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A GOVERNANCE INDICATOR FOR SMALL AND MEDIUM-SIZED ENTERPRISES

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ABSTRACT

A governance indicator for Small and Medium-Sized Enterprises (SMEs) is presented. The indicator adopts stakeholder theory in selecting its elements, which also include a few general governance principles as well as board features.

The paper reviews main governance indicators treated in the literature, which are mostly applied to publicly traded firms. It then proposes a specific indicator for SMEs which, in general, are private. The indicator takes into account—in its structure—the evaluation style of National Quality Awards, as a pattern to measure, by assigning points, a great number of variables.

Governance variables included in the indicator are grouped into areas, themes, dimensions and elements, in order to make them operative and measurable. Measurement is performed by means of a questionnaire—reproduced as an appendix—with nominal and interval scales. Maximum scores for each question are assigned following multiple attribute decision theory. The article concludes with reflections on the measurement problem in the social sciences and final thoughts on the characteristics of the proposed indicator.

The paper, based on Yacuzzi (2007), is part of an on-going research project. In this new version, several sections of the original work have been improved, others have been deleted, and the questionnaire has been modified in order to incorporate the experience of different users.

JEL: G34, M10.

Keywords: Corporate governance indicator, stakeholder theory, boards, principles of corporate governance, multiattribute decision theory, measurement in the social sciences.

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I. INTRODUCTION

This article presents a governance indicator for Small and Medium-Sized Enterprises (SMEs). The paper, based on Yacuzzi (2007), is part of an on-going research project. In this new version, several sections of the original work have been improved, others have been deleted, and the questionnaire has been updated in order to incorporate the experience of different users.

The specialized literature deals with a great variety of governance indicators and indexes currently used in the world; however, most of them are indicators and indexes designed for studying the governance of publicly traded firms, while most SMEs are private firms.

The paper defines the concept to be measured—SME governance—and it offers a list of its main elements. Many of these elements will become parts of the designed indicator. Unlike a great number of existing indicators and indexes, which utilize finance theory to choose its elements, our indicator adopts *stakeholder theory* to this end. The indicator elements also include a few general governance principles, as well as board characteristics and work style.

The profusion of resulting elements makes this indicator a practical *checklist* of desirable features for the governance of SMEs. While reviewing the indicator elements, business firms and their directors and managers can consolidate SME governance principles and practices: thus the indicator becomes a continuous learning mechanism. It can also become a basis for systematic evaluation of SME by credit institutions and capital markets.

A section of the paper refers to Nacional Quality Awards (NQA). These awards use a complex system of numerical evaluation, with a great number of managerial, leadership, and results variables, including both financial and non-financial results. The proposed indicator takes into account—in its style, but not in its content—the evaluation method of NQA, as a pattern to measure, by assigning points, dozens of variables.

The indicator turns variables operational by grouping them into three areas, 16 themes, 51 dimensions, and 103 elements. Variables can thus be measured. Measurement

is performed by means of a 84-question questionnaire—reproduced as an appendix—with nominal and interval scales.

Maximum scores assignable to questions are determined by applying multiple attribute decision theory. In the last analysis, the indicator's total score allows a hierarchical order of firms according to the quality of their governance. Under this light, it is legitimate to determine element weights on the basis of preferences explicitly posed by governance experts. A detailed section explains the method to determine questionnaire scores.

We also reflect on the problems of measurement and justify the technical approach taken, as well as the importance of rigorously defining and measuring variables of interest. The final section looks deeper into the use of a great number of variables to build our indicator, and on the relative weight of its elements.

The indicator systematize diverse theoretical sources and turn them into an internal and external benchmark of SME governance. As such, it allows a follow-up of key variables through time. The indicator is, in addition, an inventory of useful principles and practices, which orient organizational learning on SME's governance and help to monitor its development. It could also serve as an element that contributes to create a firm's credit profile.

II. THE CONCEPT OF GOVERNANCE

We must agree, to start with, on what concept our indicator will measure. In Figure 1 we reproduce some definitions from Apreda (2007 a), which we adopt in this work: governance, private sector governance, and *stakeholders*. Of particular interest are the words in italics, since one way or another they will become elements of our governance indicator.

SMEs have simple governance structures when compared with public, large firms. Nonetheless, they must adhere to *principles, rules, procedures and good practices* for good management; likewise, they must have *mechanisms for representation and vote*; all of its actors must assume their *compromises and responsibilities*; leaders must manage (or, better still, avoid) *conflicts of interest among managers, creditors, owners and other stakeholders*; and they must impose *controls, incentives and performance standars* for

the *organization's participants*. In addition, directors and managers must exercise authority in *decision processes*.

Governance: By “governance” we are to understand a field of learning and practice whose main tasks are:

- (a) the search of *principles, rules, precedures and good practices* that allow organizations to be efficiently run within current institutions, at a certain date;
- (b) the design of *mechanisms of representation*, legitimate modes of wielding power, enforcement of rules and procedures, accountability, *control, incentives and standards of performance* to be applied to organizations;
- (c) the efficacious pursuit of goals and missions that ítem from the foundational charter and statutes of the organization. (Apreda (2003), p. 4.)

Corporate governance: By corporate governance is meant the governance within corporations and nearly alike organizations (including state-owned firms) that brings to focus the following subjects:

- Ownership structure
- *Company's founding charter, by-laws, statutes, and codes of good practice*
- *Board of directors and trustees; allocation of control decision rights*
- *Managers' fiduciary duties towards owners and their management decision rights*
- Investors' property rights and protective covenants
- *Conflicts of interest between managers, creditors, owners and other stakeholders*
- *Managers' performance and incentives*
- Rent-seeking and soft-budget constraints
- *Production and disclosure of information to markets, regulators and stakeholders*
- *Accountability to regulators, stakeholders and investors*
- Private, public and global gatekeepers (reputational intermediaries)
- National and international institutional constraints (the Judiciary, traditions, regulations and law enforcement). (Apreda idem pag 6)

Stakeholders: An economic or political agent is a “*stakeholder*” of a given organization when the following two conditions are met:

- The agent has a right to claim something from the organization, in a persisten way through time.
- The agent is affected both by success of the organization and by its failure in his or hers transactional environments. (Apreda (2007 a), p. 10.)

Figura 1. Some important definitions. Source: Apreda (2003 a, 2007 a) (italics added.).

The organization's foundational chart and its code of good practices have also been considered at the time of designing the indicator. Boards—particularly—and the allocation of rights in control decisions and management decisions are an important chapter of the indicator, and so are the production and timely diffusion of information

(“transparency”) and compromise and responsibility (“accountability”) towards regulators and stakeholders.

In this work, we adopt a governance approach focused on *stakeholders*, such as that described by Clarke (2004 b) and Blair (2004). According to this approach, governance must promote harmony among diverse interests, through the work of directors and top management. Our choice does not imply, naturally, that we ignore the relevance of general governance principles and the importance of boards.

We make no reference to important topics in “classic governance”, such as ownership structure, property rights and protective covenants for investors. We do not deal either with tunneling, soft-budget constraint or opportunistic rents. The reason is that these topics are not so critical for SMEs today.

III. THE MEASUREMENT OF GOVERNANCE²

Governance must be measured if we are to monitor its development. Different paths have been taken in order to measure it. Apreda (2003 a) mentions three approaches considered in the literature: econometrics, that leads to a governance index; comparative economics; and the governance slack model (Apreda (2002), (2003 b)). These approaches were originally thought of for large enterprises, but there is in them a core of concepts that can be equally applied to smaller firms. For example, Gompers et al. (2003) show, among other findings, that corporate governance becomes stronger with corporate by-laws, and they highlight the role of the board as a monitor to top management. Comparative economics focuses on the importance of institutions. Finally, the governance slack model is a conceptual framework that enhances management’s accountability.

More recently, Apreda (2007 b) has developed the first cardinal, weighted governance index that appears in the specialized literature. This index applies both to publicly-owned firms and private firms. Unlike ordinal approaches, the index takes a quantitative approach, with explicative factors and a weighting system. It uses six categories of variables: the board, the shareholders, the governance architecture, the

² Esta sección se basa en Yacuzzi (2005 b).

management, the creditors and the *gatekeepers* and regulators. The six families are composed of 39 variables, although the autor makes clear that, in practical applications, analysts and econometricians will be able to shorten the list on the basis of variable tractability, its relevance, research costs or statistical adjustment. Many of the model's variables are not derived from statutory clauses but from practical governance issues and regulatory practices.

In general, these concepts are as relevant for public firms as for private SMEs. In addition, general principles of governance, such as OECD (1999), Corporate Governance Committee (2001), and the Combined Code on Corporate Governance (2003) can serve as a basis for the creation of new indexes, applicable to all kinds of organizations.

Indicators should have a series of qualities: be quantifiable, easily measurable through time, presumably relevant for financial performance or risk; they should be supported by accesible and complete data sets; and they should be articulated by bodies of leading advisors (Foerster et al. (2004)). Table 1 presents four alternative indexes and their components. Foerster et al. (2004) offer ten components. Davis Global Advisors (2002) make an internacional comparisson of governance practices in eight central countries. Their Leading Corporate Governance Indicators (LCGI) are designed to give a unique indicator for each country. Creamer et al. (2004) measure corporate governance through variables that include insider ownership, board structure, institucional ownership and country-level corporate governance indicators. Institutional Shareholder Services (2002) has issued a governance index called Corporate Governance Quotient (CGQ) for Institutional Investors. CGQ constructs indexes on the basis of up to 61 variables, classified in eight areas. More than 7500 companies are classified.

This revision of indexes, albeit incomplete, shows its variety and a common core of variables that consistently appear: the board, the CEO's dual role, property rights and vote, among the most important. These elements shaped our development of a SME governance indicator.

Studies on the relationship between governance and performance at large enterprises use some measure of governance quality in order to establish the strength of this relationship. Yacuzzi (2005 a) reviews some of these studies, published in the last few years. We highlight a study by Gompers et al. (2003). By using the impact of more

than 20 provisions, described in Table 2, the authors construct a governance index that is used as a proxy for shareholders' level in some 1500 firms during the 90's. Their general conclusion is that those firms with stronger rights have greater value, more benefits and greater sales growth; in addition, these firms show less capital expenses and make less corporate acquisitions.

