweden and Finland) is finalising the "Nordika" project, which is aimed at defining

common guidelines for the preparation and publication of new forms of reporting on the intellectual capital of companies.

The European Union has also recognised the growing importance of intangibles by following industrial policies aimed at favouring innovation, technological diffusion and entrepreneurship. These aspects should be taken into consideration in understanding the creation of the High Level Expert Group (HLEG) on Intangible Economy, an interdisciplinary research group set up by the Enterprise General Management section of the European Commission. The research project commenced in January 2000 and resulted in preparation of a report that describes the influence of intangibles on company management and performance and the resulting implications for companies, financial markets and public and regulatory institutions. Following this first step, in 2001 the Commission financed an important two-year research project on intangibles (named "Rescue"), and assigned a joint mandate to the Universities of Ferrara, New York and Melbourne to carry out a broad study on the same subject in 2002– by way of public tender.

The Brookings Institute, an important government “think tank”, in the United States has responded to these European initiatives, issuing in 2001 a study entitled “The Unseen Wealth” prepared by Margaret Blair and Steven Wallman (a former commissioner of the SEC).

At the same time, the US body charged with preparing accounting standards, the FASB (Financial Accounting Standards Board), published in April 2001 an important paper (“Business and Financial Reporting Challenges from the New Economy”), in which many company and reporting problems linked to the wider role assumed by intangibles are highlighted and discussed.

In order to face these developments in an economic context and within the framework of company activities, the AIAF believes that the creation of a work group covering these subjects is appropriate. This paper is the first result of these investigations, and relates to disclosure on intangibles and on intellectual capital provided by companies. The ultimate aim is to arrive at a three tier classification of companies based on the degree of completeness and depth of disclosure, on the basis of a reference model presented herein, that is both simple and effective at the same time, in relation to which the University of Ferrara is proud to have provided a contribution – considered – not secondary, to its creation and conceptual development.

This model therefore represents an initial, definite reply to the requirements of market operators to value, appreciate and classify information on the new value intangible drivers of enterprises, and, as a result of its innovative quality, has already attracted interest from the European Commission (Enterprise General Management) and the “sister” association of the Norwegian financial analysts.

The theoretical intuition underlying the illustrated model in this document is represented by the potential creation of a virtuous circle, according to which the distribution of more detailed, analytical and regular information on the intangibles of a company could be “rewarded” by the market with a reduction in its cost of capital and increased stability in its stock market prices, as a result of the operators having better knowledge of the characteristics of this organisation.

It should however be recognised that there is still a long path ahead to achieve satisfactory information, measurement and analysis of intangibles, although undoubtedly a rapid move in this direction has been witnessed in very recent years. An experimental approach by companies is probably the most realistic one at this time even though it is desirable that the best practices that are being applied, in particular in Northern Europe, spread rapidly and become an informative standard for the market even for many Italian companies. To conclude, if one thinks about it, transparency may also be considered a valuable intangible asset.

GENERAL OBJECTIVES

In recent years, there has been increasing demand for an analytical explanation of the growing differential between the asset values of listed companies, as disclosed in the financial statements, and the values expressed by the stock market. Given a P/BV ratio, that from the average level of 1.0 in 1990 for the Italian stock market is today valued at around 2.4 (Dec.2001), one may comprehend the common requirement among Italian financial analysts to study the nature of basic information, in order to understand the value of intangible assets and to define a uniform method of analysis that, where possible, may be shared by analysts and companies.

This need did not decline with the expected less favourable market conditions: interest is, in fact, in this case directed at understanding where intangibles effectively have the right to exist, and the value that is steadily attributable to them.

Motivated by the reasons described above, an AIAF research commenced, the objective of which is focused on the disclosure supporting the valuation of intangible assets.

The analysis route taken was as follows:

1. Identify classification criteria for the information relating to intangible resources that generate value;
2. Identify as exhaustive a list as possible of the indicators and information relating to intangibles;
3. Define greater/lesser detailed levels of disclosure in order to identify a framework to which companies may adhere depending on their policy regarding communication;
4. Verify through use of a sample of companies the applicability of the proposed framework;
5. Suggest uniform behavioural models regarding communication.

For a number of important subjects, such as recording the value of intangibles in the accounts, the communication of forecasts and price sensitive information, the audit of disclosure relating to intangibles, the frequency with which the information not covered directly in this document could/should be made known, the AIAF proposes that it performs a primary role in the debate relating to their study together with the numerous other interested parties (for example: companies, Consob [Italian stock market regulatory body], auditors, universities).

Numerous initiatives at an international level regarding the communication of intangibles have been noted, thus confirming the attention dedicated to this subject, among which is the project named "Rescue", financed by the European Community, which comprises a study group set up by a number of European universities (City University Business School, Copenhagen Business School, IESE, University College Cork, Stockholm University, Henley Management College, TSM Business School (Enschede), University of Ferrara), that will further investigate the subject from different points of view and in which the AIAF will play an active role by participating in the Advisory Council. The FASB is also evaluating the possibility of including the subject discussed herein in its work priorities, again confirming the importance attributed to disclosure regarding intangibles.

SCOPE OF THE ANALYSIS

Prior to proceeding with a description of the procedures followed, we consider it appropriate to cover a number of preliminary subjects in order to define better the scope of the analysis performed. Given the multiple definitions and approaches, it is necessary to highlight the meaning attributed to the expression intangible assets within the scope of our analysis.

The principal interest of this research is to examine the supporting disclosure for the analysis of the differential between book value and fair market value, irrespective of whether this differential is attributable to specific categories of intangible assets: they may comprise trademarks, licenses, customer assets or any other intangible asset that is separately identifiable.

Although the term intellectual capital could be misleading, in that it brings to mind the value mainly linked to the employees of an organisation, this term is the most appropriate in defining the framework of our research in that it is frequently used with regard to the book value – fair market value differential.

