Accounting and Management Information Systems
Vol. 8, No. 3, pp. 324 – 351, 2009

SOME DETERMINANTS OF SOCIAL AND ENVIRONMENTAL DISCLOSURES IN ANNUAL REPORTS BY FRENCH FIRMS

Salma DAMAK-AYADI[1]
IHEC Carthage, Accounting Department, Tunisia
Researcher affiliated to CREFIGE, University of Paris Dauphine, France

ABSTRACT

This study develops and empirically tests a model on determinants of social and environmental disclosures (hereafter SED) in annual reports by CAC40 listed companies in France before and after the application of the new law related to social and environmental reporting called "nouvelles régulations économiques" (hereafter NRE) in 2002. First, the related literature is reviewed. Second, variables are defined before presenting the empirical tests. This study hypothesized that SED are correlated with the size, the industry's reputation, the financial performance, the stakeholders' salience and the NRE application. The model of total SED tested over the entire sample period shows that hypothesis related to the size, the industry's reputation, the NRE application and the diffuse stakeholders' salience are confirmed. Results indicate also, that the level of voluntary SED increases when the company has a bad industry's reputation and a high diffuse stakeholders' salience but it decreases if the company is subjected to the social and environmental reporting law. Finally, we conclude that the level of mandatory SED have a positive relationship with the size and the industry's reputation in the period following the application of the French law.

Social and environmental disclosures, voluntary, mandatory, NRE, stakeholder theory

[1] *Correspondence address*: Salma Damak-Ayadi, IHEC Carthage, Département Comptabilité, Tunisie, Tel: (00216) 71774720, Fax: (00216) 71775944, e-mail: salmadamak@yahoo.fr

INTRODUCTION

Social and environmental reporting has been steadily increasing in both size and complexity over the last three decades. Research attention over the years has attempted to codify, explain and understand an area of corporate activity, which appears to lie outside the conventional domains of accounting disclosure. The recent explosion of interest in social and environmental issues has been seen again in the emergence of different practices related to social and environmental reporting, which reports impacts of the firm's activity on society and natural environment to different stakeholders. Social and environmental reporting practices can take almost an infinite range of forms. The most common is reporting in annual reports and reporting through stand-alone social or environmental reports. It can take place also through advertising, product packaging, conferences and company websites. Most studies in the literature are related to voluntary information disclosed in annual reports because some companies has anticipated legislations in many countries for many reasons, which vary according to the theoretical foundation of the research; to develop corporate image; to legitimize current activity; to distract attention from other areas; to discharge accountability and to forestall legislation (Gray & Bebbington, 2001).

This study develops a model on determinants of SED in annual reports based on stakeholder theory in the French context. Social and environmental reporting have been regulated in France since 2002 with a new law "or NRE" that mandates all listed French corporations to report on the sustainability of their social and environmental performance. So this study distinguishes between mandatory and voluntary SED. This paper is structured as follow: the first section provides a brief review of prior researches that have explored factors influencing social and environmental reporting. The second section presents our hypotheses and models about which this paper is principally concerned. This study hypothesizes that SED are correlated with the size, the industry's reputation, the financial performance, the stakeholders' salience and the NRE application. Finally, results and conclusions, which give support to these hypotheses, are analyzed for total, voluntary and mandatory SED. Furthermore, additional analyses are produced to detect eventual changes due to the NRE application.

1. LITERATURE REVIEW

Although corporate social and environmental reporting has been the subject of substantial academic accounting research since three decades, literature does not possess an overall coherence (Gray *et al.*, 1995). Social and environmental reporting may take place through different media. Most researchers into such disclosure tend to focus on data contained within the corporations' annual reports;

a wide range of other different media may be employed: advertising, focus groups, employee councils, booklets, school education and so forth (Zeghal & Ahmed, 1990).

Three types of empirical studies characterize the research into corporate social and environmental reporting. The first related to "**descriptive studies**"[1] reports on the nature and the extent of SED with some comparisons on media, countries or periods. The second related to "**explicative studies**" focuses on determinants of social and environmental reporting and includes sometimes the first type of studies. The third is interested by the "**impact of social and environmental information**"[2] on various users mainly on market reaction. Our study adopts the second subject. In this context, we can distinguish between three approaches, which try to explain the social and environmental reporting practices': rational, conformist and moral approaches. The first approach considers that ethic attitudes are the result of a rational process of decision. So social and environmental reporting is practiced in order to fulfill organizational targets. Agency theorists have seen this phenomenon as a mean to reduce agency costs (Gray & Bebbington, 2001) and to increase profits (Bowman & Haire, 1975). The second approach integrates a conformist idea and suggests that social and environmental reporting helps firms to manage the divergent interests of stakeholders (Henriques & Sadorsky, 1999; Neu *et al.*, 1998; Roberts, 1992; Tilt, 1994). The last approach is moral. There are few studies in this context. Moral issues and social values are then the origin of the corporate social and environmental reporting. Gray and Bebbington (2001) and Adams and Kuasirikun (2000) think that the culture is the main factor that can justify the development of social and environmental reporting.

A lack of sufficient theoretical support to explain these practices leads to inconsistent, even contradictory, results. So the factors examined in previous literature have been broken down into three categories:

- Corporate characteristics (industry membership, size, country domicile, financial performance, ownership status)
- External factors (external concerns, legal concerns, public pressures, community concern, stakeholder importance, environmental challenges, and social concerns)
- Internal factors (processes of reporting, views and attitudes of key corporate players to aspects of reporting, presence of a social responsibility committee)

Table 1. **Studies on determinants of SED**

Studies	Context and sample	Factors studied
Abbott & Monsen (1979)	Fortune 500 companies (1964-1974)	Financial performance and employment size
Adams *et al.* (1998)	25 companies from six European countries France, Germany, the Netherlands, Sweden, Switzerland and UK	Industry membership, size and country domicile
Adams (2002)	3 British and 4 Germany companies	Internal factors (processes of reporting and views and attitudes of key corporate players to aspects of reporting)
Bowman & Haire (1975)	From 13 to 51 firms	Financial performance
Bowman (1978)	162 American companies	Financial performance
Chow & Wong-Boren (1987)	52 Mexican companies	Size, financial leverage, proportion of assets in place
Cormier & Gordon (2001)	3 electric utilities 2 publicly owned and one privately owned	Ownership status, size and information costs
Cormier *et al.* (2004)	Questionnaire to 41 managers in north American and European multinational firms	Firm specific factors, control variables (age of fixed assets, media exposure), financial condition variables
Cormier & Magnan (2003)	130 Canadian companies	Information costs, market profitability, volatility, debt, total assets, age of assets
Cormier *et al.* (2005)	76 large firms from Germany	Information costs, financial condition, public pressures, control variable (fixes assets age, firm size, SEC registrant)
Cowen *et al.* (1987)	134 American companies	Size, industry, profitability, the presence of a social responsibility committee
Deegan & Gordon (1996)	22 Australian organisations	Industry sensitivity index, size
Deegan *et al.* (2002)	BHP ltd	Community concern (Extend of media attention)
Fekrat *et al.* (1996)	168 companies in 6 industries and 18 countries	Environmental performance
Gao *et al.* (2005)	33 listed companies from Hong Kong	Size, industry, location, content themes
Gray *et al.* (2001)	100 UK companies	Turnover, capital employed, number of employees, profit for each years, industry classification
Hackston & Milne (1996)	50 companies listed on the New Zealand Stock Exchange	Size, industry, corporate profitability, country of ownership and reporting countries
Henriques & Sadorsky (1999)	400 firms	Stakeholder importance (questionnaire)
Ingram & Frazier (1980)	40 firms (from CEP index)	Environmental performance
Neu *et al.* (1998)	33 Canadian public companies	Financial stakeholder concerns, regulatory challenges, environmental challenges, societal concerns, other social disclosures and size
Patten (2002)	131 American companies	Environmental performance

