

MASTER'S THESIS

The communication of social and environmental performance to discharge stakeholder accountability: A case study of Talvivaara Mining Company Limited.

Amani George Rweyendela

University of Jyväskylä
School of Business and Economics
2014



JYVÄSKYLÄN YLIOPISTO

ABSTRACT

Author: Amani George Rweyendela	
Title: The communication of social and environmental performance to discharge stakeholder accountability: A case study of Talvivaara Mining Company Limited.	
Subject: Corporate Environmental Management	Type of work: Master's thesis
Time: May/2014	Number of pages: 81
<p>Abstract:</p> <p>This thesis presents a case study examining the social and environmental accounting (SEA) decisions and practices of Talvivaara Mining Company limited. Significant local presence and operating in a socially and environmentally sensitive industry has constantly exposed Talvivaara to social and ethical issues. In November, 2012, the company was faced with a major environmental accident when its gypsum pond leaked, releasing toxic substances to the environment, and posing a real threat to the company's legitimacy. With special reference to this accident and generic social issues, this thesis aimed to ascertain how Talvivaara has utilized the communication of its social and environmental performance to discharge stakeholder accountability.</p> <p>The study used the content analysis method to analyze Talvivaara's publicly available documents. The first stage was a longitudinal analysis to capture changes in the level of comprehensive reporting on generic corporate social responsibility (CSR) issues, and external verification and feedback solicitation features in the annual reports from 2008 to 2012. The second stage was a cross-sectional analysis of Talvivaara's 2012 annual report and some selected press and stock exchange releases. This aimed to examine accounts ascribed to the accident and other CSR rhetoric, to establish the legitimation strategies used by Talvivara in the post-accident accounts.</p> <p>The longitudinal analysis revealed an inconsistent reporting pattern across the studied timeline and CSR issues. External verification and report feedback were sought only after the accident. Meanwhile, Talvivaara did not express responsibility for the accident itself but rather implied by the six discerned legitimation strategies used by the company; <i>corrective action, organizational restructuring, normalizing accounts, attention deflection, image enhancement and redefinition of means and ends</i>. Moreover, the accident response actions were exaggerated while the accident's negative consequences obfuscated. The overall conclusion reached was that instead of discharging the duty of accountability, Talvivaara was more focused on presenting itself in a positive light. This thesis makes some contributions by describing how accountability tools are used to further legitimacy in an unexplored context, and also by showing the complimentary role of longitudinal and cross-sectional analyses.</p>	
Keywords: SEA, CSR, accountability, content analysis, legitimacy, legitimation.	
Location: Jyväskylä University School of Business and Economics	

Author's address Amani George Rweyendela
Corporate Environmental Management
School of Business and Economics
University of Jyväskylä
amageous@yahoo.com

Supervisor Tiina Onkila, Ph.D.
Post-Doctoral Researcher

Corporate Environmental Management
School of Business and Economics
Jyväskylä University

LIST OF FIGURES

Figure 1: Main steps in data analysis.....	21
Figure 2: The regulatory triangle and the influence of society	25
Figure 3: Graph of distribution of information types for the reported items	42

LIST OF TABLES

Table 1: Summary of information types.....	19
Table 2: Possible response strategies to legitimacy threats	40
Table 3: Overall characteristics of Talvivaara’s CSR reporting.....	41
Table 4: Characteristics of environmental disclosures	43
Table 5: Characteristics of human rights disclosures	44
Table 6: Characteristics of labor practices and decent work disclosures.....	45
Table 7: Characteristics of society disclosures.....	45
Table 8: Characteristics of product responsibility disclosures.....	46
Table 9: Characteristics of economic disclosures	47
Table 10: The provision of assurance in annual reports	47
Table 11: The provision of feedback mechanisms in the annual reports	48
Table 12: Summary of legitimation strategies	56

CONTENTS

ABSTRACT.....	3
1 INTRODUCTION	9
1.1 Motivation for the research.....	12
1.2 Research problem.....	13
1.3 Research task	13
1.4 Thesis outline.....	14
2 METHODOLOGY.....	15
2.1 Research design.....	15
2.2 Case study.....	15
2.3 Case selection.....	16
2.3.1 Background on Talvivaara	16
2.3.2 The Gypsum pond leakage accident.....	16
2.4 Data and literature collection	17
2.3 Data analysis.....	18
2.3.2 Longitudinal analysis.....	19
2.3.3 Cross-sectional analysis	21
3 THEORETICAL FRAMEWORK.....	22
3.1 Mining and the environment	22
3.1.1 Social and environmental impacts of mining	22
3.1.2 Mining and climate change	23
3.1.3 Regulatory frameworks	23
3.1.3.1 Command and control regulation.....	23
3.1.3.2 Co-regulation	24
3.1.3.3 Self-regulation.....	24
3.2 Corporate social responsibility	25
3.3 Social and environmental accounting	27
3.3.1 Communication.....	29
3.3.2 Accountability	30
3.3.2.1 Comprehensive reporting	31
3.3.2.2 External verification.....	32
3.3.2.3 Stakeholder engagement and dialogue.....	33
3.4 The legitimacy theory.....	36
3.4.1 Levels of legitimacy	36
3.4.2 Determinants of organizational legitimacy.....	37
3.4.3 Legitimation.....	38
4 RESULTS	41
4.1 Longitudinal trends	41
4.1.1 Comprehensive CSR reporting	41
4.1.1.1 Environment.....	43
4.1.1.2 Human rights.....	44
4.1.1.3 Labor practices and decent work	45
4.1.1.4 Society	45

