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the “culture compliance” of banks and supervisory authorities**

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Banking regulation towards advisory: the “culture compliance” of banks and supervisory authorities¹

abstract

The financial regulation is moreover based on self-regulation and the coordination of external and internal supervision. This determines an evolution in the role played by the supervisory authorities, and in the manner in which they interact - with and almost advisory function - with the governance bodies of the banks, such as the board of directors, top management and external and internal auditors. The capacity to adequately perform such advisory functions entails the existence of consistent objectives, consistent knowledge and consistent cultural models. Our paper points at cultural gaps as a possible stumbling block in the efficient exchange of information and the sharing of problems and goals among regulators and the industry. We develop a cultural survey based on the application of a text-analysis model to a corpus of reference texts produced by two samples, drawn from among the supervisory bodies and the supervised entities. The empirical survey results reveal numerous fields of cultural differentiation, alongside several important areas in which the orientations of the two parties tend to overlap.

Keywords: Financial Regulation; Banking Culture; Cultural Compliance

¹ The paper draws from and further develops the considerations on the issue presented and discussed at numerous conferences and seminars, in particular by the Rosselli Foundation, the Italian Academy of Corporate Economics, the Bank of Italy.

Foreword

This paper identifies cultural gaps as a possible stumbling block in the efficient exchange of information and the sharing of problems and goals among regulators and the industry, with respect to the recent innovations introduced in the financial sector, which are orienting the supervisory authorities towards the adoption of new relationship models with the supervised financial intermediaries.

In greater detail, the paper describes how financial supervisory models have evolved towards solutions based on increasing cooperation between the regulators and financial intermediaries (§ 1). This has led to the definition of a new role for the supervisory authorities, which, in parallel, encourages the innovation of the organizational tools employed for communicating and exchanging information with the supervised entities (§ 2). These tools are classified and analyzed, with respect to their field of application and their connections with the single supervised fields (§ 3). Consequently, there emerges the importance of enhancing the development of a consistent knowledge base and cultural models shared by the supervisory bodies and the supervised entities, which justifies the in-depth assessment of the current extent of the cultural gap between the two stakeholders. The paper then presents a cultural survey, based on the application of a text-analysis model to a corpus of reference texts produced by two samples, drawn from among the supervisory bodies and the supervised entities (§ 4). The empirical survey results reveal numerous fields of cultural differentiation, alongside several important areas in which the orientations of the two parties tend to overlap (§ 5).

1. Recent trends in supervisory models

The issue of banking regulation is at the centre of an important international debate, with respect to its role and the modalities in which the supervisory functions are exercised.

Generally speaking, the supervisory authorities' actions are based on a rather broad and complex system of activities and instruments. The survey by the World Bank on the regulation and supervision of banks in 107 countries comprises twelve separate parts, covering the following aspects of a country's banking system: domestic and foreign bank entry, government ownership of banks, capital adequacy, restrictions on bank activities, supervisory power, independence, resources, loan classification stringency, provisioning standards, diversification guidelines, deposit insurance system, provisioning and risk management requirements, information disclosure requirements, crisis management (Barth, Caprio, Levine, 2001).

In the last few years the regulation of banks and financial intermediaries has changed radically, becoming increasingly indirect (from structural regulation to prudential and consensual regulation and self-regulation)².

According to the first empirical assessments, the most effective supervisory policies in ensuring improved conditions of stability and enhanced performance appear to be those aimed at promoting "private" supervision, by means of transparent and significant accounting and information disclosure requirements, principles of governance and management control, common criteria of sound and prudent management (Barth, Caprio, Levine, 2001b and 1999).

² For further information on the issue, see Gualandri 2001, and Carretta, Schwizer and Stefanelli 2003.

In the consensual regulatory approach, which reduces outside intervention in a bank's management, a reduction of the regulatory costs incurred by the intermediary can be discerned (Elliehausen 1998). This occurs if the supervisory action is effective in promoting and encouraging the adoption of internal control systems. Building a mindful and responsible management, through mechanisms of self-analysis and self-control, enhances the possibility of pursuing "economies of scale and scope", in terms of the broadness of the benefits descending from regulation, and of the reduction of the time needed to adapt to it.

The efficacy of this arrangement primarily depends on the level of competition in the financial market. In high competition, operators become more sensitive to the judgement of the market, and are therefore encouraged to adopt a "virtuous" management approach, within a self-regulatory framework. Moreover, this approach encourages the development of a supervisory culture, which can then become a powerful tool for guiding individual actions towards the achievement of sound and prudent management. The latter is also subject to the supervisory bodies' actual capacity to get to know and guide the management behaviour of the supervised entities, taking account of the differences existing among them, in terms of shareholding structure, size, and business activities (Carretta, 1998). This is no easy task, which requires a determined re-orientation of supervisory activities towards the production and organizational processes of the supervised entities; the use, for this purpose, of all the available information; and the development, by the supervisory bodies, of a banking culture (which unquestionably differs from the traditional regulatory culture), which can be achieved also by means of further efforts in collecting information and broadening its knowledge base.

In any case, within a more balanced supervisory framework, it is important to achieve the improved clarity of a *microprudential view*, i.e. a focus on the behaviour of the individual financial intermediaries, to balance the current trend that focuses on a *macroprudential view*, which, by itself, might be viewed as too abstract and distant from the actual market behaviours (Carretta, 1998).

In fact, in recent years the supervisory authorities have focused increasingly on how the financial intermediaries organize the production, administration and distribution processes of the respective business areas, and have intervened by establishing principles and rules aimed at promoting suitable corporate organizations (Pisanti, 2002). They interact with the supervised entities, encouraging the improvement of the organizational and internal control processes, according to a certificatory, rather than strictly regulatory, approach. They have become consultants of the financial institutions, thus helping to spread knowledge of the best practises: supervision and management support are becoming more and more intertwined, with a view to achieving stability and efficiency, by encouraging sound and prudent management practises. From this point of view, the search for cultural consistency between the supervisory authorities and the financial industry is an important objective for improving supervisory activities.

