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MARKETING AND INSTITUTIONAL FACTORS IN THE VOLUNTARY ADOPTION OF CORPORATE SOCIAL RESPONSIBILITY REPORTING - THE CASE OF GLOBAL REPORTING INITIATIVE

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"We have to choose between a global market driven only by calculations of short-term profit, and one which has a human face. Between a world which condemns a quarter of the human race to starvation and squalor, and one which offers everyone at least a chance of prosperity, in a healthy environment. Between a selfish free-for-all in which we ignore the fate of the losers, and a future in which the strong and successful accept their responsibilities, showing global vision and leadership. I am sure you will make the right choice".

February 1999

GRI as giving a …"*unique contribution to make in fostering transparency and accountability of corporate activities beyond financial matters".*

August 2002

Kofi Annan

Ex UN Secretary General

Abstract

Corporate Social Responsibility (CSR) has increased substantially in the last decades. Various studies have identified that the greater importance of CSR is parallel to the rise of public information about CSR activities and also to the stakeholders' demands. In fact, companies are engaging in reporting their CSR activities. This research is interested in what makes companies engage into voluntary reporting? It focus our research on the world's most widespread framework of CSR reporting - the Global Reporting Initiative (GRI). To the bet of our knowledge, this is the first study to address what drives companies into the adoption of GRI framework. We purposed that institutional pressure together with marketing factors, namely as brand equity, media visibility and publicity could be relevant determinants of GRI adoption.

Data on 600 global companies was gathered from public data sources to construct the variables for our model. We tested our model by fitting a logistic regression with the dependent variable of GRI adoption. The findings suggest that institutional pressures, in particular imitative behavior and the transparency culture of the home country of companies persuade companies to be aware of the importance of reporting their CSR activities and consequently adopt the GRI practices. Also, CSR communications of CSR activities and public relations play an important role in the decision-making of GRI voluntary adoption.

Keywords: corporate social responsibility voluntary reporting, Global Reporting Initiative, institutional pressures, marketing factors.

JEL Classification System
M14 - Corporate Culture; Social Responsibility
M31 – Marketing

Abstract (Portuguese Version)

Nas últimas décadas a Responsabilidade Social Empresarial (RSE) tem aumentado substancialmente. Vários estudos têm identificado que a crescente importância da RSE é paralela com o aumento da informação do público acerca das actividades de RSE e das exigências dos stakeholders. De facto, as empresas estão a comunicar cada vez mais as suas actividades de RSE. Este estudo aborda a motivação que leva as empresas a aderirem aos relatórios voluntários de RSE? Focamos a nossa investigação no tipo de relatórios mais disseminado a nível mundial - Global Reporting Initiative (GRI). Tanto quanto sabemos, este é o primeiro estudo a abordar o que leva as empresas a adoptarem o GRI. Propomos que a pressão institucional, conjuntamente com factores de marketing nomeadamente o reconhecimento da marca, a exposição mediática e publicidade, podem ser factores determinantes na adopção do GRI. Reunimos informação de 600 empresas globais através de fontes de informação publica, por forma a construir as variáveis do nosso modelo. Testámos o nosso modelo aplicando a regressão logística com na variável dependente – a adopção do GRI. Os resultados sugerem que as pressões institucionais, em particular o comportamento imitativo e a transparência da cultura do país de origem das empresas persuade as mesmas a estarem conscientes da importância de reportarem as suas actividade de RSE e, consequentemente a adopção da prática do GRI. Para além disso, a comunicação das actividades de RSE e relações públicas também desempenham um papel importante na tomada de decisão da adopção voluntária do GRI.

Palavras-chave: relatórios voluntários de responsabilidade social das empresas, Global Reporting Initiative, pressões institucionais, factores de marketing.

Sistema de Classificação JEL
M14 – Cultura Corporativa; Responsabilidade Social
M31 – Marketing

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Abbreviations

CSR - Corporate social responsibility

GRI - Global Reporting Initiative

CERES - the Coalition for Environmentally Responsible Economies

UNEP - United Nations Environmental Program

CPI - Corruption Perceptions Index

TI – Transparency International

NGO - Non-Governmental Organization

DJSI - Down Jones Sustainability Index

LRA - Logistic regression analysis

Executive Summary

The adoption of corporate social responsibility reporting is still a voluntary act of the companies. However, voluntary participation in corporate social responsibility programs have been rising over the years (Kolk, 2006), since they are increasingly recognized and considered. Our empirical research aims to study the drives of GRI voluntary adoption.

Among the existing multiple voluntary reporting programs this project focus in Global Reporting Initiative (GRI). GRI was established in 1999 and in a mere ten years, the number of adopters reached more than 1000. For this contributed the fact that GRI is the best-known and most used single framework for non-financial reporting by companies in 65 countries Furthermore, GRI has been recognized as an international best practice of corporate social responsibility (Brown, de Jong and Levy, 2009) and consequently became a primarily tool for communicating sustainability, building and brand protection (Levy *et al.*, 2010).

To the best of our knowledge this is the first study to address this issue. Previous studies on voluntary reporting reveal that public awareness and image, competition, reputation, brand protection and firm-specific characteristics influence the decision of participating in discretionary reporting programs.

Based on the literature review and GRI's characteristics we build a conceptual model considering institutional pressures and marketing factors. Institutional pressures originate from firms' institutional environment, namely stakeholders and have been revealed as strong determinants of the adoption voluntary CSR reporting practices (Aerts *et al*., 2006). In particular, we investigate the effects of competitive pressure, media pressure, and societal pressure expressed as the transparency culture of companies' home country.

Out conceptual model further incorporates other suggestions. Since GRI is the best-known framework in voluntary reporting worldwide, we also suggest that firms with higher brand equity would be more likely to adopt GRI as the GRI framework has been reported as a reputational and brand protection tool. We also suggest that if companies' CSR activities are more visible and companies publicize their CSR activities, the likelihood of adopting GRI principles increases.

Our sample is composed by 601 firms, and represents the top worldwide and emerging markets companies from, from *Business Week*'s 1999 publication on the Top

Global companies. These companies were chosen, since the initial strategy of the GRI founders was to ensure the participation of large international companies (Brown, de Jong and Levy, 2009) and also due to their potential influence on copy behavior, since they were the world's best-performing companies at that time. To construct variables, data was compiled from public sources. The dependent variable was collected from the Global Reporting Initiative (number of adopters). The independent variables were collected from: Interbrand (Top global brands), Lexis-Nexis (CSR media exposure, CSR PR and GRI media diffusion), Transparency International (country perceived transparency index) and Down Jones Sustainability Index (top rated companies on sustainability practices, that we used as a proxy for the presence of a strong sustainability strategy). We have used Logistic regression analysis (LRA) to model the determinants of GRI adoption.

We have found that within our sample, 228 companies had adopted the GRI framework until the end of 2009, corresponding to a 38% rate of adoption. And that companies that adopted GRI mostly belong to countries with high transparency and a minimal perceived level of corruption. We also found that among the adopters of the GRI principles, 19,3% own a top brand and 48,68% are present in Down Jones Sustainability Index.

The results demonstrated that five of the seven hypotheses were significant in explaining the GRI adoption. We verified competitive pressure as determinant both in companies within the same industry and across industries. We obtained support for a U-type relationship between the transparency culture of the home country and the likelihood of a company adopting GRI principles is important. Finally, companies that have more exposure in the media of their CSR activities and publicize more their CSR activities are more likely to adopt the GRI framework. We did not confirm that brand equity and GRI media diffusion were drivers of GRI adoption.

As this is the first study to address the drivers of GRI adoption, it contributes significantly to the theory. Also, because the GRI adoption is a strategic decision for firms, the research can be used by marketing departments to take decisions concerning the CSR reporting process.

In sum, even though voluntary reporting is still in institutional context of cognitive uncertainty, the GRI overtook this aspect and became the best network-based institution that has pioneered the development of the world’s most widely used sustainability reporting framework (Willis, 2003).

1 Introduction

Corporate social responsibility (CSR) has grown during the past two decades and has unprecedented interest from among business, political leaders and academic literature (Campbell, 2007). Indeed, firms are more and more presenting themselves as good corporate citizens, trying to show a genuine interest in a variety of social issues, like the condition of the environment, the well-being of employees and the welfare of society at large (Gossling and Vocht, 2007). In the marketing academic literature, Vaaland *et al*. (2008) report 54 articles on CSR topics between 1995-2205, both empirical and conceptual. Yet, much of the literature on corporate social responsibility focuses on a descriptive or normative tone (Campbell, 2007). Research literature has paid particular attention to the connection between corporate social responsibility and corporate financial performance (Campbell, 2007). Margolis and Walsh's (2003) review of 127 studies, from 1972 to 2002, has found that only in 22 studies treated CSR as the dependent variable. Finally,, the question of the motivations behind CSR and CSR reporting remains open.

Maignan *et al.* (1999) summarized that 88 of consumers are more likely to buy from a company that is socially responsible, and that 76% of them would switch to brands or stores that show concern about the community. Positive associations between the perceived societal impacts of a company's CSR initiative have been found Du *et al.* (2010). This makes CSR an important issue in firm's strategy as consumers and other stakeholders are placing more importance on the social responsibility behavior of firms. Hence, social responsibility perceptions affect the image of brands and firms (Luo and Bhattacharya, 2006). Also, the propensity of the elevated importance of corporate social responsibility (CSR) is driven by the increase in public information about the CSR activities of firms (Wagner *et al*., 2009).

Recent publications by leading corporations show that companies are actively building into socially responsible images, even though there is no legally binding global code of conduct. The CSR practice is still a voluntary act and subject to self-regulation (Gossling and Vocht, 2007). Likewise, "*companies are paying growing attention to the importance of demonstrating commitment to CSR by providing clear and verifiable data and information*"(Perrini, 2005: 611). And, even under uncertainty and skepticisms, about the CSR reports, companies are engaging into more voluntary reports (Perrini, 2005).

Aiming to fill the absence of a generally accepted framework that would engage companies into a reporting guideline, the Global Reporting Initiative (GRI) was established in 1999 following the model of the US financial reporting system (FASBI) (Brown, de Jong, and Levy, 2009). The GRI is "*an international, multi-stakeholder initiative designed to develop, promote and disseminate a general accepted framework for voluntary reporting economic, environmental and social performance of an organization*" (Waddock *et al.*, 2002: 14). It is also the preeminent and best-know framework for voluntary corporate reporting (Brown, de Jong and Lessidrenska, 2009; Brown, de Jong and Levy, 2009). In addition, Waddock *et al.* (2002) point out that credibility, reliability and validity of reporting corporate activities are an increasing demand from stakeholders. And that the GRI framework is a good example of reporting guidelines. This leads us to the research problem of this study: what factors affect firms' decision to adopt the GRI standards of CSR reporting. In particular, we focus the research on the role of institutional pressures and marketing factors, such as brand equity, media and public relations, as drivers of the adoption of the GRI principles. Institutional pressure may influence corporations to act in socially responsible ways, because firms are embedded in an environmental set of political and economic institutions that affect their behavior (Campbell, 2007). Marketing factors such as brand and media image are a set of communication factors to disclose the responsibility of a company's practices (Waddock *et al.*, 2002).