4.1.1.5	Product responsibility	46
4.1.1.6	Economic.....	47
4.1.2	External verification	47
4.1.3	Feedback mechanism	48
4.2	Legitimation strategies	48
4.2.1	Corrective action	48
4.2.2	Organizational restructuring.....	51
4.2.3	Normalizing accounts	51
4.2.3.1	Excuses	51
4.2.3.2	Justifications	52
4.2.4	Attention deflection.....	52
4.2.5	Image enhancement.....	53
4.2.5.1	Self-promotion	53
4.2.5.2	Message repetition.....	54
4.2.5.3	Attestation	54
4.2.6	Redefining of means and ends.....	55
5	DISCUSSION	57
5.1	Comprehensive reporting.....	57
5.2	External verification.....	60
5.3	Feedback mechanism.....	60
5.4	Legitimation strategies of communication	61
6	CONCLUSIONS.....	65
6.1	Limitations and future research.....	67
6.2	Contributions.....	68
	REFERENCES	70
	Appendix 1: The coding structure	79
	Appendix 2: The GRI as reference for the content dimension	80
	Appendix 3: Information types disclosed for each CSR item	81

1 INTRODUCTION

Over the years, there has been a gradual shift of emphasis from a shareholder-centric to a more stakeholder-oriented approach to corporate accounting. Traditionally, when accounting, corporate performance has been measured in purely financial terms, such that the annual report and accounts provide three primary financial statements; profit and loss account, the balance sheet and the cash flow statement (Cooper, 2004). Today, on the one hand, competitive pressures are compelling firms to shift their priorities towards more holistic performance assessment models that encompass measures well beyond financial considerations (Waddock et al., 2002). On the other, stakeholders are increasingly demanding the giving of an ethical, social and environmental account (Adams, 2004). This demand arises from the increased impacts of companies on the environment and the society.

Particularly, the discovery, extraction and processing of mineral resources is one of the most environmentally and socially disruptive business activities (Peck and Sinding, 2003), giving mining companies one of the darkest images in society. Besides attracting considerable direct government regulation, this has demonstrably translated into legitimacy problems. Legitimacy is widely defined as a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995, p.574). Legitimacy issues have been compounded by specific events surrounding a limited number of controversial mining companies and sites, a highly visible category being those instances where tailings have been released as a result of poor engineering or deliberate disregard for appropriate levels of safety or for reasons of economic expediency within malleable regulatory frameworks (Peck and Sinding, 2003).

In response to the heightened global awareness of social, environmental and ethical issues, mining companies have shown an increasing interest in corporate social responsibility (CSR). The most useful and widely used CSR definition is that proposed by the World Business Council for Sustainable Development (WBCSD), who defined it as *"the continuing commitment by*

business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large” (WBCSD, 1999). Through CSR, mining companies have implemented various self-regulatory initiatives to curb their externalities and preempt more stringent command and control regulations. One of these is social and environmental accounting (SEA), which Gray et al. (1987), define as *“the process of communicating the social and environmental effects of organizations’ economic actions to particular interest groups within society and to society at large* (p.ix). The advent of SEA has seen firms attempting to account for the outcomes of their actions by disclosing CSR information to stakeholders.

In essence, SEA attempts to extend the accountability duties to the wider society beyond regulators and capital providers. However, accountability is one of those elusive terms with widespread sense of what it means. Nonetheless, in most SEA literature, accountability has been narrowly defined as *“the duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible”* Gray (1996, p.38). Evidently, mining firms have emerged as amongst the most prolific disclosers of social and environmental information (Tilt and Symes, 1999) to justify their existence. At first glance, one might logically assume that this movement indicates that they have become more accountable for their impact upon society than ever before.

However, the efforts to embrace CSR and SEA have been challenged by the legacy of the industry. Environmental legitimacy perceptions at the industry level have had a significant effect on the ex-ante believability of any corporate environmental communication act by mining companies (Aerts and Cormier, 2009). Consequently, following the trend of publishing CSR information, trends of external report verification and stakeholder engagement have also emerged. Whereas stakeholder engagement and dialogue has been carried out to offer stakeholders an opportunity for a participatory role in the accounting process (Cooper and Owen, 2007), external verification has been sought to enhance the credibility of the reports (see e.g. Wallage 2000). Although these mechanisms have facilitated organizations to be more *accountable*, they have also provided an important mechanism of social control.