Studies	Context and sample	Factors studied
Roberts (1992)	80 companies (CEP index)	Stakeholder power, economic performance, control variables (age of corporation, industry, log of average revenues)
Trotman & Bradley (1981)	207 Australian companies	Size, systematic risk, social constraints and management decision horizon
Wiseman (1982)	26 firms in environmentally sensitive industries (CEP index)	Environmental performance

Our research constitutes a prolongation of the previous studies cited in table 1, which tried to explain social and environmental reporting in the annual reports based on stakeholder approach but it introduces some highlights on these areas:

1.1 SED in the French context: there is a few number of studies related to social and environmental information reported in annual reports by French firms. International studies on social and environmental reporting are mainly focused on the Anglo-Saxon context, and the rare studies that are interested by the European context (Germany, Sweden, Spain), didn't treat thoroughly the French case. This paper will refer to the case of France and outline the position that the new law takes in this area for many reasons. Fist, France has historically been in the vanguard of social and environmental areas. The "bilan social" has been introduced since 1976, to report corporate social relationships and activities. Even if it was required for a restricted number of companies and it was neglected during the last decades, it constitutes the first obligatory support of social disclosure and proposes the first form of mandatory social information. Second, the French law about "les Nouvelles Régulations Economiques" introduced additional obligations about SED in annual reports for listed companies. It focuses predominantly on financial issues such as increasing the transparency of take-over bids, improving corporate governance, and fortifying antitrust regulation. However, several articles also legislated the social and environmental reporting. The NRE was first issued in May 2001 and it was additionally reinforced, in February 2002, through the application decree that gives social and environmental recommendations. Information related to the 18 items[3] required by the NRE must be disclosed in annual reports of listed French companies from 2002. But many French companies have anticipated the regulation and have voluntary published some social and environmental data in their annual reports long time before this date. In the literature there has been ongoing debate about whether legislation should be introduced in social and environmental reporting. Some researchers favor such legislation, where others feel that any regulation is unnecessary (Puxty, 1991). Tilt (1994) findings revealed that 92 % of pressure groups and users of social and environmental data think that standards or legislation are necessary. Most previous studies failed to distinguish between mandatory (meaning that required by law) and voluntary disclosures. Gray *et al.* (2001) think that this is one of the reasons, which can explain why these studies produced inconsistent results. No study was interested by the mandatory information after the NRE adoption, the standard and its effect on SED are examined in this paper.

1.2 Industry's reputation: A small number of studies has examined whether industry sector is able to explain social and environmental reporting. The results are less than consistent. Most of descriptive studies show that the industry affiliation is a relevant factor to explain variability of SED in term of volume, quality and locations. Abu-Baker & Naser (2000) found significant differences among various industry groupings were, on the other hand, noted with respect to the amounts, methods and locations of SED in the annual reports of the sampled companies. Hackston & Milne (1996) reported that disclosures are very important in high profile industries. Ness & Mirza (1991) found that this relationship holds specifically for the oil industry. These studies have used samples from the metals, oil, chemical, electronic computing, food processing, airline, and numerous other industries in analyses of corporate SED either because of data availability or because of the perception that the particular industry faced unique social pressure. Most of these studies consider the industry as a dichotomy variable and don't provide it a measure. We are inspired by reputation indexes method used to assess corporate social responsibility of some companies (Council on Economic Priorities, FORTUNE or Kinder Lydenberg Domini Compagny). This method observervs rate firms on the basis of one or more dimensions of social or environmental performance and provides a summary about perceptions of a specific subject. We apply this method to classify (in a growing order) some industries in France. The survey was conducted to evaluate the sensibility of twenty-two industries to social and environmental problems and investigates the perception of 100 students in management on the reputation of each sector[4]. The mean of the different observations gave by survey constitutes a reputation industry index for these sectors. This survey has so a double purpose: first, to detect "bad" or "good" reputation sectors' and to provide a measure to the industry variable in our empirical study.

1.3 Stakeholder approach: Our study tests the ability of stakeholder theory to explain the extent of both voluntary and mandatory SED in the French context. This theory appeared in recent years. The essential premises are as follow:

- The corporation has relationships with many groups of stakeholders (Freeman, 1984)
- The interests of all stakeholders have an intrinsic value and no set of interests is assumed to dominate the others (Clarkson, 1995)
- Stakeholder theory focuses on managerial decision-making (Jones & Wick, 1999),

Stakeholder theory deals essentially with the nature of the relationship between the organization and stakeholder. This theory focuses on managerial decision-making (Donaldson & Preston, 1995). Freeman (1984) has discussed the dynamics of stakeholders' influences on corporate decisions. A major role of corporate management is to assess the importance of meeting stakeholder demands, in order to achieve the strategic objectives of the firm. Stakeholder theory has been applied to analytical and empirical analyses on the firm and the environment in which it operates. In the literature, some studies examine the influence of stakeholders' pressures on the corporate decision (McGuire *et al*., 1988). Some previous studies used stakeholder theory to explain the variability of the level of SED (Roberts, 1992; Henriques & Sadorsky, 1999; Cormier *et al*., 2004; Cormier *et al*., 2005; Neu *et al*., 1998) are presented in the table 2.

Table 2. **Studies on determinants of SED used stakeholder theory**

Studies	Stakeholder groups	Factors studied	Measures	Results
Cormier *et al*. (2004)	Investors, lenders, suppliers, customers, governments, public	Firm specific factors (external concerns, legal concerns, product markets), Control variables Financial condition variables	Questionnaire age of fixed assets, media exposure return on assets, indebtedness, log assets, beta	Relationship between environmental managers' attitudes toward various stakeholder groups and how those managers respond to the stakeholders via the decision to disclose and the actual disclosures made.
Cormier *et al*. (2005)	Public pressures	Information costs Financial condition Public pressures Control variables	volatility (beta), reliance on capital markets, trading volume, concentrated ownership %, extensive foreign ownership % stock market performance (market return), leverage number of news fixed assets age, firm size (assets), sec registrant (binary)	Risk, Ownership, Fixed Assets Age, Firm Size determine the level of environmental disclosure by German firms in a given year. Moreover, consistent with institutional theory, results suggest that German firms' disclosure is converging over time. Overall, results strongly suggest that environmental disclosure is multidimensional and is driven by complementary forces.
Henriques & Sadorsky (1999)	Regulatory stakeholders, Organizational stakeholder, Community stakeholder, Media	Stakeholder importance	Questionnaire	Firms with more proactive profiles do differ from less environmentally committed firms in their perception of the relative importance of different stakeholders.