The importance of the communication of the responsibility of a company's practices through marketing is becoming essential, since communicating with stakeholders is important for companies to work out problems (Waddock *et al.*, 2002). Various studies proposed that reporting on socially responsible practices strengthens the corporate reputation and legitimacy. CSR reporting can also serve as brand protection and a public relations strategy (Brown, de Jong, and Levy, 2009; Luo and Bhattacharya, 2006; Wright and Rwabizambuga, 2006).

Thus, the purpose of this study is to empirically demonstrate to what extent institutional pressures and marketing factors lead to the adoption of the GRI standards. This research contributes to the existing literature in several ways: it is the first to address factors of the voluntary the adoption of the GRI framework by global companies. Second, it demonstrates that institutional pressures as well as marketing tools are relevant in explaining the CSR voluntary reporting practices. In sum, this study intends to cover the gap of the existing literature in explaining why companies adopt

CSR reporting initiatives and what the institutional mechanisms are that may influence these socially responsible actions (Campbell, 2007).

2 Literature Review

The focus of this study is voluntary reporting, yet in the marketing literature there are no studies about this topic. Then, we start by briefly identify the main aspects of the existing academic knowledge on corporate social responsibility followed by the studies focusing CSR and marketing. Finally we describe which major studies exists in the literature regarding CSR voluntary programs.

2.1.1 Corporate Social Responsibility Concept

According to Weber (2008) and Gossling and Vocht (2007) there is not a consensus in the literature about the definition of corporate social responsibility. The CSR notion was first theorized in 1953 as "*the obligations of businessmen to pursue those policies, to make decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society*", by Howard Bowen[1] (Eccles and Krzus, 2010: 5: 6). Perrini (2005) states that over the last fifty years the corporate social responsibility focus has changed several times. Indeed, several definitions of CSR have been proposed, like: a company's obligation to exert a positive impact and minimize its negative impact on society (Pride and Ferrell, 2006); "*as an obligation of the business world to be accountable to all its stakeholders*" (Gossling and Vocht, 2007: 363) or even as "management of stakeholder concern for responsible and irresponsible acts related to environmental, ethical and social phenomena in a way that creates corporate benefit" (Vaaland *et al.*, 2008: 931). On the other hand, Smith (2003) proposed that CSR would be the smart thing to and not only the right thing to do.

Despite the lack of consensus, for the purposes of this thesis CSR is "*a company's activities and status to its perceived societal or stakeholder obligations*" (Luo and Bhattacharya, 2006).

[1] The author was called by Archie Carrol the "Father of Corporate Responsibility"

2.1.2 Corporate Social Responsibility and Marketing

Some marketing practices, indicative of corporate social responsibility, have been referred to as marketing with a social dimension or marketing that incorporates noneconomic criteria (Handelman and Arnold, 1999). According to Vaaland *et al.* (2008) study, most articles point out to ethics, environmental and social issues. These authors summarized scientific marketing journals articles addressing CSR between 1995-2005 and found that the majority of the articles focus on one stakeholder – the customer. Wagner *et al.* (2009) also reveal that over the last years various studies focus on how CSR affects consumers reflected in attitudes toward firms, brands, retail stores, purchase behaviors, identification with companies, causal attributions and the impact of CSR information. Recent studies have addressed the influence of CSR in the value of the firm as well as the corporate social performance (Luo and Bhattacharya, 2006; 2009) and the role of corporate in CSR communications and its outcomes (Wagner *et al.*, 2009; Bhattacharya and Sen, 2010).

In sum, marketing research in CSR requires an entirety and broadened perspective, expanding the focus beyond consumers and integrating other stakeholders (Vaaland, *et al.*, 2008). The present research proposes a study further than consumer, by addressing to institutional pressures and marketing factors.

2.1.3 Voluntary participation in reporting programs

Voluntary participation in corporate social responsibility programs has been raising over the years. Kolk (2006) reports that among the largest hundred companies in OECD countries, voluntary reporting rose from 12% to 17%, between 1992 and 1993, 24% in 1996 and 28% in 1999. Perrini (2005) also points out that a growing number of multinational corporations, as well as small-and –medium sized companies are reporting on CSR practices. In another study, conducted by KPMG (2005), 52% of the Fortune's 250 in 2005 produced sustainability reports (the majority of large multinational companies in Europe and the US).

This shows that even if companies are not obliged to report CSR (with the exceptions of France, Netherland and UK that have public mandates for CSR), the voluntary reporting is increasingly recognized and considered. Apart from GRI, there are multiple voluntary reporting programs: EMAS (European, particularly German environmental management and audit); ISO 14001 (Internationally recognized environmental management certification); SA 8000 (Social Accountability International labor standard); AA1000 (International accountability assurance reporting standard); Copenhagen Charter (International standard involving stakeholder communications). Perrini (2005) lists a comparison table of CSR dimensions across worldwide CSR reporting standards, such as UN Global Contract, OECD, and Guidelines for MNCs (Amnesty International Guidelines), DJS1, etc. The Global Reporting Initiative (GRI) has been recognized the most widely framework of voluntary reporting and so has excelled among other reporting standards (Levy *et al*., 2010; Brown, de Jong and Levy, 2009).

Increasingly, companies are willing to make efforts in order to voluntary report their environmental, social and economic domains, also called triple bottom line. But little is known about what motivates companies to adhere to voluntary participation? Arora and Cason (1995) evaluated the factors leading to participation in the US EPA's (Environmental Protection Agency's) 33/50 program. The authors show that EPA's positive public information and public awareness lead companies to participate in the program. They also concluded that greater incentives are more likely to occur in large firms and in companies in unconcentrated industries, and that financial variables tend to be irrelevant in explaining voluntary participation. Moreover, the study points out that by engaging into voluntary programs, companies may improve environmental performance, since it persuades companies to compete in environmental quality.

In a theoretical study of voluntary overcompliance, Arora and Gangopadhyay (1995) reveal that companies are driven by the public image of the firm as the program offers public recognition, and that enables consumers (and other stakeholders) to identify companies that overcomply with environmental regulations. In addition, the research also concludes that market forces are essential and that firms may adhere to the programs in order to gain reputation as an environmentally friendly company.

Khanna and Damon (1999) demonstrated that firm-specific characteristics influences the decision in participating in the EPA's 33/50 program, since firm characteristics (such as innovativeness, age of existing equipment, membership in industry trade association, and volume of toxic releases) are related to the costs and benefits of participation. The same authors revealed that companies have higher costs on labor and capital equipment to control pollution when participating in voluntary programs. However firms may benefit from technical assistance and this ultimately could reduce input costs. Still reducing pollution generated by firms may raise consumer attention and increase investor confidence (because investors believe that firm's preoccupation in reducing in toxic pollution induces a strategic advantage over competitors).

According to Decanio and Watkins (1998) and Aerts *et al.* (2006) the specific characteristics of the firms are also associated with voluntary reporting within energy efficiency programs and corporate environmental reporting (CER). Another reason for voluntary reporting is to gain advantage over competitors, which is obtained by the publicity of the participation (Videras and Alberini, 2000). Brown, de Jong and Levy (2009) also identified this factor determinant for companies that join GRI.

Because companies voluntary reporting is still in institutional context of cognitive uncertainty, in order to ensure its acceptance and relevance and to legitimize their environmental activities, firm's benchmark against one other. Aerts *et al.* (2006) identified this as intra-industry imitation, since it companies imitate each other's inside the same industry and country. In this research, the authors discuss that mimetic and coercive institutional pressures affects considerably intra-industry imitation. But, another important reason for adhering reporting programs is reputation management and brand protection (Brown, de Jong and Levy, 2009). Perrini (2005) also claims that identifying, monitoring, and reporting all social, environmental, and economic effects of its operation on society at large, drives companies to acquire their stakeholders' trust and build a good reputation in the market. On the other hand, companies engaging within social responsibility programs can compete for the firm's resources (Luo and Bhattacharya, 2009), since CSR is not costless and the offsetting benefits are not evident (Levy *et al.*, 2010).

As noted by Brown, de Jong and Levy (2009) sustainability reporting can be both resource intense and transforming. Then, voluntary reporting can create a strong emotional involvement in internal employees and top management (Brown, de Jong and Levy, 2009). The same authors reported the importance of GRI's impact on the emergence of new norms of behavior, and also theorize that GRI helped to solidify sustainability reporting, as a standard business practice.

In conclusion, corporate social responsibility reports "*present a reasonably reliable picture of what a company regards as its social responsibilities and that there is a significant commitment present for meeting these responsibilities*" (Gosslings and Vocht 2007, p. 365). An empirical analysis demonstrates that the participation decision of firms is motivated by rational economic self-interest (Khanna and Damon, 1999). As reviewed, the forces of public pressure and marketing factors, as corporate image and credibility with stakeholders are the major reasons for companies to engage in voluntary participation reports. All of these factors will be studied ahead.

2.2 Global Reporting Initiative (GRI)

The Global Reporting Initiative (GRI) has been recognized as an important instrument of social responsibility voluntary reporting and as an international best practice (Brown, de Jong and Levy, 2009; Manetti and Becatti, 2008; Reynolds and Yuthas, 2008; Willis, 2003). According to Willis (2003) the GRI consists of a network-based institution that has pioneered the development of the world's most widely used sustainability reporting framework, under the conception of increasing rigour, comparability, auditability and general acceptance. It was also designed to facilitate comparisons between companies and between time periods within companies. On the other hand, along with providing a set of principles for sustainability reporting, GRI's objective is to create conditions for the transparent and reliable exchange of sustainability (Reynolds and Yuthas, 2008).

The GRI principles were first established in the early 1990's, in the United States, by Allen White, who developed a pioneered framework for environmental reporting, as an advisor of non-profit CERES - the Coalition for Environmentally Responsible Economies - and Tellus Institute. The conception of CERES was to engage companies toward the subsequent endorsement of environmental principles that establish long-term corporate commitment to continual progress in environmental performance (Pattberg, 2006). As a result, this framework was to create an accountability mechanism to ensure companies followed the CERES Principles for responsible environmental conduct (GRI, 2007).