In Finland, whereas most of the small *“invisible”* mining companies have lagged behind in the SEA agenda, some of the large and significant ones have been at the forefront of showcasing their social performance. One of these is the Talvivaara mining company limited. It is the largest and one of the most politically visible mining companies in Finland. According to Talvivaara, in all of its activities, it aims to be a pioneer in the mining industry and throughout its operations, it seeks to act more responsibly and report more fully, to meet the increasing expectations of the legislation and stakeholders (Talvivaara, 2014). These forceful commitments were put to test in November, 2012 when a gypsum pond leakage accident occurred at the company’s Sotkamo mine site. The accident was dubbed as Finland’s biggest environmental disaster ever, sparking outrage throughout the country. What followed were responsive accounts by the company for the accident. However, in Finland like in many countries, CSR reporting is purely voluntary and management have the

discretion to decide on what, when and how to report. A central issue is whether Talvivaara's disclosures decisions and practices can be explained as an effort to discharge the duty of accountability or to merely further its legitimacy.

Notwithstanding the abundant SEA research globally, that focusing on the Finnish mining context is noticeably scarce. An overwhelming number of prior studies which have examined social and environmental disclosures within annual reports and other forms of accounts have generally focused on the questions of why and how companies make such disclosures (See O'Donovan, 2002; Deegan et al., 2002; Cho, 2009; Summerhays and De Villiers, 2012). Most of these studies have primarily employed the content analysis method, used the legitimacy theory and focused on the volumes of the disclosures on particular themes. For instance, in a study which sought to test the legitimacy theory, Deegan et al. (2002) adopted media coverage as a proxy for community concern. The authors examined the social and environmental disclosures of BHP Billiton limited (one of the Australian largest companies), from 1983 to 1997 to ascertain the extent and type of annual report social and environmental disclosures over the period. Because the authors had additionally used the media agenda setting theory, they also examined selected media articles. They developed and tested hypotheses and were able to establish how media coverage in times of unfavorable events influenced the disclosure decisions of BHP in terms of number of positive sentences in the annual reports.

In another study, Cho (2009) examined the environmental disclosures of Total SA, one of the largest integrated oil and gas companies in the world. The author aimed to ascertain the strategies employed by Total to defend and downplay its environmental performance and activities related to two environmental incidents: (1) the 1999 sinking of the Erika tanker, leading to a major oil spill along the Atlantic coast of Bretagne; and (2) the 2001 deadly explosion of the AZF chemical plant in the suburb of Toulouse, France. The author content analyzed Total's official documents and artifacts (corporate press releases, annual reports, CSR reports, and corporate website) and classified the company's legitimation strategies of communication into three different types - Image Enhancement (IE), Avoidance/ Deflection (AD) and Disclaimer (DS). The author also conducted semi-structured interviews to complement his case analysis.

Recently, Summerhays and De Villiers (2012) conducted a multi-case study research to examine the disclosure patterns and strategies used by oil companies in response to the British Petroleum (BP)'s Gulf of Mexico oil spill. In addition to the disclosures by BP, their paper also analysed the annual report disclosures of six other large oil companies in reaction to the oil spill. It focused on changes in disclosures that could be ascribed to the oil spill. Unfortunately, this realm of research has devoted limited attention to investigating the accountability value of the SEA practices, focusing predominantly on testing and extending the legitimacy theory. The present thesis combines both quantitative analysis and some areas of rhetoric and discourses. The pivotal

concept is accountability, practices and expressions used by companies to account for the impacts of their actions.

This thesis uses a case study approach to ascertain how Talvivaara has utilized the communication of its social and environmental performance to discharge stakeholder accountability. It is an exploratory empirical research addressing several issues of importance to those interested in corporate environmental management and strategic environmental communication. The author was particularly interested in the use of social and environmental disclosures to discharge accountability in times of a crisis, at an organization level. Data was collected from Talvivaara's website and analyzed using the content analysis method in two stages. The first stage was a longitudinal analysis which analyzed Talvivaara's annual reports from 2008 to 2012. The analysis was done against background theories on SEA and accountability. A content analysis framework developed by Bouten et al. (2011) was used to measure the comprehensiveness level of CSR disclosures in addition to identifying the existence, or lack thereof, of assurance statements and feedback mechanisms. The second stage was a cross-sectional analysis that deconstructed the CSR rhetoric and accounts ascribed to the GPL accident in the post-accident disclosures. Against background information from the legitimacy theory and previous studies, the disclosures in Talvivaara's 2012 annual report and selected press and stock-exchange releases were analyzed and categorized into legitimation strategies of communication.

1.1 Motivation for the research

The topic for this thesis caught my attention after doing an internship in a mining company in Tanzania in the summer of 2013. The internship was an opportunity to observe how the stakeholder management principles of *who and what really counts* to an organization are practiced. Antagonistic relationships with nearly all key stakeholders and large-scale environmental degradation highlighted some theoretical gaps in the stakeholder management course. Essentially, the situation was sustained by the narrow scope of corporate performance measurement and lack of accountability mechanisms that are more emphasized in the SEA course. This lesson compelled me to opt for the course in my second study year. When I learnt about the unexplored Talvivaara GPL accident case, I saw it as a perfect opportunity for a master's thesis topic where I could combine my academic interest and knowledge with the practical experience to extend my knowledge and the body of literature. With these ambitions in mind, I saw that focusing on only the legitimacy perspective of SEA like most similar extant studies was inadequate. I thus also sought to explore the accountability perspective in order to not only examine accountability tools as part of the problem but also of the solution.

