Trends and determinants of corporate non-financial disclosure in Greece

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ABSTRACT

An increasing number of business organizations around the world engage in the accounting for and reporting on non-financial aspects of performance, mainly within the domains of social and environmental responsibility. Using a composite disclosure index this study investigates the status of the non-financial disclosure practices of the top 100 companies operating in Greece. A number of determinants which potentially drive Greek firms to publicly disclose such information are examined, an investigation of the reporting practices of a subgroup of firms which is on the spotlight regarding their environmental performance is performed, while overlapping perspectives for the Greek case are outlined. The analysis suggests that only a small group of leading Greek firms appears to endorse a meaningful business-and-society dialogue as an instrument for stakeholder communication and the discharging of organizational accountability. Most other corporations still tend to treat such practices superficially and in an imprecise manner.

Keywords: Non-financial disclosure, accountability, corporate social responsibility, content analysis, Greece.

INTRODUCTION

Since the 1990s, the companies that endorse non-financial disclosure (NFD) have, in absolute numbers, substantially increased while the volume of such disclosures has risen respectively (KPMG, 2011). In the academic literature, a variety of terms has been coined in order to define such organizational accounting and disclosure practices which fall beyond the financial domain: 'social and environmental', 'corporate social responsibility', 'sustainability', 'ethical', 'triple-bottom-line'. These seemingly overlapping terms reflect the expanded accountability efforts, voluntary in principle, of a company towards its stakeholders and society as a whole. We chose to use the term 'non-financial disclosure' throughout this paper for all the aforementioned variations.

Gray *et al*. (1987) define such practices as "the process of communicating the social and environmental effects of organizations (particularly companies) beyond the traditional role of providing a financial account to the owners of capital, in particular shareholders. Such an extension builds upon the assumption that companies do have wider responsibilities than simply to make money for their shareholders" (Gray *et al*., 1987: p. 9). Likewise, according to Meek *et al*. (1995), voluntary NFD reflects "...disclosures in excess of requirements, representing free choices on the part of company management to provide accounting and other information deemed relevant to the decision needs of users of their annual reports" (Meek *et al*., 1995: p. 555). In line with the multidimensionality of the corporate social responsibility (CSR) construct, NFD encompasses a diverse range of performance aspects related (among others) to labour practices, human rights protection, product responsibility efforts and environmental management measures. As such, it has attracted considerable research interest in order to unveil and identify the regional-cultural or sectoral trajectories of disclosure practices (e.g. see recent insights by Sardinha *et al*., 2011; Lozano and Huisingh, 2011; Roca and Searcy, 2012; Sobhani *et al.*, 2012; Lodhia, 2012; Marimon *et al*., 2012).

Nowadays, there is a growing interest from the investor community for such information towards a more precise valuation of the firm (Schadewitz and Niskala, 2010; Berthelot *et al*., 2012; Sullivan and Gouldson, 2012). In this respect, during 2008-2010, professionally managed funds invested in socially responsible investments (SRIs) grew from $5 trillion to $7.6 trillion (Eurosif, 2010) and, consequently, pressures to obtain a more comprehensive depiction of corporate performance are strong. High-profile accounting scandals, environmental accidents and unethical practices have over the years broadened the expectations of other social constituents related to responsible business behaviour. In this context, a number of countries have enacted mandatory requirements for large firms (mostly those listed on the domestic stock exchange) to report on non-financial issues. For instance, France, Spain, the Netherlands, the UK, Sweden and Denmark have introduced legal requirements to enlarge the scope of conventional corporate accounting and reporting to include non-financial performance parameters. While voluntary disclosure has gained momentum among large for-profit entities (Marimon *et al*., 2012), still being the most recognized form of non-financial reporting, global trends indicate the further expansion of legally mandated disclosure to new countries in the near future (KPMG, 2010). These market-based, societal and regulatory developments explain the growth of corporate NFD and also encapsulate its driving forces and conceptual underpinnings.

In this respect, NFD has been defined as a valuable legitimation instrument which can mitigate social concerns and with a mediating effect in convincing societal members (i.e. stakeholders) that the organization is fulfilling their expectations (Lindblom, 1994). Thus, with public trust and confidence in for-profit entities decreasing after the current major economic crisis (Roth, 2009; A.W. Page Society and Business Roundtable Institute for Corporate Ethics, 2009), recent evidence shows that companies tend to utilize NFD and to actively engage in such communication channels in order to reduce or prevent accountability deficits and/or potential legitimacy 'gaps' (Haji and Mohd Ghazali, 2011; Mia and Al Mamun, 2011).

With this in mind, this study seeks to contribute by examining the state of non-financial reporting among a sample of large Greek firms. The sample includes firms operating in the environmentally degraded area of Asopos River which is known for heavy pollution of the underground water reserves with hexavalent chromium and have been on the spotlight for their environmental performance. To this end, the objective of the paper is threefold. First, it aims to shed light on the content, comprehensiveness and materiality of non-financial information disclosed by firms operating in Greece. Secondly, it seeks to investigate a number of determining factors for such practices and finally it sheds light on the disclosure practices of firms under accountability pressures regarding their environmental performance. After a discussion of prior literature, the article describes the hypotheses of the study. Next, the methodology of the assessment is presented along with the sample identification. The following section presents an analysis of data and relevant findings. In the final section, implications are discussed and remarks regarding the Greek case are drawn.

BACKGROUND

CONCEPTUAL UNDERPINNINGS

Gray *et al*. (1995) and more recently Parker (2005) are among the authors who have attempted to articulate in a comprehensive manner the theoretical context employed to explain the organization-society (non-financial) information flows and underlying accounting processes. Gray *et al*. point out that the different theoretical approaches available in the extant literature can be summarized in two distinct groups. In the first, we find those normative arguments that treat non-financial accountability as a practice complementary to conventional accounting, while, according to the second group, it reflects the essential role of information flows in the business-society dialogue (Gray *et al.*, 1995: p. 48). Parker denotes that in the former grouping are approaches "...informing theoretical frameworks such as decision-usefulness, economics based agency theory, stakeholder theory, legitimacy theory, and accountability theory. The latter group arguably embraces theoretical frameworks such as political economy accounting theories, deep green and social ecology theories, feminist and communitarian-based theories. Each have their unique foci, each offer particular analytical insights and understandings, and each have their limitations and critics" (Parker, 2005: p. 845).

The rise of NFD motivated academics to intensify empirical research on the specific field of corporate performance management and external communication. A considerable body of literature has been investigating the quality and comprehensiveness of such disclosures for more than 30 years. Landmark studies initially focused on social and environmental information disclosed in annual, financial reports (e.g. Abbot and Monsen, 1979; Neu et al., 1998; Roberts, 1992; Trotman and Bradley, 1981). Since the late 1980s the publication of stand-alone environmental reports, health and safety reports and the subsequent CSR/triple bottom line (TBL) reports provided, as novel forms of communication instruments, new opportunities to assess the non-financial accountability efforts of for-profit organizations (e.g. Ball et al., 2000; Daub, 2007). In this regard, the growth of the World Wide Web and internet-based communication channels turned research from paper-based reporting to the electronically-available disclosures made by companies on their websites (e.g. Adams and Frost, 2006; Bolivar, 2009; Chapple and Moon, 2005; Esrock and Leichty, 1998; Line *et al.*, 2002; Rikhardsson *et al*., 2002; Rowbottom and Lymer, 2009).

A group of the existing empirical research explores NFD in specific national business systems. Much of this literature has focused on the United States, the UK and Australia, while a smaller body of work has investigated such practices among countries of continental Europe. A number of studies investigate the case of Asian countries, such as Japan, Singapore, South Korea, Malaysia and Thailand. There is also evidence from New Zealand, Fiji and African countries (see Newson and Deegan, 2002 and Ratanajongkol *et al.*, 2006 for an overview), while, in order to unveil regional trends and the impact of national culture on reporting practices, some authors offer a comparative perspective and perform cross-country analyses. The findings of such research efforts, primarily descriptive in manner, have revealed emerging trends and shed light on the evaluation of business efforts to promote stakeholder engagement and effectively discharge their organizational accountability. Business organizations from regions and/or countries which are still lagging in terms of CSR awareness and performance monitoring, thus demonstrating limited NFD practices, are underrepresented in such studies, stressing the need to expand the existing pool of knowledge in the specific research field, something to which this paper aims to contribute.

According to Tixier (2003), companies adopt two mutually exclusive approaches towards social accountability: either flawless discretion which is more common in Latin countries or high-risk disclosure which is quite typical in Anglo-Saxon nations. Interpreting Tixier's typology, Birth *et al*. (2008) defines three elements that define the type of communication practices a firm follows. The first refers to the integration of CSR into the corporate vision and strategy. Companies that integrate their CSR practice into core strategic intent, aiming at win-win opportunities, operate in an Anglo-Saxon context while companies in Latin countries tend to treat CSR separately from their overall strategic vision. Secondly, in Latin-oriented countries the media tend to be sceptical about corporate CSR disclosure and organizations are cautious of what to report while in Anglo-Saxon countries they pursue media exposure since their CSR activities are positively welcomed by the business press. Finally, in a Latin context the upper management of a company regards the development of a ‘good corporate citizen’ image as too risky because of the underlying negative effects that may arise in case of misconduct. In contrast, Anglo-Saxon senior managers view CSR as another opportunity to enhance corporate image since extensive disclosure can alleviate potential future reputation crises.

GREEK BUSINESS AND NON-FINANCIAL DISCLOSURE

The low reform capacity and persistent weaknesses of the Greek economy did not appear to substantially affect official macroeconomic figures until the autumn of 2009, when other countries were striving to put forward bank bailouts and fiscal stimulus packages at that time (Rossi and Aguilera, 2010). Nevertheless, repeated revisions of the country’s deficit and debt figures were at least disturbing; they undermined market confidence while increasing the risk factor to other European peripheral countries and caused additional destabilization of the Eurozone during a period of intense turbulence.