Studies	Stakeholder groups	Factors studied	Measures	Results
Neu *et al.* (1998)	Financial stakeholders concerns, Regulatory challenges, environmental challenges, societal concerns	Financial stakeholder concerns Regulatory challenges Environmental challenges Societal concerns Other social disclosures Size	profit, log total asset/total equity number of media articles number of negative articles number of articles on environment level of social disclosure log of gross revenue	Correlation with all factors with negative correlation with financial stakeholder concerns (profits) and environmental challenges (negative articles)
Roberts (1992)	Customers, owners, suppliers, public groups	Stakeholder power Economic performance Control variables	% of corporation owned by management and by individual shareholders owing more than 5%, natural log of dollars in political programs, average, average size of corporate public affairs staff, sponsor philanthropic foundation average of annual change in return on equity, beta age of corporation, industry, log of average revenues	Correlation with stakeholder power, economic performance and control variables

One of the major problems in the empirical application of stakeholder theory is the difficulty to measure the effect of these different actors on organizational decision. Freeman's definition (1984) of a stakeholder as *any group or individual who can affect or is affected by the achievement of the organization's objectives* is widely cited, but it offers an extremely wide field of possibilities regarding who is a stakeholder (Mitchell *et al*. 1999). So, we distinguish in our study between two groups:

- ✓ Contractual stakeholders: who have a contractual relationship with the firm as stockholders, customers, suppliers and employees.
- ✓ Diffuse stakeholders: who can affect or are affected by the achievement of the organization's objectives and who have not necessarily an explicit contractual relationship with firm as public organizations, community, nongovernmental organizations and public opinion.

According to Mitchell *et al.* (1999: 869), *the salience of stakeholder is the degree which managers give priority to competing stakeholder claims.* So we suggest that managers' perception of stakeholders' salience is a critical factor which can explain SED. A content analysis of director message contained in annual reports is used to analyze the salience of each group of contractual and diffuse stakeholders. The next section presents with full details different elements related to our research method.

2. RESEARCH METHOD

Our study hypothesizes that SED in annual reports are correlated with the size, the industry's reputation, the financial performance, the stakeholders' salience and the NRE application.

2.1 Hypotheses

This paper tests the following series of broad hypotheses:

2.1.1 The size

Company size has been suggested in several studies as a correlate of the level of corporate social responsibility activity. Stakeholder theory posited that corporate size would be related to social responsibility activities because larger companies are more likely to be scrutinized by both general public and socially sensitive special interest groups. Adams *et al.* (1998) indicate that company size influences corporate social reporting patterns. It was found that super-large companies are significantly more likely to disclose all types of corporate social information. Most of studies presented in table 1 has been demonstrated the same result (Chow & Wong-Boren, 1987; Cormier & Gordon, 2001; Cormier & Magnan, 2003; Cormier *et al*., 2005, Gao *et al.* 2005; Gray *et al.*, 2001; Hackston & Milne, 1996; Neu *et al*., 1998; Trotman & Bradley, 1981). Cowen *et al.* (1987) found a partial correlation with only certain types of SED, but Abbott and Monsen (1979) found no correlation.

Therefore, the following hypothesis is proposed:

H1: The size of the firm is positively correlated with the level of SED.

2.1.2 The reputation of industry

Exploring the relationship between industry and SED has produced somewhat more consistent results. Despite differences about countries, corporations and samples used, previous studies affirm that industry affiliation influences the extend and the nature of SED (Deegan & Gordon, 1996; Cowen *et al.,* 1987; Gao *et al.,* 2005; Gray *et al.,* 2001; Hackston & Milne, 1996; Roberts, 1992). According to Adams *et al.* (1998), industry membership was found to be related to the decision to report environmental and some employee information, but not to ethical disclosures.

We propose that, in annual reports of corporations affiliated in a high index reputation industry, we find more SED used to satisfy all stakeholders' groups.

Therefore, the following hypothesis is proposed:

H2: Firms operating in a bad sector's reputation disclose more social and environmental information in their annual reports.

2.1.3 Financial performance

The various theoretical themes in the literature result in conflicting predictions about the relationship between corporate social responsibility and profitability. The relationship between financial performance and SED is examined in many studies but researchers have not reached real consensus on the relationship between different variables used.
- Positive relationship (Gray *et al.,* 2001; Bowman & Haire, 1975; Bowman, 1978; Abbott & Menson, 1979).
- Negative relationship (Patten, 2002).
- No relationship (Chow & Wong-Boren, 1987; Freedman & Jaggi, 1982; Hackston & Milne, 1996; Cowen *et al*., 1987).

Therefore, the following hypothesis is proposed:

H3: The financial performance is correlated with the level of SED.

2.1.4 Stakeholders' salience

Previous studies based on stakeholder theory test some factors, which can influence SED (external concerns, legal concerns, product markets, public pressures, stakeholder importance, financial stakeholder concerns, regulatory challenges, environmental challenges, social concerns and stakeholder power). Several studies have empirically examined determinants of social disclosures in a stakeholder context. Using Ullmann's (1985) stakeholder framework, Roberts (1992) provided evidence on the relationship between a firm's overall strategy and the level of its SED. Roberts' findings indicate that stakeholder theory allows the analysis of *the impact of prior economic performance, strategic posture toward social responsibility activities, and the intensity of stakeholder power on levels of corporate social disclosure* (Roberts,1992: 610). According to Henriques &

Sadorsky (1999), firms with more proactive profiles do differ from less environmentally committed firms in their perception of the relative importance of different stakeholders. Neu *et al.* (1998) study's indicated a negative correlation between SED and financial stakeholder concerns (measured by profits) and environmental challenges (measured by the number of negative articles). Our study introduces an essential factor related to the stakeholders' salience to explain changes in the level of SED. The salience of both contractual and diffuse stakeholders is evaluated with a content analysis of the annual reports. We suggest that the salience of both contractual and diffuse stakeholders' groups encourages firms to publish more social and environmental information.

Therefore, following hypotheses are proposed:

H4: The contractual stakeholders' salience is positively correlated with the level of SED.

H5: The diffuse stakeholders' salience is positively correlated with the level of SED.

2.1.5 NRE application

We introduce in our model a dichotomy variable to examine the effect of the NRE application. The new law came into force in 2002. As a result, French listed companies have to disclose more social and environmental data in the annual reports from this date.

Therefore, the following hypothesis is proposed:

H5: Firms subject to the NRE disclose more social and environmental information in their annual reports.

2.2 Variable definition

2.2.1 Dependent variables

There is no SED database available in France, so we use a content analysis of annual reports to measure dependent variables. Unerman (2000) found that most of studies focused on social and environmental data disclosed in corporate annual reports that are regarded as important documents in social and environmental reporting due to the high degree of credibility that they lend to information reported within them (Tilt, 1994). There are two methods of information measurement in the literature: number of the communications and volume of the communications. The two approaches are interesting, but in the social and environmental reporting literature, the second method is usually used. It offers more richness to the research task and includes sometimes the first method. For this reason, we will adopt the method of the volume of the communications to measure the extent of SED reported by CAC40 listed companies.