1.2 Research problem

The mining industry is fundamental to the growth and development of modern societies. However, with the advent of globalization, large mining corporations have yielded vast power within the society (See Esteves, 2008; Jenkins and Yakovleva, 2006). Simultaneously, their activities have been linked to social problems and environmental degradation (see Peck and Sinding 2003; Jenkins, 2004). Because conventional accounting has paid limited attention to these externalities, SEA has been considered to possibly alleviate them by promoting a more just society through increased accountability (See Gray and Bebbington, 2005; Mckernan, 2012). Evidently, most large mining companies now disclose information covering dimensions of CSR such as social and environmental performance, health and safety issues and ethics (Jenkins and Yakovleva, 2006). However, a considerable body of research suggests that companies engage in SEA to extend the system of systematically distorted communication practice that supports privileged private interests within society (see Puxty, 1986; Bebbington, 1997; Gray, 1992; Lehman, 1995; Owen et al., 1997; Hines, 1988). Therefore, the present thesis concerns the significance and role of SEA in addressing contemporary social issues. It seeks to present a critical way of viewing SEA and discuss its participatory and transformative potential in solving contemporary issues in the mining and other industries in general.

1.3 Research task

A key purpose of corporate accountability mechanisms is to hold managers of organizations accountable for the social, environmental and economic outcomes arising from the actions of their organization (Gray, 2002). Reflecting on this idea and the issues discussed in the preceding introductory sections, this thesis focused on answering the question: *How has Talvivaara utilized the communication of its social and environmental performance to discharge corporate accountability?* The research task thus sought to identify aspects of accountability, or lack thereof, in Talvivaara's disclosures, with regard to both generic social issues and the GPL accident. It was executed in two stages to investigate four research sub-questions. The first stage was a longitudinal content analysis to answer the first three research sub-questions, and the second stage was a cross-sectional content analysis to answer the fourth sub-question, as described below:

- 1) Pertaining to the different CSR issues and information types that can be disclosed: How comprehensively has Talvivaara reported on its social performance from 2008 to 2012?

- 2) Pertaining to the credibility of the information disclosed: What evidence of external verification has Talvivaara provided on the annual reports?
- 3) Pertaining to the possible stakeholder reactions to report content and exclusions: What feedback mechanisms has Talvivaara provided alongside the reports to solicit dialogue?
- 4) Pertaining to the legitimacy threat posed to Talvivaara due to the gypsum pond leakage accident: How did Talvivaara express its responsibility in the subsequent legitimization discourses?

1.4 Thesis outline

The rest of this paper is structured into five chapters as outlined below:

Methodology	Chapter 2 presents the methods used to answer the research questions, their limitations and introduces the case company and the GPL accident.
Theoretical framework	Chapter 3 presents the theoretical foundation upon which this thesis based by describing the impacts of in mining, and the key concepts and theories.
Results	Chapter 4 presents the results of the content analysis of Talvivaara's selected documents.
Discussion	Chapter 5 discusses the findings from the analysis and critically connects them with the theories and previous studies.
Conclusions	Chapter 6 reflects the entire study, summarizes the main findings and discusses their significance. It also provides answers to the main research question and finally presents the research limitations, suggestions for future research and research contributions.

2 METHODOLOGY

2.1 Research design

The distinction between qualitative and quantitative research is emphasized in: explanation and understanding as the purpose of the inquiry; the personal and impersonal role of the researcher; and knowledge discovered and knowledge constructed (Stake, 1995, p.37). Qualitative researchers study things in their natural settings, attempt to make sense of, or to interpret, phenomena in terms of the meanings people bring to them (Denzin and Lincoln, 1994). The aim is to explore and discover issues about the problem on hand, because very little is known about the problem (Domegan and Fleming, 2007) with regard to meaning, purpose or reality (Hiatt, 1986). Therefore, the author employed a primarily qualitative approach to utilize the design flexibility it offers, to adequately answer the research question.

2.2 Case study

The present thesis employed a case study research strategy. This strategy focuses on understanding the dynamics present within single settings (Eisenhardt, 1989), which normally involves either single or multiple cases, and numerous levels of analysis (Yin, 1989). The aim was to gain in-depth understanding of situations and meanings for those involved in the case context (Hancock and Algozzine, 2006). In other words, the author sought to investigate a *“contemporary phenomenon within its real life context”* (Yin, 1994, p.13), which was Talvivaara’s efforts to legitimate itself and also be accountable to its stakeholders by disclosing CSR information. As these phenomena are very context specific, and occurred in an unexplored context, the author employed the case study strategy to capture them with an adequate level of detail.