In this context, the Greek business sector faces increased pressures to discharge its accountability as the country has fallen into turmoil due to a profound debt crisis. The National Integrity System assessment report (Transparency International Greece, 2012) provides supporting evidence for this claim, with the domestic business sector achieving the lowest score among the fundamental institutions and actors which ideally contribute to the integration of a social system. The report expresses strong reservations with regards to the transparency and accountability of Greek firms as well as to their ability to reduce bribery and corruption and, ultimately, endorse social cohesion. The recent bankruptcy of two major companies of the domestic banking and insurance sector due to accountability failures as well as indications of anti-competitive practices by domestic business entities (primarily in terms of price fixing and the formation of cartels) have had an undermining effect on the legitimacy of the Greek business sector. According to a cross-survey of 14 European countries (Burson-Marsteller, 2011), Greeks tend to be less trusting towards national companies[1] with 73% of respondents stating that CEOs are less trustworthy than the average employee. Moreover, 83% denotes that corporations and their spokespeople are dishonest with most of their communications to be deceptive. It is also striking that 99% of respondents would like to see more information publicly available concerning business practices and performance. Likewise, the Eurobarometer (2011) demonstrates similar findings with 79% of Greek respondents distrustful of large business entities, compared to an average of 59% of the 27 EU Member States.

Evidence prior to the crisis with respect to Greek firms' NFD are provided by Spanos and Mylonakis (2006) and Anargiridou and Papadopoulos (2009). These authors focused primarily on the web-based financial reporting practices of companies listed in the Athens Stock Exchange (ASE) using a composite disclosure index. However, their methodological approach includes only a small cluster of criteria on the CSR aspects of business activity, while results show that firms were disclosing a

[1] Greece is ranked 10th out of 14 European countries in the trust of national companies and businesses.

small amount of (mostly qualitative) relevant information. In addition, Spanos and Mylonakis highlight a wide variation across their sample firms, with large companies scoring much higher than medium and small-sized enterprises. The former also placed greater emphasis on the provision of information regarding charitable programs and donations, while, as these authors comment:

> "*...many Greek companies have been criticized that they adopt a CSR agenda in order to protect their own self-interests, promote customer and community relations, and manage their reputation rather than tackling challenging issues*".
>
> (Spanos and Mylonakis, 2006: p. 138)

More recently, Papaspyropoulos et al. (2010) examined the extent of the environmental reporting of the firms listed in the ASE (for the fiscal year 2007) in order to shed light on potential reporting discrepancies between ASE business sectors and pointed out that domestic corporations fail to effectively obtain environmental legitimacy. Their overall findings indicate no difference either in the reporting practices between capitalization categories and sectors in the ASE, or among the environmental sensitivity of firms and disclosure comprehensiveness.

It is these studies that serve as a basis for this study exploring the practice of NFD by the largest 100 Greek corporations as an attempt to discharge their accountability during the unfolding national financial-debt crisis. To this end, an analysis of the corporate website disclosures was performed and a disclosure index was devised in order to shed light on the trends and determinants of the Greek sample. In order to bolster our findings, a case study is also conducted exploring differences between the overall results with the disclosure practices of firms under intense scrutiny regarding their environmental performance, This group of firms is located in

Asopos area which has been on the headlines for over a decade for incidents of high pollution of the underground water reserves due to high concentration of hexavalent chromium residues and an associated high cancer rate of the local population. Over the years, calls for increased social responsibility have been expressed by both governmental bodies and inspector agencies as well as local communities and NGOs regarding the operation of these business organizations.

HYPOTHESES DEVELOPMENT

Along with the empirical evidence of corporate environmental and social disclosure from various countries around the globe, another group of studies investigates whether corporate characteristics are associated with reporting practices.

It is likely that an association exists between corporate size and the extent to which corporations disclose information (Adams *et al*., 1998; Belkaoui and Karpik, 1989; Cowen *et al*., 1987; Hackston and Milne, 1996; Neu *et al*., 1998; Patten, 1991; Trotman and Bradley 1981). Larger organizations' characteristics include high public visibility and significant social and environmental impacts (Cowen *et al*., 1987). They also have more resources to invest in NFD than smaller companies (Belal, 2001), and aim to present a positive image towards their stakeholders since they are more subjected to public scrutiny. Therefore, we hypothesize that:

H_1. Non-financial disclosure of Greek firms is dependent on organizational size.

Literature suggests a strong industry effect on environmental and social disclosure. In particular, companies in the mining, oil and chemical sectors seem to disclose more information regarding environmental management and employees' health and safety measures (Line *et al*., 2002), while the financial sector, and the tertiary-service sectors in general, seem to give more emphasis to labour practices, product responsibility and broader social issues (Line *et al*., 2002). In addition, corporations in sectors with high environmental sensitivity – that is firms classified in the petroleum, energy or transport sector – tend to disclose more information regarding their environmental performance than others (Hackston and Milne, 1996; Patten, 1991; Roberts, 1992). Finally, business organizations with high proximity to the final consumer – that is companies of the banking, retailing, utilities or food and beverages sector – are expected to provide more non-financial information (Arulampalam and Stoneman, 1995), since promoting a positive corporate image that assures responsible conduct, increases brand loyalty and motivates consumers to buy products of the specific brand (Meijer and Schuyt, 2005). While several EU Members have taken important steps towards corporate non-financial disclosure of listed firms, Greece (among other EU countries), seemingly disinclined to innovative or proactive CSR public policies, has not demonstrated fair indications of activity concerning either mandatory or discretional reporting on the non-financial performance of the major domestic companies, apart from a few guidelines regarding the insurance and banking sector (Allini and Rossi, 2007). Thus, we postulate the following hypotheses:

H_2. Non-financial disclosure of Greek firms varies by business sector.

H_{2a}. Greek companies pertaining to environmentally sensitive sectors will provide more environmental disclosures.

H_{2b}. Greek companies with high proximity to the final consumer will provide more non-financial disclosures.

Prior findings on the relationship between business profitability and non-financial disclosure are ambiguous (e.g. Belkaoui and Karpik, 1989; Cowen *et al*., 1987; Ismail and Chandler, 2005; Patten, 1991; Purushothaman *et al*., 2000; Roberts, 1992). Nevertheless, increased profitability can have a direct effect on the extent of environmental and social disclosure. Supporting arguments for this claim point out that a profitable organization is more exposed to social pressures (Ng and Koh, 1994), and is most likely managed by skilled and insightful executives who can potentially foresee the benefits of social responsiveness (Alexander and Buchholz, 1978; Belkaoui and Karpik, 1989), but mostly that it has the available economic resources to engage in NFD (Cowen *et al*., 1987; Hackston and Milne, 1996; Roberts, 1992). Thus, the following hypothesis is postulated:

H_3. Non-financial disclosure of Greek firms is dependent on profitability.

Chapple and Moon (2005) argue that the level of internationalization of a firm can lead to increased CSR and, in our case, to increased NFD efforts. They denote that "...as businesses trade in foreign countries, they see the need to establish their reputations as good citizens in the eyes of new host populations and consequently will engage in CSR as part of this process" as well as that "...the emerging systems of world economic governance create incentives for greater CSR" (p. 419). In a similar vein, Cooke (1989) stresses that a firm's presence in foreign markets postulates that it is bound to disclose more comprehensive information in line with the reporting rules of the foreign business system and Robb *et al*. (2001) offer empirical support that international presence can be a strong determinant for NFD. Following this rationale, we formulate the following hypotheses:

H_4. Non-financial disclosure of Greek firms depends on their level of internationalization.

A milestone in the diffusion of the CSR concept and the dissemination of related practices in the domestic economy is the formation of the Hellenic CSR Network, partner of the European CSR Network. The Hellenic CSR Network aims to promote the concept of CSR to both domestic businesses and Greek society with an endmost target to increase awareness on sustainable business practices. Since its conception there has been a steady growth in the core-members companies of the Network which is quite promising. Likewise, the Greek Business Council for Sustainable Development (BCSD) has recently been launched. The BCSD is a member of the World Business Council for Sustainable Development and represents the WBCSD's regional network. The 31 founding members – mainly industrial companies – have all signed a Code for Sustainable Development: a 10-point declaration on continuous improvement in economic, environmental and social performance. Isomorphic patterns and mimetic processes as reflected in the subscription to business coalitions and self-regulatory initiatives for CSR (DiMaggio and Powell, 1983; Matten and Moon, 2008) have a mediating role in the non-financial disclosure practices of Greek firms. In this context, the growing number of stand-alone NFD reports in Europe (KPMG, 2008) has been identified as a marking example of such processes in the homogenization of institutional environments across national boundaries (Matten and Moon, 2008: p. 412). In view of the above, we hypothesize that:

H_5. Members of the Hellenic CSR Network and the Greek Business Council for Sustainable Development provide more non-financial disclosures.

Tagesson *et al*. (2009) note that corporate identity is rarely considered as having a mediating effect on organizational non-financial reporting, because extant research has focused on the Anglo-American context, where government-owned corporations are rare. However, Secchi's (2006) evidence from Italy reveals that there is heterogeneity in the non-financial reporting practices of government-owned and privately-owned firms. In this respect, the size of the strongly bureaucratic, centralised public sector in Greece is notably larger than in other European countries, providing a broad range of social services. Calls for new public management techniques have been set forth (Phillipidou *et al.*, 2004), but efforts towards the modernization of the state are admittedly slow and previous transformational processes have proved unsuccessful (Kufidou *et al*., 1997; Philippidou *et al*., 2004).

Key factors for such failure include Greek state organizations' resistance to change, the myopic focus on regulations, the absence of robust strategic planning, the lack of employee motivation and stimuli to undertake initiatives in order to offer and apply new thinking in the organization (Ministry of Internal Affairs, 2000 in Phillipidou *et al*., 2004: p. 324). Nevertheless, according to preliminary arguments (Tsakarestou, 2004), it is reasonable to hypothesize that subsidiaries of foreign multinationals (MNCs), which have adopted a robust CSR agenda, can act as moral agents in the country and are more active in non-financial disclosure than those companies headquartered within the country. In addition, companies listed on the ASE constitute 'the 'core' of the country's business sector, represent the major sectors of economic activity and form an essential driving force of the domestic economy via their linkages with other, non-listed, enterprises. These firms are not only well-known to the financial and business analysts' community, but they tend to draw more public attention and receive more extensive media coverage than unlisted firms (Branco and Rodrigues, 2006). Given these, the following hypotheses are posited:

H_6. *Non-financial disclosure of Greek firms varies by ownership identity.*

H_{6a}. *Greek government-owned and government-linked corporations provide less non-financial disclosures.*

H_{6b}. *Subsidiaries of foreign MNCs provide more non-financial disclosures.*

H_{6c}. Companies listed on the Athens Stock Exchange provide more non-financial disclosures.