Unerman's analysis identifies many methods used to quantify the volume of social and environmental data (the number of characters, words, sentences, pages, or proportion of pages devoted to different categories or the proportion of volume of SED to total disclosure). Words offer the advantage of being categorized more easily, thus the database will be concentrated on specified words. Pages however tend to be, according to Gray *et al.* (1995), the preferred method because it reflects total space and the importance attached to the subject. But the use of this method, easier to apply, is criticized because the choice of the page as measuring unit can bring to be unaware of the quality and the type of information communicated.

According to Milne and Alder (1999), using sentences for SED measurement seems likely, therefore, to provide complete, reliable and meaningful data. So we adopted this last method in this study and we distinguish between voluntary SED (VOLSED) and mandatory SED (MANSED). As a result, we proceed in two stages. On the one hand, we introduce dependent variable related to the volume of social and environmental disclosures (SED) over the entire sample period. Companies are investigated in six years (2000, 2001, 2002, 2003, 2004 and 2005) for the first model. On the other hand, we distinguish between voluntary and mandatory SED. The second model concerns the extent of voluntary SED and was tested over the entire sample period. But the third model on mandatory SED examines only data over the four years (2002, 2003, 2004 and 2005) following the first application of French law.

2.2.2 Independent variables

The independent variables used in the empirical tests represent the size, the reputation of industries, the financial performance, the stakeholders' salience and the NRE application. The proxies selected to represent these hypothesized influences on the level of social and environmental information in annual reports are discussed in this section.

Table 3. **Measures of size and financial performance in previous studies**

Variables	Measures	Studies
Size	Sales (or log)	Deegan & Gordon (1996), Hackston & Milne (1996), Roberts (1992), Trotman & Bradley (1981)
	Total assets (or log)	Cormier & Magnan (2003), Cormier *et al.* (2005), Hackston & Milne (1996), Trotman & Bradley (1981)
	Employees	Abbott & Monsen (1979)
	Market value of equity	Chow & Wong-Boren (1987)
	Book value of debt	Chow & Wong-Boren (1987
	Fortune Rank	Cowen *et al*. (1987)
	HK turnover for utility propriety firms	Gao *et al.* (2005)
	Interest received for banks	Gao *et al.* (2005)
	Log market capitalization	Hackston & Milne (1996)
Financial performance	ROA	Bowman & Haire (1975), Cormier *et al.* (2004), Hackston & Milne (1996)
	ROE	Bowman & Haire (1975), Bowman (1978), Cowen *et al.* (1987), Hackston & Milne (1996), Roberts (1992)
	Average total percentage return for investors	Abbott & Monsen (1979)
	Beta	Cormier *et al*. (2004), Cormier & Magnan (2003), Roberts (1992)
	Profit	Gray *et al*. (2001), Neu *et al*. (1998)
	Market return	Cormier *et al*. (2005), Cormier & Magnan (2003)

Size variables

Table 3 summarizes different measures for size variables. Sales and total assets are the most used. Unlike the others variables related to financial data, Cowen *et al.* (1987) based on the fortune rank of each company to evaluate the size impact on SED. In our study, variables related to the size are total sales (SAL) and number of employees (EMP). Logarithmic transformation of the total sales variable is used when estimating the model. The transformation is performed because variables with observations that are large in absolute amounts can overwhelm other variables during the logistic regression iteration process.

Reputation of the industry

Used usually as a dichotomy variable, the influence of industry affiliation is in our study treated differently. (IND) measures the average of scores allowed by students for the sensibility of each sector to social and environmental problems. The different indexes are reported in the appendix 2. We can conclude that nuclear and automobile have the highest reputation indexes, this means that these sectors are considered, in the French context, as the most social and environmental problematic. Sectors like optic, health, banks and services have less score indexes.

Financial performance variables
There is no real consensus on the proper measure of financial performance in previous studies. Most measures fall into two broad categories: investor's returns and accounting returns. Measures related to market fluctuations and accounting practices are avoided. We used earnings per share (ES).

Stakeholders' salience
The salience of both groups of stakeholders is evaluated with a content analysis of the disclosure of the companies in the annual reports. For each group of stakeholders:

- Contractual stakeholders: stockholders, employees, suppliers, customers and others contractual stakeholders.
- Diffuse stakeholders: public organism, non-governmental organizations, community, public opinion and others diffuse stakeholders.

The salience takes 1 if company indicates in director message in his annual report that this group of stakeholder takes importance and 0 if not. So, this measure can take values from 0 to 5.

NRE application
NRE variable is a dichotomy variable. It takes 1 if the company is subject to the NRE and 0 if not. So for the 36 listed French companies from 2002 it takes 1. For the all sample in the first period (2000 and 2001) and for the four foreign companies in the second period (from 2002 to 2005) it takes 0.

The various hypotheses and variables are combined into three empirical testable models specified as follows:

$$\mathbf{SED = C + b_1\,SAL + b_2\,EMP + b_3\,IND + b_4\,ES + b_5\,CS + b_6\,DS + b_7\,NRE + e_j}$$
$$\mathbf{VOLSED = C + b_1\,SAL + b_2\,EMP + b_3\,IND + b_4\,ES + b_5\,CS + b_6\,DS + b_7\,NRE + e_j}$$
$$\mathbf{MANSED = C + b_1\,SAL + b_2\,EMP + b_3\,IND + b_4\,ES + b_5\,CS + b_6\,DS + b_7\,NRE + e_j}$$

Where:
SED: total volume of social and environmental disclosures in the annual reports for the entire sample period (from 2000 to 2005)
VOLSED: total volume of voluntary social and environmental disclosures in the annual reports for the entire sample period (from 2000 to 2005)
MANSED: total volume of mandatory social and environmental disclosures in the annual reports for NRE application period (from 2002 to 2005)
C: constant
b_j: coefficient of the observation j in the model
SAL: size of the firm measured as the log of total sales
EMP: size of the firm measured as the number of employees
IND: reputation of industry measured as reputation index
ES: financial performance measured by earnings per share
CS: score of the salience of contractual stakeholders

DS: score of the salience of diffuse stakeholders
NRE: NRE application
e_j: error variable

2.3 Sample

The data investigates 40 listed French firms in the CAC40 index[5] from 2000 to 2005. The companies were classified into four major sectors, banking and insurance, services, commercial and manufacturing companies. First, the study tests hypotheses over the entire sample period (six years). Second, we distinguish between two models related to both voluntary and mandatory SED to introduce the effect of the French law application. But some data values for dependent or independent variables were missing for a small number of firms because their annual reports weren't available. So the number of observations employed is 130 for the mandatory model and 216 for the total and voluntary model. We must indicate that four companies listed in the CAC40 index are not concerned with the SED law due to their country domiciles (Arcelor Mittal in Luxembourg, Dexia in Belgium, EADS and St Microelectronics in the Netherlands).

3. RESULTS AND DISCUSSION

3.1 Descriptive statistics and correlation

Descriptive statistics and variable correlation are shown in table 4 and 5. Mean, standard deviation (SD), minimum (MIN) and maximum (MAX) values for independent and dependent variables are provided.

