

Is ESG Disclosure a Means to Respond to Catastrophic Events? A Case Study Analysis

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Abstract

According to the legitimacy theory, disclosure can be considered as a tool for responding to the changing perceptions of a company's stakeholders. Based on this theory, this study, through a case study, examines the reaction of companies in terms of environmental, social, and governance (ESG) disclosure to catastrophic events that have a negative effect on the corporate image. Specifically, this study examines the integrated reports provided by Atlantia in the two years preceding the collapse of the Morandi bridge and in the year of the catastrophic event. The results, however, do not demonstrate significant changes to the ESG disclosure by Atlantia following the catastrophic event. The changes made can in fact be considered as a normal evolution of disclosure policies and not as an attempt to repair the lost legitimacy.

Keywords: ESG disclosure; Integrated reporting; Accidents; Legitimacy theory

1. Introduction

The objective of this study is to examine, through a case study, the effect of a catastrophic event on environmental, social, and governance (ESG) disclosure. More specifically, this study aims to assess whether and how companies use ESG disclosure to repair their reputation following catastrophic events.

Firms today operate more and more in a climate of intense public scrutiny and receive increasing pressure from stakeholder groups such as lobby groups, labour unions, governments, and consumer associations (Vitolla et al., 2019a) who expect them to accept accountability for the environmental and social implications of their actions (Deegan et al., 2000). These stakeholder groups expect companies to increasingly operate in a way that minimizes environmental and social impacts. However, despite the different control methods put in place, companies often incur unforeseen accidents, which sometimes represent catastrophic events (Deegan et al., 2000).

Unexpected catastrophic events such as chemical leaks, oils spills, gas explosions, mining accidents and airline accidents cause loss of human life, serious injuries and different forms of environmental pollution. As a result of these catastrophic events, companies incur huge costs (Deegan et al., 2000). As profit seeking entities, firms should react by trying to implement strategies capable of mitigating the negative effects deriving from catastrophic events (Walden & Schwartz, 1997; Deegan et al., 2000). In this perspective, a possible solution identified by the literature is the dissemination of voluntary information.

In this regard, in recent years, several studies have analysed corporate social responsibility (CSR) disclosure as a means of responding to these catastrophic events affecting companies. The arguments underlying the legitimacy theory reaffirm that disasters increase the political and social exposures of the firms and the sectors to which they belong, while the empirical contributions underline that companies respond to these circumstances by increasing the CSR disclosure within corporate documents (Vourvachis et al., 2016). Past studies have mainly analysed environmental events such as oil spills (Patten, 1992; Walden & Schwartz, 1997), mining accidents (Coetzee & van Staden, 2011) and airline accidents (Vourvachis et al., 2016). These studies, analysing environmental accidents, were limited to examining changes in environmental disclosure policies. This study extends this line of research through the analysis of an infrastructural accident such as the one that took place at the Morandi bridge in Genoa in August 2018. This accident had repercussions not environmental but also social and therefore this study analyses the changes in disclosure in a broader perspective. Specifically, this study examines the changes in communications of Atlantia, a group that controls "Autostrade per l'Italia" which manages the motorway sections

under concession, including the final section of the A10 motorway, better known as Morandi bridge.

The variations in ESG disclosure (Raimo et al., 2020a) are measured through an analysis of integrated reports, which represent the last frontier of corporate disclosure (Vitolla et al., 2018; 2019b; Raimo et al., 2019; 2020b; Salvi et al., 2020a; 2020b; García-Sánchez et al., 2020). Atlantia has long been committed to ESG practices and was one of the first companies to adopt integrated reporting in Italy. The accident in Genoa caused numerous deaths and therefore caused significant losses for the company in terms not only economic but also in terms of image and led to potential threats related to social legitimacy. This circumstance makes it interesting to analyse Atlantia's ESG disclosure in the two years preceding the collapse of the Morandi bridge and in the year of the catastrophic event in order to investigate whether or not the company used the disclosure as a means to repair to negative events.

To this end, this study is organized as follows: Section 2 introduces the theoretical background; Section 3 presents the literature review while Section 4 presents the research methodology. Finally, Section 5 presents the results obtained while Section 6 draws the conclusions.