MATERIAL AND METHODS

The sample used in this study consists of the 100 largest companies operating in Greece (based on annual revenues) according to the ICAP's annual "Greece in Figures" report. Out of the companies in question, 32% belong to the manufacturing sector, followed by firms engaged in trade activities (31%), the banking-insurance sector (12%) and the utilities sector (11%). No other general business sector yielded more than 10% of the sample (the construction and building materials firms represent 6% while firms pertaining to other tertiary/service sectors represent 9% of the sample). Moreover, of the 36% of the firms listed in the ASE, 7% are government-owned, and 29% are privately-owned while 28% are subsidiaries of foreign multinationals. Table 1 outlines the corporate websites in terms of navigability, design and the format of disclosed non-financial information.

(Insert Table 1 around here)

The study seeks to explore the publicly available non-financial disclosures (hence the information communicated to every potential stakeholder of these firms). To achieve this, a web-based search was performed during the first quarter of 2011, locating the corporate websites of the sample companies and all the related information was identified. In cases of annual, stand-alone, non-financial reports (environmental, health and safety, CSR and/or sustainability), the most recent one was included in the analysis. Among the 100 corporate websites, one was under construction while three foreign subsidiaries redirected interested parties to the global website of the parent company. Sixteen of the sample firms are included in the subgroup of firms that operates in the environmentally degraded area of Asopos River.

In order to assess the multidimensionality and quality of non-financial disclosure, a composite quantitative content analysis approach was devised to examine the scope and comprehensiveness of reported information. Riffe *et al*. (2008) denote that 'quantitative content analysis is the systematic and replicable examination of symbols of communication, which have been assigned numeric values according to valid measurement rules and the analysis of relationships involving those values using statistical methods, to describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption' (p. 25). We distinguished 27 unweighted scoring criteria ('topics', see Appendix A) into 8 different criteria blocks ('themes') to allow for the classification of the different types of disclosed information. These are derived from the core CSR subjects defined by ISO 26000, the GRI's major aspects of CSR performance and Global Compact's principles for socially responsible business conduct. Furthermore, previous studies were of great help in defining the disclosure topics employed in the study (e.g. see Adams et al., 1998; Bolivar, 2008; Branco and Rodrigues, 2008; Gallego-Alvarez, 2008; Gray et al., 1995, Hackston and Milne, 1996; Holder-Webb et al, 2009; Patten, 1991; Purushothaman et al., 2000; Ratanajongkol et al, 2006; Rowbottom and Lymer, 2009; Sobhani et al, 2009; Williams and Pei, 1999).

Based on the defined 27 topics a composite NFD index was constructed as follows:

$$\boxed{NFD_{(i)} = \sum_{j=0,1,2}^{27} t_j} \quad (1)$$

where t_j equals to zero for non-disclosure, 1 if the organization i discloses brief and/or insufficient information on the j^{th} topic, and 2 if it provides extensive coverage and/or comprehensive disclosure on the specific topic. The assessment was performed between January and February 2011, independently by three researchers, two of which had previous experience with content analysis assessments while the third was less familiar with such coding schemes. There were negligible cases where differences in disclosure evaluation were identified. These were commonly discussed by the coders and modified accordingly in order to minimize the problem of inter-coding errors and the need for examining such reliability issues.

Independent variables

Company size is measured by the number of employees and turnover (Belkaoui and Karpik, 1989; Meek et al., 1995; Prencipe, 2004; Roberts, 1992; Trotman and Bradley, 1981).

Business sector is measured by a dichotomous classification of business activities into secondary sector or tertiary sector, as well as a six dummy variable pertaining to the segmentation of the top Greek firms presented in Appendix B.

Profitability is measured using return on equity (ROE) and return on assets (ROA) (Belkaoui and Karpik, 1989; Bewley and Li, 2000; Leventis and Weetman, 2005; Magness, 2006).

Internationalization is operationalized by the percentage of sales exported to other countries (Chapple and Moon, 2005; Choi, 1999; Depoers, 2000) as well as by the number of countries, besides Greece, where the organization operates (Chapple and Moon, 2005).

Environmental sensitivity, *consumer proximity* and *subscription to CSR initiatives* are also expressed by a binary zero/one variable, where one designates a company falling in these categories and zero if it is does not.

Ownership identity is measured by a four dummy variable pertaining to the segmentation of the top Greek firms presented in Appendix C.

Under this operationalization of variables and in order to examine the multiple effects of the independent variables on the comprehensiveness of non-financial disclosure in Greek companies, the generic mathematical equation of our analysis upon which an econometric model will be utilized for its verification, has the following form:

$$\text{NFD} = f(\text{size, sector, ownership identity, profitability, internationalization, subscription to CSR initiatives}) \quad (2)$$

RESULTS

NFD scores range from zero (15 companies) to 50 out of 54 points (one company). In total, only 19% of assessed organizations achieved a NFD score higher than the 50% of the maximum score while 33 firms were assigned a total score above the sample's average (14.17 out of 54). While the small number of companies in each sector provides results which are only indicative, it reflects the fact that the level of non-financial disclosure of Greek companies is fragmentary and poor. Tables 4 and 5 summarize the frequency of disclosed information pertaining to the environmental and social aspects of performance based on the previous section's segmentation of Greeks firms. Such types of reported information have been characterized by Daub (2007) as the 'hard facts', since an organization needs to invest resources in that direction in order to integrate and optimize its accountability efforts.

(Insert Tables 2 and 3 around here)

Indeed, the majority of assessed companies provide information on at least one topic of NFD. Nevertheless, disclosure is for the most part qualitative, inadequate and descriptive in manner. Most of the sample organizations fail to discharge their accountability on issues that refer to community relations and involvement, socially responsible marketing and anti-competitive behavior. Likewise, information on human rights protection, controlling bribery and corruption through their sphere of influence and quantitative indicators of environmental performance is piecemeal.

Overall, companies in the industrial sector tend to provide more disclosures on non-financial aspects of business operation – which is more evident in terms of environmental disclosures – than those of the tertiary sector. In contrast, service companies tend to focus primarily on employee training and skills' development practices. Firms listed in the ASE tend to be more actively engaged in non-financial disclosure, emphasizing the adoption of environmental management systems, waste management practices, employee training and occupational health and safety measures along with product/service responsibility procedures. Privately-owned and particularly government-owned business organizations seem at least unwilling to promote non-financial accountability, while subsidiaries of foreign multinationals can be placed somewhere in the middle of domestic firms, providing mostly fuzzy statements of non-financial performance and CSR policies.

The application of an Exploratory Factor Analysis (EFA) (Field, 2005) allowed the combination of initial variables into aggregate continuous indicators (factors). The new factors created through EFA were: i) organizational size in terms of number of employees and revenues (KMO=0.5, 76.5% variability explained), ii) profitability, which includes ROE and ROA (KMO=0.5, 85% variability explained) and iii) internationalization, expressed by the percentage of export sales and the number of foreign countries where the company has set up subsidiaries (KMO=0.5, 70% variability explained). In Table 4 correlations (conducted with the Pearson correlation coefficient) between all the variables used in the study are provided. Correlations investigating links of the NFD index with size, profitability and internationalization are used for the exploration of H_1, H_3 and H_4 of the study. In particular, the correlation matrix indicates support for H_1 (*Non-financial disclosure of Greek firms is dependent on organizational size*) and H_4 (*Non-financial disclosure of Greek firms depends on their level of internationalization*) but not for H_3 (*Non-financial disclosure of Greek firms is dependent on profitability*). As presented in Table 4, profitability is not correlated with any of the NFD variables. However, several positive statistical significant correlations are presented connecting size and internationalization with the NFD index components. Thus, we assert that companies demonstrating higher degrees of internationalization and of larger organizational size also tend to present higher scores in the NFD variables. Higher correlations are presented between internationalization and size with environmental disclosures ($r=0.580$ and $r=0.478$ respectively, $p<0.01$), internationalization with stakeholder engagement practices ($r=0.516$, $p<0.01$) as well as internationalization and size with labor practices ($r=0.554$ and $r=0.473$ respectively, $p<0.01$).

(Insert Table 4 around here)

The Kruskal-Wallis test (applied due to the non-normal distribution of variables) indicates statistically significant differences between the different business sectors (presented in Table 2) regarding the relative NFD scores ($x^2=15.748$, $p<0.01$). Higher NFD scores emerge for the banking, insurance and other financial services sector (25.92) followed by the utilities sector (20.72) and the construction and building materials sector (19.7). Companies pertaining to the other sectors that comprise the sample scored considerably lower (with scores ranging from 14.9 to 7.2 – see Table 7). These findings indicate support for H_2 (*Non-financial disclosure of Greek firms varies by business sector*).

(Insert Table 5 around here)

By conducting a comparison of means, higher mean scores emerge for companies belonging to environmentally sensitive sectors (i.e energy, petroleum, transport, mining, oil and gas, chemicals, construction and building materials, steel and other metals, electricity, gas distribution and water) in all disclosure criteria except those referring to corporate governance and broader societal issues (Table 8). Furthermore, the Mann-Whitney U test (applied due to the non-normal distribution of variables) revealed statistically significant differences in the case of vision and strategy, environment and labor practices disclosures (Table 9). Hypothesis H_{2a} (*Greek companies pertaining to environmentally sensitive sectors will provide more environmental disclosures*) is thus accepted. Likewise, the analysis suggests that firms with high proximity to the final consumer (household goods and textiles, beverages, food and drug retailers, telecommunications, utilities and financial services) provide more information related to community involvement (Table 10). However, as shown in Table 9, these differences are not statistically significant. Therefore, we offer mixed evidence with respect to Hypothesis H_{2b} (*Greek companies with high proximity to the final consumer will provide more non-financial disclosures*).