However, without any response from the North American market to the environmental framework, Allen White, Robert Massie – the executive director of CERES, and the team of CERES decided to follow a new direction, which consisted of looking for markets beyond the US that were more receptive to a generally accepted framework. Tracking this idea, CERES established a partnership with UNEP in 1997 (United Nations Environmental Programme's) in order to work towards a global standardized corporate reporting on environmental performance and to gain a reporting with a global reach of format and content. In that same year the Global Reporting Initiative was founded under the responsibility of CERES. Instantly, CERES and UNEP started working together with a wide range of international organizations, civil, society, accountancy and non-profit associations and individuals (Willis, 2003) to create the first draft of the framework, which gave birth in 2000 to the first edition of the GRI

Guidelines – the G1. Brown, de Jong and Lessidrenska (2009) show the following 5 strategic principles guided the process of GRI development:

Figure 1 - Strategic principles that guided the process of GRI development

(1) **Inclusiveness**

(2) **International multistakeholder process**, based on wide consultation and iterative testing self-correction

(3) **Maximum use of internet**

(4) **Transparency**

(5) **Fast pace and efficiency**

Source: Brown, de Jong and Lessidrenska (2009)

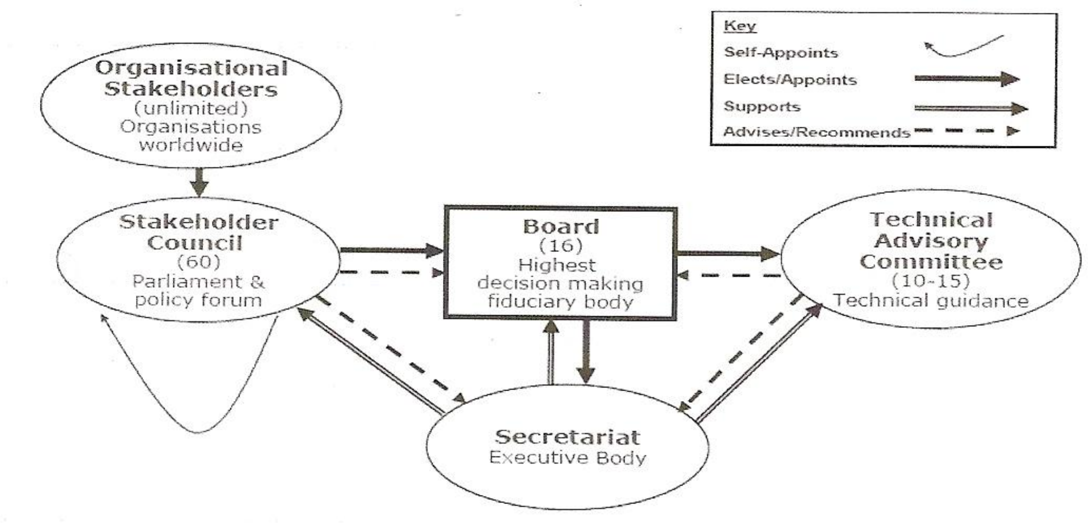
Hence, during the creation of G1, GRI had established a multistakeholder process, which has become the signature behind GRI. This multistakeholder process would facilitate the diffusion of the principles and practices of the GRI (Brown, de Jong and Levy, 2009).

Under this scope, the multistakeholder groups proposed three categories of sustainability indicators – social, economic and environmental performance – elevating in this way the initial environmental reporting. Indicators like an organization's contribution to labor standards, human rights, safety practices, responsibility in relation to governance and products and anticorruption policies were included in the domain of social performance. Regarding economic performance, factors like economic impacts on customers, suppliers, employees, provider of capital and the public sector were included. In the case of environmental performance, the concerns fell on the prevention and management the environmental impacts for the present and future generations in such areas as supply chain impacts, recycling, energy conservation and health risk (MaryAnn *et al.*, 2008; Brown, de Jong and Lessidrenska, 2009).

A second version of the Sustainability Reporting Guidelines was launched in 2002 at the World Summit on Sustainable Development in Johannesburg. This new version, so-called G2 Guidelines received high recognition among governments, business, civil society and labor participants (GRI 2007). As examined in a survey distributed to 107 multinational corporations and commissioned by the World Bank and the International Finance Corporation, the GRI was among the top most influential frameworks on companies' practices regarding social responsibility. This recognition crossed governmental agencies and multilateral organizations, such as UN and OECD, and International Standards Organization (through the ISO 26,000 process, in which adopted the GRI mark, of a multistakeholder and working group process), giving GRI prestige, visibility and legitimacy. (Brown, de Jong and Lessidrenska, 2009; Brown, de Jong and Levy, 2009).

GRI was also formally inaugurated in the United Nations as a new global institution and a collaborating centre of UNEP in 2002 (GRI, 2007). Brown, de Jong and Lessidrenska (2009) reported that the second version of the Sustainability Reporting Guidelines was followed by successive supplements, which led to the release in October 2006, to the third generation of the Guidelines – G3. By that time the governance structure of GRI was also completed, as showed in figure 2.

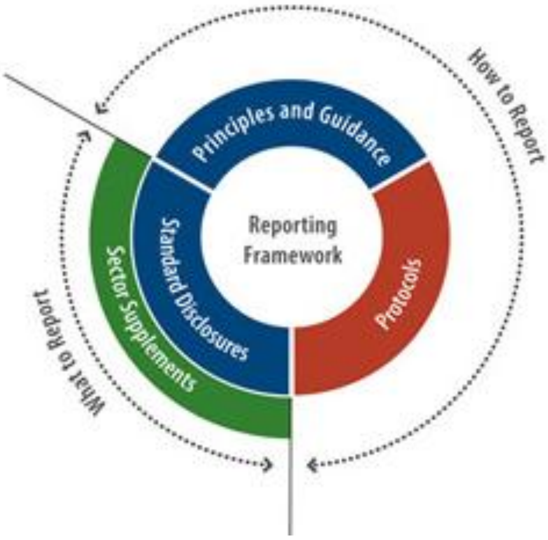
Figure 2 - Organization chart of GRI



Source: Brown, de Jong and Lessidrenska (2009)

The G3 version of GRI Guidelines (2006) attempted to facilitate the standardization process by offering criteria for verification of GRI reports: accuracy, completeness, reliability, balance, and fairness (Brown, de Jong and Levy, 2009). The G3 framework includes the Principles and Guidance; Protocols and Sector Supplements:

Figure 3 - The G3 Reporting Framework



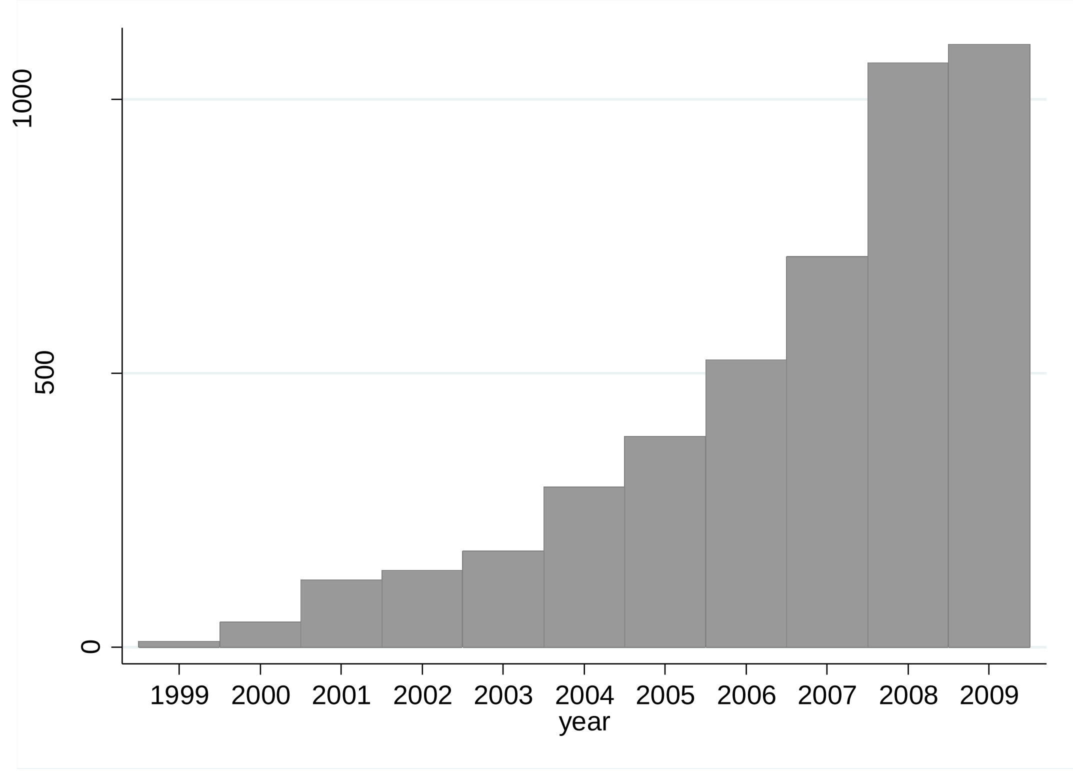
Source: Global Reporting Initiative (2006)

The Sustainability Reporting Guidelines consist of Principles for defining report content and ensuring the quality of reported information. The Protocols provide definitions, compilation guidance, and other information to assist report preparers and to ensure consistency in the interpretation each of the performance Indicators and Sector Supplements complement the Guidelines with interpretations and guidance on how to apply the Guidelines in a given sector, and include sector-specific Performance Indicators (GRI, 2006).

Despite its positive impact GRI faced some criticism. According to Brown, de Jong and Levy (2009) even though the G3 version attempts to smooth the standardization process of the GRI framework, the large number of verification providers is an obstacle to standardization. And GRI's emphasis on reporting procedures does not provide the comparable, transparent data needed by investor, since the reports are not easily cross-comparable (Levy *et al.*, 2010). Although GRI tried to clarify definitions and meaning and developing instruments, there is still much to do and improve. Most of the GRI reporters are large multinational corporations (mostly in sectors as utilities, oil and gas, banking, automotive industry, mining, chemicals and synthetics, forestry and paper) whereas small and medium size companies (SMEs) and non-governmental organization (NGO's) are almost unrepresented (Brown, de Jong and Levy, 2009). Therefore, GRI is facing a problem of legitimacy, but also of practical and market value in the context of the economic dynamics of market competition (Levy *et al.*, 2010).

Still, since the GRI foundation in 1999, the number GRI adopters rise every year, reaching in 2009 more than 1000 adopters (see graph 1). Although approximately 1000 companies adopting the GRI principles worldwide may not seem like much, GRI is the best-known and most used single framework for non-financial reporting by companies in 65 countries (Brown, de Jong and Levy, 2009). And surprisingly GRI has become a primarily tool for sustainability, reputation and brand management and protection by companies, assigning strong evidence that the prospect of material benefits constitutes the primary motivation for business adoption of GRI (Levy *et al.*, 2010).

Graph 1 – Cumulative number of Companies that reported in Global Reporting Initiative, between 1999 and 2009



Source: Global Reporting Initiative (2009)

2.3 Institutional Pressures

The institutional pressures arise from institutional theory, which can be defined by the isomorphism of organizational fields and the establishment of institutional norms (Kondra and Hinings, 1998). Hence, companies' decisions are influenced by institutional pressures, namely stakeholders (Magali and Toffel, 2004). Wright and Rwabizambuga (2006) reveal that strong stakeholder pressures are strategic incentives for firms to reveal their environmental concerns. And Magali and Toffel (2004) point out that these pressures persuade companies in the adoption of several types of environmental management practices.