2. Moving towards a new role for supervisory authorities

The implementation of new supervisory arrangements, based on self-regulation and the coordination of external and internal supervision, determines an evolution in the role played by the supervisory authorities, and in the manner in which they interact with the governance

bodies of the banks, such as the board of directors, top management and external and internal auditors.

Delegating supervision by the supervisory authorities to the supervised entities entails the capacity, by the former, to define the minimum objective compliance requirements for the internal control systems (Banca d'Italia, 1998; 2002), while at the same time encouraging organizational and management decision-making that is compatible with the supervision objectives. The aim of the regulatory intervention also includes developing the banks' ability to avoid fraudulent behaviour, which is capable of jeopardizing their stability, and that of the system as a whole, encouraging the intermediaries' attitude to constantly adapt their production processes to strategic decisions that are consistent with market evolution, and fine-tuning the corporate governance bodies' ability to take on the various types of risk related to operating and financial innovation.

This new supervisory arrangement requires that compliance with the criterion of sound and prudent management - pursued through the functionality and adequacy of the internal control systems - must become a rule of conduct for intermediaries, that is, an intermediate objective capable of combining the approach of both the supervisory bodies and the supervised entities: for the supervisory authority, the first guarantee of a sound and prudent management resides in a business' capacity of prevention and intervention, by means of an appropriate internal control system. On the other hand, the management itself must reach more or less the same conclusion: greater capacity of governance is required because of the increased exposure of banks to new and old risks, in consequence of the opportunities granted to each business under the new regulatory framework (De Maio, Patalano, 1995).

This overlapping of the objectives of both the supervisors and the supervised, by increasing the degree of consistency between the regulatory principles, on the one hand, and the intermediaries' management criteria, on the other hand, will in all likelihood lessen the weight of the restrictions and the measures introduced by the regulatory authorities (Airoldi, 2002).

Furthermore, the revised Basel Accord on Capital (Basel 2) envisages the possibility for banks to adopt internal procedures for assessing asset requirements, with respect to credit and operational risks, like in the previous Accord of 1988 on market risk. Moreover, the banks opting for an internal approach to credit and operational risk management for supervisory purposes must provide evidence, to the supervisory authority, that they are capable of meeting a set of minimum requirements, on an ongoing basis. These requirements may be identified, *inter alia*, in the management's attitude to ensure widespread communication of its corporate strategy and risk management policies, aimed at the creation of a risk culture; in the structured interaction between the management itself and the risk control units, with a view to pursuing the implementation of criteria relating to control system efficiency, adequacy of resources, and efficacy of corrective measures, *vis-à-vis* any shortcomings identified by the control procedures put into place. Therefore, banks are required to systematically map the activities most exposed to the risks in question, and to develop suitable procedures aimed at consistently assess expected losses over a certain period of time. These must be reported in historical data series, subject to appropriate back-testing. Banks are also required to adopt their risk measurement methods in decision making and day-to-day management activities.

The internal risk management models must be preventively approved by the supervisory authorities. The procedure aims at making sure that they take account of both corporate needs and the minimum requirements laid down by the authority, representing a solution achieved

by “mutual consent”, so to speak, resulting from a dialogue between the supervisors and the supervised. In this case too the standard-making proposals feature a supervisory approach based on a bilateral dialogue, grounded on the gradual “delegation” of supervision from the supervisory body to the supervised entity, and on the transition from an approach based on the “supervision of activities” to one based on the “supervision of controls”. In encouraging intermediaries to adopt the advanced approaches, due to the possibility of achieving benefits, in terms of the regulatory capital, the regulations promote improved responsibility and awareness, with respect to the actual corporate risk levels. Therefore, the Basel Committee highlights that the prudential control process acknowledges the bank management’s responsibility in developing an internal risk assessment process, and in establishing asset objectives commensurate with the bank’s risk profile and control structure. The type of control that is gaining ground at supranational level, therefore, fosters general self-regulation mechanisms, which does not mean self-determination of the rules, but the independent management of the rules established externally and inspired by the best practises within the industry.

To approve the internal control procedures proposed by the banks, it is not possible to build an automatic process, but it is necessary to put into place a set of competencies and benchmarks capable of ascertaining the supervisor’s professional skills, independence and objectivity in the assessment of these models³.

Aware of this need, the Basel 2 Accord (Basel Committee, 2004) has specified in a number of occasions that the supervisory authorities must employ the suitable resources and competencies suited to, (i) the assessment of the adequacy of the internal control systems

³ As regards the orientation of the supranational supervisory authorities, towards the function of encouraging the spreading of the guiding principles of sound and prudent management, see the Basel Committee, 2004.

adopted, and (ii) the approval of the internal methods for determining the asset requirements related to credit and operational risks.

This outlines a new role for the supervisory authority, that of “certifying body”, with respect to the consistency of the practises and models adopted by the single banks, on the one hand, and the principle of sound and prudent management and, specifically, the independent risk assessment requirements, on the other hand.

The role of certifying body carries with it new operational duties and relationship models, between the supervisory authorities and the supervised entities, which imply an “active” and “driving” function by the former, in respect of regulatory compliance by the latter. This development corresponds to the growing need, by banks and financial intermediaries, of assistance in the implementation of the risk assessment and risk management processes.

The importance of the supervisory authorities’ advisory role also emerges with regard to the control procedures put into place by the banks and, in particular, to the complex system of relations between the various internal and external auditing bodies. Regarding the operating mechanisms and information instruments on which the control functions are based, the Basel Committee assigns a guiding role to the supervisory authorities, which are called on to encourage the internal auditors - and, indeed, the structure as a whole - to adopt the necessary measures to ensure the effectiveness of the internal control system.

The capacity to adequately perform advisory functions entails the existence of: (1) consistent objectives by both the supervisory authorities and the supervised entities, which is one of the basic principles of the consensual regulatory approach, in order to overcome the traditional

division between the two parties; (2) consistent knowledge, which allows both parties to clearly understand the business activities; and (3) consistent cultural models, especially as regards the basic values and means of communication.