(Insert Tables 6-8 around here)

Members of the Hellenic CSR Network and the Greek Business Council for Sustainable Development have higher scores in all disclosure criteria (Table 11), including also the NFD index. For a significance level of 0.05, all these differences are statistically significant and provide support for H_5 (*Members of the Hellenic CSR Network and the Greek Business Council for Sustainable Development provide more non-financial disclosures* – see Table 9).

(Insert Table 9 around here)

When the mean NFD score differences for all types of ownership are analyzed simultaneously (using the Kruskal-Wallis test) there are statistically significant differences among the four ownership types (x^2=7.23, p=0.068). Therefore, findings suggest a trend respective to H_6 (*Non-financial disclosure of Greek firms varies by ownership identity*). The highest NFD score is presented for the ASE companies (20.17) followed by foreign subsidiaries (11.69) and privately-owned companies (10.38). By transforming the specific variable in four new dichotomous variables (representing in each category whether a company is included or not) a comparison of means is conducted with the Mann-Whitney U test. According to the analysis, the mean NFD score of ASE companies shows statistically significant differences when compared to the NFD score of all other companies. Furthermore, government-owned/linked companies have a lower NFD score and foreign subsidiaries demonstrate a higher one, when compared to all other companies. However in both cases the difference with the rest of the sample firms is not statistically significant (Table 12). In this regard, H_{6a} (*Greek government-owned and government-linked corporations provide less non-financial disclosures*) and H_{6b} (*Subsidiaries of foreign MNCs provide more non-financial disclosures*) are rejected whereas H_{6c} (*Companies listed in the Athens Stock Exchange provide more non-financial disclosures*) is accepted.

(Insert Table 10 around here)

Regression analysis was utilized in order to further explore the disclosure trends of Greek firms and their association with various determinants. Hence, the NFD index and the various NFD themes were introduced as dependent variables in regression models while determinants for disclosure were introduced as independent variables. For the selection of the final variables included in the mathematical equation (2) backward selection was employed as a suitable method for selecting the optimal set of independent variables[2].

In Table 11 only the regression coefficients of the statistically significant explanatory variables are included. Specifically, from the regression models it is observed that none of the explanatory variables has been found to be significant in explaining the variance in all NFD factors. However, internationalization, ownership identity and subscription to CSR initiatives are statistically significant explanatory variables for a large number of NFD factors. Specifically, internationalization is in all cases including the NFD index positively related to the NFD factors. The ownership identity categorical variable presents differences in the levels of NFD between government-owned firms and the rest of firms types (with the government-owned firms to appear negatively-related to NFD factors). Likewise, in most cases we observe a negative coefficient for the subscription to CSR initiatives explanatory variable. Furthermore, various NFD themes are subject to the firm-size effect, including the overall NFD index. Business sector has a statistically significant effect on a few of the NFD factors, with firms belonging to the construction and utilities industries exhibiting higher NFD scores when compared to the rest of business

[2] Through the backward selection technique we start by fitting a model with all the variables of interest dropping at each step the least significant one, and then the model is fitted again. If the fit is not improved the variable is re-entered and the iterative process continues until the most significant variables remain.

sectors. Environmental sensitivity is positively related to disclosure themes pertaining to vision and strategy, environment, labor practices and customer issues while profitability is a statistically significant predictor only for product responsibility disclosures. Finally, as concerns the overall NFD index, we observe that it is predicted by firm size, internationalization, ownership identity and subscription to CSR initiatives. The corresponding final estimated regression equation is given by:

$$\boxed{\begin{aligned} Y_{FDN} &= 26.26 + 2.486 \times X_{size} + 4.121 \times X_{\text{int}ernationalization} - \\ &-13.34 \times X_{ownership="government\ \ owned"} - 7.983 \times X_{CSR="no\ \ subscription\ \ to\ \ CSR"} \end{aligned}}$$

(Insert table 11 around here)

Finally, an investigation on the disclosure practices of the 16 firms which operate in the Asopos area reveals that they do respond to societal pressures for their controversial environmental responsibility by disclosing comparatively more NFD information. This is particularly true for the NFD aspects pertaining to stakeholder engagement as well as environmental protection.

(Insert tables 12 & 13 around here)

DISCUSSION - MANAGERIAL RELEVANCE

This assessment sought to explore the growing trend of corporate non-financial disclosure in Greece as an instrument for social accountability. It shed light on trends in disclosure practices of firms operating in the domestic economy and attempts to indicate potential factors that drive organizations to expand their accountability beyond financial performance. The study’s findings are in line with those of other country-level studies, yet similarities should be treated with caution since different methods have been applied and/or dissimilar communication channels as well as datasets have been assessed. Consistent with earlier work (e.g. see Sweeny and Coughlan, 2008; Holder-Webb *et al*., 2009; Morhardt, 2010), our assessment further confirms noticeable variation across sectors regarding their propensity to disclose non-financial information. More comprehensive environmental disclosures by industrial firms have been also identified in the recent studies of Liu and Anbumozhi (2009), da Silva Monteiro and Aibar-Guzmán (2010) Andrikopoulos and Kriklani (2012). Likewise, evidence from other national business systems, e.g. Portugal (Branco and Rodrigues, 2006; 2008) and Bangladesh (Sobhani et al., 2012), also suggest that tertiary activities place more emphasis on the customer-, community- and employee-related aspects of CSR. Moreover, comprehensive non-financial performance information was still found to be lacking in many companies, as in the case of Switzerland (Daub, 2007), the Netherlands (Asif et al., 2012), Italy and the UK (Mio and Venturelli, 2012) and China (Noronha et al. 2012). Nevertheless, contrary to findings offered by Tagesson et al. (2009) regarding state-owned firms in Sweden, Greek government-owned firms are not actively engaged in NFD which is mostly likely explained by inefficiencies and intrinsic characteristics of the state apparatus and public management as well as aspects of domestic socio-cultural tradition. Finally, our findings with respect to firms under scrutiny for their environmental responsibility in the Asopos area is in line with prior literature which suggests that organizations with questionable non-financial performance and, consequently, greater exposure to social scrutiny have a strong incentive to employ disclosure in an attempt to address the negative effects of such exposure on organizational image and reputation (Hughes *et al.*, 2001; Patten, 2002; Cho and Patten, 2007, Cho et al. 2012).

Under the typology of Tixier (2003) and Birth *et al*. (2008), the Greek case resembles a Latin-oriented NFD approach with all the aforementioned characteristics such an attitude indicates. In addition, in Visser's (2010) continuum of CSR embeddedness in organizational culture, the majority of the largest Greek firms assessed would pertain to charitable and promotional CSR since it is less than five firms which are articulating (i.e. materially disclose) a strategic CSR agenda, are actively engaged in overarching policy design, present interlinked CSR plans and SMART target-setting. However, as Roberts (1991) has stressed for the case of Western European countries, the fact that few businesses do provide comprehensive information and extensive environmental and social performance measures, indicates the practical feasibility of such efforts by more companies, if they desired to effectively discharge their social accountability and safeguard their 'license to operate'.

Apart from this small core sub-group of leading Greek firms seemingly engaged in the endorsement of CSR practices and non-financial accounting and reporting, most corporations still tend to treat NFD superficially and in a sketchy manner as an 'add-on' to their social marketing and public relations practices. Their efforts can be considered as 'window-dressing' providing mostly self-laudatory information, disregarding the benefits of fruitful business-and-society dialogue; bad news and information on negative aspects of performance is scarce. Considering charitable contributions and awards for socially and/or environmentally 'best-practice' as proxies of positive news, we found that 62 and 33 firms respectively disclosed relevant information in an attempt to demonstrate their CSR credentials. In contrast, only seven disclose sufficient information on accountability failures such as monetary and non-monetary sanctions for non-compliance with laws and regulations, quantitative information of bad non-financial performance or a clear statement that such sanctions have not been imposed on the organization and that aspects of non-financial performance have not deteriorated over the years.

With this in mind, the growing number of large Greek firms formally endorsing the Global Compact principles, the Global Reporting Initiative guidelines, along with locally-developed CSR initiatives, indicates mimetic processes that urge a domestic company towards expanded accountability. Certain similarities in the quantity and quality of disclosures can be attributed to mimetic conditions as a function to reduce uncertainty by imitating the practices of other organizations that are perceived to be more legitimate (and/or successful). Hedberg and von Malmborg (2003) stress that 'companies interact with each other and create isomorphic patterns for the design of environmental and sustainability reports' as well as that '(they) are watching each other in order not to do anything that is considered too much' (p. 159).

In addition, the weak NFD efforts can be partially attributed to the low stakeholder pressures on Greek firms to implement and refine effective non-financial accountability mechanisms. The government and regulators, investors, NGOs, supply chain and business associates in Greece have not critically challenged the business sector to adopt such legitimacy practices even though they potentially possess the socio-economic–political institutions' pressure to do so. Authors have indicated a comparatively weak civil society in Southern Europe (e.g. see Torcal and Montero 2000; Van Oorschot *et al*. 2006; Pichler and Wallace 2007). This problem is even more strongly asserted for the formal civil society in Greece (Lyberaki and Paraskevopoulos, 2002; Mouzelis, 1995; Mouzelis and Pagoulatos, 2003) even though such poor presence is not uniformly weak (Sotiropoulos, 2004). Likewise, Greece is characterized by particularly weak levels of social capital (Jones *et al*., 2008) that undermines social trust but also hampers networking among social actors (and, consequently, the process of information exchange that stems within such networks). These issues should always be examined in conjunction with the ineffective and inefficient central state bureaucracy, which over the years has fostered clientelistic, hierarchical relations and reinforced citizens' passiveness (Mouzelis, 1995) and their detachment from their 'right to know'. Additionally, normative dynamics that stem from the professionalization and efforts to establish a cognitive base and legitimation for a CSR-related occupational autonomy, are evident to an even lesser extent in Greece as the domestic educational and professional authorities that directly or indirectly set standards for 'legitimate' organizational practices infrequently include CSR and non-financial accounting and reporting in the curriculum and when it happens, it is only as an optional part of business education.