Table 4. **Descriptive statistics for dependent and independent variables**

	SED	VOLSED	MANSED	SAL	EMP	IND	ES	CS	DS	NRE
A	198.92	111.48	144.88	9.69	99916.21	8.43	3.29	2.64	1.14	0.6
SD	246.97	213.38	139.37	1.2	80523.34	4.39	9.05	1	1.29	0.48
MIN	0	0	0	-1,98	135	2.86	-84.76	0	0	0
MAX	1763	1763	753	13.71	436474	15.43	47.6	5	5	1

A : average SD : standard deviation MIN : minimum value MAX : maximum value

Table 5. **Variable correlation**

	SAL	EMP	IND	ES	CS	DS	NRE
SAL	1						
EMP	0.625	1					
IND	0.115	-0.014	1				
ES	-0.051	-0.1	0.119	1			
CS	0.205	0.162	0.049	-0.023	1		
DS	0.138	0.107	0.15	0.127	0.585	1	
NRE	0.081	0.082	-0.022	-0.094	0.028	-0.083	1

For the dependent variables, we note a large disparity in the level of total SED. The law restricts the mandatory SED, so there are fewer variations in the level of mandatory social and environmental information in annual reports. We can conclude that the average of voluntary SED is lowest than the average of mandatory SED. This means that the NRE contributes to delimit and to reduce globally the volume of voluntary SED in annual reports. Independent variables results show that there is relevant disparity in the descriptive statistic for the size measure (EMP). There are no significant differences in financial performance and reputation index variables. The score of stakeholders group shows that contractual stakeholders are most cited in directors' message in annual reports than the diffuse stakeholders.

3.2 Model tests

Table 6. **Hypotheses tests**

	SED		**VOL**	**SED**	**MAN**	**SED$_B$**
	Coeff	***P***	***Coeff***	***P***	***coeff***	***p***
C	-385.793	0.048	-184.897	0.253	-239.776	0.155
SAL	41.588	**0.053***	23.067	0.194	37.181	**0.047****
EMP	-3,620E-04	0.136	-3.301E-04	**0.1***	-1.120E-04	0.555
IND	11,442	**0.002*****	8.280	**0.006*****	4.621	**0.1***
ES	1,062	0.539	2.767E-02	0.985	1.526	0.228
CS	2,636	0.892	5.306	0.742	-4.722	0.773
DS	59,017	**0.000*****	59.194	**0.000*****	6.978	0.631
NRE	70,125	**0.029****	-79.840	**0.003*****		

* significant at the 10% level
** significant at the 5% level
*** significant at the 1% level coeff : regression coefficient p : p-value

Table 7. **Models adjustment**

	Entire	**Sample**	
	R^2	***R^2 Adjusted***	***SD***
SED	0.195	0.168	226.81
VOLSED	0.241	0.215	188.24
MANSED	0.08	0.036	137.57

3.2.1 SED model over the entire sample period

As can be seen by analyzing table 6, four hypotheses are confirmed for the total volume of SED. First, the industry's reputation is strongly and positively correlated with the level of SED. The sign found in the model corresponds to the expected sign. Thus, more the industry is renowned sensitive to the social and environmental problems or have a "bad reputation", more companies affiliated to this sector tend to increase the volume of social and environmental information in their annual reports. This result agrees with the majority of the former studies related to certain industries like oil and chemistry. Sectors having raised indicators of reputation, which have a bad reputation, are more exposed to criticisms and media. This sensitivity is often due to the nature of the activity, but certain voluntary or involuntary events produced in the sector can also cause it. Blacconiere and Northcut (1997) find some evidence that chemical firms with more environmental disclosures included in their reports had a less negative reaction to environmental regulation. Patten (2002) indicates that the disclosure level of American firms from non-environmentally sensitive industries is more affected by toxic release levels than is the disclosure of firms from environmentally sensitive industries.

Second, the SAL variable is significant at the level of 10%. This result suggests that there is a positive correlation between the volume of SED reported by the firms and their size. 95% of previous studies validate this relationship. In addition, Adams *et al.* (1998) indicate that while size and industry membership were important in all six countries concerned by their study, the amount and nature of information disclosed varies significantly across Europe. According to Hackston and Milne (1996), this positive relationship between size and SED is much stronger for the high-profile industry companies than for the low-profile industry companies.

Third, the NRE variable is significant at the 5% level. So this new law contributes to change companies' practices. Listed French companies devoted more attention to social and environmental data in their annual reports.

Finally, we can conclude that the salience of diffuse stakeholders (public organism, non-governmental organizations, community, public opinion and others diffuse stakeholders) is positively correlated with the level of SED at the level of 1%. The influence of the contractual stakeholders (stockholders, employees, suppliers, customers and others contractual stakeholders) is not significant. This result means that the companies, which give more attention to the diffuse stakeholders' groups tend to publish more social and environmental information in their annual reports to justify their social and environmental involvement. It agrees with the postulates of the stakeholder theory. The social and environmental information aims to inform all actors and not only the shareholders about the impact of corporate activity. Our study shows that the diffuse stakeholders seem to be the principal target by this practice.

No correlation found between SED and financial performance. This contributes to reinforce the idea that improvements in financial results are not necessarily accompanied by an improvement in publication of voluntary social and environmental information (Chow & Wong-Boren, 1987; Freedman & Jaggi, 1982; Hackston & Milne, 1996; Cowen *et al*., 1987). This result is confirmed for voluntary and mandatory SED by additional analysis produced to detect eventual changes due to the NRE application presented in the next section.

3.2.2 Voluntary and mandatory SED

A number of findings emerges from an analysis from the table 6. The voluntary SED model gives evidence that the level of voluntary SED are correlated with the size, the diffuse stakeholders' salience, the industry's reputation and the NRE application. Positive and strong relationships between the level of voluntary SED and three variables related to the industry's reputation, the salience of diffuse stakeholders and the NRE application, found in the total model, are confirmed for voluntary SED. EMP variable is significant at the level of 10% but the negative coefficient don't let us to conclude that biggest companies disclose more voluntary social and environmental data. Table 6 presents also results of mandatory SED tested in the NRE application period. The size and the industry are considered as determinant of the level of mandatory SED. The size variable (SAL) is strongly and positively correlated with mandatory SED. We can conclude that the industry's reputation influences positively the level of mandatory SED. There is no evidence of a possible relationship between two types of SED neither with the financial performance nor with the contractual stakeholders' salience.

CONCLUSION

This study proposes a model on determinants of SED in terms of size, reputation of industry, financial performance, stakeholders' salience and NRE application. In summary, the model is well specified and the effects of multicollinearity do not appear serious overall. The results of the empirical tests are of interest for several reasons. First, the significance of different models provides evidence that stakeholder theory is an appropriate foundation for empirical analyses of corporate social and environmental reporting. Second, results support that the size, the reputation of the industry and the NRE application are the most important factors, which influence the volume of social and environmental information in annual reports. Results show that hypothesis related to size, industry, diffuse stakeholders' salience and NRE application are confirmed when the model is tested for total SED over the entire sample period. In addition, findings indicate that voluntary SED increase for smaller companies, subjects to the NRE, affiliated to a high sensitive sectors and which pay more attention to their diffuse stakeholders. This research makes also evidence that even if this practice has been regulated since 2002, mandatory social and environmental reporting remains dependent on the size and the industry affiliation.