3. The organizational solutions for developing a common knowledge base, shared by banks and supervisory authorities

Financial intermediaries and supervisory authorities may develop a common knowledge base by implementing coordination procedures, capable of encouraging the exchange of information and mutual interaction in problem analysis and solving (Mintzberg, 1985). These tools, which must be suited to the specific organization of the single banks, as well as to the specific coordination procedures⁴, fall into 4 categories:

- a) economic incentives;
- b) organizational structures;
- c) integratory mechanisms;
- d) information and communication flows.

a) Economic mechanisms: incentives for supervisory compliance

The parallel analysis of the Basel 2 proposals and the domestic regulations on internal control systems (Banca d'Italia 1998; 2002) highlights a significant inter-dependence between the two sets of regulations, whereby the latter is the necessary and indispensable premise of the

⁴ Similar consideration, taking account of the specificity of the problem and, therefore, the nature of the proposed tools, have been formulated with reference to the issue of coordination between the supervisory bodies and the banks' internal and external audit, in Schwizer 2005

former. What emerges, in fact, is a potential competitive edge for the banks that adopt a “compliant” internal control system, thus finding that, in this manner, they already possess most of the organizational requirements needed for the approval of the internal methods for determining capital requirements for credit and operational risks. According to the current supervisory arrangements, banks are encouraged to adopt a suitable and functional internal control system enabling them both to comply with the regulations set forth by the Bank of Italy, and to achieve savings in terms of regulatory capital.

b) The organization of the internal control body: from functions to projects

The adoption of an internal control system obliges banks to address the need to adopt process-based organizational models, integrated with the basic functional or divisional structure, in order to identify the various risk-entailing micro-activities and the monitoring responsibilities.

This requires the overhauling of the organizational structures and roles, by means of the introduction of communication flows and information collection systems across the structure, consistently with the types of risks for each business area. The result is a “quasi matrix” structure, in which the business responsibilities (formulating strategies and defining operating plans, and the related decision sustainability assessments, with respect to both the risks taken on and the available control systems) interact with those managing the various types of risks.

Such an arrangement also affects the procedures for collecting and processing the risk-related information, and the consequent production of knowledge by the banks and other financial intermediaries. The functional activity-based logic is gradually replaced by a process or problem-based approach.

In order to ensure the effective performance of its supervisory activities by the supervisory authorities, according to an advisory approach (capable of assuring a basic understanding of the problems of the supervised entities), besides a shared viewpoint of the problems, it is also expedient to establish a symmetry between the abovementioned organizational structures (organizational units and responsibilities) and the supervisory structures.

This means, on the one hand, enhancing the uniformity of the problems and risks related to the various business areas, rather than the similarity of organizational structures; and, on the other hand, scrapping the principal of function or activity-based supervision and moving towards a problem-based approach, which can be implemented by introducing “working by projects”, which can enable the supervisory authorities: (i) to extensively monitor the single types of risks - across the supervised entities’ structures and activities - developing the appropriate professional skills with respect to the single issues, and (ii) to propose cutting-edge and innovatory proposals for solving new problems related to the single businesses.

What ensues is a large-scale requirement of organizational flexibility within the supervisory authority, which can be met by introducing appropriate tools, not just of a technological nature - which, indeed, are necessary for collecting, transferring and processing the information, in support of the decision-making and supervisory processes - but also consisting of cross-company coordination bodies (committees, working groups, product, process and business area managers), associated with objective-based management systems and horizontal communications systems, aimed at promoting the sharing of information and goals and determining the accelerated creation of specialist skills.

These tools must be strengthened through the dissemination of cultural models inspired by the principles of cooperation and teamwork, and enhancing of the staff's entrepreneurial spirit and participation in the development of services aimed at achieving maximum professional growth, to underpin both the effectiveness of the control activities, but also of the quality of the advisory services provided to its counterparts.

As W.J. McDonough, President of the Federal Bank di New York, said recently, at the presentation of the new organizational structure of his control unit: "we've organized ourselves better, in order to share with you (the supervised entities) our point of view and our competencies, with respect to the best practices used by all financial institutions" (McDonough, 2003).

c) Integration mechanisms: towards more efficient coordination⁵

Within both the organization of the control authority and the broader supervisory system (which comprises the supervisory authorities, the supervised entities, the authorities supervising over connected industries, and the authorities of other countries), integration mechanisms can be put into place in order to enhance the informal solution of mutual adaptation (see the following paragraph e) and increase the flexibility, but also the systematicity, of relations between persons and, therefore, the efficiency of the decision-making and problem-solving processes. These mechanisms may comprise: committees, task forces, integration managers (program or project managers).

The Basel Committee adopts this solution explicitly, within the framework of the "Basel 2" (Basel Committee, 2004). With a view to supporting the implementation of the Accord, the

⁵ For a definition of "integratory mechanism", see Mintzberg, 1985.

Committee has set up two integration bodies, respectively called the AIG (Accord Implementation Group) and CTF (Capital Task Force). The former is a committee composed of the representatives of the regulatory bodies of the various Accord-member countries, and is a forum where they can exchange information on the practical problems encountered in the application of the new arrangement, and on the relevant problem-solving strategies⁶. The latter is a working group of the Basel Committee, responsible for examining significant amendments to and interpretations of the New Accord. The Committee views these two bodies as key long-term tools, especially once the banks have started implementing the prescribed provisions. In particular, the CTF will take on the responsibility of analysing new banking products, and the implications that the developments in the risk management processes may have on the new arrangement, also after its entry into force.

d) Information exchange and communications systems: knowledge management and supervision

The indispensable tool for creating knowledge is the permanent and systematic exchange of information, at various levels:

- between bank management and the banking supervisors;
- between external auditors and the supervisors;
- between the supervisors, with respect to different financial sectors, and between the authorities of different countries.

With regard to item one, it is necessary to point out that the implementation of the internal control systems - in accordance with the requirements laid down in the Supervisory

⁶ For an analysis of the first output of the AIG activities, see the Basel Committee, 2004.

Instructions at national level - has encouraged the intense exchange of information and documents (organizational regulations, strategic plans, audit plans, etc.), between the Bank of Italy and the single banks.

The Basel Committee too has underlined, on a number of occasions, that the frequent exchange of information between the banks and the supervisors is fundamental for the effective implementation of the “Basel 2” Accord.