2. Theoretical Background

According to the organizational legitimacy theory, the success and simple existence of firms depend on whether they are perceived as legitimate subjects (Dowling & Pfeffer, 1975). Legitimacy allows companies to attract resources and obtain support and consensus from stakeholders (Ashforth & Gibbs, 1990). The granting of legitimacy is related to the compliance of companies with social expectations, values and norms (Dowling & Pfeffer, 1975; Ashforth & Gibbs, 1990). The companies therefore enter into a social contract by agreeing to act in accordance with the requirements of the society in exchange for legitimacy (Deegan, 2002). Legitimacy represents a resource that can be managed by companies through communication strategies with different stakeholders (Suchman, 1995). In fact, organizational legitimacy represents the direct result of the way in which stakeholders perceive companies (Suchman, 1995). The lack of knowledge on the part of the stakeholders of the performance of the companies and a failure to respect the terms of the social contract can lead to the creation of a legitimacy gap (Deegan, 2002). A legitimacy gap can arise also due to a change in social expectations, values and norms (Wartick & Mahon, 1994). Past studies have shown that change in social awareness (Freedman & Jaggi, 2005; Choi et al., 2013), interest group pressure (Deegan & Gordon, 1996), media influence (Brown & Deegan, 1998; Deegan et al., 2002), and regulatory changes (Patten, 2002; Cowan & Deegan, 2011) can modify social expectations and, consequently, lead to the creation of a legitimacy gap (O'Donovan, 2002). A circumstance that entails the creation of a legitimacy gap is represented by the occurrence of catastrophic events affecting companies.

Firms can fill a legitimacy gap through the implementation of different strategies attributable to substantive management and symbolic management. According to Ashforth and Gibbs (1990, p. 178), substantive management "involves real, material change in organizational goals, structures, and processes or socially institutionalized practices". On the contrary, symbolic management consists in describing this change "so as to appear consistent with social values and expectations" (Ashforth & Gibbs, 1990 p. 180). In this regard, Kim et al. (2007) show that substantive management represents a better solution than symbolic management in managing stakeholder perceptions. Mezner and Nigh (1995) introduce two other types of strategies called "buffering" and "bridging". The first is concerned with isolating the company from external interference or influencing the external environment through lobbying, political action, and advocacy advertising. The second, on the other hand, is comparable to substantive management and concerns the adaptation of business activities to society's expectations.

From the point of view of legitimacy, it is advisable for companies to communicate changes made to their activities and operations through disclosure policies (Lindblom, 1994; Cormier & Gordon, 2001). In fact, accounting reports represent economic, social and political documents (Guthrie & Parker, 1990) that allow companies to obtain and maintain organizational legitimacy (Chu et al., 2013). In this regard, Lindblom (1994) introduces three other possible legitimization strategies through the use of corporate disclosure. The first involves a change in the perception of the relevant stakeholders on the operations and activities of companies; the second, on the other hand, consists in diverting the attention of stakeholders from the problem in question; the third consists in modifying the expectations of stakeholders in relation to the performance of firms (Lindblom, 1994; Gray et al., 1995). Such strategies can be used simultaneously by companies (Setia et al., 2015).

The legitimization strategy depends on the objectives of the company which may be to obtain, defend, maintain or repair legitimacy (O'Donovan, 2002). It is easier for firms to maintain than to repair or obtain legitimacy (Setia et al., 2015). In fact, maintaining legitimacy requires only the preservation of the good relations that companies have with stakeholders (O'Donovan, 2002). On the other hand, obtaining and repairing legitimacy are somewhat comparable (O'Donovan, 2002). The main difference is that the strategies to repair legitimacy are reactive in

nature and are connected to an unexpected critical event while the strategies to obtain legitimacy are proactive in nature and are not connected to unexpected critical events (O'Donovan, 2002). Therefore, this study, having as its object a catastrophic event represented by the collapse of the Morandi bridge, presupposes the use of a legitimation strategy aimed at repairing the legitimacy.

3. Literature Review

The literature on corporate disclosure reactions to catastrophic events from an environmental and social point of view is very scarce (Deegan et al., 2000).

A first part of the studies examined the changes in disclosure policies following scandals that hit a specific sector. In this regards, Patten (1992) used legitimacy theory to investigate the impact of the Exxon Valdez oil spill on the environmental disclosure level of North American petroleum companies. The results showed a significant increase in information following the catastrophic event. This event in fact questioned the legitimacy of the oil sector in North America and, therefore, the companies responded by using environmental disclosure to legitimize their activities and operations in progress. Furthermore, the results showed that ownership in the Alyeska Pipeline Service Company and firm size had a positive effect on increasing the level of information disclosed. In light of this, the author considered the results in line with the legitimacy theory, as the increase in environmental information can be considered as a response by companies in the oil sector to the threat to legitimacy due to the catastrophic event represented by the oil spill. In this perspective, companies in the oil sector needed to repair or regain legitimacy. Similarly, Coetzee and van Staden (2011) have shown that all companies in the South African mining sector have increased the level of disclosure following two major mining accidents. Deegan et al. (2000) examined the reaction of Australian firms to five major social catastrophic events in terms of disclosure. The catastrophic events analysed are the Moura Mine disaster in Queensland; the Exxon Valdez and Bhopal disasters; the Kirki oil spill off the coast of Western Australia; and an oil spill, caused by the Iron Baron off the coast of Tasmania. The results obtained showed that, following four of the catastrophic events, the companies operating in the affected sectors provided more social information than in previous years. These results support the idea that disclosure represents a means to alter perception and legitimize the existence of companies.