Foerster et al. (2004)	Davis Global Advisors (2002) (LCGI)	Creamer et al (2004)	Institutional Shareholder Services (2002) (CGQ)
<ol style="list-style-type: none"> 1. Size of Board 2. Degree of board independence 3. Degree of independence for nominating, compensation and audit committees 4. Separation of positions of Chairperson and CEO 5. Director ownership 6. Dilution rate of executive/director stock option plans 7. Dual class share structure 8. Percentage of common shares owned by significant shareholders 9. Number of directorships per director 10. Percentage of directors who own more than \$50,000 worth of shares 	<ol style="list-style-type: none"> 1. Best practice codes 2. Nonexecutive directors 3. Board independence 4. Split Chairman/CEO 5. Board committees 6. Voting rights 7. Voting issues 8. Accounting standards 9. Executive pay 10. Takeover barriers 	<ol style="list-style-type: none"> 1. Insider ownership 2. Board structure: <ul style="list-style-type: none"> • outsiders on the board • board size • double role of CEO 3. Institutional ownership 4. Corporate governance indicators at the country level: <ul style="list-style-type: none"> • efficiency of the judicial system • rule of law • risk of expropriation • risk of contract repudiation • corruption • quality of accounting system • legal system 	<ol style="list-style-type: none"> 1. Board of directors 2. Audit 3. Charter and by law provisions 4. Takeover practices 5. Executive and director compensation 6. Progressive practices 7. Ownership 8. Director education

Table 1. Components of a corporate governance index, from several authors.

IV. SME GOVERNANCE AND ITS MEASUREMENT

SME governance faces particular problems and characteristics that are treated in the literature.³ Main characteristics are: lack of material, financial and human resources, limited managerial resources, less qualified personnel, lack of strategic vision and long term plans, old ways to organize work, lack of training policies, scarce information on markets and technologies, lack of innovation capacity. Due to these characteristics, and in spite of the importance of governance in the development of a market economy, SMEs are possibly at a disadvantage to obtain the necessary resources and develop a corporate governance structure.

<i>Governance Provisions</i>	
<p>Delay</p> <ul style="list-style-type: none"> • Blank check • Classified board • Special meeting • Written consent <p>Protection</p> <ul style="list-style-type: none"> • Compensation plans • Contracts • Golden parachutes • Indemnification • Liability • Severance <p>Voting</p> <ul style="list-style-type: none"> • Bylaws • Charter • Cumulative voting • Secret ballot 	<ul style="list-style-type: none"> • Supermajority • Unequal voting <p>Other</p> <ul style="list-style-type: none"> • Anti-greenmail • Directors' duties • Fair price • Pension parachutes • Poisson pill • Silver parachutes <p>State</p> <ul style="list-style-type: none"> • Anti-greenmail Law • Business Combination Law • Cash-Out Law • Directors' Duties Law • Fair Price Law • Control Share Acquisition Law

Tabla 2. Governance provisions. Please see Gompers et al. (2003) for details.

Conceptual frameworks originally built to understand and improve the governance of publicly-traded firms must be adapted if applied to SMEs. There are clear differences between large firms and SMEs, for example, in the amount of disposable

³ Yacuzzi (2005 a, Appendix A) provides general characteristics of SMEs around the world and, in particular, in Argentina.

resources and in the relationship between shareholders and managers. A promising approach, of immediate relevance for SMEs, is proposed by Gabrielsson (2003), who identifies the tasks of a value-creating board with the help of four theories: *agency theory*, *stewardship theory*, *resource dependency theory* and *stakeholder theory*. These theories provide complementary prescriptions about the ways in which boards create value, such as the creation of business opportunities and the deployment of required resources.

The study of boards, a core topic in the governance of large enterprises, is also key in the study of SME governance. Gabrielsson y Huse (2004) recommend that SMEs recruit external directors, for a number of reasons. On the basis of 53 studies of external directors in SMEs, the authors show how agency theory, resource based theory (RBT) and resource dependency theory help to understand the roles that external directors play at different firms, including family firms and venture capital firms. At any rate, different theories provide different perspectives on the concept of external director, and these differences must be considered when judging the role of these directors.

Contingency theory plays an important role in the study of management and governance. Huse (2004) presents a corporate governance framework from a contingency approach. Among other important context factors, the author identifies the national and cultural environment, size and board behavior. An important contingency factor is the country in which the company operates (Steger (2004)). In general, SMEs have simpler governance structures than larger firms, and its governance themes are also simpler (IBRF (2002)).

V. A BACKGROUND ELEMENT FOR OUR INDICATOR: THE NATIONAL QUALITY AWARDS⁴

The governance index we propose is complex, due to its large number of elements. Ideally, we would like to have a simple governance measure, but this is not possible today. There are equally complex indicators in areas other than governance. One

⁴ This section is based on Yacuzzi (2006).

of them is the measurement of leadership, management system, and performance that is included in many quality awards, such as Argentina's National Quality Award.⁵

A fundamental idea behind these measurement systems is that “things that matter must be measured.” This is a century old idea, initially proposed by Lord Kelvin:

"When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge of it is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced it to the stage of science."⁶

If a company's strategy emphasizes customer care, for example, measures of how the customer is being treated are fundamental. In short, the Award's metrics define in detail measurement criteria, and suggest the need for multiple measures, both financial and non-financial. With small changes, these quality criteria and measures can be applied to SMEs.

VI. MEASUREMENT IN THE SOCIAL SCIENCES

Some variables, such as temperature and area, can be objectively and precisely measured. In management research, however, there are hundreds of variables, such as compromise or leadership, that are subjective and difficult to measure. How do we handle such abstract concepts and measure them? We analyze them along their dimensions and elements, in what is called “operationalization”.

Operationalization of variables

Variable operationalization, that leads to the measurement of abstract concepts, is achieved by looking at the concept incorporated in each variable from its different dimensions and elements—observable and measurable. Let us examine, for example, the operationalization of the concept “position of the employees in the firm.”⁷ This concept is part of our SME indicator and tries to measure the degree of consideration than the position of employees occupy in the mind of a director. Based on the literature⁸ we

⁵ The Argentine Award is very similar, in general, to other awards, such as the U.S. Malcolm Baldrige National Quality Award.

⁶ Thomson (1968).

⁷ Sekaran (1992).

⁸ See, for example, Apreda (2003 a), Apreda (2007 a), Blair (2004), Clarke (2004 b), and Yacuzzi (2005 b).

consider that directors concerned about their employees will share the following general dimensions:

- (1) **Salary.** They will be concerned about their employees' salary level.
- (2) **Job security.** They will think about providing job security to current employees through time.
- (3) **Working conditions.** They will be concerned about offering working conditions that are attractive and, at least, comparable to those offered by other industry competitors. Obviously, they will consider safety and occupational health.
- (4) **Training.** They will allocate important resources to train employees.
- (5) **Information.** They will keep their employees informed about company-related themes of potential interest to them.
- (6) **Feedback.** They will promote the creation and maintenance of systems that collect personnel opinions and complaints.

Governance dimensions at SMEs

Dimensions (1) through (6) above describe the agenda of a director concerned about her employees as stakeholders. They explain the meaning of "employee position" to the eyes of a director, but measuring them requires further examination. One way to examine a dimension is to divide it in its constitutive elements. Constitutive elements are aspects in which dimensions show up as human behavior or administrative facts and can be measured more easily than dimensions. For example, if we take the *salary* dimension, directors' concern about salary is an abstraction, while one of its possible constitutive elements, "the number of times per year salary level is considered at board meetings", is an easily measurable element. Other elements that might be part of the salary dimension include a percentage comparison between average salary paid at a firm for a given position and the average salary paid at the industry level for the same position. And so on.

An alternative to examine dimensions in order to measure them is by means of a questionnaire with appropriate scales. For instance, a question about the salary dimension might be: "Please indicate the degree of validity for your firm of the following statement,

using the scale provided: ‘Salary level is a major concern of top management in our company.’” And the question would be answered by choosing a value from a five-point scale, ranging from “Absolute disagreement” to “Absolute agreement”.

Table 4 presents a list of dimensions for our governance indicator. Its columns are: areas, themes, dimensions, and elements. The table contents are deployed with greater detail in the questionnaire (Appendix), which allows the calculation of the SME governance indicator’s value.⁹ Generally speaking, each question corresponds to one element, although there are some exceptions. Notice that the dimensions of the concept of governance cover three areas: General principles of governance, stakeholders and board work.

By principles of governance we understand “a list with the minimum set of prescriptions for action that emerge from the design for governance adopted for a given organization.”¹⁰ Themes in this area are: explicit consideration of governance, provision of information, directors’ representativeness and CEO duality. Of particular importance in the explicit consideration of governance are codes of good practice. There are various elements in the area of provision of information, but worth of attention are the mechanisms that give informative transparency to the organization, both in accounting matters as well as in the diffusion of its general plans and achievements. The elements “directors’ representativeness” and “CEO duality” appear frequently in the literature (See Apreda (2007 a)).

The *stakeholders* area gets much room among the elements that define SME governance and its measurement. This should come as no surprise, since this work adopts stakeholder theory as the solution to the “dilemma of how to satisfy the competing claims of shareholders and the other stakeholders.”¹¹ Clarkson (1994) characterizes this theory as follows: “The firm is a system of stakeholders operating within the larger system of the host society that provides the necessary legal and market infrastructure for the firm’s activities. The purpose of the firm is to create wealth or value for its stakeholders by

⁹ The questionnaire is fundamentally based on the following sources: CEF (ca. 2005), Gabrielsson (2003), Blair (2004) and Clarke (2004 b).

¹⁰ Source: Apreda (2007 a), p. 24.

¹¹ Clarke (2004 b), p. 189.

converting their stakes into goods and services.”¹² From a more economical approach, Margaret Blair adheres to the position that considers firms as institutional arrangements designed to regulate relationships among all parties that contribute to wealth creation with specific assets. “Put more simply, corporate resources should be used to enhance the goals and serve the purposes of all those who truly have something invested and at risk in the enterprise.”¹³ The stakeholders that we consider in our indicator fall into this characterization.

¹² Quoted by (2004 b), p. 195.

¹³ Blair (2004), p. 183.