Whether managerial myopia or resistance to change (Stavroulakis, 2009), Greek management suffers from short-termism and an overarching cost-cutting strategic intent that leaves no room for dynamic changes in the accountability domain, even though some large business organizations have embraced long-term strategies (Theriou, 2004). In addition, Bakacsi *et al.* (2002) outline the highly individualistic, low performance target-setting as well as short-range oriented culture of Greek managers. Such an attitude fails to identify that NFD disclosure can be a new, innovative tool for gaining control and visibility of the environmental and social impact on the organizational level, highlighting the importance of gathering and assessing related internal information as well as discovering latent parameters of business operation of which they were previously unaware (Hedberg and von Malmborg, 2003). Thus, non-financial discourses of accountability (demonstrated by organizational disclosure practices and communication channels) by Greek firms is implemented primarily through selective and compartmentalized actions rather than a systemic modernization of business conduct (see Hollender and Breen, 2010).

Such a stance towards NFD is aggravated by the recent economic downturn of the national economy. Mathews (1995) argues that the volume of corporate social disclosure varies with economic conditions and that survival can be placed ahead of all other considerations (such as 'extensive reporting') in periods of economic stress. In this regard, the slump in the economy will most likely have a mediating effect in the diffusion of CSR in Greece and consequently affect the endorsement of NFD practices while such an effect will probably be more profound on companies which have adopted a superficial approach towards responsible business behavior (i.e. charitable and promotional CSR along with 'window-dressing' reporting practices).

CONCLUDING REMARKS

Our study is not without limitations. In our methodological approach all disclosure criteria were assigned equal weighting. A multi-weighted composite index would require certain processes to assign proper weights to each topic on the grounds of sound and scientifically justifiable arguments: focus groups, engagement with stakeholder groups and with the potential candidate firms for assessment in order to define the relative importance of individual disclosure topics. While this is without doubt a long-term project, the scope of the research would reduce potentially misleading findings. Future research can examine relevant issues of methodological nature and further refine the assessment of disclosed information.

In addition, the sample size is small and reflects only indicative findings of organizational practices of firms pertaining to different sectors and ownership structure. Such shortcomings are related to the problem of data access for operationalizing certain variables. This is due to the fact that some non-listed companies do not publicly disclose some financially-related information. Furthermore, in line with the criticisms of Thomson and Bebbington (2005), such an assessment does not investigate the underlying accounting processes and reporting procedures but only relies on their results (i.e. disclosures). Thus, the effectiveness of such stakeholder engagement attempts, the actual non-financial performance and the credibility of the supplied information are not directly evaluated (i.e. whether assessed Greek firms ‘walk the talk’). In addition, the NFD variables are qualitative in nature and as such only allow a scoring type of analysis. Our research design does not assess any potential improvements of firms’ accountability practices over time since it only examines the disclosures within a narrow time frame. In this regard, future studies can focus on a longitudinal analysis which would further bolster or challenge the findings of the present study as well as on qualitative perspectives of the corporate discourse around CSR and how Greek companies legitimate their CSR activities. Lastly, our approach can potentially be replicated in other Balkan counties, a region where evidence on the specific field is limited, and through a better understanding of comparative issues to define how national or even regional culture characteristics affect the decision of companies to discharge their accountability towards society through non-financial information flows.

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REFERENCES

Abbott, W. F., Monsen, R. J., 1979. On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of Management Journal*, *22*, 501–515.

Adams, C. A., Frost, G. R., 2006. Accessibility and functionality of the corporate Website: Implications for sustainability reporting. *Business Strategy and the Environment*, *15*, 275–287.

Adams, C., Hill, W. Y., Roberts, C., 1998. Corporate social reporting practices in Western Europe: Legitimating corporate behavior? *British Accounting Review, 30*, 1–21.

Alexander, G. J., Buchholz, R. A., 1978. Corporate social responsibility and stock market performance. *Academy of Management Journal, 21*, 479-486.

Allini, A., Rossi, F. M., 2007. The evolution of nonfinancial disclosure in a European perspective. Milano, The Fondazione Eni Enrico Mattei Series Index. Available at http://www.feem.it/Feem/Pub/Publications/CSRPapers/default.htm.

Anargiridou, C. D., Papadopoulos, L. D., 2009. The web-based financial reporting adopted by the listed companies in the Athens Stock Exchange. *Journal of Modern Accounting and Auditing*, *5*, 7-20.

Andrikopoulos, A., Kriklani, N., 2012. Environmental Disclosure and Financial Characteristics of the Firm: The Case of Denmark. *Corporate Social Responsibility and Environmental Management,* doi: 10.1002/csr.1281.

Arthur W. Page Society and Business Roundtable Institute for Corporate Ethics, 2009. *The dynamics of public trust in business - Emerging opportunities for leaders*. Retrieved February 20, 2012, from http://www.corporate-ethics.org/pdf/public_trust_in_Business.pdf.

Arulampalam, W., Stoneman, P., 1995. An investigation into the givings by large corporate donors to UK charities: 1979–86. *Applied Economics, 27,* 935–945.

Asif, M., Searcy, C., Santos, P. d., Kensah, D. (2012). A review of Dutch corporate sustainable development reports. *Corporate Social Responsibility and Environmental Management,* doi: 10.1002/csr.1284.

Bakacsi, G., Sándor, T., András K., Viktor, I., 2002. Eastern European cluster: Tradition and transition. *Journal of World Business, 37,* 69-80.

Ball, A., Owen, D. L., Gray, R., 2000. External transparency or internal capture: The role of third-party statements in adding value to corporate environmental reports' *Business Strategy and the Environment, 9*, 1–23.

Belkaoui, A., Karpik, P., 1989. Determinants of the corporate decision to disclose social information. *Accounting, Auditing and Accountability Journal, 2*, 36–51.

Berthelot, S., Coulmont, M., Serret, V., 2012. Do Investors Value Sustainability Reports? A Canadian Study. *Corporate Social Responsibility and Environmental Management,* doi: 10.1002/csr.285.

Bewley, K., Li, Y., 2000. Disclosure of environmental information by Canadian manufacturing companies: A voluntary disclosure perspective. *Advances in Environmental Accounting and Management, 1,* 201-226.

Birth, G., Illia, L., Lurati, F., Zamparini, A., 2008. Communicating CSR: practices among Switzerland's top 300 companies. *Corporate Communications: An International Journal, 13*, 182-196.

Bolivar, M. P. R., 2009. Evaluating corporate environmental reporting on the internet: The utility and resource industries in Spain. *Business and Society, 48*, 179–205.

Branco, M. C., Rodrigues, L. L., 2006. Communication of Corporate Social Responsibility by Portuguese Banks: A Legitimacy Theory Perspective. Corporate *Communications: An International Journal, 11*, 232–248.

Burson-Marsteller, 2011. *Trust and Purpose*. Retrieved February 15, 2012, from http://burson-marsteller.eu/innovation-insights/trust-and-purpose.

Chapple, W., Moon, J., 2005. Corporate social responsibility in Asia: A seven-country study of CSR website reporting. *Business and Society, 44*, 415–441.

Cho, C. H., Patten, D. M., 2007. The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society*, *32*, 639–647.

Cho, C. H., Guidy, R. P., Hageman, A. M., Patten, D. M., 2012. Do actions speaker louder than words? An empirical investigation of corporate environmental reputation. *Accounting, Organizations and Society*, *37*, 14-25.

Choi, J. S., 1999. An investigation of the initial voluntary environmental disclosures made in Korean semi-annual financial reports. Pacific Accounting Review, 11, 73-102.

Cooke, T. E., 1989. Voluntary corporate disclosure by Swedish companies. *Journal of International Financial Management and Accounting, 1*, 171–195.

Cowen, S. S., Ferreri, L. B., Parker, L. D., 1987. The impact of corporate characteristics on social responsibility disclosure: a typology and frequency-based analysis. *Accounting, Organizations and Society*, *12*, 111-122.

da Silva Monteiro, S. M., Aibar-Guzmán, B., 2010. Determinants of environmental disclosure in the annual reports of large companies operating in Portugal. *Corporate Social Responsibility and Environmental Management*, *17*: 185–204.

Daub, C. H. (2007). Assessing the quality of sustainability reports: an alternative methodological approach. *Journal of Cleaner Production, 15*, 75-85.

Depoers, F., 2000. A cost-benefit study of voluntary disclosure: Some empirical evidence from French listed companies. *European Accounting Review, 9*, 245-263.

Di Maggio, P. J., Powell, W. W., 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*, 147-160.

Esrock, S. L., Leichty, G. B., 1998. Social responsibility and corporate Web pages: Self presentation or agenda setting? *Public Relations Review, (Fall)*, 305–319.

Eurobarometer. 2011. *Standard Eurobarometer 74, Autumn 2010*. Brussels, Belgium: European Commission, DG Communication.

Eurosif, 2010. *European SRI Study*. Retrieved February 20, 2012, from http://www.eurosif.org/research/eurosif-sri-study.

Field, A. P., 2005. *Discovering statistics with SPSS*. London, UK: Sage (2nd edition).

Gallego-Alvarez, I., 2008. Analysis of social information as a measure of the ethical behavior of Spanish firms. *Management Decision, 46*, 580-599.

Gray, R. H., Owen, D. L., Maunders, K. T., 1987. *Corporate social reporting: Accounting and accountability*. Hemel Hempstead, UK: Prentice Hall.

Gray, R., Kouhy, R., Lavers, S., 1995. Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing and Accountability Journal, 8*, 47-77.

Hackston, D., Milne, M. J., 1996. Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing and Accountability Journal, 9*, 77–108.

Haji, A. A., Mohd Ghazali, N. A., 2011. The influence of the financial crisis on corporate voluntary disclosure: Some Malaysian evidence. *International Journal of Disclosure and Governance*, advance online publication, 1-25.

Hedberg, C. J., von Malmborg, F., 2003. The Global Reporting Initiative and corporate sustainability reporting in Swedish companies. *Corporate Social Responsibility and Environmental Management, 10*, 153-164.

Holder-Webb, L., Cohen, J., Nath, L., Wood, D., 2009. The supply of corporate social responsibility disclosures among US firms. *Journal of Business Ethics, 84*, 497-527.

Hollender, J., Breen, B., 2010. The responsibility revolution: How the next generation of businesses will win. San Francisco, USA: Jossey-Bass.

Hughes, S. B., Anderson, A., Golden, S., 2001. Corporate environmental disclosures: Are they useful in determining environmental performance? *Journal of Accounting and Public Policy*, *20*, 217-240.