A second part of the studies (Deegan & Rankin, 1996; Cho, 2009; de Villiers & van Staden, 2011; Vourvachis et al., 2016) analysed the reactions of companies directly involved in catastrophic events and, therefore, directly exposed to legitimacy threats. In this regards, Deegan and Rankin (1996) examined the environmental disclosure practices of a sample of twenty Australian firms which were subject to successful prosecution by the New South Wales, and Victorian Environmental Protection Authorities, during the period 1990-1993. The authors found that companies disclosed mainly qualitative and positive tone information. Furthermore, they found that, in the year of prosecution, companies disclosed a higher level of environmental information than in other years. Furthermore, through a comparison with non-prosecuted firms, the authors verified that prosecuted firms disclosed a higher level of environmental information. The authors linked the results obtained to the legitimacy theory, underlining how changes in disclosure policies represent a strategy to alter the perceptions of stakeholders. Also de Villiers and van Staden (2011) have shown that companies involved in environmental crisis disclose a greater level of information within the annual reports in order to repair the bad corporate reputation. Finally, Vourvachis et al. (2016) examined the CSR disclosure reactions to catastrophic events suffered by major airlines. The authors found that for three catastrophic events, consistent with the attempts of legitimation, the companies responded by significantly increasing the CSR information disclosed. On the other hand, for one of the catastrophic events no significant changes were found in the level of corporate disclosure. The authors explain this circumstance with the firm's reluctance to accept responsibility for the catastrophic event.

The analysis of the literature performed shows that the contributions present in the literature have focused mainly on accidents of an environmental nature. Secondly, it shows the absence of contributions aimed at examining disclosure reactions to infrastructure accidents. This study aims to fill these gaps in the literature by analysing the ESG disclosure reaction to an infrastructure accident represented by the collapse of the Morandi bridge.

4. Research Methodology

In order to examine whether ESG disclosure represents a means for companies to remedy catastrophic events, this study uses a single-case analysis. This methodology is particularly suitable for answering the research question, since it is particularly effective for the investigation of complex phenomena and issues little debated in existing literature (Eisenhardt, 1989; Vitolla & Raimo, 2018; Ricciardelli et al., 2020).

4.1 Selecting Case Study: Company and Event Examined

The company selected for the case study analysis is represented by Atlantia and the catastrophic event examined is

represented by the collapse of the Morandi bridge. The choice of this case study is connected to the strong international media impact and the social consequences of this catastrophic event.

Atlantia is global leader in the motorway and airport infrastructure industry. It operates in twenty-three different countries. Atlantia manages 14,000 km of toll motorway, Ciampino and Fiumicino airports in Italy and the three airports of Saint Tropez, Cannes-Mandelieu and Nice in France with 64 millions of passengers a year. The name Atlantia is inspired by the myth of Atlas who, according to Greek mythology, was commanded by Zeus to bear the weight of the heavens. In light of this, the name is intended to recall the characters of strength, universality, responsibility, and solidity.

Atlantia is listed on the Milan Stock Exchange, has a 2019 turnover of € 12 billion and EBITDA of over € 7 billion. Atlantia employs 31,000 people.

The catastrophic event analysed is represented by the collapse of the Morandi bridge in Genoa, which represents an important infrastructure disaster (Cusumano et al., 2020). Inaugurated in September 1967, after 4 years of work, the Morandi bridge represented a milestone in the history of Italian motorways, both for the complexity of the technical solution and for the high aesthetic result. 1,182 meters long, the Morandi bridge had a height of 45 meters above the road level and crossed the Polcevera stream between the districts of Sampierdarena and Cornigliano, also passing over the railway network. The viaduct, designed by Riccardo Morandi, was intended to connect the new A10 with the A7, bypassing a vast railway park, houses and factories. The Morandi bridge, being part of the route of the A10 motorway, constituted a strategic infrastructure for the road connection between northern Italy and southern France as well as being the main road axis between the center-east of Genoa, the container port of Voltri -Pra', the Cristoforo Colombo airport and the industrial areas of Genoa.