Also, Campbell (2007) theorized that the stakeholder theory is strongly related to the concern of corporate social responsibility. In other words, stakeholder groups understand CSR as a company's recognition of broad responsibilities, which it is part of society with consequent obligations (Dawkins and Stewart, 2003). In this direction, stakeholders require a firm's effective response to their demands (Waddock *et al.*, 2002). The importance of stakeholders is also in congruence with the GRI's view of "*empowering and mobilizing various societal actors*" (Brown, de Jong and Levy, 2009: 579) as well as "*responsive to a diverse set of stakeholders*" (Willis, 2003: 236).

In this sense, institutional pressure that leads to voluntary CSR adoption arises from several forces. According to this, this study looks at competitive, GRI media diffusion and societal pressures.

2.4 Marketing Factors

We propose brand equity, media visibility and publicize as marketing factors that would influence companies to adopt the GRI principles. The suggestion of these factors is due to the fact that companies with more brand equity, media visibility and publicize could be more willing to adopt a framework, like GRI, that is best-known framework for voluntary reporting CSR practices (Brown, de Jong and Levy, 2009).

Brand equity is the incremental utility or value added to a product by its brand name. Various studies have suggested brand equity can be estimated by subtracting the utility of physical attributes of the product from the total utility of a brand and that can be viewed as a substantial asset to the company (Yoo *et al.,* 2000). Also Aaker (1991) stated that brand equity is critically important to make points of differentiation that lead to competitive advantages based on nonprice competition. According to Luo and Bhattacharya (2006) the perceptions of social responsibility activities affect the image of brands and firms, as well as the propensity of consumers to buy brands and patronize retailers and the financial performance of firms.

Marketing communications have had a major part in communicating the CSR activities, as Arvidsson (2010) refer that has been an increase focus on CSR information in corporate communication. Marketing communications "*is a management process through which an organization engages with its various audiences*" (Fill, 2005: 7). Organizations seek to develop and present messages for their stakeholders groups. (Fill, 2005). Indeed, the CSR information in firm's communications has been a stakeholder's demand (Arvidsson, 2010).

A particular tool of the communications mix, Public Relations, is devoted to the building of a favourable reputation in the long term, and it has been gaining prominence due to its perceived credibility. Fill (2005) point out that the increasing use of public relations is partly due to publicity, which involves the dissemination of messages through third-part media, such as magazines, newspapers or TV news programmes.

Media exposure can be seen as a consequence of an organization's investment in publicity in order to build a favourable reputation next to public opinion in general or specific stakeholders in particular.

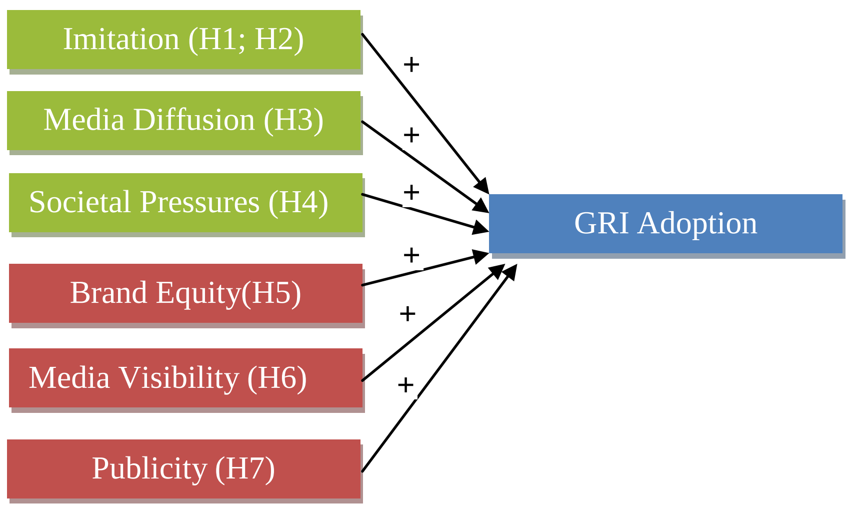
3 Conceptual Framework and Hypotheses

The main research question of this study is concerning the forces that influence companies to adopt GRI standards. The study is based on the institutional theory framework, focusing on isomorphic pressures resulting in imitation, media pressures based on the GRI media diffusion and societal pressures as well as brand, media visibility and publicity as marketing factors (figure 4).

Aerts *et al*. (2006) refer that competitive pressures have been revealed as strong determinants of the adoption voluntary CSR reporting practices and also other types of innovation practices and technology adoption. Wright and Rwabizambug (2006) point out that institutional pressure originate from firms institutional environment, namely stakeholders (customers, the general public, investors, media, employees) and competitors.

Figure 4 - Conceptual Framework

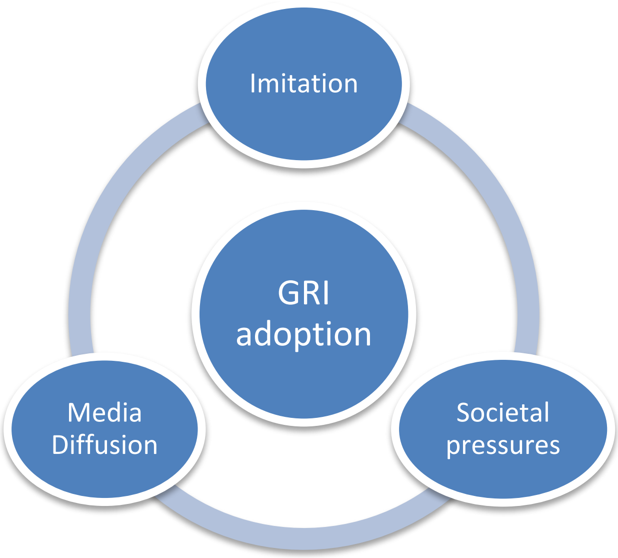
(Institutional pressures are in green; Marketing factors are in red)



3.1 Institutional Pressures

In a study conducted by UNEP (United Nations Environmental Programme), institutional pressures were ranked the third most important driver for companies to engage in social reporting (Palenberg *et al.*, 2006). Also, Waddock and *et al.* (2002) stated that global standards and principles are another source of institutional pressures. Then, we focus in isomorphic pressures (imitation), media diffusion of the GRI and societal pressures, as institutional pressures that drive companies to adopt GRI standards.

Figure 5 - Institutional pressures as drivers of GRI adoption.



3.1.1 Imitation

One of the characteristics of GRI adoption is the uncertainty of its benefits. This lack of certainty in GRI leads companies to imitate other organizations, as Oliver (1991) claims that imitation is stronger under conditions of uncertainty, because the economic consequences of actions are unclear. Imitative behavior is common in the adoption of managerial methods and organizational forms (Lieberman and Asaba, 2006). As the authors note, companies engaging in imitative behavior may be explained by different reasons. Dimaggio and Powel (1983) theorized that organizations tend to follow a mimetic process in environments characterized by uncertainty or ambiguity and when similar organizations in their field are perceived to be more legitimate or successful.

Indeed, a study conducted by UNEP (United Nations Environmental Program) have found that the second most important driver for CSR reports is competitive pressure (Palenberg *et al*., 2006). Competitive pressure, also called rivalry-based imitation occurs when companies wish to avoid falling behind their rivals (Lieberman and Asaba, 2006). In this sense, companies tend to follow the same practices that have already been adopted by large numbers of other organizations (Heugens and Lander, 2009). This behavior tends to be rivalry-based, if companies are operating in the same industry (Lieberman and Asaba, 2006), and when pressures, namely by stakeholders is more intensive (Wright and Rwabizambuga, 2006). However, in cases of non direct competitors, companies employ an information-based mimetic behavior (Lieberman and Asaba, 2006), by following practices that have previously produced positive outcomes for others (Heugens and Lander, 2009). This behavior may be explained by the need of legitimacy of firms by being similar to the competitors (Laurila and Lilja, 2002).

In a study conducted by Levy *et al*. (2010), referring to GRI adoption, the authors identified that companies tend to adopt the most reputable practice, as well as the highest rate take among companies across several countries. As such one may conclude that a result of the spread of GRI practices is that more companies will adopt voluntary reporting.

We have considered competitive pressure by accessing "imitation" with two sets of data: "number of GRI adopters" and "total rate of adoption by GRI adopters". Thus, we propose the following hypotheses:

<u>Hypothesis 1:</u> As the number of GRI adopters within an industry increases, the probability of adoption of GRI principles by companies in the same industry increases.

<u>Hypothesis 2</u>: As the total rate of adoption of GRI principles across industries increases, the likelihood of adoption of GRI principles increases.

3.1.2 GRI Media Diffusion

Media is a source of institutional pressure, because of its importance as a channel of diffusion of messages. As proposed by Deephouse (2000) media coverage influences the public knowledge and opinions about the firms, providing also information about essential aspects of the environmental. The media is also a mechanism of surveillance, as active agent in influential information (Deephouse, 2000). Then, companies pay attention to what is broadcast in the media. Indeed, **t**he importance of the mass media plays a key role in amplifying and diffusion, contributing to the adoption of new process by companies (Strang and Soule, 1998). Media is also contributing to the rise of information about environmental problems created by corporate activities, which motivates environmental activism and other stakeholders in pressuring companies to implement environmentally responsible practices (Dawkins and Lewis, 2003; Waddock *et al*., 2002).

In addition, Waddock *et al*. (2002) point out that a proliferation of global standards and principles increases the expectation within companies in the adoption of CSR practices. Also, according to Delmas and Toffel (2004) there is a great deal of publicly available information about environmental management programs. Thus, media plays an important role in influencing companies to corporate environmental responses.

GRI founders hold the idea to develop reporting guidelines which would apply globally and across industrial sectors (Brown, de Jong, and Lessidrenska, 2009). To follow their initial vision, founders made the tactical decision to ensure the participation by large international business. These companies would capture the attention of other companies, because they are more exposed in media.

On the other hand, GRI founders foresaw that the adoption of GRI by visible companies would attract positively the interest and the expectation by other companies. In other words, if GRI is more visible in the media, companies would feel more pressure to adopt GRI. In sum, the media diffusion of GRI principles would have an increasing impact in the likelihood of GRI adoption. We have considered GRI media diffusion with data: the "number of media mentions of GRI in year *t*". In accordance with these arguments, we suggest the following hypothesis:

Hypothesis 3: As media diffusion of the GRI initiative increases, the probability of adoption of GRI principles increases.

3.1.3 Societal Pressures

Perrini (2005) argued that the socially responsible relationship with the community begins with active stakeholder engagement and corruption prevention. Indeed, in cultures where more transparency is required, society in general is increasingly demanding for company openness regarding their activities. In fact, in the principles guided of GRI development, transparency is one of the five values (Brown, de Jong, and Lessidrenska, 2009). Also, GRI is one of the two standards with coverage treatment of bribery and corruption (Perrini, 2005).