Area	Themes	Dimensions	Elements
General principles of governance (200)	Explicit consideration of governance (130)	Documental (15)	Explicit document on the importance of governance 1
			Section on governance in the annual memory 2
		Organizational (115)	Adoption of a code of good practices 3, 4
			Appointment of a person to follow-up governance measures 5
			Actualization of accounting criteria 7
	Information provision (40)	Transparency criteria (12)	Information on future performance objectives 8
			Appointment of a person responsible for information provision 6
		Organizational (28)	Existence of a mechanism to answer inquires from stakeholders 9
	Directors' representativeness (15) (Optional theme)	Family membership (6)	The CEO or his family occupy positions on the board 10
			Whether the CEO and the chairman of the board belong to the same family or group of control 11
		Independent directors (9)	Existence of independent directors 12
			Whether the chairman of the board is an independent director 13
	CEO duality (15)	CEO duality (15)	Whether the CEO is a permanent director 14
			Whether the CEO is concurrently chairman of the board 15
Stakeholders (500)	Shareholders' position (230)	Search for economic benefit (155)	Search for value creation 16
			Search of benefit for the shareholder 17
			Search for future income 18
		Information transparency to shareholders (30)	Information that goes beyond that required by law 19
			Scope of accounting and other information 19
			Reports requested by minority shareholders 21
		Lack of complaints (15)	Lack of complaints from shareholders not in the board 20
		Control rights (30)	Minority shareholders take part in setting agenda 22
	Veto rights of minority shareholders 23		
	Employees' position (80)	Salary (40)	Average difference, in percentage, between company's salary and industry's salary 24
			Frequency of salary discussion at the board 24
		Job security (12)	Rate of new job creation 25
			Turnover rate 25
Working conditions (12)		Indicators of safety and occupational health 26	
		Working hours 26	
		Benefits 26	
	Cafeteria at the plant 26		
	Recreation area at the plant 26		

Table 4. Indicator's dimensions and elements. Numbers between brackets show the maximum score allowed. Numbers in the rightmost column refer to the question number corresponding to each element in the questionnaire.

Area	Themes	Dimensions	Elements
Stakeholders (500) (Cont.)	Employees' position (80) (cont.)	Training (8)	Average number of job-related training hours per year per employee 27
			Average number of job-unrelated training hours per year per employee 27
		Information (4)	Existence of information channels for exclusive use of employees: newsboards, newsletters, etc. 28, 29
			Utilization of information channels: yearly number of informative actions of priority or exclusive interest to employees 28, 29
		Feedback (4)	Existence of systems for transmission of employee complaints and opinions 30
			Degree of utilization of complaints and opinion system 30
	Customers' position (55)	Quality (20)	Product and service quality 31
			Guarantee policy and aftersales service try to achieve customer's loyalty 34
		Price (10)	Greatest possible value 32
			Least possible price 32
		Information (15)	Truthful publicity 33
			Complete information on products and services 33
		Feedback (10)	Existence of complaints 35
			Existence of lawsuits against the firm 35
			Existence of a system for handling claims 35
			Existence of a system to know customer opinion 35
	Position of banking and non-banking creditors (25)	Economic competence (14)	Annual gross sales 36
		Cash flow management (5)	Application of modern techniques 37
			Broad, updated, transparent 39
		Financial and other information (3)	Available on Internet 39
			Possibility for creditors to participate as observers at meetings 40
		Complaints and lawsuits (3)	Existence of lawsuits from creditors against the firm 38
	Existence of complaints from creditors against the firm 38		
	Suppliers' position (55)	Contractual conditions (25)	Payment according to contract terms 44
			Search for a long-term relationship 41
		Supplier development (15)	Supplier development programs 43
			Training of suppliers to improve quality 42
Complaints and lawsuits (15)		Existence of lawsuits from creditors against the firm 45	
		Existence of complaints from creditors against the firm 45	

Table 4 (Cont.). Indicator's dimensions and elements. Numbers between brackets show the maximum score allowed. Numbers in rightmost column refer to the questionnaire.

Area	Themes	Dimensions	Elements
Stakeholders (500) (Cont.)	Position of government (10)	Job creation (2)	Existence of an explicit policy of job creation 46
		Facilitating government action (6)	Adequate supply of information requested by government organs 48
			Facilitation through publicity campaigns of government actions aimed towards general welfare (for example, towards health care) 47
	Enhancing industry transparency (2)	Supply of relevant information to strengthen free competition in industry 49	
	Position of society and the environment (45)	Facility and operational safety (35)	Resource investment to strengthen facility and operational safety 50
			Collaboration with insurance companies and industry chambers to improve safety and occupational health 52
			Consultation with experts on industrial safety and its social impact 51
		Information (4)	Provision of information to authorities on health and safety 53
			Provision of information to the public on topics of general interest 53
		Environment (4)	Savings in natural resources 55
			Campaigns to avoid damaging the environment 54
			Diffusion of social policies to protect the environment 54
	Initiatives of corporate social responsibility (2)	Existence of a policy of corporate social responsibility 56	
		Concrete actions of corporate social responsibility 56	
Board's work (300)	Board's routine (20)	Meetings (10)	Meeting frequency 57
			Presence of top management at meetings 58
			Existence of fix rules for meeting call, agenda distribution, preparations, etc. 62
	Division of labor (6)	Division of labor among directors 59	
		Division of labor between the board and the CEO 60	
	Evaluation and follow-up (4)	Existence of rules on evaluation and follow-up of the board's decisions 61	
		Existence of annual evaluation of the board's work 63	
		Existence of evaluations of the board's work after each meeting 64	

Table 4 (Cont.). Indicator's dimensions and elements. Numbers between brackets show the maximum score allowed. Numbers in rightmost column refer to the questionnaire.

Area	Themes	Dimensions	Elements
Board's work (300) (Cont.)	Ability and compromise (160)	Knowledge (90)	Ability in areas of knowledge relevant to the firm 65
			Familiarity with industry conditions 66
			Familiarity with firm operations 67
		Compromise (45)	Preparation for board meetings on the part of directors 68
			Compromise during board meetings 69
		Information (25)	The board searches for strategic information by itself, in addition to that received from top management 70
	The board makes acute questions to top management on their proposals 71		
	Board's composition and behavior (35)	Variety of director's types (2) (Optional theme)	Existence of various types of directors at the board 72
		Conflicts of interest (25)	Cases of conflicts of interest in a transaction that involves directors 73
		Disciplinary measures (4)	Disciplinary measures against the board or the management in the last three years 74
			Disciplinary measures against directors for violating their fiduciary duties in the last three years 75
		Management evaluation (4)	Managers salary is linked to their performance 76
	Existence of a board's agenda on the evaluation of the management 77		
	Control and monitoring (35)	Initiative (12)	Initiation of decisions on markets, customers, employees, products, technologies, budgets, etc. 78
		Ratification of decisions (8)	Ratification of decisions taken by managers on markets, customers, employees, products, technologies, budgets, etc. 79
		Support (10)	Support to managers for implementing decisions on markets, customers, employees, products, technologies, budgets, etc. 80
		Monitoring (5)	Monitoring of decisions on markets, customers, employees, products, technologies, budgets, etc. 81
Advice and networking (50)	Advice (26)	Advice on issues related to administration, legal, economic, financial, technical, marketing aspects, etc. 82	
		Influence on important parts of the environment to reduce uncertainty 83	
	Lobby and corporate image (24)	Influence on important parts of the environment to support the firm and enhance its image 84	

Table 4 (Cont.). Indicator's dimensions and elements. Numbers between brackets show the maximum score allowed. Numbers in rightmost column refer to the questionnaire.

The area of board work, finally, is based on studies such as Gabrielsson (2003), which highlight directors' work as tools for value creation that improve SME performance. The relevance of the board's work cannot be overlooked. A company's good performance is related to the quality of its board's work.

VII. SCALES AND MEASUREMENT

Having organized concepts on the basis of the integration of theories, consultation of experts and executives, and inquire into organizations, they must be measured, in order to determine the intensity of opinions, perceptions, and attitudes of those interviewed.

Concepts are measured with scales. In the questionnaire we propose to obtain the governance indicator for SMEs, we include 70 questions to be answered by interval scales and 14 questions to be answered by nominal ("Yes" or "No") scales. Nominal scales present no difficulties, except in score assignation, a topic we treat in next section. Here we focus our attention on the characteristics of the interval scale we use.

A typical question to be answered with a scale interval is shown in Figure 2. The questionnaire heading is reproduced, indicating the order number of the question, the question itself, its possible answers and the score assigned to each one; in addition, a column allows registration of the score that best reflects the company's situation. Question 1, "Has your company issued some document that explicitly highlights the importance of good governance?", corresponds, as indicated, to the area of "general principles of governance", that has a maximum possible score of 200 points, and, inside that area, the question corresponds to the theme "explicit consideration of governance", with a maximum possible score of 130 points. (The method to assign scores is explained in next section.) Possible answers and their meanings are the following:

- **Strong "No":** No, and so far we have not considered the issue.
- **Weak "No":** No, but we are considering the issue.
- **Implementation:** No, but we are in the process of implementation.
- **Weak "Yes":** Yes, recently.
- **Strong "Yes":** Yes.

Number	Questions	Answers and assigned score					Your firm's score
		Strong "No"	Weak "No"	Implementation	Weak "Yes"	Strong "Yes"	
1. GENERAL PRINCIPLES OF GOVERNANCE (200 POINTS)							
a) Explicit consideration of governance (130 points)							
1	Has your company issued some document that explicitly highlights the importance of good governance?	0	2.5	5	6.5	7.5	

Figure 2. Reproduction of a question from the questionnaire used to obtain the governance indicator for SMEs.

A score is assigned to each answer. This assignment is not necessarily linear, but reflects the way of thinking of the decision maker or governance expert that designed the question. It is based on a utility function associated with the existence at the firm of an explicit document dealing with the importance of governance. This function is presented both as a table and as a graph in Figure 3.

For the first points in the scale, utility (value) increases linearly, with a growth rate greater than for higher values; for higher values, the growth rate flattens. This implies that a decision maker highly values even small efforts to apply governance in SMEs, while—relatively speaking—he gives less incremental value to higher scores.

Other questions have assigned scores that are based on utility functions with different forms. Consider question 65, for example, “Indicate your degree of agreement or disagreement with the following statement: ‘The board has general ability in at least two areas of knowledge that are relevant to the firm’”, which accepts as possible answers:

- **TD:** I am in total disagreement with this statement.
- **D:** I am in disagreement with this statement.
- **N:** I neither agree nor disagree with this statement.
- **A:** I agree with this statement.
- **TA:** I am in total agreement with this statement.