With regard to item two, the specific provisions by the Basel Committee oblige the supervisors to cooperate and exchange information with the external and internal auditors, and to advise the banks on how the two bodies can cooperate. This cooperation is particularly important with a view to ensuring the efficiency and functionality of the overall system of internal control.

The Committee points out that there is a complementary interest between the supervisors and the external auditors (Basel Committee, 2002), with special reference to the internal control system and information disclosure systems, which must justify a constant flow of information between the two bodies, and cooperation in monitoring the risks taken on by the single banks.

With regard to item three, the exchange of information between the supervisors of different countries primarily concerns the cross-supervision of complex international banking groups, but also supervisory activities of different financial sectors, for the purpose of monitoring the risks in the banking groups and multibusiness financial risks.

The coordination process could also be functional for the improved allocation of resources and competencies for supervisory purposes: a more closer collaboration, in fact, would make it possible to support the supervisors in countries that lack the means to collect the necessary information for the effective implementation of the New Accord. With regard to this issue, principles have been developed aimed at encouraging closer practical cooperation and the exchange of information among the authorities (Basel Committee, 2003b).

Therefore, also with regard to regulatory issues, the strategic importance of learning is asserted, which must be pursued through the integration of explicit and tacit knowledge, promoting the creation of “communities of practice” (Gherardi, 1999) and “communities of knowing” (Boland, Tenkasi, 1995), and enhancing the social dimension of knowledge. These perspectives are at the basis of the notion of “learning organization”, which aims at encouraging organizational learning and the creation of knowledge as key intangible assets and core competencies of a company.

In order to improve knowledge management within the system and, in particular, in the extended community that includes the supervisors, it is necessary to accept and, therefore, strengthen the role of information, communication and knowledge as management and control tools.

This means, first of all, accumulating and making available - within the network of organizational relations - the knowledge on corporate experience, by means of an extensive use of information technology.

Secondly, it is necessary to maximize consistency between the subject of the knowledge base and the manner of diffusion. The quality of knowledge management, in this case, can be recognized primarily in connection with the expected likelihood of the effective and efficient re-utilization of a certain “packaged” knowledge, i.e. in the fact that - once the knowledge transfer process has been activated - it may prove successful, translating into effective and efficient management behaviour.

Thirdly, it is necessary to enhance access to and the transfer of knowledge. Knowledge can be transferred only if the following conditions are ensured: there must be trust between the parties; the parties concerned must be able to meet; they must, preferably, share the same language, or have a mutually accessible language; all the parties concerned must be motivated to exchange the information. All these pre-requisites may be more easily achieved if the system features a stable and strong culture (i.e. with a strong sense of identity), characterized by rules and systems of mutual relation, capable of consolidating the sense of belonging and sound principles of reciprocity.

4. The culture of banks and supervisory authorities: a measurement analysis model, within the framework of a “culture compliance”

In the attempt to measure certain profiles of the current level of consistency of the knowledge base and cultural models, between supervisors and supervised entities, this paper focuses on

the cultural gap between the two parties, which is investigated by means of a text-analysis approach⁷.

The study of corporate culture through language is a relatively new approach in economic literature. It is based on cultural anthropology, that is the methodologies for studying cultures based on the interpretation of their symbols and artifacts. The meaning ascribed to these aspects is subject to change, both in time, following evolutionary processes, and in respect of the cultural context taken into consideration. In this perspective, language may be considered a peculiar symbol and artifact of culture and, in consideration of the linguistic-textual differences when examining diverse cultural contexts, is a useful tool for understanding them. In the terms concerned by the paper, the issue has been only partially tackled in literature, and never with regard to financial institutions.

Geertz (1973) speaks of culture in “semiotic” terms, when he maintains that his study “is not an experimental science in search of laws, but an interpretational science in search of meanings”. In a nutshell, he asserts the possibility of analysing social phenomena and organizational processes and behaviours by considering them as the symbols and artifacts typical of a cultural system. Schein (1985) identifies language as an artifact of the corporate culture and claims that it is possible to analyse the different cultures through the vocabularies they are capable of expressing. Wuthnow (1989) claims that the linguistic categories and lexical expressions typical of a certain context allow the analysis of different corporate cultures, because their definition is closely related to the vocabulary developed within them. Lastly, DiMaggio (1997, 2002) considers language the result of both social interaction and individual cognition. He maintains that, through the empirical analysis of written texts it is possible to determine the cultural aspects of language. This means that when the members of

⁷ In the paper corporate culture is perceived as the set of values and decisions that represent the manner in which individuals can perform their activities within the organization, and defines which behaviours may be considered appropriate (Schein, 1985).

an organization use a term drawn from the vocabulary of their organization, what they're really doing is making reference to an individual cognitive representation transformed into organizational behaviours shared by and common to the organization to which they belong (Rosa, Porac, 2002). As regards the role of vocabularies (Berger, Luckmann, 1967), of linguistic categories, it is further specified that - although in certain contexts it is (theoretically) possible to develop cultural categories even without a language - vocabularies play a very important role in their development and sharing (Levinson, 2003).

All this implies that the analysis of culture is closely connected to the analysis of the type of vocabulary used by the members of an organization, which vocabulary is used in all the forms of communication, both oral and written, produced internally by that organization. The distinctive characteristics of every organization, therefore, are reflected in the documents it produces, and the language used may represent a key for their interpretation.

In other words, if the organization leaves traces of its peculiar characteristics in the documents it produces, then it is possible to use text analysis to observe and "measure" these traces and determine their cultural implications.

Based on this assumption, various surveys have been carried out in literature aimed at comprehending a series of issues concerning corporate culture, among which the research on the leadership characteristics within organizations (D'Aveni, MacMillan, 1990), the determinants of corporate reputation (Fombrun, Shanley, 1990), the measurement of the intensity of orientation to "corporate social responsibility" (Wolfe, 1991), the classification of the types of organization based on the existence and intensity of certain cultural values (Kabanoff, Holt, 1996). These studies have two objectives in common:

- they provide representations of the content of the corpus of texts examined in the study;

- using them to extract information, i.e. several properties, through quantity-based measurements.