The idea of transparency is in consonance with corruption prevention, and consequently as a societal pressures. However, societal pressures are related with the culture and beliefs of countries. Further, corruption prevention is substantiated in communicating the existence of self-control policies and systems. Perrini (2005) also points out that corruption avoidance is strongly associated with CSR practices, in the sense that companies adopt all the necessary measures to avoid unethical behaviors. In societies where transparency is a demand, companies are engaging into more transparent reporting practices. The transparent behavior by companies expects to establish credibility with stakeholders and trust with other critical external actors (Waddock *et al*., 2002). The Director of Sustainability of a large chemicals company revealed that the importance of CSR reporting becomes more essential with the need to show transparency (Levy *et al*., 2010). However, Eccles and Krzus (2010) suggest that developing countries could engage into GRI standards, since they might want to overtake competitors in the developed countries. And if global companies that originate from less transparent cultures want to increase their reputation and legitimacy worldwide, they would by highly motivated to adopt standardized CSR reporting practices (Brown, de Jong and Levy, 2009). Hence, we would expect companies that originate both in high or low transparent cultures to be more likely adopters of discretionary CSR reporting. We score transparency data as the "Corruption Perceptions Index (CPI) for the company's country of origin in year *t* ". Thus, because of the importance of GRI standards, we propose the following hypotheses:

Hypothesis 4: There is a U-type relationship between the transparency culture of the home country and the likelihood of a company adopting GRI principles.

3.2 Marketing Factors

In this study, we focus on three marketing factors as potentially explaining GRI adoption. This choice was due to the characteristics of GRI – an international and recognized practice of social responsibility voluntary reporting. Indeed, we believe that brand equity, media visibility and publicity would be important marketing factors for companies to adopt the GRI standards.

Figure 6 - Marketing Factors as drivers of GRI adoption.

3.2.1 Brand Equity

Wagner *et al*. (2009) and Wright and Rwabizambuga (2006) recognized that being socially responsible affects the perception of brand image and benefits. On the other hand, Levy *et al*. (2010) stated that investing in CSR would have influence in brand reputation. Brown, de Jong and Levy (2009) also argued that one of the most important motivations for companies to engage in reporting is reputation management and brand protection.

In this sense, brand equity might be a leading factor in explaining CSR commitment. Brand equity is defined as a set of assets and liabilities linked to a brand that can add or not value to a firm (Aaker, 1991). Further, customer preference and loyalty rise with brand equity (Kothler and Gertner, 2002). Particularly, Luo and Bhattacharya (2006) proposed that CSR leads to higher customer satisfaction. Alcaniz *et al*. (2010) theorized that companies need attractive alternatives to give their brand symbolic value, building a strong, meaningful identity, in order to be distinguished from its competitors. Indeed, companies use CSR as a positioning strategy that provides competitive differentiation. For example, a study conducted by Business for Social Responsibility (BSR) and Cone[2] found that 77% of leader companies will adopt corporate responsibility as part of their core strategies and operations in the next 5 years. In another survey, by UNEP, respondents regard the strategic management of brand and reputation as by far the most significant driver behind institutions to produce CSR reports - (51% - very important, 43% - important, with a total 94%) (Palenberg *et al*., 2006).

Thus, companies with consumer brand images to protect are willing to make efforts to engage in voluntary reporting and are the ones with more likelihood to adopt the GRI principles. In fact, the initial strategy of the founders was to ensure the participation of large brand-name companies, given that these companies understood and/or practiced reporting (Brown, de Jong and Levy, 2009). Levy *et al*. (2010) also identified that the diffusion of reporting has been particularly among large brand-name companies. In this sense, we identified data as "1 if a company owns a brand included in Interbrand's list of top global brands in year *t*, 0 otherwise" and we propose the following hypotheses:

Hypothesis 5: Companies owning a top-rated brand are more likely to adopt the GRI principles compared to other companies.

[2] BSR is **a** leader in corporate responsibility since 1992. BSR works with its global network of more than 250 member companies to develop sustainable business strategies and solutions through consulting, research, and cross-sector collaboration. Cone LLC (www.coneinc.com) is a strategy and communications agency committed to building brand trust.

3.2.2 Media visibility

Wagner *et al.* (2009) identified that the greater importance of CSR is driven by a dramatic increase in public information about the CSR activities of firms, particularly mass-media coverage. Waddock *et al*. (2002) suggest that information concerning social responsible activities is more visible. Indeed, there is data increasingly gathered about corporate responsibility that is being used by large institutional investors and social investment advisors. And there is a general expectation for information on companies' responsibility (Dawkins and Lewis, 2003). This makes companies more vulnerable to the public eye. Also, news coverage of the organizations affects public awareness and behavior (Nikolaeva, 2005). Thus, taking in consideration that media coverage may be whether positive or negative information, more coverage makes companies more pressured to move toward more sustainable practices (Waddock *et al*., 2002). Therefore, firms with more open channels of communications among the immediate stakeholders are engaging into disclosure of environmental information (Delmas and Toffel, 2004).

Vaaland *et al.* (2008) also point that sustaining strategic CSR ensure improve corporate image and increase motivation and loyalty by stakeholders. In fact, more companies, particularly among the world's largest companies, are now releasing social and environmental information on their websites (Waddock *et al*., 2002).

In this context, companies with more exposure in media are more willing to engage into voluntary disclosure (Aerts *et al*., 2008). We have considered media visibility as the "number of media mentions of a company's CSR activities in year *t*".
Therefore, we propose the following hypotheses:

<u>Hypothesis 6:</u> Companies whose CSR activities have more media exposure are more likely to adopt the GRI principles.

3.2.3 Publicity

Public Relations (PR) has been conceptualized as a communication tool that enhances the relationship between an organization and the various publics (Grunig and Hunt, 1984; Cutlip *et al*., 1999). Companies that want to communicate strategically their activities can resort the PR instrument (Lages and Smith, 2003). In this research we address PR as a primarily publicity function, as it has been approached by the marketing perspective (Lages and Lages, 2005).

Waddock *et al*. (2002) argue that public relations, as well other communication tools, are important if companies want to disseminate their responsibility practices. This is particularly relevant if a firm's attempt to enhance its credibility and stature (Wright and Rwabizambuga, 2006). In fact, Khanna and Damon (1999) state that through PR tools, such press releases, newsletters, and awards, gives public recognition, since companies can publicize their involvement in voluntary reporting. The dissemination of CSR activities through mass media was identified by Videras and Alberini (2000) as a strong inductor of participation in voluntary programs.

PR communication enables firms to manage and support their environmental practices with a wide variety of stakeholders (Wright and Rwabizambuga, 2006). Several studies also refer to corporate social responsibility as a pragmatic public relations need and as a reactive demand of external stakeholders (Esrock and Leichty, 1998). In this sense, Levy *et al*. (2010) argue that investments in CSR, modest but well-publicized, can play a broader role in a defensive marketing strategy that protects brand reputation.

One of the important issues about GRI was the assumption that the report would serve the interests of companies to being socially responsible, transparent and accountable. Indeed, GRI has been seen as a primarily tool for sustainability, reputation and brand management (Brown, de Jong and Levy, 2009). GRI has also contributed to improve the credibility of social reports. Likewise, Waddock *et al*. (2002) claim that communication is about the quality of the information reported - credible and reliable. Along these lines, we argue that firms that actively publicize their CSR activities are more disposed to adopt the GRI principles. By adopting GRI principles companies could improve and manage even further their public image. We have identified publicity as the "number of corporate PR communications of CSR activities in year *t*". For this, we propose the hypothesis:

Hypothesis 7: Companies that publicize more their CSR activities are more likely to adopt the GRI principles.

4 Data and Variables

The data for the study were compiled from public sources. The intent is to study which companies voluntarily adopt the global reporting initiative (GRI). Because of the initial strategy of the GRI founders to ensure the participation of large international companies (Brown, de Jong and Levy, 2009), we focus the study in this companies. The founders adopted this strategy due to the degree of copy behaviour that other companies would have by adopting the GRI principles.

4.1 Sample

The sample frame was assembled from *Business Week*'s 1999 publication on the Top Global companies (*Business Week,* 1999). We selected the Top 500 worldwide and Top 100 companies from emerging markets. The final sample was composed by 601 firms[3]. As stated before these companies were chosen due to their potential influence on copy behavior, since they were the world's best-performing companies present at that time. We could also gather the country of origin of the companies' and their industry classification. The dependent variable was collected in the Global Reporting Initiative (number of adopters). The independent variables were collected by the following sources: Interbrand (Top global brands), Lexis-Nexis (CSR media exposure, CSR PR and GRI media diffusion), Transparency International (country perceived transparency index) and Down Jones Sustainability Index (top rated companies on sustainability practices). The choices were done based on two main criteria, ease of access and scientific recognition. Data was collected over a eleven year period (1999 -2009) as global reporting reports (GRI), central to this study, were first published in 1999 and 2009 is the last year in which data is available.

[3] Unilever has two subsidiaries, which are independently listed –in Netherlands and in the UK, which were included in TOP 500 sample, adding 501 companies.

4.2 Data Collection and Construct

4.2.1 Global Reporting Initiative (GRI)

Data was collected from GRI reports lists within an eleven year period (1999-2009) with the purpose of finding in which year and which companies (from the TOP 500 and TOP 100 from emerging markets) joined GRI. By analyzing the entering date of companies per industry we intend to verify to what extent the copy behavior among competitors might explain adoption to voluntary reporting of social responsibility initiatives.

4.2.2 GRI Density

The GRI density reflects the within industry density of GRI adopters. We operationalized the GRI density variable as a ratio to avoid discrepancies in the number of firms per industry in the sample. Thus, the variable is calculated as the within industry GRI adopters over the total number of firms in the industry in the sample.

4.2.3 GRI media diffusion, CSR media exposure and CSR PR

Lexis Nexis

We conducted corporate social responsibility research in the LexisNexis database. LexisNexis is a web-based research with a large set of publications (Hyman and Mathur, 2005), that provides access to full-text news, business, and legal publications. Our intention was to quantify public media exposure of the sample, regarding social responsibility. To search this media exposure in LexisNexis we defined the following terms “social responsibility, "socially responsible", "corporate sustainability" and "global reporting initiative". Concerning the research terms provided by the databases, we selected major U.S. and world publications, major world publications (non English), news wire services, TV and radio broadcast transcripts, company and SEC filings. Then we specified the date over an eleven year period (1999-2009), for each company of the sample. Finally, with the research results, we integrate the sum of aggregate news sources, news transcripts and newspapers in the media visibility category, and the sum of company filings, news wires and press releases and company directories and profiles in public relations category. We also collected the media mentions for the GRI media diffusion within the same period (1999-2009)

By analyzing the exposure initiative social responsibility in public media we intend to confirm the influence of the copy behaviour in social responsibility voluntary reporting.