2.3 Case selection

The selection of the case company was carefully thought out. This inescapably involved utilizing a theoretical sampling approach (Yin, 1989). Besides external validity imperatives (Gibbert et al., 2008), earlier research has established that the quality of CSR disclosure is linked to firm size (see Gray et al., 1995). Thus, focusing on a large company like Talvivaara offered a better prospect of finding adequate disclosures for a meaningful analysis. In addition, Talvivaara was an ideal case company because it is one of the most politically visible companies in Finland, undertaking large scale operations in a socially and environmentally sensitive industry. Moreover, the GPL event offered an extreme representation of the phenomena under investigation, for using and extending existing theory. The inquiry focused on a single case for an in-depth analysis (Voss et al., 2002). To minimize external validity limitations and susceptibility to observer bias associated with single case studies (Barratt et al., 2011), theories, data sources and data analysis techniques were triangulated.

2.3.1 Background on Talvivaara

Talvivaara Mining Company is one of the largest mining companies in Finland, headquartered in Espoo, Southern Finland. The company primarily focuses on nickel and zinc. Its main site is the nickel mine in Sotkamo, Eastern Finland. The exploration work in the Talvivaara area was carried out by the Geological Survey of Finland between 1977 and 1983. Following the strategic withdrawal of Outokumpu Plc from the site, the mining rights were sold to Talvivaara in 2004. Commercial production of the metals started in 2008 following the completion of the construction phase and the initial feasibility studies which lasted between 2005 and 2008. The first metals were produced at the Sotkamo mine in October of 2008. Today, the Finnish government owns part of the company's equity and the company is listed on the London and Helsinki Stock Exchanges. By the end of the year 2012, Talvivaara had 588 employees (Talvivaara, 2014). The company published its first annual report in 2008 (for the year 2007) in which it disclosed social and environmental information and it has continued to produce them each year.

2.3.2 The Gypsum pond leakage accident

On the 4th of November 2012, a major accident occurred at the Talvivaara's Sotkamo mine site. According to a report by the Finnish Investigative Authority (FIA) released in February, 2014, as a consequence of the accident, approximately 1.2 million m³ of environmentally hazardous water bearing metal content and sediment leaked out of the pond, around 240,000 m³ of which ended up outside the mine area. The leakage continued for several days undetected until when it was completely stopped on November 14. According

to the FIA's report, the causes of the accident were the structure used in the gypsum pond and the use of the pond as water storage contrary to its proper purpose of use. The structure of the pond could not withstand the hydrostatic pressure of the water stored over the gypsum sediment, the report adds. The accident was viewed by NGOs and civic movements as Finland's worst environmental catastrophe (Stop Talvivaara, 2013) and received wide negative media attention throughout Finland. The gypsum pond leaked again in April 2012 but this time the wastewater was contained within the mine's property.

2.4 Data and literature collection

As the author aimed to investigate communication strategies, utilizing Talvivaara's documents was inevitable. The annual report has long been considered as a major public document which is a pivotal presentation by a company and has significant influence on the way stakeholders perceive and react to a company (Anderson and Epstein, 1995). Considering space limitations, with many issues to disclose, arguably, only the most relevant information is disclosed through them. Hence, as Guthrie and Abeysekera (2006) argue, what an organization chooses to include in or omit from them is a conscious decision that communicates a significant message to readers. It is also acknowledged that in situations where issues/events require more immediate and widespread responses to legitimacy threats, other communication means including press releases and advocacy advertising may be used instead of, or in conjunction with, the annual reports (Zeghal and Ahmed, 1990; Aerts and Cormier, 2009). Thus, in addition to the annual reports, relevant press and stock exchange releases were also obtained.

It was obvious that the post-accident disclosures would be strongly influenced by the accident. Therefore, a necessary starting point was selecting a relevant timeline for the cross-sectional analysis. Talvivaara's annual report subsequent to the accident was published on 27th March, 2013, nearly five months later. A preliminary documents review found that the legitimation discourse was culminated in that report, and subsequent disclosures offered no new useful insights. Hence, the 2012 annual report as well as eleven press and stock-exchange releases issued in the period between the leakage detection and the annual report publication dates were downloaded from Talvivaara's website for cross-sectional analysis. Annual reports from 2008 to 2011 were similarly obtained. These particular secondary data sources were chosen because they were freely available for viewing and downloading from Talvivaara's website. As pdf archival files, their content is fixed with clear reference to a specific date, time and place. Additionally, although being secondary sources, they represented Talvivaara's official position on the issues disclosed, hence given the aim of this thesis, they could confidently be considered as primary sources.

Relevant articles were obtained from different databases accessible through the University of Jyväskylä library. They were searched by using a number of different relevant keywords. Further, references for books and articles provided in the lectures of courses such as stakeholder management and SEA were utilized. By also reading references from those articles, tips and ideas for other useful sources were pursued. Other literature was obtained from websites of relevant Finnish authorities and institutions such as the Ministry of the Environment, the Ministry of Employment and the Economy, the Finnish Environmental Institute (SYKE), the Center for Economic Development Transport and the Environment (ELY-Keskus) and The Finnish Investigative Authority (FIA). From their websites, relevant publications concerning the mining sector, the GPL accident, Finnish regulations and laws were obtained. Additionally, insights about the accident were also obtained from websites of local English language media houses including YLE and Helsingin Sanomat and also from websites of activists such as Stop Talvivaara and the Finnish Nuclear Heritage. The collected documents were then sampled according to their relevance, citation, age and other useful criteria before being utilized.