Ismail, K. N. I. K., Chandler, R., 2005. Disclosure in the quarterly reports of Malaysian companies. *Financial Reporting, Regulation and Governance, 4*, 1–25.

Jones, N., Malesios, C., Iosifides, T., Sophoulis, C. M., 2008. Social capital in Greece: measurement and comparative perspectives. *South European Society and Politics*, *13*, 173-191.

KPMG, 2010. Carrots and Sticks: Promoting Transparency and Sustainability. Amsterdam, the Netherlands: KPMG Global Sustainability Services.

KPMG, 2011. International survey of corporate responsibility reporting 2011. Amsterdam: KPMG Global Sustainability Services.

Kufidou, S., Petridou, E., Mihail, D., 1997. Upgrading managerial work in the Greek civil service. *International Journal of Public Sector Management, 10*, 244–253.

Lindblom , C., 1994. *The implications of organizational legitimacy for corporate social performance and disclosure*. Paper presented at Critical Perspectives on Accounting Conference, New York.

Line, M., Hawley, H., Krut, R., 2002. The development of global environmental and social reporting. *Corporate Environmental Strategy*, *9*, 69-78.

Liu, X., Anbumozhi, V., 2009. Determinant factors of corporate environmental information disclosure: an empirical study of Chinese listed companies, *Journal of Cleaner Production, 17,* 593-600.

Lodhia, S., 2012. Web based social and environmental communication in the Australian minerals industry: an application of media richness framework. *Journal of Cleaner Production*, *25*, 73-85.

Lozano, R., Huisingh, D., 2011. Inter-linking issues and dimensions in sustainability reporting. *Journal of Cleaner Production, 19,* 99–107.

Lyberaki, A., Paraskevopoulos, C. J., 2002. *Social capital measurement in Greece*. Paper prepared for the OECD-ONS International Conference on Social Capital Measurement, London, UK, September 25-27.

Marimon F., del Mar Alonso-Almeida M., del Pilar Rodríguez M., Cortez Alejandro A. K., 2012. The worldwide diffusion of the global reporting initiative: what is the point? *Journal of Cleaner Production, 33*, 132–144.

Mathews, M. R. 1995. Social and environmental accounting: a practical demonstration of ethical concern? *Journal of Business Ethics, 14*, 663-671.

Matten, D. A., Moon, J., 2008. “Implicit” and “explicit” CSR: A conceptual framework for understanding of corporate social responsibility. *Academy of Management Review, 33*: 404–424.

Meek, G. K., Roberts C. B., Gray S. J., 1995. Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations. *Journal of International Business Studies, 26*, 555–572.

Meijer, M. M., Schuyt, T., 2005. Corporate social performance as a bottom line for consumers. *Business and Society, 44*, 442-461.

Mia, P., Al-Mamun, A., 2011. Corporate social disclosure during the global financial crisis. *International Journal of Economics and Finance, 3*, 174-187.

Morhardt, J. E., 2010. Corporate social responsibility and sustainability reporting on the Internet. *Business Strategy and the Environment, 19*, 436–452.

Mouzelis, N. P., 1995. Greece in the twenty-first century: Institutions and political culture. In: D. Constas and T. G. Stavrou (Eds.), Greece prepares for the twenty-first century (pp. 17–34). Baltimore, MD: Johns Hopkins University Press.

Mouzelis, N., Pagoulatos, G., 2003. Civil society and citizens in post war Greece. *Greek Review of Political Science, 22*, 5–29 (in Greek).

Neu, D., Warsame, H., Pedwell, K., 1998. Managing public impressions: environmental disclosures in annual reports. *Accounting, Organizations and Society, 23*, 265-282.

Newson, M., Deegan, C., 2002. Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. *The International Journal of Accounting, 37*, 183–213.

Ng, E. J., Koh, C. H., 1994. An agency theory and probit analytic approach to corporate non-mandatory disclosure compliance. *Asia-Pacific Journal of Accounting, 1*, 29-44.

Papaspyropoulos, K. G., Blioumis, V., Christodoulou, A. S., 2010. Environmental reporting in Greece: The Athens stock exchange. *African Journal of Business Management*, *4*, 2693-2704.

Parker, L. D., 2005. Social and environmental accountability research: A view from the commentary box. *Accounting, Auditing and Accountability Journal*, *18*, 842-860.

Patten, D. M., 1991. Exposure, legitimacy and social disclosure. *Journal of Accounting and Public Policy, 10*, 297–308.

Patten, D. M., 2002. The relation between environmental performance and environmental disclosure: A research note. *Accounting, Organizations and Society*, *27*, 763-773.

Pichler, F., Wallace, C., 2007. Patterns of formal and informal social capital in Europe. *European Sociological Review*, *23*, 423–435.

Prencipe, A., 2004. Proprietary costs and determinants of voluntary segment disclosure: Evidence from Italian listed companies. *European Accounting Review, 13*, 319–340.

Ratanajongkol, S., Davey, H., Low, M., 2006. Corporate social reporting in Thailand: the news is all good and increasing. *Qualitative Research in Accounting and Management*, *3*, 67-83.

Philippidou, S. S., Soderquist, K. E., Prastacos, G. P., 2004. Towards new public management in Greek public organisations and the path to implementation. *Public Organization Review: A Global Journal, 4*, 317–337.

Rikhardsson, P., Andersen, A. J. R., Bang, H., 2002. Sustainability reporting on the Internet: A study of the Global Fortune 500. *Greener Management International*, *40*, 57-75.

Riffe, D., Lacy, S., Fico, F. G., 2008. *Analyzing media messages: Using quantitative content analysis in research*. New Jersey, USA: Lawrence Erlbaum Associates.

Roberts, C. B., 1991. Environmental disclosures: A note on reporting practices in mainland Europe. *Accounting, Auditing and Accountability Journal, 4*, 62-71.

Roberts, R. W., 1992. Determinants of corporate social responsibility disclosure: an application of stakeholder theory. *Accounting, Organizations and Society, 17*, 595–612.

Roca, L. C. and Searcy, C. (2012). An analysis of indicators disclosed in corporate sustainability reports. *Journal of Cleaner Production, 20*, 103-118.

Rossi, V., Aguilera, R. D., 2010. No painless solution to Greece's debt crisis. Chatham House, Programme Paper IE PP 2010/03.

Roth, F., 2009. *Who can be trusted after the financial crisis?* CEPS Working Document No. 322. Brussels, Belgium: Centre for European Policy Studies.

Rowbottom, N., Lymer, A., 2009. Exploring the use of online corporate sustainability information. *Accounting Forum, 33*, 176–186.

Sardinha, I. D., Reijnders, L., Antunes, P., 2011. Using corporate social responsibility benchmarking framework to identify and assess corporate social responsibility trends of real estate companies owning and developing shopping centres. *Journal of Cleaner Production, 19*, 1486-1493.

Schadewitz, H., Niskala, M., 2010. Communication via responsibility reporting and its effect on firm value in Finland. *Corporate Social Responsibility and Environmental Management*, *17*, 96-106.

Secchi, D., 2006. The Italian experience in social reporting: an empirical analysis. *Corporate Social Responsibility and Environmental Management, 13*, 135-149.

Sobhani, F. A., Amran, A., Zainuddin, Y., 2009. Revisiting the practices of corporate social and environmental disclosure in Bangladesh. *Corporate Social Responsibility and Environmental Management, 16*, 167-183.

Sobhani, F. A., Amran, A., Zainuddin, Y., 2012. Sustainability disclosure in annual reports and websites: a study of the banking industry in Bangladesh. *Journal of Cleaner Production, 23*, 75–85.

Sotiropoulos, D. A., 2004. *Formal weakness and informal strength: Civil society in contemporary Greece*. London, UK: London School of Economics and Political Science, the Hellenic Observatory.

Spanos, M., Mylonakis, J., 2006. Internet corporate reporting in Greece. *European Journal of Economics, Finance and Administrative Sciences, 7*, 131-144.

Stavroulakis, D., 2009. HRM practices in view of internationalization: Evidence from business in Greece. *MIBES Transactions, 3*, 147-156.

Sullivan, R., Gouldson, A., 2012. Does voluntary carbon reporting meet investors' needs? *Journal of Cleaner Production, 36*, 60–67.

Sweeney, L., Coughlan, J., 2008. Do different industries report corporate social responsibility differently? An investigation through the lens of stakeholder theory. *Journal of Marketing Communications, 14*, 113-124.

Tagesson, T., Blank, V., Broberg, P., Collin, S. O., 2009. What explains the extent and content of social and environmental disclosures on corporate websites: A study of social and environmental reporting in Swedish listed corporations. *Corporate Social Responsibility and Environmental Management, 16*: 352–364.

Theriou, N. G., 2004. The long-range objectives and targets and the relationship between them: A survey of the top Greek companies. *Review of Economic Sciences, 6*, 145-160.

Thomson, I., Bebbington, J., 2005. Social and environmental reporting in the UK: A pedagogic evaluation. *Critical Perspectives on Accounting, 16*, 507-533.

Tixier, M., 2003. Soft vs hard approach in communicating on CSR. *Thunderbird International Business Review, 45*, 71-91.

Torcal, M., Montero, J. S., 2000. La formacion y consequencias del capital social en Espana. *Revista Espanola de Ciencia Politica, 1*, 79–121.

Transparency International Greece, 2012. *National Integrity System Assessment*. Athens, Greece: Transparency International Greece.

Trotman, K. T., Bradley, G. W., 1981. Associations between social responsibility disclosure and characteristics of companies. *Accounting, Organizations and Society, 6*, 355–362.

Tsakarestou, B., 2004. Greece: The experiment of market expansion. In Habisch A., J. Jonker, M. Wegner and R. Schmidpeter (eds.), Corporate social responsibility across Europe: 261–273. Berlin, Heidelberg: Springer.

Ullmann, A. A., 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of U.S. firms. *Academy of Management Review, 10*, 540–557.

Van Oorschot, W., Arts, W., Gelissen, J., 2006. Social capital in Europe: Measurement and social and regional distribution of a multifaceted phenomenon. *Acta Sociologica, 49*, 149–176.

Visser, W., 2010. The age of responsibility: CSR 2.0 and the new DNA of business. *Journal of Business systems, Governance and Ethics, 5*, 7-22.