In theory, intangible assets are identified as those assets, not made up of tangible assets, that produce future, justifiable economic benefits.

Within the scope of the study carried out, it was considered appropriate to refer exclusively to this general definition of Intangibles, not wishing to enter into theoretical discussions relating to the nature of intangible assets, principally those relating to separability, as already mentioned in Prof. Zambon's presentation of this paper.

This approach reflects the aim of this research, which is essentially practical in nature, leaving the theoretical study of these issues to be covered in more suitable circumstances and to an appropriate extent.

We are aware of the theoretical limits that this approach implies, however, the AIAF, in pursuing its institutional purpose of favouring transparency in financial communication and the training of the analysts, identified a research route that gives priority to communication and analysis under the empirical profile of this subject, with the principal objective of bringing it to the attention of all parties involved in these issues. At a later stage, when the theoretical aspects will be further investigated and better defined, also through the study of the evaluation aspects relating to intangibles, it will be possible by way of a virtuous process of continuous improvement, to redefine a disclosure framework that is closer to specific theoretical and evaluation requirements.

With regard to the relationship between disclosure requirements and methodological aspects, a number of subjects are proposed that may influence significantly the considerations that follow. The research is focused on the analysis of the information supporting the valuation of intangibles and, as a result, the methodological aspects relating to the valuation criteria are outside the scope of our study.

However, it is recognised that the relationship between the two subjects – methodology and information for valuation purposes – is important. In particular, the application of certain evaluation methodologies assumes the availability of adequate information that differs from that necessary for the elaboration of other methods. For example, consider the disclosure requirements needed to develop methods based on discounted cash flows compared to those required for determining the reconstruction cost or the premium price. The diversity of these requirements is evident: the basic information for the first criterion will depend on the availability of complete profit and loss – balance sheet projections, while the second and third methods may be applied using historic information compared to market benchmarks.

While the task of analysing the methodological options and the related advantages/disadvantages is left to doctrine, for the purposes of this research the various methods were taken into consideration in order to define a disclosure framework that is able to cover the information reasonably required to elaborate all of the most common methodologies used in practice.

With reference to the most common methods, we note those directed at cost (reconstruction cost, replacement cost, losses), at profit (profitability, premium price, royalties...), financial methods

(cash flow, real options ...) and market methods (empirical, comparable transactions, market multiples...), which will be the focus of a subsequent AIAF work group on this subject. As a result, the framework proposed below aims at providing a disclosure platform that may be used for all methods, recognising that the application of the various methods may be based on different disclosure requirements.

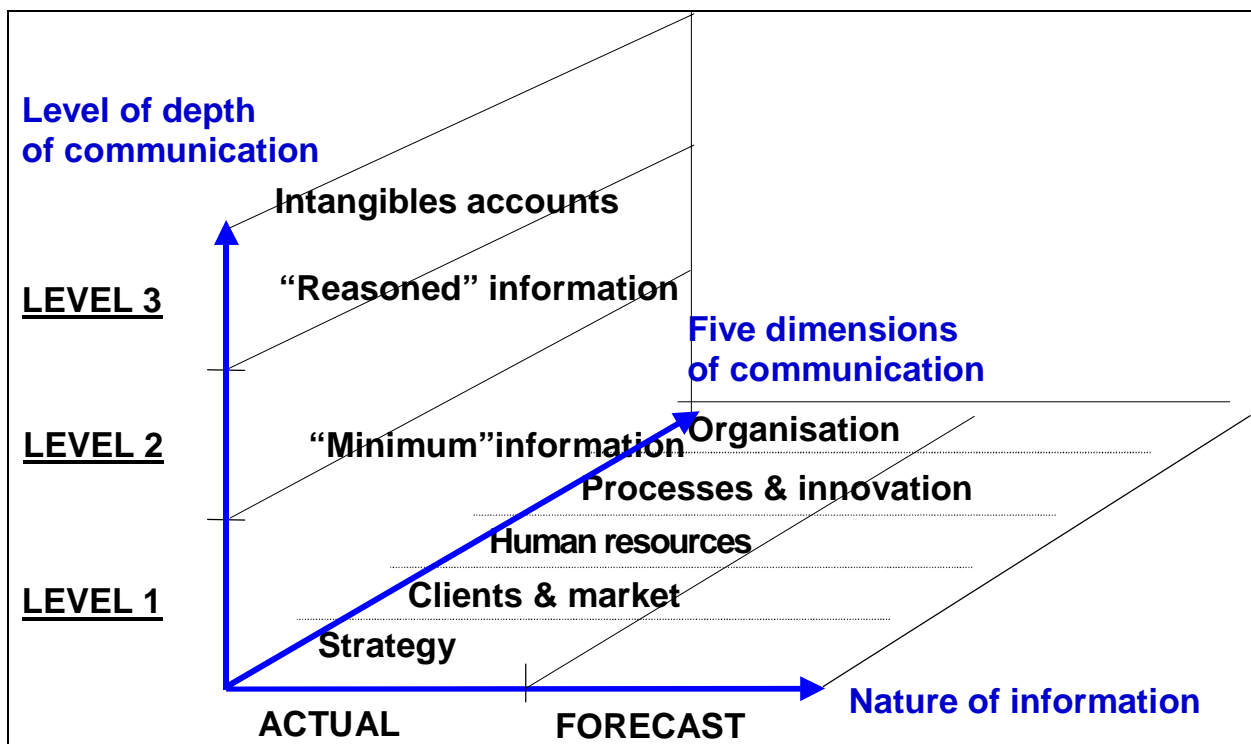
To conclude, the standpoint of the research carried out presupposes that the analyst may choose, independently based on his/her own convictions, the valuation method that he/she considers most appropriate from time to time. Applying this logic, if the company provides information based on the proposed outline, every analyst, referring to this common informative model, will be able to develop evaluations independently, using the methodology considered most appropriate for the specific matter under review.