The results of this study provide strong evidence that application of stakeholder theory to empirical corporate social and environmental reporting research can move future research in this area. Various limitations point to the need for more researches on the determinants of the social and environmental reporting. The first limitation is related to the sample size. It is based on 40 firms. Future studies should attempt to incorporate a larger sample size to increase the generalization of the results. The second limitation concerns the different measures used. This study should be replicated to test the model in other periods, using different measures. It relied on a reputation indexes for the industry and a content analysis for the salience of stakeholders. Extensive efforts were made to develop accurate proxies for these factors. The introduction of new measures helps to reduce the biases of evaluators. Researchers need to find stronger ways to measure stakeholder effects. It may never be possible to measure this objectively. Therefore research in this area could focus on perceptions of these effects.

ACKNOWLEDGEMENTS

The author acknowledges the financial support of the AFC “Association Francophone de Comptabilité” in France.

[1]Adams & Kuarisikun (2000), Adams & Harte (1998), Abu-Baker & Naser (2000), Basamalah & Jermias (2005), Cerin (2002), Chan & Welford (2005), Gamble *et al*. (1996), Jaggi & Zhao (1998), Yongvanich & Guthrie (2005), Larrinaga *et al.* (2002), Line *et al*. (2002), Niskala & Pretes (1995), Peck & Sinding (2003), Sahay (2004), Tsang (1998), Williams & Pei (1999), Zeghal & Ahmed (1990), Moneva & Llna (2000), Mikol (2000), Guthrie & Parker (1990).

[2]Belkaoui (1976), Blacconiere & Northcut (1997), Anderson & Frankle (1980), Freedman & Patten (2004), Ingram (1978), Little *et al.* (1995), Lorraine *et al.* (2004), Meznar *et al.* (1994), Milne & Patten (2002), Patten (1990, 1992), Shane & Spicer (1983), Spicer (1978).

[3]See appendix 1

[4]100 students of business administration and management in Paris Dauphine University were questioned in 2004 about their views on the reputation of these industries. The results are controlled by 3 environmental experts (one researcher in social and environmental accounting and two environmental department directors in two French companies). Results are presented in appendix 2.

[5] See appendix 3.

REFERENCES

Abbott, W. & Monsen, J. (1979) "On the measurement of corporate social responsibility: Self reported disclosures as a method of measuring corporate social involvement", *Academy of Management Journal*, vol. 22, no. 3: 501-515

Abu-Baker, N.A. & Naser, K. (2000) "Empirical evidence on corporate social disclosure practices on Jordan", *International Journal of Commerce and Management*, 10: 18-34

Adams, C.A. (2002) "Internal organizational factors influencing corporate social and ethical reporting: Beyond current theorizing", *Accounting, Auditing and Accountability Journal,* vol. 15, no. 2: 223-250

Adams, C.A. & Harte, G.F. (1998) "The changing portrayal of the employment of women in British banks and retail companies corporate annual reports", *Accounting, Organizations and Society*, vol. 23, no. 8: 781-812

Adams, C.A., Hill, W.Y. & Roberts, C.B. (1995), *Environmental, employee and ethical reporting in Europe*, London: ACCA

Adams, C.A. & Kuasirikun, N. (2000) "A comparative analysis of corporate reporting on ethical issues by UK and German chemical and pharmaceutical companies", *The European Accounting Review,* vol. 9, no. 1: 53-79

Anderson, J.C. & Frankle, A.W. (1980) "Voluntary social reporting: An isobeta portfolio analysis", *The Accounting Review*, vol. LV, no. 3: 468-479

Basalamah, A.S. & Jermias, J. (2005) "Social and environmental reporting and auditing in Indonesia: Maintaining organizational legitimacy?", *Gadjah Mada International Journal of Business,* January-April, vol. 7, no. 1: 109-127

Becker, E.R. & Potter, J. S. (2002) "Organizational rationality, performance and social responsibility results from hospital industry", *Journal of Health and Care Finance*, 29: 23-48

Belkaoui, A. (1976) "The impact of the disclosure of the environmental effects of organizational behaviour on the market", *Financial Management*, vol. 5, no. 4: 26-31

Belkaoui, A. & Karpik P. (1989) "Determinants of the corporate decision to disclose social information", *Accounting, Auditing and Accountability Journal*, vol. 2, no. 1: 36-51

Berman, S., Wicks, A., Kotha, S. & Jones, T. (1999) "Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance", *Academy of Management Journal,* vol. 42, no. 5: 488-506

Blacconiere, W.G. & Northcut, W.D. (1997) "Environmental information and market reactions to environmental legislation", *Journal of Accounting, Auditing and Finance*, vol. 12, no. 2: 149-178

Bowman, E. & Haire, M. (1975) "A strategic posture toward corporate social responsibility", *California Management Review*, vol. 18, no. 2: 49-58

Bowman, E. (1978) "Strategy, annual reports and alchemy", *California Management Review*, vol. 20, no. 3: 64-71

Cerin, P. (2002) "Communication in corporate environmental reports", *Corporate Social Responsibility and Environmental Management*, vol. 9, no. 1: 46–66

Chan, J.C. & Welford, R. (2005) "Assessing Corporate environmental Risk in China: An evaluation of Reporting Activities of Hong Kong Listed Enterprises", *Corporate Social Responsibility and Environment Management*, vol. 12, no. 2: 88 –104

Chow, C.W & Wong-Boren, A.W. (1987) "Voluntary financial disclosure by Mexican corporations", *The Accounting Review,* vol. LXII, no. 3: 533-541

Clarkson, M.B.E. (1995) "A stakeholder framework for analyzing and evaluating corporate social performance", *Academy of Management Review*, vol. 20, no. 1: 92-117

Cormier, D. & Gordon, I.M. (2001) "An examination of social and environmental reporting strategies", *Accounting, Auditing and Accountability Journal*, vol. 14, no. 5: 587-616

Cormier, D., Gordon, I.M. & Magnan, M. (2004) "Corporate Environmental Disclosure: Contrasting Management's Perceptions with Reality", *Journal of Business Ethics,* vol. 49, no. 2: 143–165

Cormier, D. & Magnan M. (2003) "Environmental Reporting Management: A European Perspective", *Journal of Accounting and Public Policy*, vol. 22, no. 1: 43–62

Cormier, D., Magnan, M. & Van Velthoven, B. (2005) "Environmental disclosure quality in large German companies: Economic incentives, public pressures or institutional conditions?", *European Accounting Review*, vol. 14, no. 1: 3-39

Cornell, B. & Shapiro, A. (1987) "Corporate stakeholders and corporate finance", *Financial Management,* Spring: 5-14

Cowen, S., Ferreri, L.B. & Parker, L.D. (1987) "The impact of corporate characteristics on social responsibility: A typology and frequency based analysis", *Accounting, Organizations and Society*, vol.12, no. 2: 111-122