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, 34*, 389-419.

Appendix A: The non-financial disclosure assessment criteria

Disclosure themes	Topics	Description
Vision & Strategy	CSR policy	Does the organization articulate a policy towards corporate responsibility?
	CSR/Sustainability SMART targets	Does the organization clearly define Specific, Measurable, Attainable, Relevant and Time-bound targets for the implementation of its CSR policy?
Stakeholders	Stakeholder definition	Does the organization articulate a definition of the social groups that comprise its stakeholders?
	Reactive stakeholder engagement	Does the organization rely on a reactive/informal dialogue with its stakeholders?
	Proactive stakeholder mechanisms	Does the organization endorse a proactive/structured dialogue with its stakeholders?
Corporate Governance	Code of Conduct	Does the organization disclose a code of conduct?
	Anti-bribery and anti-corruption	Does the organization disclose a policy or relevant measures to mitigate cases of bribery and corruption within its sphere of operations?
Environment	Environmental policy	Does the organization articulate a policy towards environmental protection and conservation?
	Environmental management system	Does the organization present a management system in place to manage its environmental impact?
	Energy consumption	Does the organization provide information concerning energy consumption?
	Water consumption	Does the organization provide information concerning water consumption?
	Material used	Does the organization provide information concerning the primary material used in its production processes?
	Waste management	Does the organization provide information concerning the management of wastes and by-products?
	Climate change policy and targets	Does the organization articulate a policy to mitigate its impact on climate change?
	Other environmental programs	Does the organization provide information on other environmental programs besides energy and resources management?
Labour Practices	Training and development	Does the organization disclose its approach to the training/ skill management of its employees?
	Health and safety	Does the organization disclose its approach to preserve the health and safety of its employees?
	Labour-management communication	Are there labour-top management communication mechanisms disclosed?
	Equal opportunities/ diversity	Does the organization articulate an approach to promote equal opportunities/diversity within its labour force?
	Other labour-related programs	Does the organization provide information on other labour-related programs?
Customer Issues	Product responsibility	Does the organization disclose an approach to mitigate any negative aspects of produced products/services which can potentially affect customers' health and safety, satisfaction and/or privacy?
	Marketing	Does the organization disclose an approach towards the adoption of responsible marketing practices?
Community Involvement	Charitable contributions	Is the company engaged in charitable contributions, donations to the local community and social investments?
	Local communities	Does the company disclose information on policy and practices to mitigate its negative impact on local communities in geographical places where it operates?
Broad Societal Issues	Anti-competitive policy	Does the organization disclose a policy or relevant measures regarding anti-competitive and antitrust behavior within its sphere of operations?
	Human rights policy	Does the organization disclose a policy or relevant measures to protect human rights within its sphere of operations?
	Supply chain management	Does the organization disclose information on policies/plans/programs in place in order to manage upstream CSR impacts? Does the organization disclose information on aspects of suppliers' CSR performance monitoring and evaluation?

Appendix B. A segmentation of top 100 Greek companies based on NACE coding**.**

Business activity	**Number of companies**
Manufacturing	**32**
Construction and building materials	**6**
Trade	**31**
Utilities	**11**
Banking, insurance, and finance	**12**
Other services	**8**

Appendix C. The ownership identity of the top 100 Greek companies.

Ownership identity	**Number of companies**
Listed in ASE	36
Privately-owned	29
Government-owned	7
Subsidiary of foreign	28

Table 1: Navigability, design and format of assessed web-based disclosures

Topics	**Companies (%)**
Usability & navigation	
Sitemap	72%
Other languages	68%
CSR-specific sub-section	58%
CSR-specific contact information	30%
CSR-related hyperlinks	29%
Stand-alone non-financial report	25%
Electronic format	
HTM/HTML	89%
PDF	34%
DOC	4%
EXCEL, XML/ XBRL	-

Table 2: Frequency of disclosed topics by sector.

Themes	Topics \ Business activity	Industrial/ secondary sector (n=42)			Service/ tertiary sector (n=54)		
		Extensive disclosures	Fuzzy statements	Non-disclosure	Extensive disclosures	Fuzzy statements	Non-disclosure
Environmental disclosures	Environmental policy	43%	29%	28%	24%	28%	48%
	EMS	38%	21%	41%	28%	6%	66%
	Energy consumption	17%	21%	62%	19%	9%	72%
	Water consumption	19%	14%	67%	17%	4%	79%
	Materials used	5%	21%	74%	6%	9%	85%
	Waste management	24%	40%	36%	22%	28%	50%
	Climate change policy	17%	17%	66%	13%	9%	78%
	Other env. plans/programs	17%	24%	59%	20%	19%	61%
Social disclosures	Employee training and development	26%	33%	41%	31%	37%	32%
	Occupational health and safety	43%	29%	28%	26%	19%	55%
	Labor - top management communication	7%	19%	74%	13%	19%	68%
	Diversity and equal opportunities	17%	21%	62%	20%	22%	58%
	Other employee-related plans/programs	10%	31%	59%	24%	20%	56%
	Human rights policy and practices	10%	10%	80%	11%	11%	78%
	Local communities	2%	7%	91%	4%	6%	90%
	Anti-competitive policy and practices	7%	2%	91%	2%	2%	96%
	Anti-corruption/bribery practices	14%	12%	74%	4%	15%	81%
	Responsible marketing practices	5%	7%	88%	7%	7%	86%
	Product responsibility practices	26%	45%	29%	30%	24%	46%
	Supply chain CSR screening	12%	12%	76%	13%	15%	72%

Table 3: Frequency of disclosed topics by ownership identity.

Themes	Topics / Ownership	Firms listed in ASE (n=36)			Privately-owned firms (n=29)			Government-owned (n=7)			Foreign subsidiaries (n=28)		
		Extensive disclosures	Fuzzy statements	Non-disclosure	Extensive disclosures	Fuzzy statements	Non-disclosure	Extensive disclosures	Fuzzy statements	Non-disclosure	Extensive disclosures	Fuzzy statements	Non-disclosure
Environmental disclosures	Environmental policy	43%	17%	40%	30%	33%	37%	43%	29%	28%	19%	37%	44%
	EMS	54%	6%	40%	26%	22%	52%	14%	14%	72%	15%	15%	70%
	Energy consumption	37%	20%	43%	11%	15%	74%	-	14%	86%	4%	11%	85%
	Water consumption	37%	9%	54%	11%	7%	82%	-	-	100%	4%	11%	85%
	Materials used	14%	23%	63%	-	11%	89%	-	-	100%	-	11%	89%
	Waste management	40%	26%	34%	19%	37%	44%	14%	29%	57%	7%	41%	52%
	Climate change policy	29%	14%	67%	4%	15%	81%	14%	-	86%	7%	7%	76%
	Other env. plans/programs	31%	11%	58%	11%	26%	62%	29%	14%	57%	7%	30%	63%
Social disclosures	Employee training and development	49%	31%	20%	19%	41%	40%	29%	29%	42%	15%	33%	52%
	Occupational health and safety	46%	23%	31%	33%	19%	48%	29%	29%	42%	19%	30%	51%
	Labor – top management communication	17%	34%	49%	11%	4%	85%	-	14%	86%	4%	15%	81%
	Diversity and equal opportunities	26%	31%	43%	15%	11%	74%	-	-	100%	19%	26%	65%
	Other employee-related plans/programs	31%	26%	43%	7%	26%	67%	14%	14%	72%	11%	26%	63%
	Human rights policy and practices	17%	11%	72%	4%	4%	92%	-	-	100%	15%	19%	66%
	Local communities	3%	6%	91%	4%	4%	92%	-	14%	86%	4%	7%	89%
	Anti-competitive policy and practices	3%	3%	94%	-	-	100%	-	-	100%	11%	4%	85%
	Anti-corruption/bribery practices	20%	9%	71%	-	7%	93%	-	-	100%	26%	7%	67%
	Product responsibility practices	37%	31%	32%	22%	41%	27%	29%	14%	57%	22%	33%	45%
	Responsible marketing practices	9%	14%	77%	4%	4%	92%	-	-	100%	7%	4%	89%
	Supply chain CSR screening	23%	9%	68%	4%	11%	85%	14%	-	86%	4%	22%	74%

Table 4. Pearson correlations between NFD aspects and potential NFD determinants.

	SIZE	PROF	INTER	STR	STAKE	GOV	ENV	LAB	CUST	COMM	BROAD	SECT	OWN	SENS	PROX
PROF	-0.098														
INTER	0.380**	-0.179													
STR	0.279**	-0.074	0.396**												
STAKE	0.315**	-0.137	0.516**	0.771**											
GOV	0.217*	0.069	0.301**	0.589**	0.554**										
ENV	0.478**	-0.075	0.580**	0.741**	0.828**	0.558**									
LAB	0.473**	-0.080	0.554**	0.747**	0.795**	0.619**	0.839**								
CUST	0.426**	0.045	0.353**	0.560**	0.642**	0.577**	0.695**	0.741**							
COMM	0.325**	-0.106	0.097	0.661**	0.557**	0.450**	0.564**	0.594**	0.577**						
BROAD	0.372**	0.112	0.356**	0.569**	0.649**	0.711**	0.679**	0.649**	0.665**	0.502**					
SECT	0.262**	-0.185	-0.042	-0.049	0.032	0.032	-0.013	0.156	0.107	0.135	0.060				
OWN	-0.244*	0.333**	-0.453**	-0.094	-0.175	0.021	-0.323**	-0.282**	-0.164	-0.010	-0.039	-0.210*			
SENS	0.024	-0.216*	0.157	0.214*	0.140	-0.128	0.235*	0.141	0.066	0.071	-0.069	-0.261**	-0.236*		
PROX	0.218*	-0.062	0.009	-0.052	0.068	0.198*	-0.014	0.093	0.186	0.081	0.123	0.205*	0.028	-0.554**	
INIT	0.435**	-0.084	0.335**	0.468**	0.467**	0.226*	0.565**	0.546**	0.412**	0.462**	0.298**	0.033	-0.110	0.174	-0.058

* Correlation is significant at the 0.05 level (2-tailed), ** Correlation is significant at the 0.01 level (2-tailed).