2.3 Data analysis

The content analysis method was used for data analysis. Besides the technique's demonstrable effectiveness in similar previous studies (See Gray et al., 1995; Adams, 1995; Deegan et al., 2002; Bebbington et al., 2008; Cho, 2009), the flexibility it offers in terms of research design (Harwood and Garry, 2003) was an indispensable quality to capture the multifaceted concept of accountability. Krippendorff (1980) describes this method as a research technique for making replicable and valid inferences from text (or other meaningful matter) to their context of their use. The technique seeks to analyze data within a specific context in view of the meanings someone, a group or a culture attributes to them (Krippendorff, 1980). In the present thesis, the author wanted to attain a condensed and broad description of Talvivaara's CSR disclosure practices, and generate trends and categories describing them. The analysis was conducted in two stages as envisioned in figure 1.

The starting point was deciding on the *sampling level* and the *units of analysis*. Sampling the annual report included the CEO's and chairman's statements, and sections covering strategy, health and safety, environment, human resources, and sustainability for the latest reports. These sections offered the most relevant CSR information. For the relatively smaller press and stock exchange releases, the entire document was content analyzed. On the other hand, as it will be explained in the subsequent section, deciding on the unit of analysis required some flexibility. Where meaning had to be inferred, sentences were used as suggested by Gray et al. (1995). Alternatively, a meaning unit, which is according to Graneheim and Lundman (2004), a constellation of

words, sentences, paragraphs or statements that relate to the same central meaning, was used to capture logically linked contents.

2.3.2 Longitudinal analysis

The first stage of the analysis focused on capturing the changes in the annual reports from 2008 to 2012. Previous researchers have either counted the frequency of the unit of analysis or simply ascertained its existence. However, the former approach limits the analysis by capturing quantity rather than quality characteristics (Unerman, 2000; Gray et al., 1995; Milne and Adler, 1999). Its other drawback is that general and specific disclosures are treated in the same way (Bouten et al., 2012). Therefore to minimize these limitations, the author used the content analysis framework developed by Bouten et al. (2011) to examine comprehensive reporting. It establishes the number of CSR items covered and the information types disclosed. Besides being grounded on relevant SEA literature, the framework is also based on the GRI guidelines (version 3.0). These guidelines are recognized for containing a vast range of measures for social performance that can be used by all company types (Lamberton, 2005; Sutantoputra, 2009). Sentences were used as units of analysis to achieve complete, reliable and meaningful data for further analysis (Milne and Alder, 1999). Meaning units were alternatively used, to capture the logically relevant information presented in well labeled tables and charts.

a) Coding structure

The coding structure (See appendix 1) consisted of two dimensions: (i) content and (ii) information types. The content dimension consisted of two levels: (i) areas and (ii) items. The reporting areas included the economic, social and environment. The social area had four sub-areas of human rights, labor practices and decent work, society and product responsibility. Each area/sub-area had specific items as stipulated by the GRI G3 guidelines, totaling 36 items (see appendix 2). The analysis involved first establishing the presence or absence of a CSR item, and if present, further identifying the information type disclosed. The information types were: (i) vision and goals (VG) (ii) management approach (MA) and; (iii) performance indicators (PI), summarized in table 1 below:

TABLE 1 Summary of information types

Vision and Goals (VG)	Specific intentions and commitments to address specific social issues (items)
Management Approach (MA)	Specific actions implemented to achieve the intentions
Performance Indicators (PI)	Quantitative outcomes of the specific actions which denote actual performance

Where performance was disclosed qualitatively to denote zero, for instance, “*there were no environmental fines*” or “*there was no fatal accident*”, that information was also considered as PI information type. General rhetoric was discarded. The level of comprehensiveness was then calculated using the formula below:

$$\text{Comprehensiveness level} = \frac{\text{Number of items for which all the 3 information types are disclosed}}{\text{Number of items reported}}$$

However, the level of comprehensive reporting is only relevant if a company reports some CSR information (Bouten et al., 2011). Thus, to establish also what a company does not disclose, the analysis was broadened by including the completeness measure. This measure shows the percentage of CSR items disclosed out of the total items in a given analysis level. By introducing this measure, it was possible to establish whether Talvivaara reported more CSR items more comprehensively for complete transparency.

$$\text{Completeness} = \frac{\text{Number of items reported with at least one information type}}{\text{Total number of items in the overall/category/subcategory}}$$

b) Dependent and independent variables

Consequently, there were two main dependent variables in the present thesis: *disclosure* and *disclosure level*. Disclosure is a binary variable; indicating whether or not a company has disclosed CSR information in the report. Disclosure level is a continuous variable; indicating the breadth i.e. the number of items reported, and the depth i.e. the information types disclosed. It was beyond the scope of this paper to investigate independent variables. The empirical part was concerned with establishing links between the purpose of making disclosures, the choice of strategies to discharge accountability and gain legitimacy, and the related disclosures. Hence, independent variables were assumed to be constant, and this was necessary to delimit the study and avoid overly emphasis on quantitative assessment. Nonetheless, possible independent variables which have been proven by previous research to influence the disclosures include firm size, industry profile, leverage, dispersion, risk, financial performance, strategic posture and media exposure (Bouten et al., 2012).