THE FRAMEWORK

The framework created for the research is three-dimensional (see Graph 1):

- It divides information between forecast and actual;
- It identifies five communication dimensions for intangibles;
- It classifies companies according to diversified communication levels depending on the completeness and depth of the information provided.

Communication of intangibles: the framework



(Graph 1)

The nature of information

The first distinguishing factor identified was the nature of the information: actual and forecast. Traditionally, financial statements are a tool for disclosing actual information; however, the appreciation of intangible assets greatly depends on forecast elements also. Recalling the general definition of intangible assets mentioned above, the essential characteristics of intangibles are underlined: ensure **future and justifiable** economic benefits.

These two characteristics may be adequately evaluated through the combined reading of the historical and forecast information of the company in light of the strategy communicated.

Under this perspective, the central role assumed by forecast information in relation to communication is emphasised.

It is obvious that these comments are strictly linked to the possibility of knowing and interpreting correctly a company's strategy. In fact, in the event that there is an inadequate understanding of the market in which a company operates and its strategy, the disclosure of objectives and the values set out in the plan covering future years, may not be useful to a critical analysis by the analyst.

Given the importance of forecast elements, the empirical investigation that follows is based not only on an analysis of the financial statements of the period but also on the analysis of the presentations made to the analysts. The use of a wider spectrum of official documentation enhances the scope of communications carried out by companies, although it underlines a fragmented vision of the intangible element.

The five dimensions of communication

The breakdown of the five dimensions indicated in Graph1 is not meant to represent an ideal subdivision of intellectual capital into its component parts: the framework proposed does not in fact have theoretical aspirations, but simply meets a number of practical requirements.

The categories do not represent components of intellectual capital to be valued separately, perhaps only in particular circumstances, but rather provide a structured vision of the resources available to a company.

In order to define the framework the following elements were taken into account:

- Facilitate understanding of a company's entire activities;
- Propose a model that would, where possible, adhere to the majority of the classifications relating to the elements of intangible assets most commonly used in practice;
- Maintain a suitable level of flexibility, in order to allow application of the framework to different sectors;
- Safeguard the possibility of achieving a high level of communication completeness, even using a standard framework.

The first requirement led to placing alongside the typical analysis criteria for the elements included in intangibles (clients, human resources, organisation, processes and innovation) the strategy, as the pillar of communication and as a pervasive dimension for all information relating to intangibles.

The satisfactory communication of the strategy facilitates understanding of the business as a whole thus favouring critical interpretation and the forming of an independent opinion by the analyst.

The use of categories of intangible resources already known to those who have dealt with this subject, meets the aim of bringing the framework as close as possible to companies and analysts.

For our purposes, it is essential that guidelines be established in order to organise information relating to intangible factors and, at the same time, try to obtain the widest agreement possible among users. It was noted that the analysis performed must be valid "cross industry" and, as such, the classification framework indicated must be applicable to different sectors. It is thus understandable that for a number of sectors the information relating to some dimensions may be

relevant, while those relating to others will have no relevance. The general disclosure outline must however allow for adaptation to cover the sector differences.

With reference to the analyses performed by the work group, it may be noted that certain types of classification, while allowing high precision in the presentation of intangible assets for a number of sectors, may be inadequate for others.

For example, the dimension of innovation, fundamental to research activities, has less importance for other sectors, for which the intangible component is significant all the same. Nevertheless, if the analysis of intellectual capital were based exclusively on innovative factors, as a number of critics substantially claim, we would risk proposing a framework only suitable to certain sectors.

With regard to completeness, it may be noted that an attempt has been made to create a framework that is valid in general terms. For this reason, the framework may present some instances of overlapping between one dimension and another, but it does guarantee a suitable coverage of the numerous aspects that characterise a complex subject such as intellectual capital.

Aside from the theoretical aspects introduced from time to time by company literature², what is important here is to establish a framework that is as wide as possible in order to allow the identification and suitable communication of all of the information required for the correct interpretation of the value drivers that direct the activities of a company.

We detail below the contents foreseen in relation to the five dimensions of communication set out in Graph 1.

Strategy

It has already been noted that the strategy does not represent an element of intangibles, but rather it performs a central role in their understanding, allowing a complete and critical interpretation of the phenomena intangible assets and intellectual capital.

The analysts are aware that it is necessary to place, within the strategic dimension, the highest attention in the analysis of a company, in order to identify correctly the value drivers. An adequate understanding of these elements permits the elaboration of a critical analysis on intangible factors.

Effective communication of the strategy has the following effects:

- It allows appreciation of the coherence of all of the variables and information communicated by a company with the announced strategy;
- It facilitates integration of a company in relation to the sector in which it operates, allowing an independent valuation of the chosen strategy and of the degree of risk attributable to it.

The communication relating to this dimension must enable the external reader to fully understand the business model of the company being valued, the competitive environment in which it operates, expected evolution and, in particular, the strategic evolution as perceived and defined by company management.

It is considered that these elements, that are prevalently qualitative in nature, are of fundamental importance to a proper understanding of the value of a company and a satisfactory insight into the intangible assets.

The communications relating to the strategy will be largely based on qualitative elements and will maintain their focus on the forecasting area.

The communication and understanding of the strategy has an important impact on the volatility of the valuations: the correct perception of the level of risk attributable to certain strategies allows a

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² For a wider analysis see Cravera, Maglione, Ruggeri, *La valutazione del capitale intellettuale [Valuation of intellectual capital]*, Milan: Il Sole 24 Ore, 2001.

reduction in listing fluctuations, both in the situation where events arise that bring about better results and also under less favourable circumstances.