Scale point	Assigned score
1	0
2	2.5
3	5
4	6.5
5	7.5

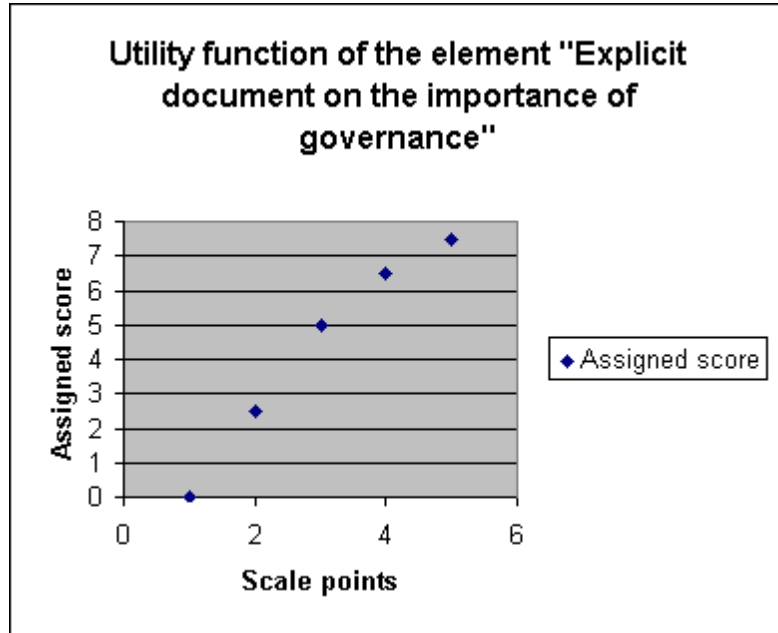


Figure 3. Utility function that justifies the score selection in question 1.

Scores grow very slowly for the first three points in the scale, and then they explode, as seen in Figure 4. This functional shape reflects the conviction, on the part of the expert that graduates the scores, that “a ‘little ability’ is not worth much, because a critical mass of ability is required to make an effective board.”

Finally, questions such as number 27, “Indicate your degree of agreement or disagreement with the following statement: ‘My company devotes important resources to train its employees’, which accepts as possible answers the same alternatives recently considered, receive a score that grows linearly: 0, 2, 4, 6, and 8.

Scale points	Assigned score
1	0
2	2
3	5
4	15
5	30

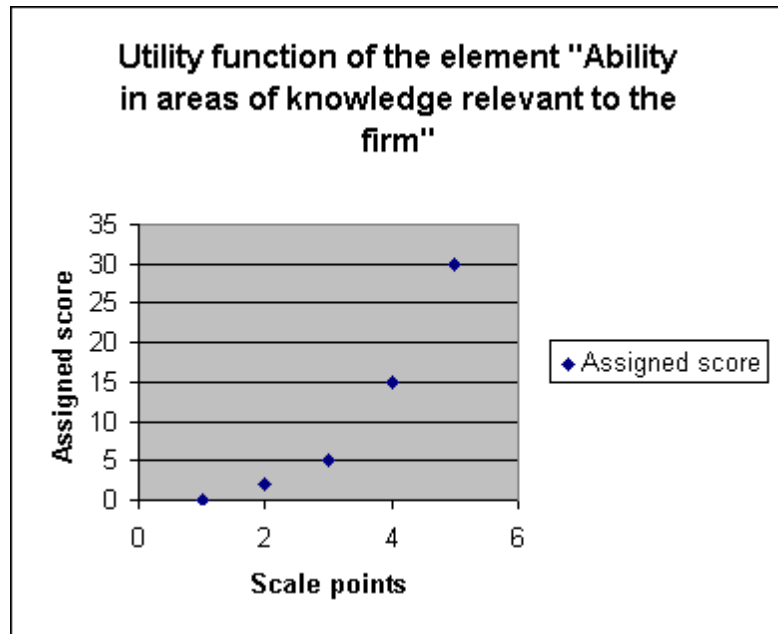


Figure 4. Utility function that justifies the choice of score for question 65.

VIII. DETERMINING THE QUESTIONNAIRE SCORES

Let us analyze with greater depth questionnaire scores. Even if every question were perfect and free from measurement errors (impossible features), and even if all important dimensions and elements were included, and irrelevant ones excluded, we still would have to deal with the hard problem of assigning importance to each question and to the sections in which questions cluster. In other words, in designing a measurement instrument, proper weight must be given to score graduation.

In this work we calibrate maximum scores in each section by using a preference function with multiple attributes. This method, even though it does not completely eliminate arbitrary scoring decisions, is based on systematic questioning to decision makers and governance experts about their preferences. The objective of the indicator is, in the last instance, to establish a hierarchical order among firms, according to the quality of their governance. The order is established on the basis of scores assigned to each firm.

Let us consider the three major areas that define the concept of governance: principles of governance, stakeholders and the board's work. We must determine the weight of each area and, to that end, a preference function is built. At this stage we aim at

finding weights for each of the three areas; later, we will find weights for themes, dimensions, and elements in Table 4.

Maximum scores assigned by the questionnaire to each area depend linearly on the values assigned in a preference function. This function will finally establish the hierarchical ordering of firms on the basis of their governance quality. The basic procedure to determine this preference function is described, and then we apply it to the assignment of scores to our questionnaire.¹⁴

Step 1. Preference function determination

Preference function P is assumed additive, with the form:

$$P(v_1, v_2, v_3) = w_1v_1 + w_2v_2 + w_3v_3 \quad (\text{Equation 1})$$

where P is preference, the v_i are the values that the governance expert assigns to the areas of the questionnaire, and the w_i , weights for each area. Weights and value functions are scaled in such a way that

$$\sum w_i = 1, \quad 0 \leq w_i \leq 1 \quad \text{and}$$

$$v_i(\text{best level}) = 1$$

$$v_i(\text{worst level}) = 0, \quad \text{for } i = 1 \text{ to } 3, \text{ where } i \text{ is the area.}$$

A frequent doubt is related to the legitimacy of this additive model. We believe that it is sufficient to check the *difference independence* condition for each area. This condition establishes that the magnitude of the difference in the intensity of the preference between two levels in area i does not change when fixed levels in other areas change. Let us assume, for instance, that a decision maker is given two values, $v_1 = 0.1$ and $v_1 = 0.7$, where values 0.1 and 0.7 are taken from a 0-1 scale that measures the value assigned to the strength of the area “principles of governance” in a firm; 0.7 is higher than 0.1. The decision maker is asked to answer if the intensity of her preference to go from 0.1 to 0.7 is influenced by the fixed levels at other areas. (In other words, she is asked whether she would be conditioned, in choosing a firm with better governance principles, by the levels of areas “stakeholders” or “board’s work”.) If the levels of other areas do not affect the first area considered, then this area is considered *difference independent* from the rest.

¹⁴ The procedure follows in general that described by Buffa et al. (1987), with minor changes in the way to calculate unidimensional values.

If the area does not pass the test, we can choose a model that takes into account interactions among areas, or else areas can be redefined so that *difference independence* is achieved. In our work, we follow the criteria of just one expert (the author), and the rationale to justify *difference independence* follows.¹⁵

“In the first place, let’s look at the relationship between the areas “principles of governance” and “stakeholders”: a firm with good governance must have solid principles of governance, regardless whether it adopts an attitude favorable to its shareholders, employees, creditors, etc. In the second place, let us examine the relationship between the areas “principles of governance” and “board’s work”: the board could function properly, regardless of the existence of (explicit) solid principles of governance. In the third and last place, let us consider the relationship between the area “stakeholders” and “board’s work”: a board could function properly, be involved with its work and follow a reasonable routine of control and networking, regardless of how the firm, by its philosophy of governance, considers the position of stakeholders.”

Even though this reasoning is preliminar and could be confirmed by better qualitative and quantitative análisis, Buffa et al. (1987, p. 702) maintain that additive preference functions are quite robust and, in most situations, will produce small errors, even when there is a moderate interaction among areas.

Step 2. Construction of unidimensional value functions

An important problem is that of assigning values to governance areas, themes, dimensions, and elements. In what follows, we introduce a method to evaluate the value function v_i belonging to area i . Similar reasoning would allow us to study value functions for themes, dimensions, and elements of the concept. It is common to establish a 0-1 scale, where 0 indicates the worst level, and 1, the best level. These values emerge from utility functions that will depend on each decision maker or, in the case of a general use indicator, on the consensus of the community of governance experts at a given moment and place. For this work, we propose the utility functions shown in Figures 5, 6, and 7.

¹⁵ Future versions of this indicator should include opinions of a qualified group of governance experts. See Yacuzzi (2007, section V.2 Appendix V).

The utility function of “general principles of governance”, shown as table and graph in Figure 5, was built so that it reflects the decision maker’s way of thinking. For the lower degrees of principle consolidation, the utility (or value) increases linearly, at a rate that is higher than that for upper degrees; for upper degrees, the growth rate flattens. This implies that (relatively speaking) the decision maker values more small efforts towards SME governance than more advanced enhancements. The meaning of different degrees is shown in Table 5. This table is important, since it provides some objectivity to the search for a preference function.

Degree of principle consolidation	Degree, in number	Assigned value
Null	0	0
In development	1	0.4
Partial	2	0.7
Total	3	0.9
Level of excellence	4	1

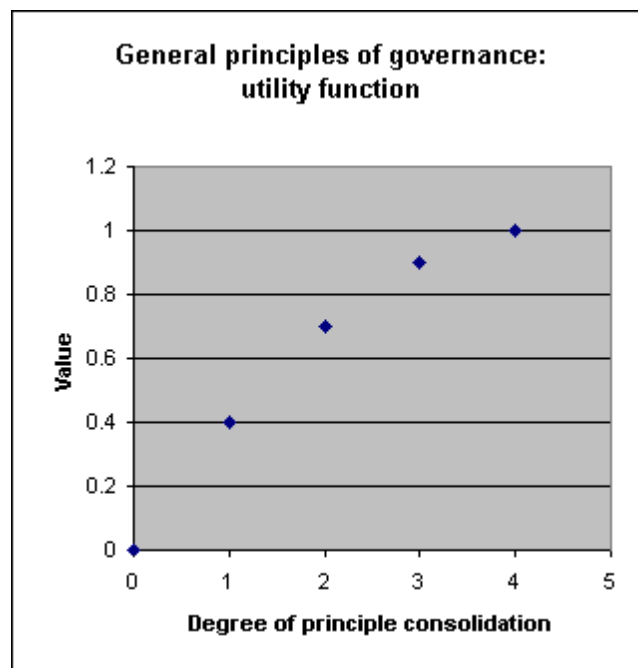


Figure 5. General principles of governance: utility function.