Compared to the previous studies, this paper focuses on an evolutionary aspect of text analysis, concerning standardization in the treatment of data, combined with the use of standard vocabularies. This allows a greater comparability of the output of the various studies, enabling us to further refine the analysis methodology.

The analysis model includes the definition of several key concepts, around which the banking culture develops (Carretta, 2001). These must represent key management aspects, with respect to the banks concerned, and the attention by the supervisors (table 1). This ensures that the same concepts are treated with high intensity and frequency in the examined documents.

Table 1. Key concepts for the culture of both intermediaries and supervisory bodies

Change
Customer
Innovation
Risk
Disclosure

The model also makes reference to certain text analysis categories drawn from the Harvard IV Psychosocial Dictionary (Zull, Weber, Mohler, 1989) and the Lasswell Value Dictionary (Lasswell, Namenwirth, 1969), used as a gauge for the abovementioned key concepts. The different intensity of these categories, expressed in terms of “orientations”, characterizes the single concepts and allows us to compare the corporate culture against the various benchmark contests. Here we present the results of four orientations, among those surveyed, which are particularly significant for the parties in question (table 2):

- *cognitive orientation*, which represents the importance given to knowledge, to the evaluation or solution of a certain problem in the decision-making process;
- *disciplinary orientation*, relating to the procedures with which a certain phenomenon is described and comprises a (more theoretical) academic profile, and a business profile, which implies a more management-based approach;
- *power orientation*, which concerns the modalities of the organization, in terms of the propensity to share and cooperate, or in terms of importance of the hierarchy and according to individualist criteria;
- *value-based orientation*, which represents the importance given by the organization to the achievement of results, as opposed to the respect of ethical values.

Table 2. The main categories for measuring cultural orientations

Cognitive orientation

Knowledge
Assessment
Problem solving

Disciplinary orientation

Academic
Business

Power orientation

Authority
Cooperation

Value-based orientation

Results
Ethics

5. Survey methodology and main results

The empirical assessment has been carried out in the phases as follows:

- definition of the sample of banks to be analysed;
- selection of the corpus to be analysed, for both the supervisory authority (the Bank of Italy) and the banks;
- analysis of the “concordances”, in respect of the key concepts for the culture of the Bank of Italy and the banks⁸;
- analysis of the context “occurrences”, in respect of the key concepts of the culture of the Bank of Italy and the banks⁹;
- comparison of the context occurrences and the language categories extracted from the Harvard IV Psycho – Social Dictionary and the Lasswell Value Dictionary;
- determination of the predominant cultural orientation and of the relevant intensity.

The survey was carried out on a uniform and representative sample (86,3%, based on total assets) of the top fifteen banking groups in Italy.

Consistently with the other text analysis applications, the selection of the corpuses concerned public documents (Bowman, 1984; D’Aveni, MacMillan, 1990; Kabanoff, Waldersee, Cohen, 1995), such as financial reports, presentations and speeches by the top management of the single institutions.

The study of the cultural differences was conducted over a period of four years (from 2000 to 2003), according to a dynamic view of culture (Herskovits 1955).

⁸ The *analysis of concordances* allows the extrapolation of all the words contained in a text, listing them in alphabetical order accompanied by a context that makes it possible to grasp their meaning, and by a series of indications allowing the retrieval and location of a passage within the structure of a text.

⁹ The *analysis of occurrences* allows the obtaining of lists of words making up a text, accompanied by the number of times in which they occur, besides the percentage compared to the total number of words.

For the text analysis proper, we used the Wordsmith 4 software developed by Oxford University (Scott, 1999).

The analysis of concordance was carried out for each of the key concepts, so that the cultural analysis can be referred only to the terms that are actually associated with the key concepts.

The last stage of the analysis concerned the comparison of the context occurrences of the key concepts and the vocabulary terms.

The following formula was used to measure the intensity of the cultural orientation:

$$\text{Cultural Intensity Index}^{10} = (C_x - C_y) / (C_x + C_y)$$

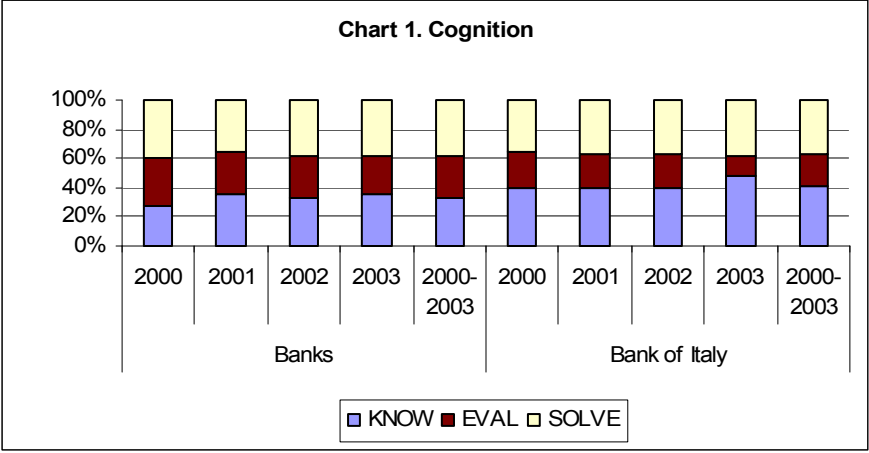
We use this formula in order to obtain an index value standardized for all categories and comprised between +1 and -1. In fact, an index values of +1 or -1 means that the text is entirely culturally oriented, as regards the analysed categories. The facility of representation of the results is, to such aim, one of the principal advantages of this tool.

Regarding the survey results, the methodology highlights proof of differentiation between the culture of the Bank of Italy and that of the banks, but it also emphasizes some significant examples of reduction of the cultural gap over the survey period. The values of the surveyed items are given in Annex 1.