In addition, the non-achievement of financial objectives declared by a company, in the presence of a strategy that is followed and confirmed by qualitative and market objectives, may result in a review of the valuations that is less pessimistic than one that is carried out in a situation where qualitative elements regarding performance evaluation are not available.

The majority of information in this section will be qualitative in nature:

- Product description and life cycle, main competitors, market positioning and share;
- The orientation towards internal/external growth policies and alliances;
- The main areas of evolution expected with regard to the specific market in which business is carried out.

The strategic dimension nevertheless may not be exempt from including a number of quantitative indicators. These indicators should in some way present the degree to which the outlined strategy has been achieved and set objectives for future years. A key element of this analysis is the comparison between the objectives declared in the past and the results effectively achieved. This analysis could provide an indicator regarding the “confidence” in the ability to realise the strategy, which is reflected in a more correct and accurate estimate of the cost of capital for the company.

Clients and market

The other four dimensions of communication that will be examined have been identified in a number of studies as components of intellectual capital. The market is one of the main dimensions used when referring to the valuation of intellectual capital.

Already in the past, the market position, clientele and strength of the trademark were regarded as potential depositories of intangible assets, moreover not recorded in the financial statements. These traditional definitions were in addition supported recently by a series of methodological developments that have, as a central element of the valuation, a company’s clients.

Even in a traditional sector such as banking, in which empirical valuations of some time ago took into consideration the value of “clients” expressed on the basis of deposits of the institution being considered, practice has evolved towards the valuation of the clientele based on the “margin per client”, in an environment in which deposits do not represent the only indicator that expresses the market position of the bank.

The category clients includes all of the information relating to the area of customers: from brand reputation, to distribution channels, customer loyalty, etc....

As previously covered in the strategy dimension, information can have a qualitative and descriptive content, but these should be supported, at least for some key information, by numerical indicators.

The company may provide a description of the sales structure utilised (direct, agents, chains, points of sale...), indicating the relative importance of the various channels to the business, consistent with the specific elements for the sector to which it is related: clients, points of sale, promoters, audience, visitors, users, etc....

The description of a company’s market position will, to conclude, be exemplified by certain numerical information, as for example the number of clients, the retention rate, the average customer acquisition cost, number of point of sales. The numerical disclosure used should be internally consistent with the element of the sales structure that is considered crucial and to which a large part of the descriptive information has already been dedicated.

Human resources

This category includes all of the information relating to personnel in a broad sense: know-how, experience acquired, skills, the remuneration system, company loyalty, compensation, etc. ...

The information relating to this element will vary significantly depending on the type of company being considered and may assume a particularly important role for some companies and a less important one for others.

Generally speaking, companies may be divided into two categories, depending on whether human resources play a central role for valuation purposes or, although contributing to the evaluation of the company, do not constitute the principal asset.

Moreover, even in this last category the human factor may play a decisive role, more often linked to the value of management among the market players.

The communication process for this dimension could be the following:

- For all companies some standard information will be provided in relation to personnel and some more detailed information covering the management team. The first area of information may cover an analysis of employees by length of service, type, division, remuneration, etc. ...
- For those companies, or departments within companies, whose activities are largely based on human resources, more detailed information that is tailored to the specific situation will be provided. In particular, consultancy companies, software houses or research departments come to mind. For these entities the general basic framework with information relating to personnel should be integrated with more specific details.

The standard information on personnel provides for, at the very least, a description of the staff structure subdivided by employee category and average cost. The remuneration policies and criteria for defining retribution in general and for the individual employee categories may represent important references for information in this dimension of analysis.

With regard to the operation of the personnel area, certain information on turnover and a breakdown (functional/divisional) based on the activities performed may be provided.

In relation to strategic areas of activity or enterprises with particular characteristics that render the role of human resources central to the subject of intellectual capital, the basic information will be enhanced with a number of specific descriptive notes and *ad hoc* indicators (composition of the research department, average age and level of qualification of research department, length of service in the company, employment history, level of research, etc. ...).

Processes and Innovation

Innovation is made up of a combination of knowledge and skills which are able to generate development and renewal. This definition indicates that the role of innovation itself should be considered important not only for those sectors with a high technological content. The technical product innovation, critical to these sectors, is not the only area in which the phenomenon of innovation is manifested. Innovation may also be considered with reference to the production, sales or operations processes within a company, taken as a group of activities together that result in the production of an asset or service.

The communication of information relating to innovation passes through the following auto-diagnostic phases performed by the company:

- Describe the importance of innovation within the company's business, for example indicating the analysis of turnover for products with the same life cycle and those recently introduced;
- Indicate the nature and content of innovation (technological, production processes, sales processes, etc. ...);
- Provide some indications as to the company's innovation propensity, exemplified where possible by statistics relating to projects commenced and investment made;
- Describe the technologies used and, if any, those technologies in competition.

As a result, innovation is deemed to cover innovative processes that are able to ensure that competitive advantages are defended.

Organisation

The organisation factor expresses the ability to operate in a coordinated manner using the resources available to the company. This ability is normally reflected in the management systems, the organisational structure and its operation, the decision and information support systems.

The organisational dimension may largely be expressed by qualitative factors relating to the locations, factories, support systems and information systems and may be enhanced by the presence of group, divisional and operational organisation charts.

Within this area, indications relating to supplier relations, the related management policies, relationship stability, etc. should also be considered.

The most common structural indicators used are, for example, the ratio of staff to total employees, or some efficiency indicators and other process indicators (for example: number of invoices per administrative employee). These indicators, as already explained in the previous paragraph, will vary in content when compared to those relating to innovation processes.

List of indicators

Having defined the 5 dimensions of communication, we set about identifying and classifying, within the determined categories, a list of indicators that is as exhaustive as possible.