4.2.4 Transparency Index

Transparency International

Transparency data is obtained from the Corruption Perceptions Index published by Transparency International (TI) (http://www.transparency.org). The Transparency International is a NGO, founded in 1993 in Berlin, Germany. TI is the global civil society organization leading the fight against corruption and a global network including more than 90 locally established national chapters and chapters-in-formation. The TI's mission is to create change towards a world free of corruption. It also raises awareness and diminishes apathy and tolerance of corruption, and devises and implements practical actions to address it. TI's global network of chapters and contacts also use advocacy campaigns to lobby governments to implement anti-corruption reforms. The purpose is to bring together relevant players from government, civil society, business and the media to promote transparency in elections, in public administration, in procurement and in business.

Transparency International Corruption Perceptions Index (CPI) was launched in 1995 and it ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians. The CPI reflects views from around the world, including those of experts who are living in the countries evaluated. The index is a composite, based on surveys of other surveys, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions. The CPI index should be interpreted as a ranking of countries and is scored from a range between 0 to 10 - 0 points out to highly corrupt and 10 to high transparency (Transparency International). The CPI index has been recognized as the most widely disseminated one among policymakers (Svensson, 2005). The CPI data was collected for each of the countries of our sample (from TOP 500 worldwide and TOP 100 from emerging markets).

4.2.5 Top Global brands

InterBrand/Business Week

The collection of Top Global Brands was based on a survey of the world's most valuable brands, conducted by InterBrand/Business Week http://www.interbrand.com/). This survey is annually published as an annual report entitled Best Global Brands. This report provides a brand value that is a topline measure of financial strength, the importance of the brand in driving consumer selection, and the probability of generating significant earnings by the brand in large global markets (Sung and Tinkham, 2005). This survey contains 100 brands which are present in the four major regions of the world (Özsomer and Altaras, 2008). Data was collected from the Best Global Brands report, within an eleven year period (1999-2009), with the purpose of finding which companies (from the TOP 500 worldwide and TOP 100 from emerging markets) were considered a top global brand.

Control Variables

We also included two control variables - Dow Jones Sustainability Indexes (DJSI) and Industry Count (IC). DSJI was added to control CSR performance, as a proxy for the presence of a strong sustainability strategy. The IC was used within an industry in the sample as an alternative for the concentration level of the industry. Next, we describe both of the control variables.

4.2.6 Dow Jones Sustainability Indexes (DJSI)

The DJSI World indexes data was collected for an eleven year period of study (1999-2009), with the purpose of identifying in which year and which companies (from the TOP 500 and TOP 100 from emerging markets) were in the DJSI. We also made comparisons between the companies that were included in GRI and in DJSI, as we expect that companies that are listed on the DJSI would be more likely to adopt the GRI standards. Then, DSJI is mostly an indicator to control for overall company sustainability strategy.

The Dow Jones Sustainability Indexes (DJSI) were launched in 1999, based on the cooperation of Dow Jones Indexes, STOXX Limited and Sustainability Asset Management (SAM), and claims to comprise the world-wide leaders in terms of corporate sustainability performance (Ziegler, 2009). DJSI reports on the financial performance of leading sustainability-driven firms worldwide and its main purpose is to provide asset managers with reliable and objective benchmarks to manage sustainability portfolios and develop financial products and services that are linked to sustainable economic, environmental and social criteria (Triple Bottom Line) (Hoti and McAleer, 2005; Hoti *et al,*. 2005). They consist of a broad composite index as well as narrower, subset indexes excluding companies that generate revenue from alcohol, tobacco, gambling, armaments & firearms, and/or adult entertainment. These Sustainability Reports are used in 16 countries, with 70 licenses held by asset managers (Hoti *et al.*, 2005) and consist of a global, European, North American and Asia Pacific set of indexes. The DJSI lists companies that have passed screening criteria for sustainable performance (Vann and White 2004) and is constructed by selecting the leading 10% of sustainability firms in the Dow Jones Global Index (Hoti and McAleer, 2005).

The assortment of index components follows a rules-based process defined in the DJSI Guidebooks and it is based on a thorough assessment of general and industry-specific sustainability criteria that consist of fourteen scores and that covers all three main CSR dimensions: economic, social and environmental (Manescu and Starica, 2007). The economic dimension is strongly related to the ethics of conducting the business (Manescu and Starica, 2007). There are five criteria/scores quantifying the relevant information in the economic dimension. They are Codes of Conduct/Compliance/Corruption and Bribery, Corporate Governance, Risk and Crisis Management and Industry Specific Criteria (this criterion depends on Industry and can include information as Brand Management, Customer Relationship Management, Renewable Energy, etc.). The environmental dimension distinguishes an efficient use of resources and greenhouse gas emissions reduction (Manescu and Staric, 2007) and includes the Environmental Performance, Environmental Reporting and Industry Specific Criteria (can incorporate issues like Industry and .Environmental Management

Systems, Climate Strategy, Biodiversity Impacts, Product Stewardship, etc, that depends on Industry). Finally, the social criterion reflects the values and practices of the company concerning those directly involved in the profit maximization process (Manescu and Starica, 2007). The information is gathered by the SAM Questionnaire that the firms are requested to fill in a general questionnaire covering the three relevant areas of Environment, Social and Governance (the companies must provide appropriate documentation disclosed with the information given). The procedure of obtaining company specific scores takes place in several steps. The answers for all questions are converted into grades and the scores for every criterion described above are obtained and then is produced a specific score describing its overall CSR standing for each company. This final score is subsequently used to identify sustainability leaders, so that can be included in the Dow Jones Sustainability Indexes. The Industry-specific weights settle on the process of aggregation (Manescu and Starica, 2007). From each eligible DJSI sector, only companies with a corporate sustainability score of at least half of the highest ranked company in their sector are eligible for the DJSI World. (Christofi *et al.*, 2007).

Further, in order to boundary the impact of the subjectivity, the SAM Group has taken a number of precautions as limiting the qualitative answers as well as verifying the truthfulness of the questionnaire answers regularly. In addition, the environmental criteria for the companies are constructed based on publicly available information, such as CSR annual report or other references to the CSR behavior of the company.

4.2.7 Industry Count

In order to create industry count, we use the count of firms within an industry in the sample as an alternative for the concentration level of the industry - the higher the count, the less concentrated the industry is resulting in greater competitive intensity. This choice was due to the fact that we don’t have access to the information that previous studies used (either Herfindahl index or the four-firm concentration ratio).

According to Aerts *et al.* (2006) several studies confirm that companies are more likelihood to engage into environmental management if they operate in higher competitive environmental. Hence, we expect a positive coefficient for this variable.

The variables definitions along with the sources of data collection are summarized in table 1.

Table 1 - Variables definition and sources

Variables	**Definitions**	**Secondary Data Sources**
GRI adoption – dependent variable	1 if a company adopts GRI principles in year *t*, 0 otherwise	GRI
GRI density (D)	Ratio of the number of within industry GRI adopters in year *t* to the total count of firms within the industry in the sample	GRI
Rate of GRI adoption (ΔGRI)	The change in number of GRI adopters in year *t* across industries	GRI
GRI media diffusion (M)	Number of media mentions of GRI in year *t*	Lexis -Nexis
Transparency (Tr)	The score in TI's CPI for the company's country of origin in year *t*	TI
Top brand (TB)	1 if a company owns a brand included in Interbrand's list of top global brands in year *t*, 0 otherwise	Interbrand
CSR visibility (V)	Number of media mentions of a company's CSR activities in year *t*	Lexis-Nexis
CSR PR (PR)	Number of corporate PR communications of CSR activities in year *t*	Lexis -Nexis
DJSI inclusion (DJSI)	1 if a company is included in the Dow Jones Sustainability World Index in year *t*, 0 otherwise	DJSI
Industry count (IC)	The number of companies in an industry in the sample	*Business Week*

4.3 Model

The purpose of this study is to model the determinants of GRI adoption. As the dependent variable is dichotomous, a widely used and familiar model is logistic regression. Logistic regression analysis (LRA) extends the techniques of multiple regression analysis to research situations in which the outcome variable is categorical (Dayton, 1992).

In our study the dependent variable is dichotomous – success (GRI adoption)/failure. The independent variables in LRA may be either dichotomous or continuous. Various research studies investigate dependent variables of a binary nature and LRA is a well-accepted tool (Meyers *et al*., 2006). Since our data is longitudinal, the dataset was transformed into firm-year observations, converting the dependent variable into firm adopted GRI in year *t* or not. Because data for each company gives a separate observation for each year, we are able to use the time-varying values of the independent variables in the model.

As coding of dichotomous variables as 1 for the event occurring and 0 for the event not occurring is the most common way, our variable is coded 1 and 0. The ultimate objective of LRA is to predict a cases' group membership on the dependent variable by calculating the probability that a case will belong to 1 (event occurring) category. Although in our study we will only turn to the results and not the prediction as our hypotheses investigate the effect of the independent variables on the likelihood of companies' adoption of the GRI principles.

LRA requires a mathematical transformation of the original data, since the probability of the outcome is measured by the odds of occurrence of an event. If P is the probability of an event, then (1-P) is the probability of it not occurring.

(Equation 1)

$$\text{Odds of Success} = \frac{\boldsymbol{P}}{\boldsymbol{1-P}}$$

Source: http://www.oxfordjournals.org

The joint effects of all explanatory variables put together on the odds is:

(Equation 2)

$$\text{Odds of Success} = \frac{P}{1-P} = e^{\alpha+\beta 1X1+\beta 2X2+\cdots+\beta pXp}$$

Source: http://www.oxfordjournals.org

The mathematical transformation used is the *natural log* (abbreviated ln) *transformation*. It curves the data to fit the sigmodial curve. Then, the logistic regression equation that results is this:

(Equation 3)

$$\text{Odds of Success} = \log\frac{P}{1-P} = \log{}^{\alpha+\beta 1X1+\beta 2X2+\ldots+\beta pXp}$$

Source: http://www.oxfordjournals.org

The final equation of LRA is:

(Equation 4)

$$\text{Logit}_P = \propto + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_p X_p$$

Source: http://www.oxfordjournals.org

The left side of the equation is substituted for the predicted dependent variable. The $\propto$ represents the overall probability to adopt is all other independent variables are equal to 0 and the β coefficients indicate the change in log odds of membership for any 1-unit change in the independent variable.