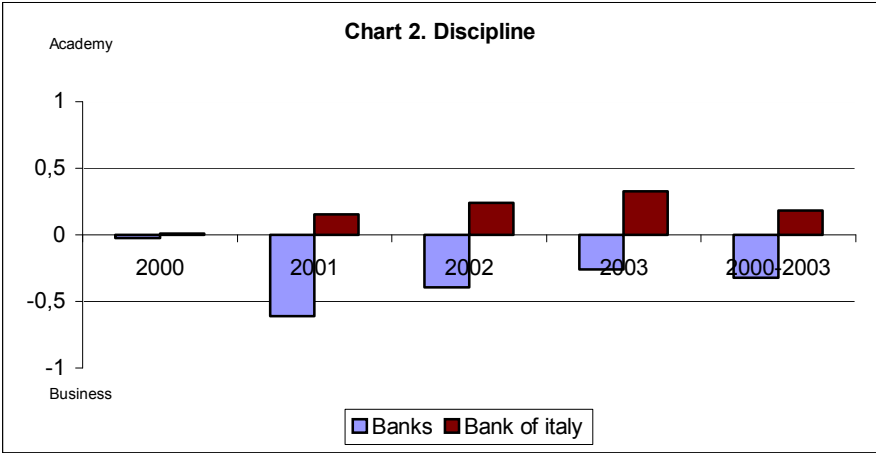
Regarding the cognitive orientation (chart 1), the significance of the various components (knowledge, evaluation and problem solving) that guide the decision-making processes is constant over the survey period. In both the samples (banks and Bank of Italy) the problem-

¹⁰ If the Cultural Intensity Index > 0: the cultural orientation tends to the category X;
If the Cultural Intensity Index < 0: The cultural orientation tends to the category Y;
If the Cultural Intensity Index = 0 and Cx or Cy are different from 0: The cultural orientation is neutral.

solving component is significant (accounting for about 40% of the cognitive model). On the contrary, the samples differ, albeit slightly, in the evaluation component, which appears larger for the banks (the gap is about 10 basis points), and the component relating to knowledge of the phenomena, which decisively



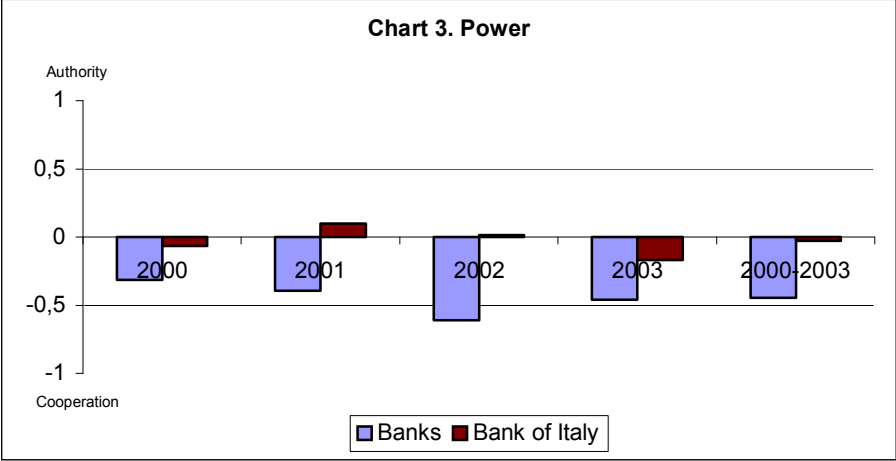
characterizes the orientation of the supervisor (with a weight of 40% and peaks of about 50% in the survey period).



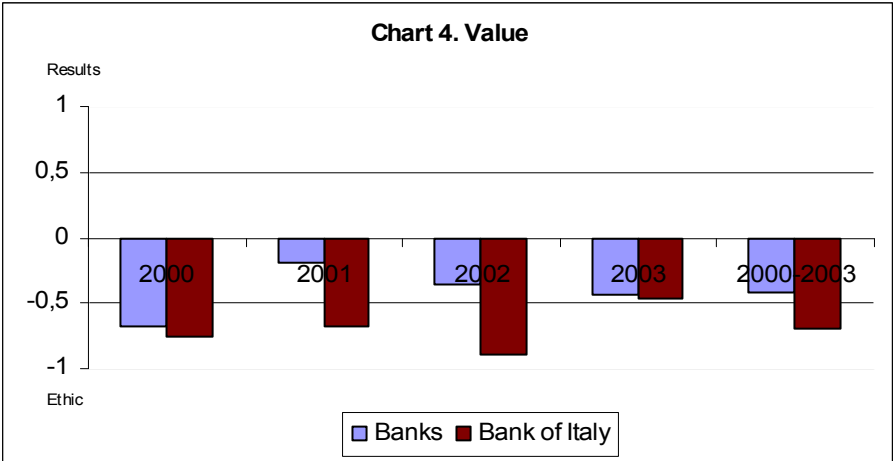
Regarding disciplinary orientation (chart 2), the business approach prevails in the banks, while in the case of the Bank of Italy the textual analysis indicates a greater theoretical severity in representing the phenomena, typical of an academic approach.

A further and significant difference concerns the orientation to cooperation, rather than authority (chart 3). Both the samples show a prevalence of the cooperative attitude in the

analysis and representation of the phenomena in the survey texts. The figures show a limited prevalence of cooperation by the supervisory body, at least until recently, compared to a decidedly positive attitude in this direction by the banks.