Figure 6 shows the utility function for the stakeholders area. It is a linear function, that so reflects a “democratic” perspective concerning the importance of stakeholders: all stakeholders are important, and the questionnaire scores add value whether they are assigned when considering shareholders or any other stakeholder. The meaning of the degree of consideration of stakeholders is presented in Table 6.

Degee	Meaning
Null consolidation	Governance principles are either unknown or not mentioned at the firm. There are no references to them in director's or manager's daily discourse; at the most, there are isolated references.
Consolidation in process of development	The topic of governance principles starts to be developed, with some systematic order. For example, ad-hoc documents are issued, or some people are trained in governance themes, or responsible persons are assigned to governance themes, or the organization works on a code of good practices. Issues such as the management of information and the representativeness of directors are given explicit attention.
Partial consolidation	There are evidences of a significative degree of implementation in all themes and dimensions of the governance concept. For example, search for an independent director (so far there were none) has started, a code of good practices has been enforced, and an accounting expert has been contracted to update the delivery of information to markets.
Total consolidation	The company displays knowledge and application of solid governance principles at all levels. Internal and external documentation related to governance is up-to-date and available; transparency prevails in accounting and operational areas. The board functions with efficiency and effectiveness in its governance.
Excellence level	The company has not only totally consolidated its governance principles, but it also exhibits its achievements to the industrial community, thus becoming a nacional and international model. In order to maintain governance principles, methods similar to those of continuous improvement in quality management are applied.

Table 5. General principles of governance: Meaning of its degrees of consolidation.

Finally, Figure 7 exhibits the utility function for the board's work. The first points are not too highly valued: alter all, there are certain routines that all boards, no matter how shallow its work, must adhere to. However, values growth with greater slope when the percentage increases, in order to highlight the importance of a board that performs tasks that go beyond the minimum practice.

Table 7 shows the meaning of the degree of effectiveness of the board's work. Figures 5, 6, and 7, show then three different funtional forms, corresponding to the criteria of a decision maker or governance expert. On the basis of these utility functions, the expert can build tables and assign values. Other decision makers might have other criteria, and these could become explicit in other different utility functions.

Degree (Scope) of considered stakeholders	Degree, in number	Assigned value
Null	0	0
Minimum	1	0.25
Medium	2	0.5
Large	3	0.75
Maximum	4	1

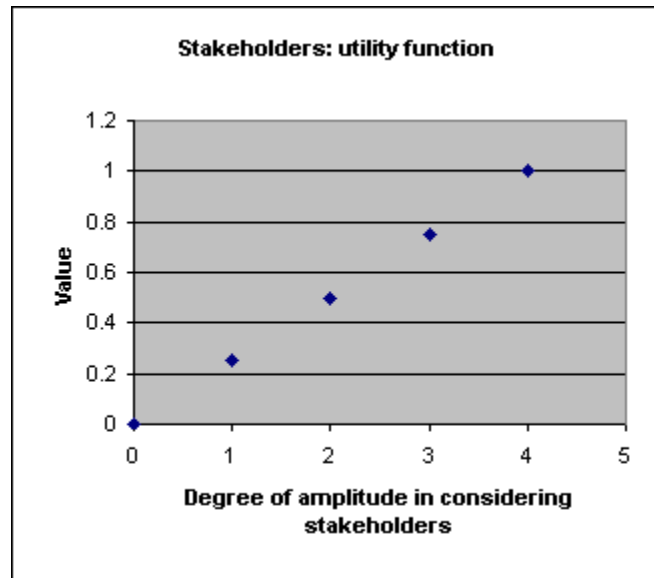


Figure 6. Utility function for the stakeholders area.

Degree	Meaning
Null amplitude	Concern for shareholders holds absolute priority. In spite of that, there is little or null information transparency, and little or null opportunities for dissatisfied shareholders to manifest themselves or enforce their rights in the context of the firm.
Minimum amplitude	Concern for the shareholder holds priority, but other stakeholders, such as customers or suppliers, are considered as well. Aside from the shareholder, stakeholders only get partial attention: for example, employee training is properly performed, but salary considerations or quality of working life are ignored.
Medium amplitude	Several stakeholders receive attention from top management, including shareholders, employees, customers and suppliers. In addition, for each stakeholder, one or more dimensions are considered.
Large amplitude	At least five out of seven stakeholders are closely attended to. Attention, in this context, means that, for each stakeholder, at least two or three dimensions are properly taken care of, and, in each dimension, a plurality of elements is considered.
Maximum amplitude	All stakeholders are considered in all dimensions. For each dimension, all elements receive at least some degree of consideration. At all levels in the firm there exists a “culture of stakeholders”.

Table 6. Meaning of the degrees of amplitude in the consideration of stakeholders.

Degree of effectiveness of the board's work	Degree, in number	Assigned value
Null	0	0
Minimum	1	0.1
Medium	2	0.25
Large	3	0.6
Maximum	4	1

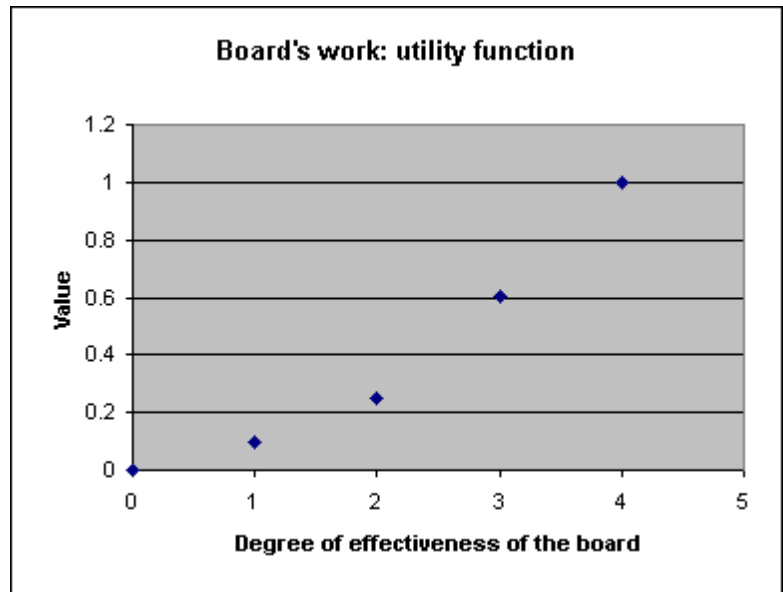


Figure 7. Utility function for the board's work.

Step 3. Determination of important weights for each area (w_i)

The most important area is identified first. This is an arbitrary decision, although it reflects a philosophical position towards governance; if necessary, the effect of this choice can be evaluated through sensitivity analysis. Let “stakeholders” be our area of greatest importance. In order to evaluate weights we ask the following question: “Consider firm A, with the worst level in its “principles of governance”, $v_1 = 0$, and the best level in “stakeholders”, $v_2 = 1$. Consider now another firm, B, with $v_1 = 1$, the best level for its “principles of governance”. What should be level v_2 for this firm B so that you would be indifferent (as an external expert that evaluates this firm's governance) between choosing A or B?

Assume that the answer is $v_2 = 0.6$ ¹⁶, i.e, decision maker at firm B is willing to trade-off part of stakeholders consideration in order to have perfect principles of governance. By using equation 1 this situation is presented as:

$$\begin{aligned}
 &w_1v_1 \text{ (worst level of principles)} + w_2v_2 \text{ (best level of stakeholders)}= \\
 &= w_1v_1 \text{ (best level of principles)} + w_2 \times 0.6
 \end{aligned}$$

¹⁶ This means that $v_2 = 0.6$ emerges objectively from the utility function and the description of degrees in Table 6. Taking intermediate values is legitimate.

$$w_1 \times 0 + w_2 \times 1 = w_1 \times 1 + w_2 \times 0.6$$

Rearranging this expression, we have:

$$0.4 w_2 = w_1 \qquad \text{Equation 2}$$

Degree	Meaning
Null effectiveness	The board has no work routine. Directors do not even have a clear consciousness about their role. They do not meet beyond what the law establishes and they present an insignificant level of ability and compromise with the organization. The board does not evaluate management and, even if there are no conflicts of interest, the board's behavior is negative or null. Directors do not perform tasks of control, monitoring, or networking, nor do they provide advice to managers.
Minimum effectiveness	The board understands the importance of its role, but this understanding does not translate into innovative action or control behavior, due to a limited level of ability and compromise from directors. Just two or three themes of the board's work are treated, albeit insufficiently, in one or two dimensions each.
Medium effectiveness	The board is reasonably competent and is involved in all dimensions of the "ability and competent" theme. In addition, it takes forward a regular routine, and duly exercises monitoring and control activities. The board develops advising and networking tasks, but unsystematically.
Large effectiveness	All themes related to the board's work are considered: routine, ability and compromise, composition and behavior of the board, control and monitoring, and advice and networking. In addition, at least three dimensions are covered for each theme.
Maximum effectiveness	All themes and all dimensions are properly considered. A culture of continuous improvement is alive, applied to the board's work. There are even written procedures to evaluate the board's effectiveness.

Table 7. Meaning of the degrees of effectiveness in the board's work.