For this purpose, the experience of the members of the work group, the analysis of empirical cases and international materials and research carried out on the subject of intangibles, was used.

The number of indicators and information may obviously be expanded or restricted depending on the level of depth of the communication relating to intangible factors.

The list re-proposes the five dimensions already described. The values indicated also have the following characteristics:

- For each indicator it is possible to have actual or forecast values covering both a short or long period;
- Each value may be represented by different units of measurement: or rather, depending on the companies and related sectors, the unit of measurement that better expresses the values may differ. For example, if one considers the value “active customers”: under this same heading information may be provided regarding client number, sales volumes of the clients, turnover per client;
- Only in a number of cases the combination of basic values that may give rise to combined indicators, have been given.

If these aspects are taken into consideration, one realises the extent to which the proposed framework could be expanded out of all proportions through the use of combined values.

A summary list of primary indicators identified by the work group is set out in the appendix.

Given the amplitude of the proposed list and the possible circumstances, it was considered appropriate to proceed pragmatically in defining possible communication levels that do not require companies to cover all of the indicators identified.

The levels of communication of intangibles

The next steps in the analysis are essentially practical in nature. Having identified the list of indicators mentioned above, the problem of defining reference communication levels aimed at classifying company behaviour was faced. Subsequently, using a number of sample companies, the state of the art within the Italian environment, will be verified.

Three levels of communication have been identified. For completeness, it should be noted that a heading also exists in relation to level “zero”, communication does not cover the five dimensions

described and does not allow the reader to understand which elements are central for valuation purposes. In this situation, the analyst is not in a position to develop the analysis applying the appropriate level of critical ability in that he/she has only a partial insight into the subject and as a result is not able to form an independent opinion.

Level 1- “Minimum” information

The characteristics of the first level of information are as follows:

- Included in the statutory and consolidated financial statements of the period;
- Mainly directed towards actual figures;
- Must ensure at least the minimum coverage of the five dimensions identified;
- It is largely qualitative.

In this case, the objective of the company is to provide the analyst with a clear outline of the company’s strategy and the key variables that management keeps under control for the purposes of carrying out this strategy. Through these first indications, perhaps the analyst will not be able to define a complete method for assessing the intangible capital; however, it will be possible to have an idea of how the company’s intangibles may be made up.

The distinguishing factor between this basic level and level “zero” is the ability to provide a non-partial outline of the subject. Perhaps the company is communicating very general information that is highly approximated; nonetheless, the 5 dimensions of communication described above should be covered and detailed.

The principal weakness in this level of information is due to the scarce inclination to provide forecast elements, which, as already mentioned, constitute one of the most important areas for evaluation purposes.

Level 2 – “Reasoned” information

The features of the second level of information are the following:

- Included in the statutory and consolidated financial statements of the period;
- Also directed towards forecast information;
- Organised according to the logic of “Communication of Intangibles”.

The second level assumes that the company has commenced an “*ad hoc* project” for communication relating to the subject of intangible assets.

The document used as a reference is still the consolidated financial statements, in which a section could be created within the report on operations that summarises all of the information relating to intangibles. The report on operations would appear to be an ideal document for this information, although some sections of the notes to the accounts could be dedicated to these matters. The report on operations however allows all of the information to be grouped under one heading, giving to them the appearance of greater organic unity.

The information provided may be similar to the first level but the forecast element should be accentuated. In particular, for each of the five dimensions indicated, information should be provided, including qualitative indications, regarding the expected development of the dimension, the company’s strategy and the related general objectives.

The information contained could, if required, be summarised in a succinct control framework as per the structure set out in figure 1, provided for exemplification purposes only. This could include 15/20 indicators that, interpreted through the qualitative information used to represent them, favour a general comprehension of the subject and, in particular, provide a measure that is comparable over time.

It is obvious that the creation of a control framework assumes significant effort by the companies that must select the indicators and make them public. It is this requirement to select and organise the indicators that reflects the increased added value provided by the presentation of a summary

schedule: this, in fact, is the clearest demonstration of the effort that the company has dedicated to the communication project related to the intangible factor.

The summary framework also allows to create a group of indicators that are comparable over time.

	Year -2	Year -1	Year 0	Objective
Clientele Number of active clients Market share Retention rate Personnel Employees by category Average employee cost by category Turnover Organisation Organisation chart Peripheral organisation and locations Value of licenses Processes and innovation New products Turnover breakdown for new products (analysed by phase of corresponding life cycle) Research costs Strategy Financial indicators (ad hoc and aimed at providing a picture of the general strategy progress described in the related section) (e.g.: degree of diversification= principal product turnover /total turnover , profitability=ROE...)				

(Figure 1)

Level 3 – Extended information

In this case a specific document is prepared: the *intangibles* or intellectual capital statement.

The document may be structured following the five reference sections already utilised, adding a section of quantitative objectives that express profit and loss – balance sheet indicators also. This section, through indication of the results recorded compared to forecast, will also provide a picture in terms of declared strategy and its subsequent implementation.

Each section will cover the subjects relevant to the business under review and will define the parameters for measuring the related performance.

Each paragraph will contain an extended level of information with:

- Qualitative descriptions;
- Quantitative data;
- Actual data and forecast information.

We set out below a sample summary of the intangibles statement.