Then, we estimate the following equation:

(Equation 5)

$$\textbf{Logit p} = \propto + \beta_1 D + \beta_2 \Delta GRI + \beta M + \beta_4 Tr + \beta_5 Tr^2 + \beta_6 TB + \beta_7 V + \beta_8 PR + \beta_9 DJ + \beta_{10} IC$$

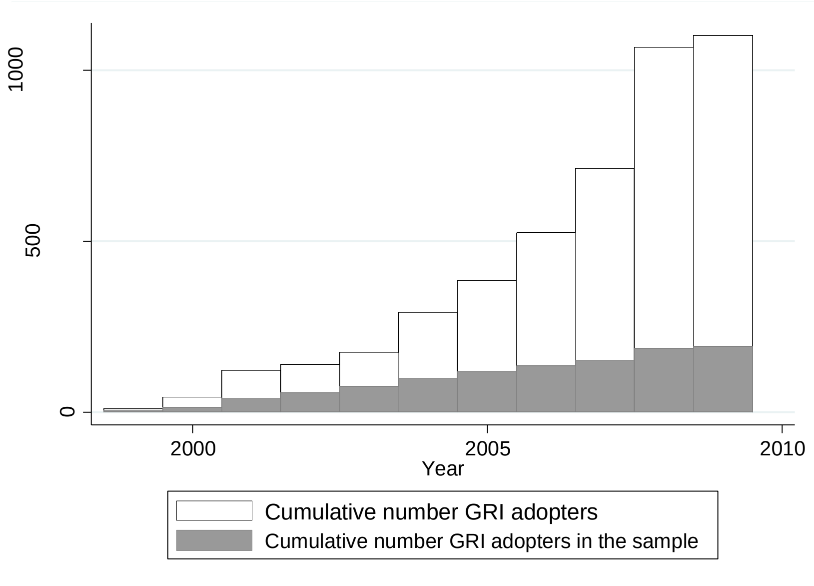
The model uses a robust variance estimator to account for dependency among observations of the same company. Because one of the assumptions of logistic regression is independence of the observations, we would have biased standard errors if we do not use a robust variance estimator. As our data is transformed into firm-year observations, the observations pertaining to one company are not independent. This requires the use of the clustered robust variance estimator.

5 Data Analysis[4]

As previously stated, the sample covers the Top 500 worldwide and Top 100 companies from emerging markets, with a total of 601 firms.

From the total of the sample, 228 companies had adopted the GRI framework until the end of 2009, corresponding to a 38% rate of adoption. And, until 2009, a total of 1100 firms have adopted the GRI principles. In graph 2 is represented the cumulative number of adopters in our sample as well as the total number of adopters that already report in GRI.

Graph 2 – Diffusion of GRI among companies – overall and within our sample



We also found that the majority of the companies that adopted the GRI principles belong to the industry of energy, material and consumer goods, as represented in table 2.

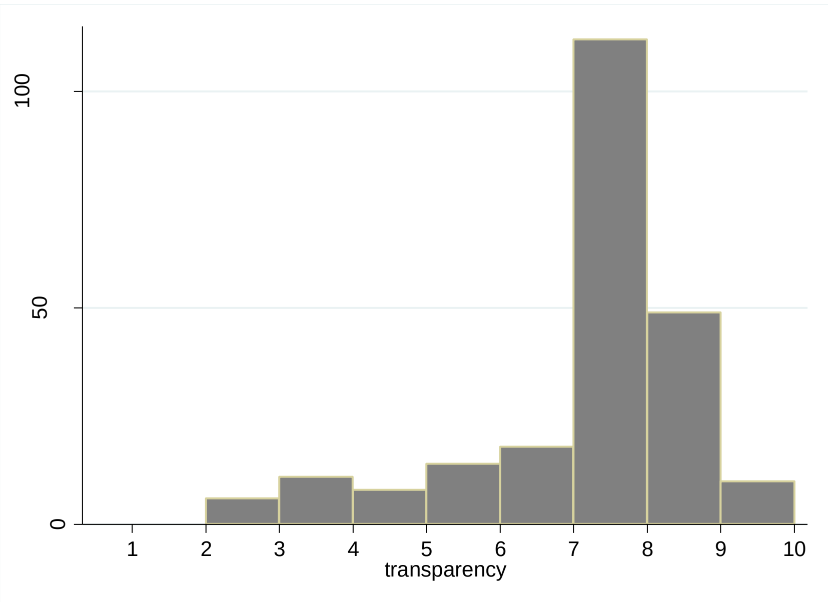
[4] Data analysis was done with STATA – a data analysis and statistical software (v11.0).

Table 2 – Industry of the GRI adopters

Industry Code	Industry Name	Frequency of GRI adopters	Percent	Frequency in the sample	% GRI adoption by industry in the sample
1	Energy	30	13,16	57	0,53
2	Materials	17	7,47	29	0,59
3	Capital Equipment	34	14,92	74	0,46
4	Consumer Goods	51	22,37	100	0,51
5	Services	45	19,74	172	0,26
6	Finance	44	19,3	156	0,28
7	Other	6	2,63	12	0,5
8	Gold mines	1	0,44	1	1
	Total	228	100	601	-

Regarding the transparency of the countries, companies that adopted GRI mostly belong to countries with a Transparency International Corruption Perceptions Index (CPI) between 7 and 9 (see graph 3), which means that these companies have high transparency and a minimal perceived level of corruption.

Graph 3 – Transparency of the home countries of companies that adopted GRI



Top Brand and DJSI are two dichotomous variables in the model. If a firm is top brand is coded by 1 and by 0 if it's not a top brand. The DSJI inclusion follows the same logic. The companies that adopted the GRI principles, 19,3% are a top brand and 48,68% are also in DJSI, as represent in tables 3 and 4.

Table 3 – Companies TopBranded or not that adopted GRI

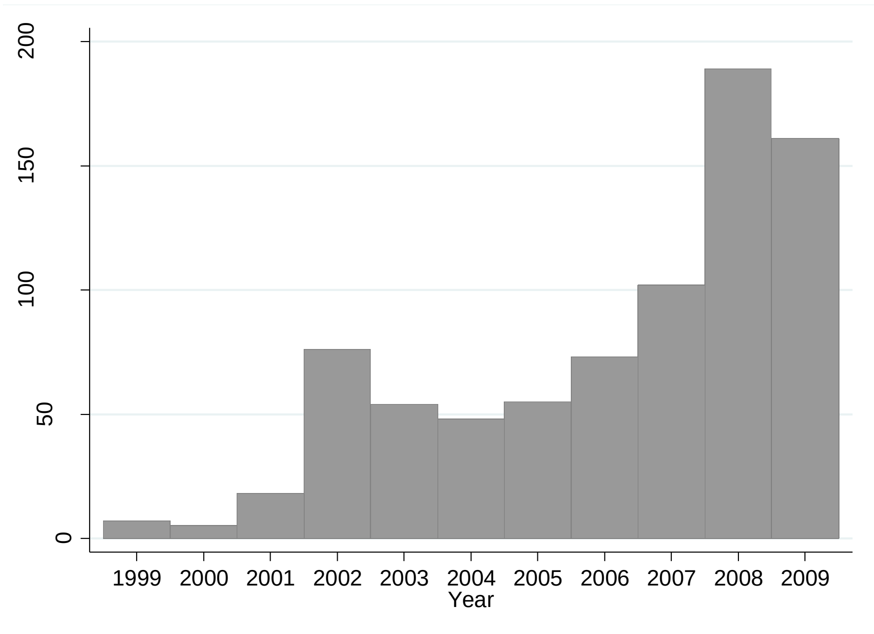
TopBrand	Frequency	Percent
0	184	80.70
1	44	19.30
Total	228	100.00

Table 4 – Companies that adopted GRI and are also in DSJI

Down Jones index	Frequency	Percent
0	117	51.32
1	111	48.68
Total	228	100.00

The media diffusion of GRI has highly increased by year. Between 1999 and 2001 the reports about GRI were less than 50, whereas in 2008 and 2009 were more than 100 reports. Graph 4 shows the consecutive raise of GRI reports in media.

Graph 4– GRI media diffusion reports by year



The descriptive statistic for each of the variable in the sample is represented in table 5.

Table 5 – Descriptive statistics for variables

Descriptive Statistics: N=5560				
Variable	**Mean**	**Std. Dev.**	**Min**	**Max**
GRI density (D)	0.15	0.15	0	1
Rate of GRI adoption (ΔGRI)	92.41	91.46	10	354
GRI media diffusion	64.55	54.26	5	189
Transparency	7.01	1.51	1.7	10
TopBrand	0.09	0.29	0	1
CSR visibility	9.47	27.18	0	407
CSR PR	126.23	197.42	0	1827
DJSI	0.14	0.35	0	1
Industry count	40.59	30.09	1	98

Table 6 illustrates the correlations among the variables.

Table 6 - Correlations among the variables.

	1	2	3	4	5	6	7	8	9
1. GRI density	1.00								
2. Rate of GRI adoption	0.45	1.00							
3. GRI media diffusion	0.63	0.66	1.00						
4. Transparency	-0.10	-0.03	-0.03	1.00					
5. TopBrand	0.09	-0.01	-0.02	0.10	1.00				
6. CSR visibility	0.02	0.01	0.00	0.10	0.21	1.00			
7. CSR PR	0.18	0.28	0.28	0.16	0.16	0.35	1.00		
8. DJSI	-0.05	-0.05	-0.08	0.18	0.18	0.14	0.05	1.00	
9. Industry count	-0.14	0.01	0.02	-0.07	-0.19	-0.07	-0.01	-0.06	1.00

The variables with higher correlations are the GRI density, rate of GRI adoptions across industries (45%) and GRI media diffusion (63%). The other variables have low correlations.

6 Results

The results of the model are represented in table 7.

Table 7 –Results of the Logistic Regression (model summary)

		Coefficient	Robust Std. Err.	z	P>z	[95% Conf. Interval]	
	Constant (a)	-3.427003	.9109827	-3.76	0.000*	-5.212497	-1.64151
Hypotheses	GRI density (D)	5.359573	.7150338	7.50	0.000*	3.958133	6.761014
	Rate of GRI adoption (Δ GRI)	.0024102	.0009831	2.45	0.014*	.0004833	.0043371
	GRI media diffusion (M)	-.0036607	.0021406	-1.71	0.087*	-.0078562	.0005349
	Transparency (Tr)	-.5960504	.3075148	-1.94	0.053*	-1.198768	.0066674
	Transparency^2 (Tr^2)	.0479944	.0256979	1.87	0.062*	-.0023725	.0983613
	TopBrand (TB)	-.1916213	.2835268	-0.68	0.499	-.7473235	.364081
	CSR visibility (V)	.0047678	.0017006	2.80	0.005*	.0014347	.0081009
	CSR PR (PR)	.0006933	.0003271	2.12	0.034*	.0000521	.0013345
Control variables	DJSI (DJ)	2.066896	.1864553	11.09	0.000	1.701451	2.432342
	Industry count(IC)	.0034658	.0025689	1.35	0.177*	-.0015692	.0085008

α = 0,10
Number of observations = 5560
(Std. Err. adjusted for 601 clusters in company)
Pseudo R^2 = 0.1877

The logistic regression requires few assumptions, like: there must not be multicollinearity, there must be no specification errors and the independent variables must be measured at the summative response scale, interval, ratio level or binary. Regarding the first assumption, even though the rate of GRI adoptions and GRI media diffusion are correlated with GRI density, the standard errors are not too inflated, which is a sign the multicollinearity does not cause significant problems. Further, because we are focusing on the direction of the results and not in the prediction, we proceed with the estimation of the model with both variables. The other assumptions are not violated – all relevant predictors are included and the independent variables measures all accepted in the requirements. Another condition is a large sample at least with 30 times as many cases as parameters being estimated, that our sample fulfill.