Next we pose an analogous question for the remaining area. "Consider firm A, that has the worst level in its board's work, $v_3 = 0$, and the best level in "stakeholders", $v_2 = 1$. Consider now another firm, B, with $v_3 = 1$, the best level in its board's work. What should level v_2 be for this firm B so that you were indifferent (as an external expert that evaluates this firm's governance) between choosing A or B?" If your answer to this question were $v_2 = 0.3$ then:

$$w_3 v_3 \text{ (worst level in board's work)} + w_2 v_2 \text{ (best level in stakeholders)}$$

$$= w_3 v_3 \text{ (best level in board's work)} + w_2 \times 0.3$$

$$w_3 \times 0 + w_2 \times 1 = w_3 \times 1 + w_2 \times 0.3$$

Rearranging this expression, we get:

$$0.7 w_2 = w_3 \quad \text{Equation 3}$$

The sum of weights must equal unity, i.e.:

$$w_1 + w_2 + w_3 = 1 \quad \text{Equation 4}$$

Therefore, with equations 2, 3 and 4:

$$0.4 w_2 + w_2 + 0.7 w_2 = 1$$

$$2.1 w_2 = 1$$

$$w_2 = 0.48$$

and, as a consequence:

$$w_1 = 0.4 \times 0.48 = 0.19$$

$$w_3 = 0.7 \times 0.48 = 0.33$$

From these calculations, importance weights for the three areas are estimated: $w_1 = 0.19$, $w_2 = 0.48$ y $w_3 = 0.33$. Since our procedure is approximate, not much is lost by rounding these values to: $w_1 = 0.2$, $w_2 = 0.5$ y $w_3 = 0.3$.

Step 4. Global values calculation

Equation 1 allows us to calculate our preference for a given firm as a function of its governance quality. We will have, for instance:

$$\begin{aligned} P(v_1, v_2, v_3) &= w_1 v_1 + w_2 v_2 + w_3 v_3 = \\ &= 0.2 \times 0.75 + 0.5 \times 0.70 + 0.3 \times 0.45 = 0.635 \end{aligned}$$

This value is multiplied by 1000 in order to generate an indicator that covers the range from 0 point through 1000 points. This operation is a simple arithmetic step that does not affect comparissons made with the governance indicator.

Step 5. Sensitivity analysis

The previous line of reasoning might be affected by subjectivity. Subjectivity covers both the selection of weights for each area and the assignment of its values. In order to increment confidence in the indicator's performance, sensitivity analysis could be performed. A possible way to conduct this analysis is the following:

- take a set of firms and evaluate its governance with the developed indicator, with the base values;

- establish a ranking for these firms on the basis of the results obtained with the indicator;
- obtain other (or others) indicator (or indicators) by changing values (utility function) and weights in steps 1 through 4 above;
- establish a new ranking of firms with the new indicator;
- compare results. If they agree, our level of confidence in the indicator will increase; otherwise, it would be convenient to make a more profound study of the philosophy of governance and look for more information, in order to find a more consistent indicator.

Sensitivity to the utility function used could also be measured. Yacuzzi (2007, Appendix V, shows this case). A further way to conduct sensitivity analysis is to compare the weights that different decision makers or experts assign to different governance areas, by following steps 1 through 4 above. If weights are approximately equivalent, our confidence in the indicator will increase. Important differences would reflect different understandings of governance, as shown in Yacuzzi (2007, Appendix V, second section).

IX. APPLICATION TO QUE QUESTIONNAIRE

In the previous section we have shown how weights can be systematically assigned to the three areas of governance. Something similar can be done to assign weights to different themes in each area; to different dimensions in each theme; and, finally, to different elements in each dimension (although in this work we follow a different way to assign weights to the elements).

The method is applied to weight themes from the stakeholders area. The generalized preference function in Equation 1 will be used, but new subscripts will be added in order to clearly specify weights, values, and percentages of the maximum score for each theme or dimension in the questionnaire. In the following equation, for example:

$$P(v_{11}, v_{12}, v_{13}, v_{14}) = w_{11}v_{11} + w_{12}v_{12} + w_{13}v_{13} + w_{14}v_{14}$$

the first subscripts refer to the area “principles of governance” and the second subscripts refer to the four themes that conform the area: “explicit consideration of governance”, “provision of information”, “directors’ representativeness” and “CEO duality”, respectively. Likewise, in the equation:

$$P(v_{111}, v_{112}) = w_{111}v_{111} + w_{112}v_{112}$$

the first subscripts refer to the area, the second, to the theme, and the third, to the dimensions (“documental” and “organizational”).

Table 8 (a) schematically shows the result of a line of reasoning, similar to that of previous section, conducted to weight themes from the area “stakeholders”. We assume that the most important theme is “position of the shareholders”. This could be different: in Japan many people feel that “the company belongs to its employees”; naturally, this way of thinking would take us to different weights.

Notice that in choosing the value of “ v_{21} necessary for indifference” between firms A and B there exists the implicit idea of a decision maker’s utility function. The reader might want to check his understanding of the reasoning by following one or two lines in Table 8 (a). Table 8 (b) is a summary of the w_{2j} values calculated.

i	Firm A			Firm B			Coefficient that multiplied by w_{21} gives w_{2j}
	Worst level in:	v_{2j}	v_{21}	Best level in:	v_{2j}	v_{21} necessary for indifference	
2	Employees	0	1	Employees	1	0.65	0.35
3	Customers	0	1	Customers	1	0.75	0.25
4	Creditors	0	1	Creditors	1	0.9	0.1
5	Suppliers	0	1	Suppliers	1	0.75	0.25
6	Government	0	1	Government	1	0.95	0.05
7	Society	0	1	Society	1	0.8	0.2

Table 8 (a). Summary of calculations to determine weights for different stakeholders. “Shareholders” is assumed to be the most important theme.

Theme	Coefficient	Value
Shareholders	w_{21}	0.45
Employees	w_{22}	0.16
Customers	w_{23}	0.11
Creditors	w_{24}	0.05
Suppliers	w_{25}	0.11
Government	w_{26}	0.02
Society	w_{27}	0.09
	Total	1.00

Table 8 (b). Weight calculation results.

At this point we have calculated the weights w_{ij} for the three areas and the seven themes of area stakeholders. Yacuzzi (2007, Appendix III) shows with some detail some further calculations for areas, themes and dimensions. The whole set of calculations is available in Yacuzzi (2007).

The following criterion is adopted for the elements: If a dimension is made from just one element, then, the weight of the element is equal to the weight of the dimension; if the dimension is made from n elements, the weight of each element is $(1/n)$ times the weight of the dimension. We could have calculated each element's weight by using a preference function as we did with areas, themes, and dimensions but, for practical reasons, we chose the laplacian criterion that gives equal weight to each element in a given dimension.

We are ready to assign points to each element. Following the Nacional Quality Award scoring standard, we assign a total number of points in the range from 0 point to 1000 points. Given the weights of the governance areas, points are assigned as follows:

- General principles of governance: $w_1 * \text{maximum score to be assigned} = 0.2 * 1000 = 200$ points.
- Stakeholders: $w_2 * \text{maximum score to be assigned} = 0.5 * 1000 = 500$ points.
- Board's work: $w_3 * \text{maximum score to be assigned} = 0.3 * 1000 = 300$ points.

In a similar way points are assigned to themes in each area. For example, for the area of "general principles of governance", where the total number of points to be assigned (TPA_1) is 200, assignation becomes:

- Explicit consideration of governance: $w_{11} * TPA_1 = 0.67 * 200 = 133$ (130).
- Provision of information: $w_{12} * TPA_1 = 0.2 * 200 = 40$ (40).
- Directors' representativeness: $w_{13} * TPA_1 = 0.067 * 200 = 13$ (15).
- CEO duality: $w_{14} * TPA_1 = 0.067 * 200 = 13$ (15).

Calculated values were rounded to the values in parenthesis, without any important loss in relevance.

Calculations of points for the remaining themes and dimensions are similar; results are displayed in Table 4, in each cell and between brackets. Notice, finally, that in this work the concept of utility function is used in two related but different contexts: on the one hand, it is used to assign values (utilities) to the degrees of consolidation,

amplitude, or effectiveness of diverse areas, themes and dimensions (see, for example, Figures 5, 6, and 7); this use allows assigning points to the indicator's areas, themes and dimensions; on the other hand, the concept is used in the questionnaire to assign points to different possible answers in questions with five possible answers; this usage is illustrated in Figures 3 and 4.

X. REFLECTIONS ON MEASUREMENT

Does this technical approach to SME governance measurement make sense? We believe it does. Is such a complex questionnaire necessary? We believe it is. Our indicator aims at answering a simple question: "How good is this firm's governance?" As a first approximation, it would be enough to say "very good", or "poor"; after all, in many cases, management intuition and "feeling" are strong tools for decision making. However, the concept of governance is complex and there are many possible perspectives on its content. The structure we propose: areas, themes, dimensions, and elements, is a first step towards clarifying the concept of governance that our indicator tries to measure.

Much has been written on measurement. We have already quoted Lord Kelvin, who wrote a century ago. Let us take now a quotation from Robert B. Laughlin: (Laughlin (2007), p. 32, author's translation)

"We know that measurements are never perfect and that is why we want to know *how* precise a given measure is, which is an adequate practice as it avoids dishonesty and discourages elaboration of reports with no scientific value."

It can be argued that Laughlin is a physicist that talks about physics, which is true, but his words make even more sense in social research! Our detailed explanation on how the indicator is built helps to understand its precision and increases user confidence. On the other hand, all the technology we used to build the indicator is displayed in this work, so that any reader can construct her own indicator, if she so wishes.¹⁷ Laughlin (2007) continues:

"When I go to meetings where I meet other physicists and talk with them about things that interest us, one of the topics that always comes to the surface is a conference by Irving Langmuir, the inventor of the tungsten lamp. In that conference, the American scientist talks about pseudoscience and relates cases of scientific falseness and deceptions, but the most important thing is the fundamental message that he conveys: in physics, correct perceptions differ from erroneous ones in that the former become more

¹⁷ Needless to say, interfirm comparisons are meaningful only when a given indicator is widely accepted, but, in principle, any firm could have its own governance indicator.

clear when experimental precision improves. It is a simple idea that captures the physicist's mind and explains his obsession with mathematics and numbers. By means of precision falseness is shown up" (p. 37, author's translation).

For us, social researchers, Langmuir's message is as much valid, or even more, than for physicists. Since we rarely conduct experiments, we must be as rigorous as the physicist in using our measurement instruments, and we must work hard to define in detail the phenomena we try to measure.