In investigating the second and third research sub-questions the simplest form of content analysis was employed. Instead of measuring the extent of the disclosures, the analysis aimed at establishing the presence or absence of an item. This approach has been previously used (See Milne and Adler, 1998; Parsa and Koyhy, 2001), and according to Vuontisjarvi (2006), it is the most reliable form of content analysis. For the second sub-question, the exercise involved indentifying the existence of some sort of external assurance, particularly an assurance statement or a link or reference to its location. Answering the third sub-question involved indentifying some form of feedback mechanism such as contact numbers, post address, feedback form or an email address that was explicitly indicated as for purposes of report enquiries and feedback. The coding rule was a simple present/absent dichotomy.

2.3.3 Cross-sectional analysis

The second stage of the analysis was a cross-sectional analysis. An abductive content analysis approach was employed to identify the post-accident legitimation strategies. This approach allowed former knowledge about the phenomenon to not only be utilized but also advanced. On the textual level, the focus of the content analysis was on how textual choices were used in the disclosures to mark and signify Talvivaara's responsibility for the accident, and the company's general attitude towards the society. A sentence or a phrase ending with a period or question mark served as a unit of analysis. The data was then categorized into legitimation strategies of communication.

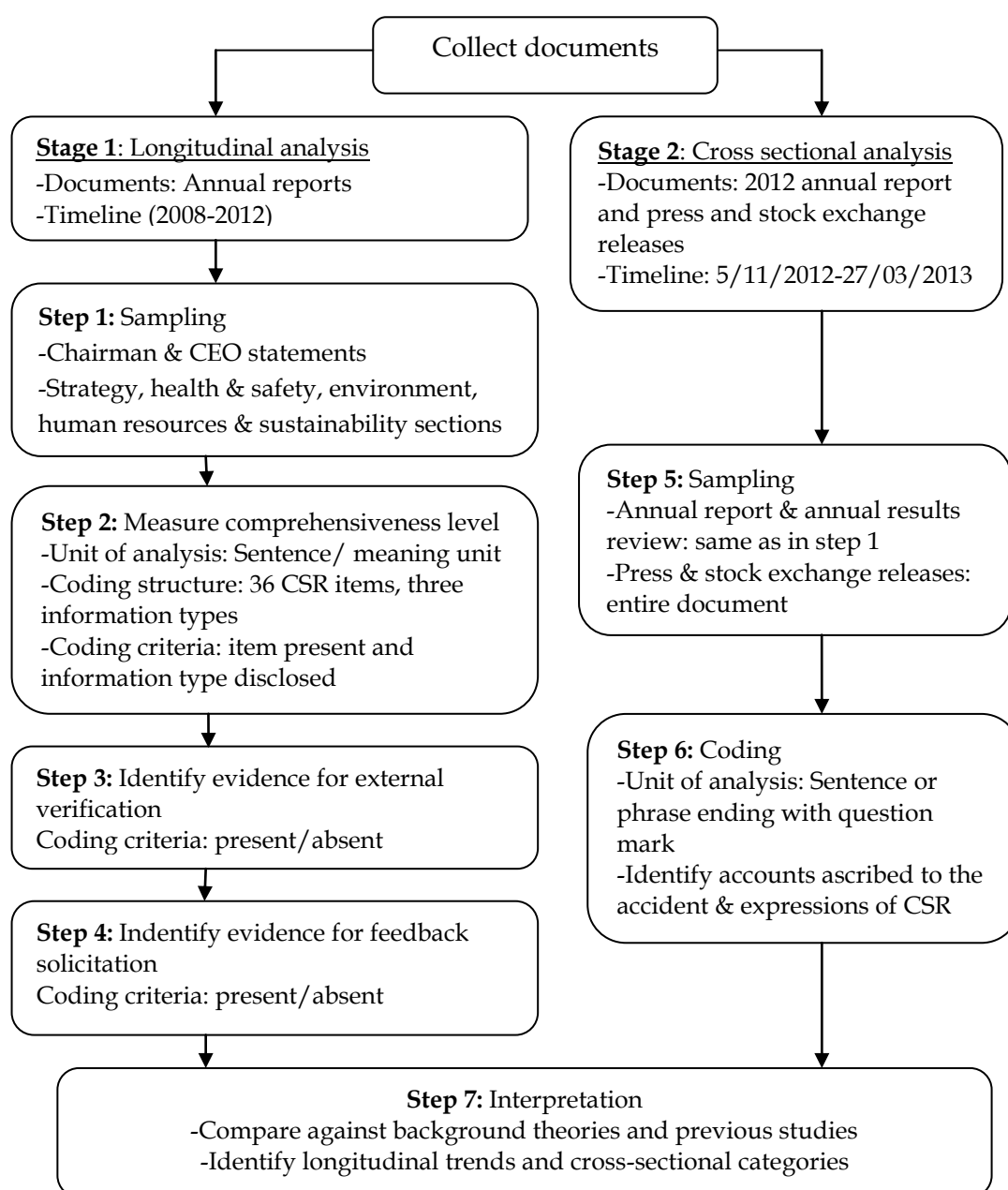


FIGURE 1 Main steps in data analysis

3 THEORETICAL FRAMEWORK

3.1 Mining and the environment

This subchapter presents an overview of the social and environmental impacts associated with mining projects. Therein, the forms of regulation available to promote responsible mining are also discussed. The aim is to highlight both the moral and legal basis for holding mining companies responsible and accountable for the outcomes of their activities.

3.1.1 Social and environmental impacts of mining

Mining presents dichotomies, at one extreme, opportunities for the production of substantial wealth, and on the other, threatening destruction of those lands and associated community life (Esteves, 2008). Generally, mining has an effect on the local and national economy through royalties and other types of taxes (Waye et al., 2009; Crowson, 2009), investments and employment (Törmä and Reini, 2009). The economic well-being is also supported through the linkages between mining and other sectors, such as equipment suppliers, downstream processing and service sectors (Crowson, 2009). However, while the economic effects of mining occur at national, regional, local and company levels, the direct pressures on the environment and societies occur at the local level (Tuusjärvi, 2013).

In Finland, The most significant environmental concern in metal ore mining is the release of substances harmful to the environment or human health into surface water or groundwater through emissions into water bodies or into the soil through dust (Kauppila et al., 2011). The most socially affected areas are most clearly felt in terms of destroyed livelihoods, amenity and the domestic or recreational use of nature, caused by traffic, noise, dust, smoke gases, vibration and wastewater (Kauppila et al., 2011). The negative social effects may also impact on competing sectors (e.g. tourism and reindeer farming), and include transfers of workforce from other sectors, indigenous peoples'