The pseudo R^2 estimate is also an important indicator of the validity of the model. It is used to determine the percentage of variance in the dependent variable explained by the independent variables and it varies between 0 and 1. The R^2 of our model is 18,77%.

(Equation 6)

$$\textbf{Logit p} = \propto + \boldsymbol{\beta}_1 D + \boldsymbol{\beta}_2 \Delta GRI + \boldsymbol{\beta} M + \boldsymbol{\beta}_4 Tr + \boldsymbol{\beta}_5 Tr^2 + \boldsymbol{\beta}_6 TB + \boldsymbol{\beta}_7 V + \boldsymbol{\beta}_8 PR + \boldsymbol{\beta}_9 DJ + \boldsymbol{\beta}_{10} IC$$

The results indicate the following regression equation:

(Equation 7)

$$\boldsymbol{LogitP = -3.427003 + 5.359573D + 0024102\Delta GRI + -0.0036607M + 5960504Tr + .0479944Tr^2 + .0047678V} + .0006933PR + 2.066896DJ$$

In table 8, we summarize the results of the model's hypotheses. All the hypotheses are statistically associated with the dependent variables, with the exception of hypothesis H5, since is not significant (we reject the null hypothesis - 0,499 $>$ α = 0,10). In what concerns H1, H2, H3, H4, H6 and H7 we should refer that:

H1: We find support in H1, which means that as the number of GRI adopters within industry increases, the likelihood of adopting of GRI principles increases by companies in the same industry.

H2: We verified H2 as an indicator of GRI adoption. The probability of adoption of GRI principles increases, as the total rate of adoption of GRI principles across industries increases.

H3: The results don't indicate support for GRI media diffusion. Even though the coefficient is marginally significant at the 10% level, it is negative meaning that media exposure of the GRI initiative increases, the probability of adoption of GRI principles decreases, which is the opposite of our hypothesis.

H4: This hypothesis is confirmed. Firms in high and low transparency culture countries would be more likely do adopt GRI principles.

H6: The results support H6, i.e. firms that have more exposure in the media of their CSR activities are more likely to adopt the GRI principles.

H7: We find support in H7, companies that publicize more their CSR activities, are more likely to adopt the GRI principles.

Concerning the control variables, the industry count is rejected in the model, because is not significant (0,177 > α = 0,10). On the contrary, the DJSI is highly significant (with coefficient of 2,07) indicating that companies with greater sustainability strategy are more likely to adopt GRI standards.

Table 8 – Summary of the hypotheses analysis

Research Hypotheses		**Variable**	**Empirical Support**
H1	As the number of GRI adopters within an industry increases, the probability of adoption of GRI principles by companies in the same industry increases.	GRI density (D)	Yes
H2:	As the total rate of adoption of GRI principles across industries increases, the likelihood of adoption of GRI principles increases.	Rate of GRI adoption (Δ GRI)	Yes
H3	As media diffusion of the GRI initiative increases, the probability of adoption of GRI principles increases.	GRI media diffusion (M)	No
H4	There is a U-type relationship between the transparency culture of the home country and the likelihood of a company adopting GRI principles.	Transparency (Tr) and Transparency^2 (Tr^2)	Yes
H5	Companies owning a top-rated brand are more likely to adopt the GRI principles compared to other companies.	TopBrand (TB)	No
H6	Companies whose CSR activities have more media exposure are more likely to adopt the GRI principles.	CSR visibility (V)	Yes
H7	Companies that publicize more their CSR activities are more likely to adopt the GRI principles	CSR PR (PR)	Yes

7 Discussion and Conclusion

To the best of our knowledge, this is the first study to address the motivations behind the adoption of the GRI standards among global companies. GRI is the best-known framework for voluntary reporting CSR practices and in has been fairly successful since its inception in 1999 (Brown, de Jong and Levy, 2009). Indeed, various authors refer that the success of the GRI is attributed both by timing and the institutional entrepreneurial tactic of its founders (Brown, de Jong and Lessidrenska, 2009; Brown, de Jong and Levy, 2009). The founders of GRI promoted and implemented a highly inclusive multi-stakeholder process with broad and shared benefits, such as a win-win strategy in the participation of the diverse actors (Levy *et al.*, 2010). The GRI framework has proven to be successful in gaining corporate acceptance, by reaching in 2009 (Levy *et al.*, 2010) to more than one thousand adopters. Consequently, this research examines the drivers of GRI adoption focusing on the importance of institutional pressures and marketing factors.

As stated by Aerts *et al*. (2006) firms respond to pressures to be accepted and appear legitimated in the eyes of stakeholders. We find support of this in hypotheses 1 and 2, because firms tend to be influenced by other companies when implementing similar practices over time (Dimagio and Powell, 1983). We confirm that corporations are considerably affected both by the number of adopters in their industry and across industries, increasing the likelihood of GRI adoption. Other studies also demonstrate that firm’s benchmark each other in corporate environmental reporting. This may be due to the uncertainty of the results of CSR reports as well as the costs of preparing the reports. Therefore, firms find validation within a reference group and engage in imitative behaviour (Luo and Bhattacharya, 2009; Aerts *et al*., 2006; Delmas and Toffel, 2004).

The study did not confirm hypothesis 3. Even though the GRI founders foresaw that the adoption of GRI by visible companies would disseminate the GRI principles and would have an increasing impact in the likelihood of GRI adoption, we didn’t find support of the hypothesis in our model. Part of the reason may be the noise in the variable construct – we do not know the content of the articles mentioning GRI. Thus, if they contain some negative information, companies may be more reluctant to follow up with the adoption.

We found support that there is a U-type relationship between the transparency culture of the home country and the likelihood of a company adopting GRI principles (H4). Waddock *et al*. (2002) state that stakeholders demand companies to be open about their economic, social and environmental practices. In fact, the U-type relationship is explained by the need of global companies that originate from less transparent cultures to raise their status with stakeholders worldwide. And also, by societies where corruption is low and transparency is highly valued.

The correlation between companies owning a top-brand and the adoption of GRI principles compared to other firms was not corroborated. In our model, this hypothesis (H5) was rejected since it was non-significant. Indeed, companies with a top-brand may not be the connection of GRI adoption, but other factors like the isomorphic behavior may explain why firms engage with the GRI framework.

The findings confirmed both hypotheses 6 and 7, namely those companies with more CSR diffusion in the media and companies that publicize their CSR activities are more likely to adopt the GRI principles. Arvidsson (2010) points out that the increase of CSR information in corporate communication appears to be a response to market trends and pressures in views and opinions of stakeholders. The author also identified that image building was a major motive in the decision to focus on CSR communication, such as public relations. In our study, we find support that the increase of public information concerning the CSR activities of firms, drives companies to implement the GRI framework (Wagner *et al.,* 2009; Waddock *et al*., 2002). Likewise, we find evidence that companies that engage in PR efforts to disseminate their sustainability activities are the more likely adopters of the GRI principles.

In our study we find that marketing functions have an impact in the adoption of GRI principles. In fact, companies closer to their customer and sensitive to transformations in the environmental are more aware of the demands. Companies recognize that in order to maintain and protect a favorable image is essential to correspond to stakeholders and reporting their CSR activities is a fundamental key (Luo and Bhattacharya, 2009; Wagner *et al*., 2009; Luo and Bhattacharya, 2006).

In sum, our study supports the role of institutional pressures together with several marketing causes as important drives of GRI adoption. The relevance of this research is highlighted by the fact that it is the first study to examine the determinants of GRI adoption, which is the most widely accepted system of voluntary CSR reporting.

The research contributes to the marketing field as well in understanding the voluntary adoption of CSR reporting.

7.1 Limitations and Suggestions for Future Research

The first limitation of this study is the sample. This research only considered the top global companies. However, this in line with most companies represented in the GRI framework - international companies (Brown, de Jong and Levy, 2009).

A second limitation is the composition of the variables CSR visibility and CSR PR. Within a public data source we could not control the content of the articles. We tried to minimize this effect by incorporating several expressions, such social responsibility, "socially responsible", "corporate sustainability" and "global reporting initiative" that would narrow the results given. Nevertheless, the variables gave directions, and were significant in the prediction of the model.

Another limitation is that information within a public resource may change over time. For example, information can be added or removed. That’s why we collected data for a particular time in order to decrease the effects of the changes in the data available. Due to the public data sources and to the objective character of the data, we lack important information like company specific factors.

We only included three marketing factors as drives of GRI adoption, due to the characteristic of GRI framework. But other variables could be studied regarding the adoption of voluntary reporting standards. Hence, apart from institutional pressures emanating from a firm’s institutional environment, there are also other firm-specific motivations for adopting a voluntary report, for example the choice of environmental strategies may also be influenced by managerial attitudes and behaviors (Wright and Rwabizambuga, 2006). Thus, in future research authors could add more variables.

Also, we did not look into the type of CSR activities that companies that adopt GRI comprise. Still this might be an important factor in understanding what kind of companies implement the GRI principles. This lack is due to the difficult access to this type of data.

Finally, even though we verified for all companies from our sample and in all different databases the consistency of the name presented, for example L’oreal vs Loreal, GSK vs GlaxoSmithKline**,** in some cases some inconsistencies might exist.

7.2 Contribution for theory and practice

Campbell (2007) and Margolis and Walsh (2003) criticized that literature has been paying too much attention to the link of corporate financial performance and corporate social responsibility, and ignoring other factors. The authors stated that more serious theoretical inquiry would be needed. Also, there have been several studies that have addressed the relation between consumers and CSR activities (Luo and Bhattacharya, 2006). Regarding the GRI practices various studies concentrate in explaining the framework (Levy *et al.*, 2010; Brown, de Jong and Lessidrenska, 2009; Brown, de Jong and Levy, 2009; Pattberg, 2006; Willis, 2003), rather than explaining the voluntary adoption of companies' the principles.

Indeed, this is the first empirical research that focuses only on the drivers of voluntary reporting adoption, especially in the GRI framework. Thus, this study contributes significantly to the theory, due to lack of this perspective in literature. This study also shows the relevance of institutional pressure as a conceptual framework for explaining adoption of voluntary standards, contributing positively to theory and practice.

Firm structures are shaped by responses to formal pressure from other organizations or by conformity to normative standards established by external institutions (Wright and Rwabizambuga, 2006). Thus firms preoccupied in enhanced legitimacy, reputation and brand image can view the adoption of GRI framework as a means to better response to external pressures.

The GRI adoption is a strategic decision for firms. In fact Levy *et al*. (2010) stated that there is strong evidence that the prospect of material benefits is an important motive for business adoption of GRI. Thus, if companies that adopted the GRI principles are rewarded, other companies could use this information to benchmark and as a justification to the adoption of GRI practices.

Another important contribution to practice is the growing information in media about the CSR activities. If companies are consciousness that there is an increasing demand and solicitude of CSR, they would be cautious in a way that publicity their social responsibility activities.

In sum, we show that GRI adoption is affected by both marketing and institutional factors. This information can be used by marketing departments to take decisions concerning the CSR reporting process.

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