The methodology used in this paper oriented our work on a solid basis. It is relevant at this point the thought of Keeney et al. (1976, p. 9) on decisions with multiple objectives: "The spirit is one of Socratic discovery—of *unfolding* what you really believe, of *convincing* yourself, and of deciding" (italics in the original). Formal analysis has further advantages: it provides "psychological comfort", facilitates communication, allows persuasion of third parties, systematize concept evaluation, and leads to finding gaps or redundancy in what we measure. These advantages keep their validity even in cases where the evaluation of governance quality is based on intuition.

"You cannot quantify what is not quantifiable" is a much quoted criticism. Let us go back to Keeney et al. (1976, p. 12):

"The question is: *What is quantifiable?* An art expert might be hard pressed to give an objective formula for ranking the quality of paintings; nevertheless, he might be able to rank order these paintings saying, in effect, that given a choice between two paintings he would prefer one over the other. And, where we have rank orders, numbers can't be far behind. Our artist might even be willing to put a price tag on each painting, thereby quantifying one aspect of his subjective judgement. This sort of quantification is not done by means of an objective formula but by subjective introspection. Is it legitimate to work with such numbers? We do it all the time. As analysts we must learn how to incorporate such soft, squishy considerations as aesthetics, psychic factors, and just plain fun into our analyses. If we don't, the hard will drive out the soft and efficiency—very narrowly interpreted—will prevail."

Another source of skepticism is the hypothetical nature of questions posed to managers by experts in order to establish a ranking of preferences. Simple, apparently unrealistic, questions are used to inquire in complex subjects in a complex world. In fact, these questions are simple, but their answers are the fundamental components that allow to calculate, for example, weights in a preference function.¹⁸ Without these simple questions, finding preference functions would be complex.

¹⁸ Questions must be precise and understandable. See Keeney et al. (1976, p. 18).

The elements of our indicator of SME governance have two key features: they are relevant and they are measurable. Relevant means that, from its knowledge, decision makers have useful information to evaluate some governance dimension. Measurable means that the decision maker can discriminate between different levels of each element.

All the indicator's elements, taken as a whole, must meet some properties. The set must be complete (the questionnaire must cover all relevant aspects of a theory of governance), operative (elements must be measurable), descomposable (governance complexity must be divided into smaller, more treatable, problems), non redundant (the questionnaire must avoid double accounting) and minimum (to keep the questionnaire within reasonable limits).¹⁹ Finally, we add to this list the feature of explanatory power. In-depth knowledge of the concept of governance will allow causal explanations of the impact that each element has on governance quality.

XI. FINAL THOUGHTS

Our indicator is built on 84 questions. Undoubtedly, they are too many questions to be answered by a hurried executive during—say—a window in his agenda between two important meetings, but they are not too many questions for a firm's directors willing to evaluate the status of its firm's governance and reflect about it.

Who must answer the questionnaire? The first possible answer is: "the board", and, in fact, the board has all the required information to answer the questions; in addition, it is the board who might benefit the most from the exercise. Another possible answer is: "other stakeholders, perhaps working in team". Another: "people from academia who are studying cases on SME governance". And another: "gatekeepers, who would benefit from an in-depth understanding of SME governance". Etcetera.

Ours is not, as we see, an indicator amenable to be automatically estimated with a large data base with economic-financial information. It is rather a quantitative *checklist*, a map for good SME governance. The checklist could be annually analyzed in the context, for example, of an ISO 9000 program. As the board assigns points to governance elements, it learns about them and their relevance to the firm.

¹⁹ These features are taken from Keeney et al. (1976, p. 50) and we deem them valid even though we use them in a different context.

Unlike maximum possible scores used in National Quality Awards evaluations and other similar evaluation systems, which usually offer a maximum of 10 to 20 points to each question, this questionnaire has possible maxima that differ between them in one and even two orders of magnitude (maxima range from 1 point through 55 points). This lack of balance is made clear by a Pareto analysis: out of 16 themes in the indicator, the four most “bulky” cover 60% of the maximum amount of points, whereas the last four themes, only 4%.²⁰ These figures could be an invitation for directors and managers to concentrate efforts in the few themes that contribute the most to a solid governance. In this sense they are a compass for action.

In addition, Pareto analysis suggests the possibility to create a more parsimonious indicator, with fewer questions. However, we present three objections against this course of action. In the first place, current scores represent the author’s perspective and they could be modified with other perspectives. On the other hand, if themes and elements with small scores are eliminated, the value of the questionnaire as a checklist of themes and elements of SME governance is also diminished; its application as a complementary tool of the evaluation of the type performed by National Quality Awards would be limited, and its training value for directors and managers would also decrease. Finally, governance is an evolving concept and it is possible that elements that today rank low in the list of maximum possible scores change their relative ranking in the future. Elimination from the questionnaire would deprive them of visibility for future evaluation instances; and it would exclude them from the consciousness plane of a devoted director aiming at having an innovative firm that strives hard to improve its governance.

Finally, we firmly believe that SME can and must be measured. Through its measurement, managers and directors improve the understanding of their problems, and the organization as a whole learns the meaning and scope of concepts that, at least in its systematic treatment, are new for most members of a firm. Continuous improvement occurs. Mario Kutnowski comments on SME are important here:²¹

“A main obstacle for growth and diversification of SMEs in Argentina lies in the huge difficulty to access external financing, either through bank credit or bond emission. For various reasons, including deficiency in the collection, processing, and presentation of

²⁰ Notice that we do not discuss, at this stage of the indicator’s development, the statistical or econometric significance of variables.

²¹ Kutnowski, Mario, personal communication, November 22, 2007.

reliable performance data; insufficiency of collateral; or unstable structures, they capture only a minor portion of the savings available in the market. However, SMEs represent an important source of employment and often they treasure valuable innovation projects and ventures.”

And from these thoughts Kutnowski highlights the importance of “promoting a social balance for SMEs, with the explicit purpose of improving its access to financing” and of “developing a methodology to value intangible assets.” Following Kutnowski, we sincerely believe that the indicator here proposed, adequately improved, could serve to complete a credit profile useful for capital markets, in addition to serve as a tool for learning, improvement and internal and external benchmarking at SMEs.

APPENDIX
QUESTIONNAIRE FOR DETERMINING THE SME GOVERNANCE
INDICATOR

Instructions for Section I: GENERAL PRINCIPLES OF GOVERNANCE (Page 38)

The questions in this section refer to general principles of governance. Please, indicate the degree of observance that these principles have at your company, using the scales provided. After choosing your answer, write down the score indicated in column “Your firm’s score”. These scores will later be added in the “Total results” form, at the end of the questionnaire.

Instructions for Section II: STAKEHOLDERS (Page 40)

In this section we inquire about your firm’s *stakeholders*: shareholders, employees, customers, creditors, suppliers, government and general public, including environmental considerations. Please, indicate the degree of validity of each statement for your company, using the scales provided. After choosing your answer, write down the score indicated in column “Your firm’s score”. These scores will later be added in the “Total results” form, at the end of the questionnaire.

Instructions for Section III: BOARD’S WORK (Page 44)

In this section we inquire about the working style of your company’s board. Please answer either “Yes” or “No” to questions 57 through 64, and, for the remaining questions, establish your degree of agreement or disagreement with the statements, using the scales provided. After choosing your answer, write down the score indicated in column “Your firm’s score”. In the final page of the questionnaire you will find the “Total results” form, where you can make a summary of partial and total scores of your company’s governance.

Section I: GENERAL PRINCIPLES OF GOVERNANCE

Number	Questions	Answers and assigned score *					Your firm's score
		Strong "No"	Weak "No"	Implementation	Weak "Yes"	Strong "Yes"	
1. GENERAL PRINCIPLES OF GOVERNANCE (200 POINTS)							
a) Explicit consideration of governance (130 points)							
1	Has your company issued some document that explicitly highlights the importance of good governance?	0	2.5	5	6.5	7.5	
2	Does your company's annual memory have a section devoted to its performance in implementing governance principles, in addition to the provisions indicated by the regulatory framework?	0	2.5	5	6.5	7.5	
3	In addition to the principles of governance indicated in the corporation's chart or internal by-laws, does your company have a code of ethics, or code of behavior, or credo, that includes governance principles?	0	9	18	24	27.5	
4	Does your company stick to a code of good practices?	0	9	18	24	27.5	
5	Is there a person responsible for checking the introduction and enforcement of governance measures at your company?	0	20	40	52	60	
b) On information provision (40 points)							
6	Does exist in your company a person responsible for providing accounting and other information to markets and regulators, in order to strengthen information transparency?	0	5	10	12	14	
7	Are accounting criteria systematically updated at your company in order to improve accounting transparency?	0	2	4	5	6	
8	Does your company's management inform about expected performance objectives for upcoming years?	0	2	4	5	6	
9	Does exist in your company a mechanism that allows prompt answers to questions from stakeholders about topics of their interest?	0	5	10	12	14	

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- **Strong "No"**: No, and so far we have not considered the issue.
 - **Weak "No"**: No, but we are considering the issue.
 - **Implementation**: No, but we are in the process of implementation.
 - **Weak "Yes"**: Yes, recently.
 - **Strong "Yes"**: Yes.

Number	Questions	Answers and assigned score		Your firm's score
		Yes	No	
1. GENERAL PRINCIPLES OF GOVERNANCE (200 POINTS) (Cont.)				
c) Directors' representativeness (15 points) (*)				
10	Does the CEO or his/her family (children, siblings, direct nephews, wife, husband, brothers or sisters in-law, or their children) hold positions in the board?	0	3	
11	Do the CEO and the chairperson of the board belong to the same family or control group?	0	3	
12	Is the board integrated by non-independent directors only?	0	4.5	
13	Is the chairperson of the board a non-independent director?	0	4.5	
d) CEO duality (15 points)				
14	Is the CEO a permanent director on the firm's board?	0	7.5	
15	Is the CEO the chairperson of the board as well?	0	7.5	

* If your company does not consider that its situation related to its directors' representativeness is suboptimal, then you can assign the maximum score to questions 10 to 15 and continue with question 16.