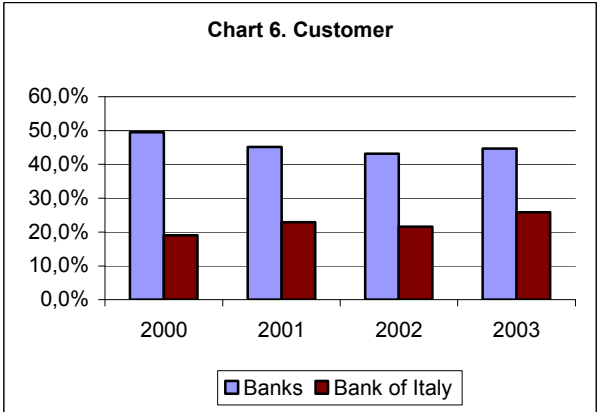
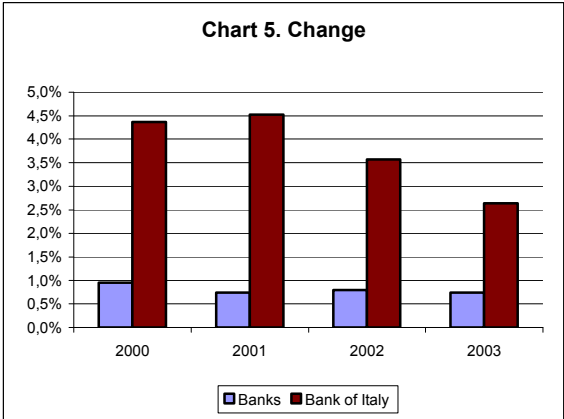


On the contrary, the last of the four cultural orientations taken into consideration, relating to the value given to the results, compared to a general concept of “business ethics”, shows a gradual closing of the gap between the two samples, both of which are characterized by a decided (even if of variable intensity) prevalence of ethical values (chart 4).

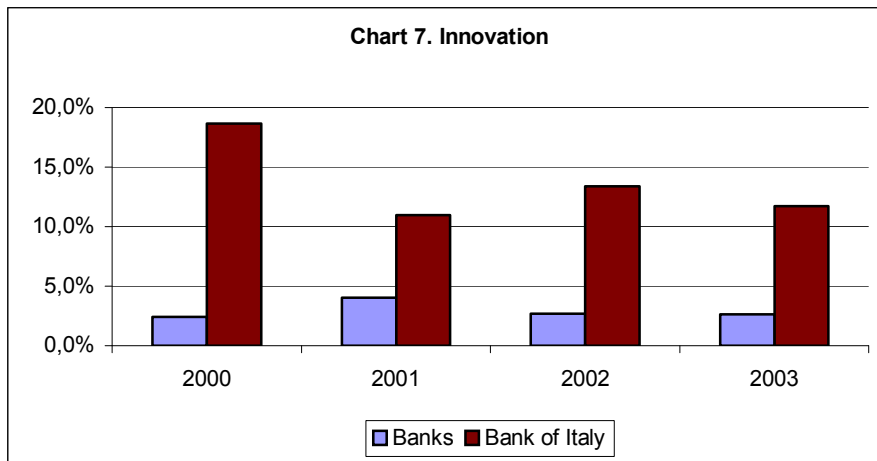


Moving on to examine the importance assigned to the key concepts for the banking business by the two samples, a distinction can be made between the situations explainable in terms of role-related necessity, and situations in which the reasons for the gap are less straightforward.

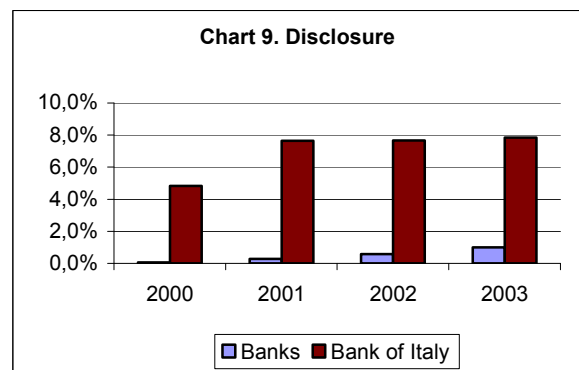
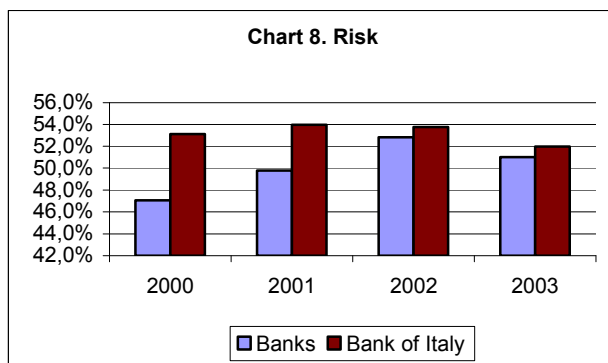
The first category includes the concepts of change, customer and innovation (charts 5-7). The different results achieved by the three factors may be explained, in fact, by the characteristics of the activities carried out by the two samples and the role each one plays, with respect to the represented phenomena. This would also explain why the values are substantially constant in time.



How can we assess the marked propensity inferable from the supervisor’s documents, in terms of change and innovation? On the one hand, it is assumed that the authority has played a decisive role, in the past, in ferrying innovation into the system, thus encouraging the adoption of new types of businesses, new management models, new systems of objectives. On the other hand, with less positive overtones, it can be underlined how it has permanently monitored the sector, repeatedly surveying the various aspects, the strong current of change under way, and following step by step an innovatory process whose principal players are the single financial intermediaries.



Cultural gaps that are less easy to explain concerning the concepts of risk and disclosure (charts 8 and 9). The significant difference given to the two concepts highlights a problem of non-shared judgements and determines the need to reduce the surveyed gap.



In actual fact, in the surveyed period, one can notice a trend proceeding in the same direction for these key concepts. This is especially true with regard to risk, where the gap features a constant and gradual downward trend. With regard to disclosure, the differences are still substantial, although there is a growing attention in connection with the major financial scandals.

6. Conclusions

Bank regulation models and supervisory approaches have changed significantly. The new relationship models between the supervisory authorities and the banks must be supported by organizational tools capable of fostering the sharing of information and promoting the advisory function of the supervisors. The new role of the supervisory bodies requires significant consistency between the knowledge bases and cultural models with the supervised entities.

The paper represents a first attempt made to measure the cultural gap between the two groups of stakeholders, through a text analysis model. This approach does not exhaust the perspective of cultural analysis, but it does open up a broad field of survey and suggests further investigation, also by means of ethnographical tools.

In the terms of the paper, the issue has been only partially explored in literature and never with respect to financial institutions.

The contribution of this paper concerns three aspects, two relating to content and one to method. Firstly, the results highlight several significant cultural gaps, relating to important issues for the development of the system and the activities of the single banks, such as risk, disclosure, change and innovation. The different focus on these concepts in the examined texts points out the opportunity of identifying new opportunities of comparison between the two parties and promoting the exchange of information and knowledge, as the basis for the improved sharing of objectives and guidelines.