At 11:36 a.m. on 14 August 2018, the section of the Morandi bridge that overlooked the river and industrial area of Sampierdarena, 250 meters long, suddenly collapsed together with support pylon number 9, causing 43 victims among the people on board the vehicles that were passing over the bridge and among the workers at work on the ecological island below. The collapse of the Morandi bridge resulted in the blocking of the motorway link between A7 and A10 and of several roads below, as well as the railway line connecting with the port, as well as the need to evacuate, for precautionary reasons, 566 people residing in the houses under the pylon number 10. The collapse of the Morandi bridge had severe financial impacts on Atlantia. Furthermore, it caused a significant loss of corporate image.

4.2 Analysis Procedure

In order to answer the research question, this study analyses Atlantia's integrated reports. Specifically, it analyses the ESG disclosure contained within the integrated reports in a three-year window which includes the reports of the two years prior to the collapse of the Morandi bridge (2016 and 2017) and the year report of this catastrophic event (2018).

First, this study examines the structure of the report and the materiality matrix in order to investigate the presence of any differences in the length of the report, in the index and in the materiality of the topics.

Secondly, this study analyses the content of the integrated report paying attention to some of the content elements and fundamental disclosure concepts identified by the International Integrated Reporting Council (IIRC). In this regard, the <IR> framework, developed by the IIRC, identifies eight content elements and two fundamental disclosure concepts (Marrone and Oliva, 2019; 2020; Vitolla et al., 2019c; 2020a; 2020b; 2020c). The eight content elements are: organizational overview and external environment; governance; business model; risks and opportunities; strategy and resource allocation; performance; outlook; basis of preparation and presentation; and general reporting guidance (IIRC, 2013). The two fundamental disclosure concepts are instead represented by the value creation process and the capitals (IIRC, 2013). Specifically, the IIRC identifies six different types of capitals: financial, manufactured, intellectual, human, social and relationship, and natural (Vitolla et al., 2019d; 2020d; 2020e; 2020f).

In line with the research question, this study analyses only the ESG aspects contained within the report. In light of this, it evaluates the information regarding governance, which represents one of the content elements, natural capital and social and relationship capital which are among the capitals identified by the IIRC.

5. Results

5.1 Structure, Index and Materiality Matrix

The comparison of the integrated reports does not show significant differences over the years due to the catastrophic event. First of all, as regards the length of the integrated report, there was a minimal increase in the

number of pages from the integrated report of 2016 to the integrated report of 2017 and another increase from the report of 2017 to that of 2018. This circumstance leads to exclude the eventuality of an increase of the pages due to the catastrophic event.

Even the index of the integrated report has not undergone major changes over the years. In fact, it has always been characterized by the presence of an initial letter to stakeholders, followed by an analysis of the group profile and information relating to risk management, governance, materiality matrix and stakeholder engagement. However, a peculiarity is the addition of the "Atlantia for Genoa" section in the 2018 integrated report. This section summarizes the catastrophic event represented by the collapse of the Morandi bridge and provides information on the reconstruction of the bridge. Furthermore, this section includes information about the extraordinary monitoring of infrastructures by Atlantia aimed at demonstrating how the catastrophic event has changed the company policies on safety and monitoring. Finally, this section includes two subsections called "Atlantia's commitment to safety" and "Atlantia's commitment to the community of Genoa" which explain the efforts the company has made and is making to ensure the safety of users and to help the city of Genoa and the families of the victims.

Another substantial difference is represented by the content of the materiality matrix. In fact, before the catastrophic event, the material aspects were mainly represented by: waste and hazardous substances, energy technology efficiency, noise pollution, climate change, protection of territory, and water. The materiality matrix of the 2018 integrated report instead contains aspects such as anti-corruption and bribery, health & safety and wellbeing, product and service safety, and customer satisfaction. This circumstance clearly shows how the catastrophic event has substantially changed the material aspects both on the part of the company and on the part of the stakeholders.