SAMPLE SUMMARY OF INTANGIBLES STATEMENT	
Sect I	Strategy
	1 The company-products & services
	2 The market
	3 Competitors
	4 Development prospects (internal growth vs external growth)
	5 Commercial/industrial alliances
Sect II	Clientele
	6 Reference market (analysis per customer, geographical area, products, points of sale, ...)
	7 Market share
	8 New clients
	9 Profitability margin of the activity
	10 Investment in client acquisition
	11 Investment in client maintenance
Sect III	Personnel
	12 Employees (number and breakdown)
	13 Remuneration structure
	14 Average employment history/length of service in the company
	15 Turnover
	16 Training
	17 Ability to attract qualified resources
	18 Level of qualification
	19 Management
Sect IV	Organisation
	20 Organisation chart
	21 Locations (offices and factories)
	22 Licenses
	23 Suppliers (number, turnover, certification processes, ...)
	24 Description of information systems
	25 Structure functioning (support systems, shared databases, network connections,...)
Sect V	Processes & information
	26 Description of sector innovation processes
	27 Technology utilised
	28 New ideas/projects/products implemented
	29 Investment in product development
	30 Investment in new product development (design-implementation)
	31 Breakdown of turnover for new products (analysed by corresponding life cycle phase)
	32 Institutional research activities (publications, ...)
Sect VI	Forecasts and objectives

(Figure 2)

We underline that, as with the interpretation of the statutory and consolidated financial statements where the notes to the accounts play a fundamental role in understanding the numbers, the summary framework of indicators proposed for the intangibles statement should also be accompanied by a qualitative analysis of the company based on aggregate information that should be included in the document itself.

In conclusion, given that the implicit value of intangible assets translates into more justifiable, future profit benefits, a complete analysis of the intangible factors must be such that the analyst may independently form a more precise opinion on the short and medium term projections of the company valued as a whole. This opinion may be expressed using various approaches and methods:

- It may be expressed as a summary indicator formed on the basis of properly organised information gathered in the intangibles statement;

Or

- Result in consideration of a corrective factor as an additional, adjusting component of the basic valuation parameters and, in particular, in relation to the cost of capital.

The final result of the analysis could be the refining the capital cost estimate for the company. A lower cost of capital would be obtained in those situations where the value of intangibles is much higher than the sector average; similarly a higher cost of capital would be attributed to companies in the opposite situation. What we would like to point out here is that the absence of information on this subject leads to conditions of high volatility.

EMPIRICAL EVIDENCE

For the purpose of empirical verification, an analysis was carried out on a sample of 9 companies.

It is noted that the analysis carried out does not claim to have any scientific value from a statistical point of view; this would require a significant increase in the sample size.

In this preliminary phase, we wished to deal with this problem by analysing a sample of companies operating in a number of sectors.

The work was carried out as follows:

- Selection of a sample of companies belonging to different sectors listed on the Italian Stock Market and the New Market;
- Reading of the consolidated and statutory financial statements as well as presentations to the analysts in order to identify the indicators and values that are able to cover the five dimensions of analysis detailed above;
- Summarisation of the results of the analysis procedures included in appropriate sheets for each company (see Appendix).

In addition to the analysis of the cases reviewed, as set out in the sheets included in the appendix, a summary model of the empirical results obtained was prepared in order to facilitate the forming of conclusions and summary of the analysis.

An invaluable academic contribution in defining this model was made by the University of Ferrara, which is using, in relation to a wider and more in-depth statistical survey on this subject, the Radar Diagram tool in order to analyse and visualise in summarised form, the level reached by companies in relation to intangibles disclosure by measuring the areas covered and the positioning of the companies analysed compared to the different analytical dimensions.³

In order to summarise the results, the principal problems to be faced are listed below.

- Comparability of the companies analysed – in fact for these enterprises the five dimensions of communication may have significantly different roles and relevance compared to the sector to which they belong (just think of the role of technology in E.Biscom compared to Assicurazioni SAI)

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³ See S. Zambon, “Visualizzare la disclosure sugli intangibles: un approccio sintetico” [“Visualizing the disclosure on intangibles: a synthetic approach”], working paper, University of Ferrara, 2001.

- Measurability of the indicators – indeed, not being able to establish a *set* of unique and valid indicators for all companies requires, in some way, the conversion of absolute values to relative values, which are often the result of qualitative evaluations
- Non-relevance – where a person essentially ignores a dimension, this does not always mean that communication is incomplete. If, in fact, the dimension considered is not particularly relevant for the purposes of understanding the *intellectual capital* of the company being valued, the information provided may be considered sufficient.

In our case these difficulties were faced as follows:

- Analysis of the five dimensions of communication on the basis of three principal indicators for each dimension. These indicators differ according to the companies analysed and reflect the relative importance that they assume for the sector to which they belong.
- Allocation of a qualitative “*rating*” to the information provided for each of the three parameters based on an evaluation included between 1 and 5.

The scale utilised was as follows:

1. Information not provided
 2. Information with poor content
 3. Information sufficient
 4. Information sufficient and well detailed
 5. Information detailed and included forecasts
- Measurement of the ability to communicate in relation to each dimension on a scale of a minimum of 5 to a maximum of 15 (5 points for each of the three indicators)
 - Presentation of the results obtained for the five dimensions in a radar diagram

In *Graph 2*, relating to the cases analysed, it may be noted that the average of the sample approaches, in a significant way, value 3 corresponding to sufficient information.