Secondly, there has been a gradual convergence of certain orientations, primarily in consequence of the Bank of Italy moving towards the cultural models of the banks. This means a virtuous trend towards a common cultural development. However, it is necessary to

enhance this trend by the banks too, which can be fostered by the full implementation of the internal control systems.

Thirdly, from a methodological point of view, the significance of the cultural analysis in the reference industry can be highlighted. Therefore, it is expedient to develop this line of study, which can be done by applying the model in question to increasingly “internal” corpuses of texts and firm-specific documents, such as circular letters and internal service orders, organizational regulations and other materials reflecting the day-to-day performance of the corporate activities, for the purpose of bringing closer the survey method to the characteristics typical of ethnographical studies of culture.

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Annex 1. Final results on Disclosure, Customer, Innovation, Change, Risk measured on Banks and on Bank of Italy

Year	INSTITUTION	KEY CONCEPT	Cognition			Academic (X) vs. Business (Y)	Authority (X) vs. Cooperation (Y)	Result (X) vs. Ethic (Y)
			know	eval	solve			
2000	Bank of Italy	Disclosure	0,60	0,20	0,20	0,20	0,50	-1,00
2001	Bank of Italy	Disclosure	0,40	0,20	0,40	-0,14	0,50	-0,67
2002	Bank of Italy	Disclosure	0,33	0,22	0,44	1,00	0,60	-1,00
2003	Bank of Italy	Disclosure	0,50	0,17	0,33	0,50	1,00	-0,67
2000	Banks	Disclosure	0,00	1,00	0,00	1,00	0,00	-1,00
2001	Banks	Disclosure	0,33	0,33	0,33	-1,00	0,00	-1,00
2002	Banks	Disclosure	0,20	0,40	0,40	-0,71	-1,00	-1,00
2003	Banks	Disclosure	0,30	0,40	0,30	-0,20	-1,00	-0,60
2000	Bank of Italy	Customer	0,27	0,27	0,45	-0,20	-0,33	-1,00
2001	Bank of Italy	Customer	0,50	0,13	0,38	0,20	1,00	-1,00
2002	Bank of Italy	Customer	0,43	0,14	0,43	0,00	-0,33	-1,00
2003	Bank of Italy	Customer	0,36	0,09	0,55	0,33	-0,50	-1,00
2000	Banks	Customer	0,32	0,32	0,36	-0,39	-0,33	-0,43
2001	Banks	Customer	0,36	0,27	0,36	-0,44	-0,09	-0,43
2002	Banks	Customer	0,42	0,25	0,33	-0,21	-0,33	-0,27
2003	Banks	Customer	0,48	0,26	0,26	-0,24	-0,09	-0,27
2000	Bank of Italy	Innovation	0,27	0,36	0,36	0,06	-0,50	-0,75
2001	Bank of Italy	Innovation	0,36	0,36	0,27	-0,11	0,00	-0,71
2002	Bank of Italy	Innovation	0,43	0,29	0,29	-0,14	-0,20	-0,43
2003	Bank of Italy	Innovation	0,44	0,11	0,44	0,27	-0,33	-0,67
2000	Banks	Innovation	0,50	0,00	0,50	-0,45	-0,33	-1,00
2001	Banks	Innovation	0,33	0,33	0,33	-0,40	-1,00	0,33
2002	Banks	Innovation	0,33	0,33	0,33	-0,11	-1,00	-0,33
2003	Banks	Innovation	0,50	0,13	0,38	-0,47	-0,20	-1,00
2000	Bank of Italy	Change	0,25	0,25	0,50	0,00	0,00	0,00
2001	Bank of Italy	Change	0,13	0,38	0,50	0,33	-1,00	0,00
2002	Bank of Italy	Change	0,29	0,29	0,43	0,00	0,00	-1,00
2003	Bank of Italy	Change	0,50	0,25	0,25	0,20	-1,00	0,00
2000	Banks	Change	0,13	0,13	0,75	0,00	-1,00	-1,00
2001	Banks	Change	0,33	0,17	0,50	-1,00	-1,00	0,00
2002	Banks	Change	0,29	0,14	0,57	-0,60	-1,00	0,00
2003	Banks	Change	0,11	0,22	0,67	-0,20	-1,00	0,00
2000	Bank of Italy	Risk	0,63	0,13	0,25	0,00	0,00	-1,00
2001	Bank of Italy	Risk	0,57	0,14	0,29	0,50	0,00	-1,00
2002	Bank of Italy	Risk	0,50	0,25	0,25	0,33	0,00	-1,00
2003	Bank of Italy	Risk	0,56	0,11	0,33	0,33	0,00	0,00
2000	Banks	Risk	0,42	0,23	0,35	-0,26	0,09	0,00
2001	Banks	Risk	0,40	0,32	0,28	-0,22	0,11	0,14
2002	Banks	Risk	0,38	0,31	0,31	-0,33	0,27	-0,17
2003	Banks	Risk	0,37	0,30	0,33	-0,19	0,00	-0,33
2000	Banks	Average score	0,27	0,33	0,39	-0,02	-0,32	-0,69
2001	Banks	Average score	0,35	0,29	0,36	-0,61	-0,40	-0,19
2002	Banks	Average score	0,32	0,29	0,39	-0,39	-0,61	-0,35
2003	Banks	Average score	0,35	0,26	0,39	-0,26	-0,46	-0,44
2000-2003	Banks	Average score	0,33	0,29	0,38	-0,32	-0,45	-0,42
2000	Bank of Italy	Average score	0,40	0,24	0,35	0,01	-0,07	-0,75
2001	Bank of Italy	Average score	0,39	0,24	0,37	0,16	0,10	-0,68
2002	Bank of Italy	Average score	0,40	0,24	0,37	0,24	0,01	-0,89
2003	Bank of Italy	Average score	0,47	0,15	0,38	0,33	-0,17	-0,47
2000-2003	Bank of Italy	Average score	0,42	0,22	0,37	0,18	-0,03	-0,69