Deegan, C. & Gordon, B. (1996) "A study of the environmental disclosure practices of Australian corporations", Accounting *and Business Research*, vol. 26, no. 3: 187-199

Deegan, C., Rankin, M. & Tobin, J. (2002) "An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory", *Accounting, Auditing and Accountability Journal*, vol. 15, no. 3: 312-343

Donaldson, T. & Preston, L.E. (1995) "The stakeholder theory of corporation: Concepts, evidence and implications", *Academy of Management Review*, vol. 20, no. 1: 5-91

Fekrat, M., Inclan, C. & Petroni, D. (1996) "Corporate environmental disclosures: Competitive disclosure hypothesis using 1991 annual report data", *International Journal of Accounting*, vol. 31, no. 2: 175-195

Freedman, M. & Jaggi, B. (1982) "The SEC's pollution disclosure requirements, are they meaningful?", *California Management Review*, vol. 24, no. 2: 60-67

Freedman, M. & Patten, D.M. (2004) "Evidence on the pernicious effect of financial report environmental disclosure", *Accounting Forum*, vol. 28, no. 1: 27-41

Freeman, R.E. (1984) *Strategic management: A stakeholders approach*, Boston: Pitman

Gamble, G., Hsu, K., Jackson, C. & Tollerson, C. (1996) "Environmental disclosures in annual reports: An international perspective", *International Journal of Accounting*, vol. 31, no. 3: 293-331

Gao, S.S., Heravi, S. & Xiao, J.Z. (2005) "Determinants of corporate social and environmental reporting in Hong Kong: a research note", *Accounting Forum*, vol. 29, no. 2: 233-242

Gray, R. & Bebbington, J. (2001) *Accounting for the Environment*, London: SAGE publications

Gray, R., Javad, M., Power, D.M. & Sinclair, C.D. (2001) "Social and environmental disclosure and corporate characteristics: A research note and extension", *Journal of Business Finance and Accounting,* vol. 28, no. 3/4: 327-356

Gray, R., Kouhy, R. & Lavers, S. (1995) "Corporate social and environmental reporting: A review of the literature and longitudinal study of UK disclosure", *Accounting, Auditing and Accountability Journal,* vol. 8, no. 2: 47-77

Guthrie, J. & Parker, L.D. (1990) "Corporate social disclosure practice: A comparative international analysis", *Advances in Public Interest Accounting*, 3: 159-175

Hackston, D. & Milne, M. (1996) "Some determinants of social and environmental disclosures in New Zealand", *Accounting, Auditing and Accountability Journal*, vol. 9, no. 1: 77-108

Henriques, I. & Sadorsky, P. (1999) "The relationship between environmental commitment and managerial perceptions of stakeholder importance", *Academy of Management Journal*, vol. 42, no. 5: 87-99

Husted, B.W. & de Jesus Salazar, J. (2006) "Taking Friedman seriously: Maximizing profits and social performance", *Journal of Management Studies*, vol. 43, no. 1: 75-91

Ingram, R.W. (1978) "An investigation of the information content of certain social responsibility disclosures", *Journal of Accounting Research*, vol. 16, no. 2: 270-285

Ingram, R.W. & Frazier, K.B. (1980) "Environmental performance and corporate disclosure", *Journal of Accounting Research,* vol. 18, no. 2: 614-622

Jaggi, B. & Zhao, R. (1996) "Environmental Performance and Reporting: Perceptions of Managers and Accounting Professionals in Hong Kong", *The International Journal of Accounting*, vol. 31, no. 3: 333-346

Jones, J.M. & Wicks, A.C. (1999) "Convergent stakeholders theory", *Academy of Management Review,* vol. 24, no. 2: 206-221

Larrinaga, C., Carrasco, F., Correa, C., Llena, F. & Moneva, J.M. (2002) "Accountability and accounting regulation: The case of Spanish environmental disclosure standard", *The European Accounting Review*, vol. 11, no. 4: 723-740

Line, M., Hawley, H. & Krut, R. (2002) "The Development of Global Environmental and Social Reporting", *Corporate Environmental Strategy*, vol. 9, no. 1: 69-78

Little, P.M., Muoghalu, M.I. & Robison, H.D. (1995) "Hazardous waste lawsuits, financial disclosure, and investor's interests", *Journal of Accounting, Auditing and Finance*, vol. 10, no. 2: 383-398

Lorraine, N.H.J., Collison D.J. & Power, D.M. (2004) "An analysis of the stock market impact of environmental performance information", *Accounting Forum*, 28: 7–26

McGuire, J., Sundgren, A. & Schneeweis, T. (1988) "Corporate social responsibility and financial performance", *Academy of Management Journal*, vol. 31, no. 4: 854-872

McWilliams, A. & Siegel, D. (2001) "Corporate social responsibility: A theory of the firm perspective", *Academy of Management Review*, vol. 26, no. 1: 117-127

Meznar, M.B., Nigh, D. & Kwok, C.C.Y. (1994) "Effect of announcements of withdrawal from South Africa on stockholder wealth", *Academy of Management Review*, vol. 37, no. 6: 1633-1648

Mikol, A. (2000) "L'information environnementale publiée par les grandes sociétés françaises de 1992 à 1998 comparée à une information type ", *Revue Française de Comptabilité*, 322:67-72

Milne, M.J. & Adler, R.W. (1999) "Exploring the reliability of social and environmental disclosures content analysis", *Accounting, Auditing and Accountability Journal*, vol. 12, no. 2: 237-56

Milne, M.J. & Patten D.M. (2002) "Securing organizational legitimacy: and experimental decision case examining the impact of environmental disclosure", *Accounting, Auditing and Accountability Journal*, vol. 15, no. 3: 372-405

Mitchell, R., Agle, B. & Sonnenfeld, J. (1999) "What matters to CEOs? An investigation of stakeholder attributes and salience, corporate performance and CEO values", *Academy of Management Journal*, vol. 42, no. 5: 507-525

Moneva, J.M. & Llena, F. (2000) "Environmental disclosures in the annual reports of large companies in Spain", *The European Accounting Review*, vol. 29, no. 1: 7-29

Ness, K.E. & Mirza, A.M. (1991) "Corporate social disclosure: A note on a test of agency theory", *British Accounting Review,* vol. 23, no. 3: 211-218

Neu, D., Warsame, H. & Pedwell, K. (1998) "Managing public impressions: Environmental disclosures in annuals reports", *Accounting, Organizations and Society*, vol. 23, no. 3: 265-282

Niskala, M. & Pretes, M. (1995) "Environmental reporting in Finland: A note on use of annual reports", *Accounting, Organizations and Society*, vol. 20, no. 6: 457-466

Parker, L.D. (2005) "Social and environmental accountability research: a view from the commentary box", *Accounting, Auditing and Accountability Journal*, vol. 18, no. 16: 842-860

Patten, D.M. (1990) "The market reaction to social and responsibility disclosures: The case of the Sullivan Principles signings", *Accounting, Organizations and Society*, vol. 15, no. 6: 575-587