Section II: STAKEHOLDERS

Number	Questions	Answers and assigned score *					Your firm's score
		TD	D	N	A	TA	
2. STAKEHOLDERS (500 POINTS)							
a) On the position of shareholders at the firm (230 points)							
16	Searching for value creation for the shareholder (measured, for example, by return on assets) is a core motivation for top management.	0	14	27.5	41	55	
17	Searching the benefit for the shareholder is a core motivation for top management.	0	12.5	25	37.5	50	
18	Future shareholders' income is a core concern of top management.	0	12.5	25	37.5	50	
19	By management orders, areas responsible for the preparation of accounting and other documents report on the company situation and its future perspectives with greater scope than that established by law.	0	4	7.5	11	15	
20	The board does not receive complaints from shareholders that are not part of it.	0	4	7.5	11	15	
21	Frequently, reports are prepared at the request of minority shareholders.	0	4	7.5	11	15	
22	There exist mechanisms for the minority shareholders to freely suggest themes for the board's agenda.	0	4	7.5	11	15	
23	Minority shareholders have veto power on key commercial and operative decisions.	0	4	7.5	11	15	
b) On the position of employees at the firm (80 points)							
24	Employees' salary level is a core concern of top management.	0	10	20	30	40	
25	Job security for our employees is a core concern of top management.	0	3	6	9	12	
26	Working conditions at our firm are a core concern of top management.	0	3	6	9	12	
27	My company devotes important resources to train its employees.	0	2	4	6	8	

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- **TD:** I am in total disagreement with this statement.
 - **D:** I am in disagreement with this statement.
 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
2. STAKEHOLDERS (500 POINTS) (Cont.)							
28	Periodic reports issued by the company have its employees as an important target.	0	0.5	1	1.5	2	
29	My company regularly issues news for its employees (newsboard, etc.).	0	0.5	1	1.5	2	
30	There exist systems to transmit complaints and opinions from the personnel.	0	1	2	3	4	
c) On the position of customers (55 points)							
31	Obtaining product/service quality for our customers is a fundamental objective in our firm.	0	2.5	5	7.5	10	
32	Our top management strives to provide our customers the greatest value at the lowest possible price.	0	2.5	5	7.5	10	
33	Our publicity, brochures, and sales literature convey a complete and truthful image of our products/services features.	0	4	7.5	11	15	
34	Our warranty policy and after-sale service is efficient and tries to maintain customer loyalty.	0	2.5	5	7.5	10	
35	There are no complaints from customers.	0	2.5	5	7.5	10	
d) On the position of banking and non-banking creditors (25 points)							
36	Economic capacity is the core concern of our company.	0	3.5	7	10.5	14	
37	Our accounting department applies the most modern techniques for forecasting cash flow and other financial variables.	0	1.25	2.5	3.75	5	
38	There are no claims from our creditors.	0	0.75	1.5	2.25	3	
39	Our financial information is broad and is available on the Internet to our creditors.	0	0.375	0.75	1.125	1.5	
40	Our creditors are allowed to participate as observants in our meetings.	0	0.375	0.75	1.125	1.5	
e) On the position of our suppliers (55 points)							
41	Our company makes every possible effort to guarantee our suppliers a long-lasting relationship.	0	3	6.25	9	12.5	

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- **TD:** I am in total disagreement with this statement.
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 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
2. STAKEHOLDERS (500 POINTS) (Cont.)							
42	We train our suppliers so that they can consistently improve their product/service quality.	0	1.875	3.75	5.6	7.5	
43	Our company carries out supplier development programs on a regular basis.	0	1.875	3.75	5.6	7.5	
44	Our company always pays its suppliers according to contract terms and industry practices.	0	3	6.25	9	12.5	
45	There are no complaints from suppliers towards our company.	0	4	7.5	11	15	
f) On the position of government (10 points)							
46	Employment creation is a core, explicit policy of our firm.	0	0.5	1	1.5	2	
47	Facilitating the job of government at all levels is a core concern of our firm.	0	0.75	1.5	2.25	3	
48	Our company always issues timely reports demanded by law (for example, those related to environmental variables).	0	0.75	1.5	2.25	3	
49	Our company collaborates with government to strengthen transparency in our industry, even beyond what the law demands.	0	0.5	1	1.5	2	
g) On society and the environment (45 points)							
50	Our company invests time and resources to strengthen operational safety and security.	0	3	6	9	12	
51	Our company conducts consultations with experts on industrial safety and its impact on society.	0	3	6	9	12	
52	Our company actively collaborates with insurance companies and industry chambers in order to improve the quality of our industrial safety and health.	0	2.75	5.5	8.25	11	
53	Our company offers all required industrial health-related information to the public and health authorities.	0	1	2	3	4	

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 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
2. STAKEHOLDERS (500 POINTS) (Cont.)							
54	Our company works hard in order to avoid damaging the environment.	0	0.5	1	1.5	2	
55	Our company is aware of the importance of saving natural resources and works to that end.	0	0.5	1	1.5	2	
56	Our company develops social initiatives in order to help the community.	0	0.5	1	1.5	2	

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- **TD:** I am in total disagreement with this statement.
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 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

Section III. THE BOARD'S WORKING STYLE

Number	Questions	Answers and assigned score		Your firm's score
		Yes	No	
3. THE BOARD (300 POINTS)				
a) Board's routine (20 points)				
57	Does the board meet less than once per quarter?	0	3.5	
58	Does the board always meet with the presence of top management?	0	3.5	
59	Is it necessary to establish a clear division of labor among directors?	0	3	
60	Is it necessary to establish a clear division of labor between the board and the CEO?	0	3	
61	Is it necessary to establish rules related to the evaluation and follow-up of the board decisions?	0	1.5	
62	Is it necessary to establish fixed rules related to board meetings, calls, agenda preparation, etc.?	0	3	
63	Does your company evaluate the board's work on an annual basis?	1.5	0	
64	Does your company evaluate the board's work after each meeting (or after a significant number of meetings)?	1	0	

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
3. THE BOARD (300 POINTS)							
(Cont.)							
b) Board's ability and compromise (160 points)							
65	The board has general ability in at least two areas of knowledge that are relevant to the firm.	0	2	5	15	30	
66	The board has familiarity with the conditions of the industry.	0	2	5	15	30	

-
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 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
3. THE BOARD (300 POINTS) (Cont.)							
67	The board has familiarity with the firm's operations.	0	2	5	15	30	
68	Directors are always well prepared for board meetings.	0	1.5	3.75	11.25	22.5	
69	Directors are always committed to their duties during board meetings.	0	1.5	3.75	11.25	22.5	
70	In addition to top management's reports, the board usually collects its own information on the progress of strategic decisions.	0	1	2	6	12.5	
71	Board members usually make incisive questions relative to top management's proposals.	0	1	2	6	12.5	
c) On the board's composition and behavior (35 points)							
72	There is a variety of directors in our firm's board. (*)	0	0.7	1.4	1.7	2	
73	In our company there has been no cases in which a manager or a director has a conflict of interests in transactions with related parties (for example, that an external director works for a firm with which our company plans to make a transaction.)	0	6.25	12.5	18.75	25	
74	During the last three years there has been in our company no disciplinary measure to the board or top management for violation of commercial law.	0	0.5	1	1.5	2	
75	During the last three years none of our directors has been sanctioned for violating her fiduciary duties.	0	0.5	1	1.5	2	
76	Top management's salary and benefits are related to company performance.	0	0.5	1	1.5	2	
77	The board has an agenda on management evaluation.	0	0.5	1	1.5	2	

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- **TD:** I am in total disagreement with this statement.
 - **D:** I am in disagreement with this statement.
 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

* If the company does not consider important having a variety of directors (internal directors, external directors, directors representing venture capital firms, etc.), you can assign to this question is maximum score and continue with question 73.

Number	Questions	Answers and assigned score*					Your firm's score
		TD	D	N	A	TA	
3. THE BOARD (300 POINTS) (Cont.)							
d) Control and monitoring (35 points)							
78	Our policy is that our directors must be committed to initiate decisions on markets, customers, employees, products, technology, budgets, etc.	0	3	6	9	12	
79	Our policy is that our directors must be committed to ratify decisions on markets, customers, employees, products, technology, budgets, etc.	0	2	4	6	8	
80	Our policy is that our directors must be committed to support the management team in implementing decisions on markets, customers, employees, products, technology, budgets, etc.	0	2.5	5	7.5	10	
81	Our policy is that our directors must be committed to monitor decisions on markets, customers, employees, products, technology, budgets, etc.	0	1.25	2.5	3.75	5	
e) Advice and <i>networking</i> activities (50 points)							
82	Our policy is that our directors must be committed to give advice relative to general administration, legal topics, economic and financial topics, technical issues, marketing, etc.	0	6.5	13	19.5	26	
83	Our policy is that our directors must be committed to contribute by affecting important parts of the environment, such as financial institutions, customer, and government bodies, in order to reduce uncertainty.	0	3	6	9	12	
84	Our policy is that our directors must be committed to contribute by affecting important parts of the environment, in order to strengthen it and enhance its image and brand name.	0	3	6	9	12	

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- **TD:** I am in total disagreement with this statement.
 - **D:** I am in disagreement with this statement.
 - **N:** I neither agree nor disagree with this statement.
 - **A:** I agree with this statement.
 - **TA:** I am in total disagreement with this statement.

TOTAL RESULTS

COMPONENT	Answers and assigned score					Your firm's score
	0	57	114	147	200	
COMPONENT 1: General principles of governance	0	57	114	147	200	
a) Explicit consideration of governance	0	43	86	113	130	
b) On information provision	0	14	28	34	40	
a) Directors' representativeness	0	*	*	*	15	
b) CEO duality	0	*	*	*	15	
COMPONENT 2: Stakeholders	0	126.75	250	372.25	500	
a) On the position of shareholders in the firm	0	59	115	171	230	
b) On the position of employees in the firm	0	20	40	60	80	
c) On the position of customers in the firm	0	14	27.5	41	55	
d) On the position of banking and non-banking creditors in the firm	0	6.25	12.5	18.75	25	
e) On the position of suppliers in the firm	0	13.75	27.5	40.25	55	
f) On the position of government	0	2.5	5	7.5	10	
g) On society in general and the environment	0	11.25	22.5	33.75	45	
COMPONENTE3: The board	0	41.2	86.9	170.2	300	
a) Board's routine	0	*	*	*	20	
b) Board's ability and compromise	0	11	26.5	80	160	
c) On the composition and behavior of the board	0	8.95	17.9	26.45	35	
d) Control and monitoring	0	8.75	17.5	26.25	35	
e) Advice and <i>networking</i> activities	0	12.5	25	37.5	50	
TOTAL SCORE	0	225	450.9	689.7	1000	

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