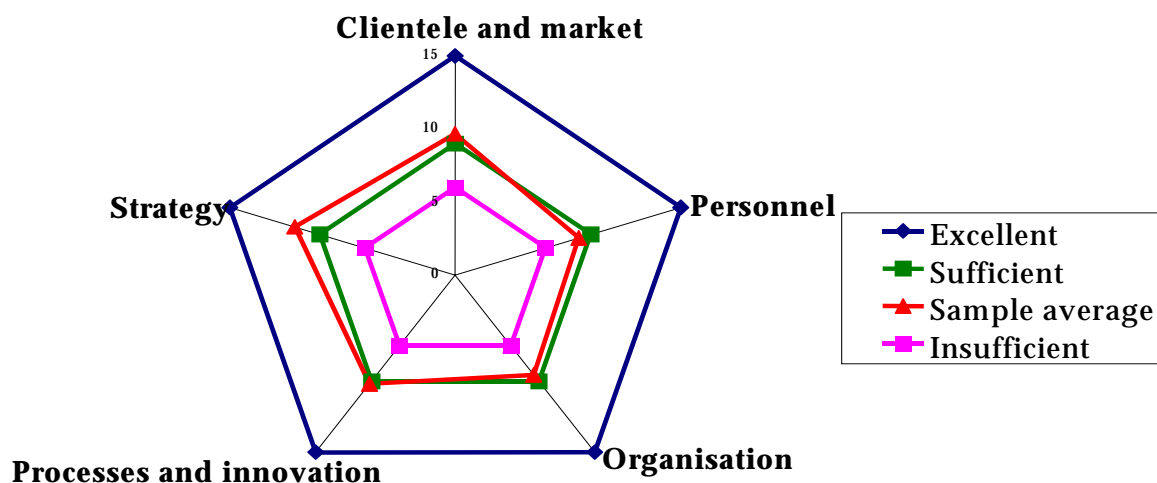
In those cases where, owing to the characteristics of the business reviewed, one of the five dimensions was not relevant (for example, technological innovation for a bank), the level of communication carried out by the company that provided very limited information or none at all, was considered sufficient. In fact, the ultimate aim was to verify the coherence of the communication with the effective value drivers of the companies.

From the results obtained, the following considerations may be highlighted:

- The degree of disclosure provided by the companies reviewed is situated between the first and second level;
- The more companies provide a broad description of their activities and communicate more information than that required by regulation, the more they communicate indirectly a set of information that reflects the second level of disclosure in terms of breadth of information, which provides full details and is complete.

None of the companies fall within the second-level information category in that communication was not addressed in a systematic and organised manner to the subject of intangibles. The weakness identified for these companies, whose ability to communicate is potentially second level, relates to the lack of a structured communication system for intangibles.

Radar Diagram – Average level of communication of the sample



(Graph 2)

With regard to these entities, this does not regard a structured communication process aimed at appreciating the intangible factor, but rather the perception of the importance that certain information assumes for the external reader in order to make an appropriate valuation of the item. It would appear that these companies appreciated before others the pattern by which complete and sufficient information favours the creation of surplus value linked to intangible factors and stabilises market valuations. On the other hand, a lack of information results in high volatility and more often is accompanied by inadequate perceptions in relation to the intangible element. The majority of companies is located in the first level; in these cases information was provided in an unstructured manner, and for a number of subjects was very general.

Some cases of level zero still exist; or rather cases in which some of the subjects central to intangibles are completely ignored by the company.

The analyses performed were carried out on the basis not only of the statutory financial statements for the period but also of the consolidated financial statements, other information, presentations to the analysts and public comments. In fact the intangibles statement, although linked to the financial statements, over time should become an independent document to be prepared also in the form of a presentation to the analysts.

As far as the intangibles statement is concerned, there are only two cases in Italy: Brembo S.p.A. (a listed company that prepares an intangibles statement, though only for internal purposes) and Sapa Autoplatic S.p.A. (a non-listed company that publishes such a statement). The third level obviously requires a long preparation period by the company.

The experiences gained overseas have produced excellent results in terms of shareholder value, and lead to the supposition that the desire to imitate can still motivate new players to deal with the communication issue regarding intangibles and intellectual capital with an active approach.

The intangibles statement of Brembo

The statement of intangible assets prepared by Brembo is not a public document.

As stated by the company, the Brembo intangibles statement is firstly an internal management and auto-analysis tool of the company, aimed at achieving full understanding of value creation dynamics. As confirmation of this operational approach it is noted that:

- It was prepared with the contribution of all company areas at all levels;
- It is integrated within the company reporting structure with a monthly statement issued for the majority of the indicators;
- It is integrated within the objectives and personnel incentive systems at all levels.

The intangibles statement may also become a communication tool, even if only in the medium term. Before the publication of the intangibles statement, the company has to face and resolve the following problems:

- The need to investigate further into the relationship dynamics between intangibles statement indicators and results that are actually measurable in terms of the economic performance of the company and, therefore, the financial statements of the period;
- The opportunity to value the degree of confidentiality of information that may be made public in order not to prejudice the competitive advantage of the company;
- The requirement to ensure that the information framework made public is tested and stable, even in the presence of a group of “*soft*” indicators.

This approach and these choices, that require the development of a project spanning many years, confirm the serious manner with which Brembo tackles this subject and the importance it attributes to it.

CONCLUSIONS

Before presenting the conclusions of the analyses performed, we would like to summarise a number of general considerations.

The intangible factor is a complex subject with varying issues. In this field both theory and practice are in a development phase, strongly motivated by market conditions that have placed emphasis on the growing volatility of the valuations.

The contributions provided from time to time by those who study the subject continuously enhances the analysis, bringing about a process of constant improvement in the knowledge of this issue.

The quality of information and communication condition the possibility to carry out, in a structured manner, an evaluation analysis; in this sense the availability of satisfactory information is the first obstacle the analyst must overcome when facing the problem of intangibles.

The framework proposed in this research is intended to act as an incentive to commence reflection on the subject of “intangible assets” both from a practical and communication point of view. It is obvious that we do not wish to propose definitive solutions in that the road to follow before reaching a consolidated and standard communication system, such as the financial statements, is still long.

It should also be underlined that there are conservative views in relation to the possibility/opportunity of creating an organised communication system regarding intangibles. The reasons for the companies to be conservative follow on from a number of traditional opinions, some of which were already nominated in relation to the Brembo situation, including:

- The requirement to protect commercial, technical or organisational “secrets” from competitors;
- The objective difficulty for companies in producing reliable information on a common basis in relation to these elements. The possibility that the quality of the information provided does not have

the same level of precision as the information in the financial statements, could lead to distrust on the part of external readers regarding the content of the intangibles statement.