Patten, D.M. (1992) "Intra-industry environmental disclosures in response to the alasan oil spill: A note on legitimacy theory", *Accounting, Organizations and Society*, vol. 17, no. 5: 471-475

Patten, D.M. (2002) "The relation between environmental performance and environmental disclosure: A research note", *Accounting, Organizations and Society*, vol. 27, no. 8:763 -773

Peck, P. & Sinding, K. (2002) "Environmental and social disclosure and data richness in the mining industry", *Business Strategy and the Environment*, vol. 12, no. 3: 131–146

Pesqueux, Y. & Damak-Ayadi S. (2005) "Stakeholder theory in perspective", *Corporate Governance*, vol. 5, no. 2: 5-21

Preston, L.E. (1978) "Analyzing corporate social performance: Methods and results", *Journal of Contemporary Business,* vol. 7, no. 1: 135-150

Puxty, A.G. (1991) "Social Accountability and Universal Pragmatics", *Advances in Public Interest Accountin*g, vol. 4: 35-45

Roberts, R.W. (1992) "Determinants of corporate social responsibility disclosure: An application of stakeholder theory", *Accounting, Organizations and Society*, vol. 17, no. 6: 595-612

Ruf, B.M., Muralidhar, K., Brown, R. M., Janney, J. J. & Paul, K. (2001) "An empirical investigation of the relationship between change in corporate social performance and financial performance: A stakeholder theory perspective", *Journal of Business Ethics*, vol. 32, no. 2: 143-156

Sahay, A. (2004) "Environmental reporting by Indian corporations", *Corporate Social Responsibility and Environmental Management,* vol. 11: 12–22

Scott, S.G. & Lane, V.R. (2000) "A stakeholder approach to organizational identity", *Academy of Management Review*, vol. 25, no. 1: 43-62

Shane, P.B. & Spicer, B.H. (1983) "Market response to environmental information produced outside the firm", *The Accounting Review*, vol. LVIII, no. 3: 521-538

Singh, D.R. & Ahuja, J.M. (1983) “Corporate social reporting in India”, *International Journal of Accounting,* vol. 18, no. 8: 151-169

Spicer, B.H. (1978) “Investors corporate social performance and information disclosure: An empirical study”, *The Accounting Review*, vol. LIII, no. 1: 94-111

Tilt, C.A. (1994) “The influence of external pressure groups on corporate social disclosure: Some empirical evidence”, *Accounting Auditing and Accountability Journal*, vol. 7, no. 4: 44-72

Trotman, K.T. & Bradeley, G.W. (1981) “Associations between social responsibility disclosure and characteristics of companies”, *Accounting, Organizations and Society*, vol. 6, no. 4: 355-362

Tsang, E.W.K. (1998) “A longitudinal study of corporate social reporting in Singapore: The case of banking, food and beverages and hotel industries”, *Accounting, Auditing and Accountability Journal*, vol. 11, no. 5: 624-648

Ullmann A.A. (1985) “Data in search of a theory: A critical examination of the relationship among social performance, social disclosure and economic performance of US firms”, *Academy of Management Review*, vol. 10, no. 3: 540-557

Unerman, J. (2000) “Methodological issues: Reflections on quantification in corporate social reporting analysis”, *Accounting, Auditing and Accountability Journal*, vol. 135, no. 5: 667-680

Weaver, G., Trevino, L. & Cochran, P. (1999) “Integrated and decoupled corporate social performance: A management commitments, external pressures and corporate ethics practices”, *Academy of Management Journal*, vol. 42, no. 5: 539-552

Williams, S.M. & Pei, C.A.H.W. (1999) “Corporate social disclosures by listed companies on their web sites: an international comparison”, *The International Journal of Accounting,* vol. 34, no. 3: 389-419

Wiseman, J. (1982) “An evaluation of environmental disclosures made in corporate annual reports”, *Accounting, Organizations and Society,* vol. 7, no. 1: 53-63

Yongvanich, K. & Guthrie, J. (2005) “Extended performance reporting: an examination of the Australian mining industry”, *Accounting Forum*, vol. 29, no. 1: 103–119

Zeghal, D. & Ahmed, A.S. (1990) “Comparison of social responsibility information disclosure media used by Canadian firms”, *Accounting, Auditing and Accountability Journal,* vol. 3, no. 1: 38-53

Appendix 1

Social and environmental data required by the article L.225-102-1 of the French commercial code:Decree (n°2002-221 of February 20 2002)

Social data

1. *Employment*
2. *Organization of work schedule*
3. *Compensation*
4. *Social relations*
5. *Health and safety conditions*
6. *Training*
7. *Disabled employees*
8. *Social projects*
9. *scope of subcontracting*

Environmental data

1. *Environmental indicators: consumption of electric power, energy, drinking water, CO_2 emissions, production of toxic waste.*
2. *Measurements taken to limit the impact on environment;*
3. *Environmental programs and certification ;*
4. *Conformity to laws ;*
5. *Expenses engaged to prevent the consequences of the activity of the company on the environment;*
6. *Existence of a company service concerned by the management of the environment, the employee's formation and information;*
7. *Amount of provisions and guarantees engaged for environmental risks;*
8. *Amount of the allowances paid during the exercise for environmental damage caused by the company;*
9. *All elements transmitted to foreign subsidiary companies*

Appendix 2

Reputation indexes

Industry	*Mean*	*SD*	*MED*	*MIN*	*MAX*
Nuclear	16.22	5.95	19	0	20
Automobile	15.43	3.95	16	4	20
Energy	13.98	4.88	15	0	20
Chemical	13.74	5.08	15	1	20
Nickel	13.15	5.22	14	0	20
Industrial materials	12.94	4.17	13	1	20
Gas	12.81	5.27	14	0	20
Transport	12.21	4.32	12	2	20
Maintenance products	12.13	4.36	13	1	19
Waste treatment	12.02	5.98	13	0	20
Aeronautical	11.88	4.36	12	2	20
Road construction	11.48	4.04	11	1	19
Electronic materials	9.46	3.77	9	2	18
Farm produce	8.03	4.99	7	0	20
Building	7.75	4.13	8	0	20
Cosmetic	6.50	4.47	6	0	19
Distribution	5.89	3.42	6	0	19
Catering	4.14	3.41	3.5	0	15
Services and communication	3.73	3.98	3	0	16
Banks and insurances	3.73	3.98	3	0	16
Health	3.52	3.73	2	0	18
Optic	2.86	2.97	2	0	14

SD: standard deviation, MED: median, MIN: minimal value, MAX: maximal value

Appendix 3

Sample

Accor	Lafarge
AGF	Lagardère
Air Liquide	LVMH Moet Vuitton
Alcatel Lucent	Michelin
Alstom	Pernod-Ricard
Arcelor Mittal	Peugeot
Axa	PPR
BNP Paribas	Renault
Bouygues	Saint-Gobain
Cap Gemini	Sanofi-Aventis
Carrefour	Schneider Electric
Crédit Agricole	Société Générale
Dexia	STMicroelectronics
EADS	Suez
EDF	Thomson
Essilor International	Total
France Télécom	Vallourec
Gaz de France	Veolia Environnement
Groupe Danone	Vinci
L'Oréal	Vivendi