5.2 ESG Disclosure

Within the integrated reports, the environmental information is contained in the section relating to natural capital. In light of this, for the analysis of the evolution of environmental disclosure it was decided to examine the section relating to the natural capital of the integrated reports of Atlantia. The comparison of the documents does not show significant differences related to the catastrophic event. The three integrated reports examined begin with a summary of the main indicators on environmental impacts. The "Environmental strategy" section in the 2018 report is structured in a more complex way than that of the previous integrated reports and presents information relating to the long term goals and the UN Sustainable Development Objectives. The sections "Energy policy" and "Consumption of resources and waste management" have not undergone any significant changes over the years. Even the "Carbon Footprint" and "Noise" sections have remained substantially unchanged over time. The "Water withdrawals" section is included in the 2018 integrated report, which took the place of the "Water consumption" section contained in the integrated reports of previous years. The information within these sections is essentially the same, although a graph relating to water consumption by activity that was missing in previous reports was included in the 2018 integrated report. Finally, the "Monitoring and environmental issues" section has not undergone any changes over time.

Within the integrated reports, social information is contained in the section relating to social and relationship capital. In light of this, for the analysis of the evolution of social disclosure it was decided to examine the section relating to the social capital of the integrated reports of Atlantia. Also with regard to social information, there are no significant differences in the comparison of the integrated reports. The three integrated reports examined begin with a summary of the main indicators on the social aspects. The "Social Responsibility" section in the 2018 report is structured in a more complex way than that of the previous integrated reports and presents information relating to the long term goals and the UN Sustainable Development Objectives. The "Safety and security" section, which is the one most closely related to the catastrophic event, has not undergone any changes over the years and therefore was not affected by the collapse of the Morandi bridge. Even the sections "Service quality", "Relations with the community", "Significant events in the regulatory framework" and "Supply chain" have remained substantially unchanged over time.

Finally, within the integrated reports, the information relating to corporate governance is contained in the specific section relating to governance which, in the case of Atlantia, is included in the first part of the document. Even in the case of information on corporate governance, there are no substantial differences in the integrated reports over the years. The long term goals and UN Sustainable Development Objectives that were missing in the reports of previous years have been included in the 2018 integrated reports. The "Atlantia's Administration and Control System" section has not undergone significant changes over the years, while a new part relating to whistleblowing has been added to the "The internal control system" section of the 2018 integrated report. This represents the only significant change since the sections "Anti-corruption policy", "Protection of human rights", "The group's

remuneration policy" and "Sustainability governance" have remained substantially unchanged in the different integrated reports.

The results obtained clearly demonstrate how Atlantia has avoided using ESG disclosure as a tool to repair legitimacy. In fact, the changes made to the integrated reports after the collapse of the Morandi bridge are limited and should probably be considered as a normal evolution of the disclosure that is therefore independent of the catastrophic event.

6. Conclusions

The aim of this research was to examine whether and how companies use ESG disclosure to repair their legitimacy following catastrophic events. To this end, this study examined the case of the collapse of the Morandi bridge that hit Atlantia, an Italian listed company. Specifically, this study examined the integrated reports provided by Atlantia in the two years prior to the collapse of the Morandi bridge and in the year of the catastrophic event. The results showed that Atlantia did not substantially change its ESG disclosure policies following the catastrophic event. In fact, in relation to the structure of the report and the index, no significant differences were found. The most important novelty is represented by the introduction of sections dedicated to the city of Genoa and the collapse of the bridge which summarize the closeness of the company towards the victims, the commitment of Atlantia in terms of health and safety and the efforts that company was making for the reconstruction of the bridge and for the development of the city. The materiality matrix has also undergone some changes with the inclusion of issues such as anti-corruption and bribery, health & safety and wellbeing, product and service safety, and customer satisfaction that in previous years were not considered relevant. In relation to ESG information, the changes are only very limited. In fact, compared to the previous documents, only the long-term goals and the commitment to achieving the Sustainable Development Goals in relation to social, environmental and governance aspects have been added. Another secondary change is represented by the inclusion of information about whistleblowing.

The changes made to the integrated report following the collapse of the Morandi bridge can therefore be considered a normal evolution of disclosure policies and not an attempt by the company to repair the legitimacy following the catastrophic event. Therefore, the results obtained do not support those obtained from previous studies (e.g. Patten, 1992; Deegan et al., 2000; Coetzee & van Staden, 2011) which found an increase in disclosure levels following catastrophic events. A possible explanation may be the use of other tools by Atlantia to repair the lost legitimacy.

However, this study is not without limitations. In fact, it analyses only the integrated reports published by Atlantia and does not examine other communication channels such as other documents and the corporate website that could contain other ESG information. However, this limitation represents a starting point for future research. In fact, future studies could conduct the same analysis by examining other communication tools. Furthermore, future research could conduct analyses on the disclosure of other companies affected by catastrophic events such as Costa Crociere following the Costa Concordia disaster.

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