(PROF: Profitability, INTER: Internationalization, STR: Vision & Strategy, STAKE: Stakeholders, GOV: Corporate Governance, ENV: Environment, LAB: Labor Practices, CUST: Customer, COMM: Community Involvement, BROAD: Broader Societal Issues, SECT: Sector, OWN: Ownership Identity, SENS: Environmental Sensitivity, PROX: Consumer Proximity, INIT: Subscription to CSR initiatives)

Table 5. NFD mean scores and industry affiliation

Business sectors	n	NFD mean score
Trade	31	7.1935
Other services	8	7.8750
Manufacturing	32	14.8125
Construction and building materials	6	19.6667
Utilities	11	20.7273
Banking, insurance, and finance	12	25.92

Table 6. Group statistics for environmentally sensitive companies.

	Environmentally sensitive companies (Yes/No)	n	Mean	Std. Deviation	Std. Error Mean
Vision & Strategy	N	69	1.2319	1.43634	0.17292
	Y	31	1.9355	1.63168	0.29306
Stakeholders	N	69	0.9855	1.37726	0.16580
	Y	31	1.4194	1.54433	0.27737
Corporate Governance	N	69	0.8696	1.51379	0.18224
	Y	31	0.4839	1.06053	0.19048
Environment	N	69	3.7101	4.75921	0.57294
	Y	31	6.2581	5.28500	0.94921
Labor Practices	N	69	3.0000	3.31662	0.39927
	Y	31	3.9677	2.81050	0.50478
Customer Issues	N	69	1.0000	1.24853	0.15031
	Y	31	1.1613	0.82044	0.14735
Community Involvement	N	69	1.1594	1.00912	0.12148
	Y	31	1.3226	1.19407	0.21446
Broader Societal Issues	N	69	0.8551	1.45799	0.17552
	Y	31	0.6452	1.35520	0.24340

Table 7. Mann-Whitney U tests.

	Vision & Strategy	Stakeholders	Corporate Governance	Environment	Labor practices	Customer Issues	Community Involvement	Broader Societal Issues
Environmental sensitivity*								
Mann-Whitney U test	804.500	898.500	1000.500	703.500	793.000	867.500	1006.500	1014.500
Wilcoxon W	3219.500	3313.500	1496.500	3118.500	3208.000	3282.500	3421.500	1510.500
Z	-2.064	-1.377	-0.651	-2.773	-2.088	-1.587	-0.507	-0.501
Asymp. Sig. (2-tailed)	.039	.169	.515	.006	.037	.113	.612	.616
Consumer proximity**								
Mann-Whitney U test	1210.000	1128.000	1042.500	1215.000	1159.000	1054.500	1119.500	1143.500
Wilcoxon W	2536.000	2353.000	2267.500	2541.000	2384.000	2279.500	2344.500	2368.500
Z	-0.285	-0.905	-1.806	-0.242	-0.632	-1.417	-0.969	-0.893
Asymp. Sig. (2-tailed)	.776	.365	.071	.809	.527	.156	.333	.372
Subscription to CSR initiatives***								
Mann-Whitney U test	582.500	628.000	979.000	498.500	500.000	651.000	617.000	782.000
Wilcoxon W	2293.500	2339.000	2690.000	2209.500	2211.000	2362.000	2328.000	2493.000
Z	-4.638	-4.451	-2.113	-5.109	-5.081	-4.174	-4.536	-3.720
Asymp. Sig. (2-tailed)	.000	.000	.035	.000	.000	.000	.000	.000

* Grouping Variable: Low/High environmentally sensitive sectors (energy, petroleum, transport, mining, oil and gas, chemicals, construction and building materials, steel and other metals, electricity, gas distribution and water) (binary variable).
** Grouping Variable: Low/High consumer proximity (household goods and textiles, beverages, food and drug retailers, telecommunications, utilities and financial services) (binary variable).
*** Grouping Variable: Subscription to domestic CSR initiatives (Hellenic CSR Network and the Greek Business Council for Sustainable Development) (binary variable).

Table 8. Group statistics for consumer proximity.

	Consumer Proximity (Yes/No)	N	Mean	Std. Deviation	Std. Error Mean
Vision & Strategy	N	49	1.5306	1.60860	0.22980
	Y	51	1.3725	1.45548	0.20381
Stakeholders	N	49	1.0204	1.40668	0.20095
	Y	51	1.2157	1.47396	0.20640
Corporate Governance	N	49	0.4694	1.10117	0.15731
	Y	51	1.0196	1.59361	0.22315
Environment	N	49	4.5714	5.04149	0.72021
	Y	51	4.4314	5.09217	0.71305
Labor Practices	N	49	3.0000	2.87953	0.41136
	Y	51	3.5882	3.45934	0.48441
Customer Issues	N	49	0.8367	0.89784	0.12826
	Y	51	1.2549	1.29373	0.18116
Community Involvement	N	49	1.1224	1.12976	0.16139
	Y	51	1.2941	1.00587	0.14085
Broader Societal Issues	N	49	0.6122	1.31998	0.18857
	Y	51	0.9608	1.50945	0.21136

Table 9. Group statistics for companies endorsing domestic CSR initiatives.

	Subscription to CSR initiatives (Yes/No)	N	Mean	Std. Deviation	Std. Error Mean
Vision and Strategy	N	58	.8448	1.22549	0.16091
	Y	42	2.2857	1.51876	0.23435
Stakeholders	N	58	.5517	.93981	0.12340
	Y	42	1.9048	1.63513	0.25231
Corporate Governance	N	58	.4828	1.11200	0.14601
	Y	42	1.1190	1.65577	0.25549
Environment	N	58	2.0862	2.76751	0.36339
	Y	42	7.8333	5.57834	0.86076
Labor Practices	N	58	1.8276	2.00996	0.26392
	Y	42	5.3333	3.40492	0.52539
Customer Issues	N	58	.6552	.88954	0.11680
	Y	42	1.5952	1.21092	0.18685
Community Involvement	N	58	.7931	.91304	0.11989
	Y	42	1.7857	1.00087	0.15444
Broader Societal Issues	N	58	.4310	1.15640	0.15184
	Y	42	1.2857	1.61224	0.24877

Table 10. Mean NFD scores and Mann-Whitney U test for ownership identity.

	Ownership type (Yes/No)	Mean NFD	Mann-Whitney U test
Listed in ASE	Y	20.17	-770.500**
	N	10.94	
Privately owned	Y	10.38	838.00
	N	15.72	
Government owned	Y	10.14	292.00
	N	14.47	
Subsidiary of foreign firm	Y	15.18	887.500
	N	11.69	

*p<0.01, **p<0.05

Table 11. Linear regressions with aggregate variables.

	Dependent variable								
	Vision and Strategy	Stakeholders	Corporate Governance	Environment	Labor Practices	Customer Issues	Community Involvement	Broader Societal Issues	NFD
Constant	3.085***	2.647***	0.772 (n.s.)	7.873***	6.69***	2.437***	1.939**	0.826 (n.s.)	26.26***
Size	--	--	--	1.017**	--	0.236*	--	0.37**	2.486*
Profitability	--	--	--	--	--	0.238**	--	--	--
Internationalization	0.35*	0.554***	0.323*	1.571***	0.973***	-0.604**	--	0.29*	4.121**
Business sector (ref.: Other services)									
Construction	--	--	1.631**	--	--	--	--	--	--
Utilities	--	--	1.521**	--	--	--	1.029**	1.268*	--
Environmental sensitivity (ref.: Environmentally sensitive)									
Not environmentally sensitive	-0.788*	--	--	-2.134*	-1.373*	-0.679**	--	--	--
Ownership identity (ref.: Subsidiary of foreign company)									
Government-owned	-1.565**	-1.742**	--	--	-2.568**	-1.188**	-0.996*	-1.608**	-13.34**
Subscription to CSR initiatives (ref.: Company has subscription to CSR initiatives)									
Company is not subscribed to any CSR initiatives	-0.85**	-0.771**	--	1.017***	-1.832***	-0.499**	-0.777***	--	-7.983***
R^2	0.359	0.422	0.312	0.579	0.565	0.395	0.342	0.357	0.539

*p<0.01, **p<0.05, ***p<0.1

Table 12. Group statistics for companies operating in the Asopos area.

	Companies operating in Asopos area (Y/N)	N	Mean	Std. Deviation	Std. Error Mean
Vision & Strategy	Y	16	1..94	1.526	0.382
	N	84	1.36	1.518	0.166
Stakeholders	Y	16	*1.88*	1.746	0.437
	N	84	*0.98*	1.335	0.146
Corporate Governance	Y	16	0.69	1.493	0.373
	N	84	0.76	1.385	0.151
Environment	Y	16	*7.13*	4.717	1.179
	N	84	*4.00*	4.972	0.543
Labor Practices	Y	16	4.19	2.639	0.660
	N	84	3.13	3.266	0.356
Broader Societal Issues	Y	16	1.06	1.879	0.470
	N	84	0.74	1.327	0.145
Customer Issues	Y	16	1.06	0.772	0.193
	N	84	1.05	1.191	0.130
Community Involvement	Y	16	1.44	1.094	0.273
	N	84	1.17	1.062	0.116

Table 13. Mann-Whitney U tests for firms facing increased social scrutiny*.

	Vision & Strategy	Stakeholders	Corporate Governance	Environment	Labor Practices	Broader Societal Issues	Customer Issues	Community Involvement
Mann-Whitney U	511.000	468.000	614.000	394.500	501.500	617.500	605.000	589.000
Wilcoxon W	4.081.000	4.038.000	750.000	3.964.500	4.071.500	4.187.500	4.175.000	4.159.000
Z	-1.582	-2.072	-0.690	-2.653	-1.624	-0.626	-0.664	-0.843
Asymp. Sig. (2-tailed)	0.114	0.038	0.490	0.008	0.104	0.531	0.507	0.399

* Grouping Variable: Companies which have plants/facilities/operational units in the greater area of Asopos River (binary variable).

Highlights

- We investigate the status of corporate non-financial disclosure in Greece.
- A composite index is devised in order to assess disclosure trends and determinants.
- Certain organizational characteristics seem to explain such disclosure practices.
- Most corporations tend to treat such disclosure practices superficially.
- Overlapping perspectives of the Greek case are set forth.