With regard to the first element, it is believed that this relates to circumstances that each company values subjectively. It should however be noted that not more than 30 years ago, turnover was also considered to be secret information within the company. As illustrated in Graph 3, the attitude of companies towards communication is becoming increasingly more active, which is also in their interest.

In addition, it may be added that the presence of only one operator in a sector that follows the approach of active communication inevitably results in an increase in the level of communication by other operators also. In this situation, an opposite approach leads to penalising market valuations for those who do not demonstrate transparency.

With regard to the second element, it is recognised that it represents an objective difficulty in the communication of *intangibles*.

In relation to this element it should be noted that from the point of view of the external reader, analyst or investor, it is preferable to have information, albeit imperfect on an unknown subject, rather than not providing any information at all.

Against these conservative stances, contrasting evidence exists that shows that a lack of information, even approximate, results in increased volatility.

From the research carried out it may be noted that companies' awareness of this subject is high, even if communication takes place in a fragmented manner and is not formalised in an organised document. The companies analysed are, or could be, in a position to provide a level of disclosure that corresponds substantially to the second level.

The organisation of this information in a structured system requires a cultural boost that prompts companies to communicate information relating to intangibles, in a systematic and logical manner, changing the orientation relating to the issue of communication.

Graph 3 sets out the development of the communication strategies carried out by companies and their relation to the valuation of the *intangible* element. As already stated, a lack of information results in an increase in volatility and vice versa complete communication favours a more stable appreciation of *intangibles*. It is considered that over time the attitude of companies will be directed increasingly more towards active and strategic management of communication, in that this position guarantees a better understanding of the fundamentals of the business by the analysts and the creation of additional value relating to *intangible assets* that were not considered in the past.

The conservative positions will be penalising for those companies that will have to compete with other more dynamic companies.

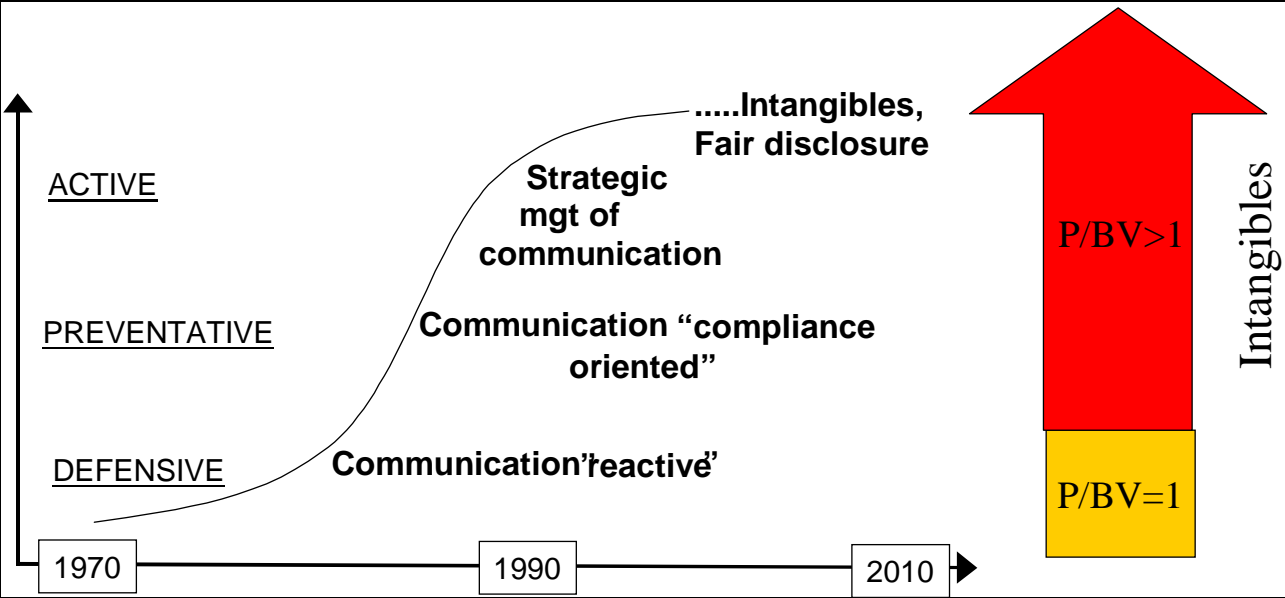
Reassuring indications emerged from the empirical analysis regarding the possibility of making the communication process on intangibles more structured.

The presence of the majority of the players within the first level, with the potential of aspiring to the second level, implies a growing awareness regarding these subjects.

The structured and second-level communication for more advanced operators together with companies reaching the first level, also as a result of imitating "*best practices*", could present two ambitious but achievable objectives in the short term.

In general, irrespective of the practical objectives stated, on the basis of the experience gathered from Brembo and taking into consideration the early stages of this subject within the Italian economic/financial context, we emphasise the fundamental role that company's top management assumes in promoting development of this new culture. It must be understood that the implementation of reporting systems that also provide *soft* elements and intangible capital evaluation factors is useful for a better understanding of the areas that generate value for the company and to obtaining a stock market valuation that is more stable and in line with the company's characteristics.

Evolution of financial communication in Italy



(Graph 3)

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Italian Association of Financial Analysts (AIAF)

Via Dante, 9

20123 - Milan

Italy

Ph. +39-02-72023500

Fax +39-02-72023652

email: info@aiaf.it

website: <http://www.aiaf.it>

Prof. Stefano Zambon

Faculty of Economics and Department of Economics

University of Ferrara

Via del Gregorio, 13

44100 - Ferrara

Italy

Ph. +39-0532-293020

Fax: +39-0532-293012

email: zambon@economia.unife.it

website: <http://www.economia.unife.it>