disempowerment (Corando and Fallon, 2010) and feelings of insecurity, fear and distrust in the local population (Ziessler et al., 2013). Furthermore, local communities may welcome the increased employment and economic wealth, but tensions usually develop between them, national governments and mining companies as a result of contradicting views on the intensity of benefits and drawbacks of mining (Crowson, 2009). Nonetheless, the significance of all these impacts largely depends on the regulatory framework in place.

3.1.2 Mining and climate change

Mining projects contribute considerably to climate change. Significant quantities of energy and greenhouse gas (GHG) emissions characterize all life cycle phases. For instance, according to a study by Hakapää and Lappalainen (2009, cited in Kauppila et al., 2011), energy consumption per ton of ore at a mine varies from 12 to 25 kWh and at a concentrating plant from 30 to 50 kWh. In addition, lost carbon dioxide uptake by forests and vegetation cleared to make way for necessary infrastructure, and GHG emissions by machines involved in extracting, transporting and processing of ore into metal, further contribute to global warming. Meanwhile, the implications of climate change for mining projects have also been widely publicized. The International Council on Mining and Metals, ICMM, for example, warns of the physical risks of a changing climate presented to mining and metals operations (ICMM, 2013). Deloitte and Touche (2008) notes the implications for regulations, new technologies and public opinion. Consequently, stakeholders are recently increasingly asking mining companies to identify, disclose and plan for the risks and opportunities presented by a changing climate (ICMM, 2013). Locally, the degree to which mining fortifies or undermines host communities' resilience to climate change directly impacts on the industry's legitimacy.

3.1.3 Regulatory frameworks

Regulations are usually put into place in response to market failures, where governments are expected to intervene (See e.g. Waye et al., 2009). Generally, the regulatory mix, in terms of government intervention, ranges on a continuum from no direct government regulation to command and control (Gunningham and Sinclair, 2002). Therein, various complementary, but sometimes counterproductive, policy instruments are used to ensure that the negative impacts of mining are slowed down, halted or ideally reversed (Gunningham and Sinclair, 1999).

3.1.3.1 Command and control regulation

In this regulatory approach, the state typically specifies standards, and sometimes technologies, with which companies must comply (the 'command') or be penalized (the 'control') (Gunningham and Sinclair, 2002, p.9). Besides setting standards, the state also issues permits or licenses, or enters into a

covenant with companies (Gunningham and Sinclair, 1998). In Finland, mining is highly regulated at all project life cycle phases. *The Mining Act (621/2011)* is the principal mining legislation, and it is enforced by *Regional State Administrative Agencies* and *Municipal Environmental Protection Authorities*, to promote sustainable mining (Uusisuo, 2013; Kauppila et al., 2011). However, although a command and control system has the virtues of high dependability and predictability (if adequately enforced), it commonly proves to be inflexible and inefficient (Gunningham and Grabosky, 1998). Certain forms of this approach have been critiqued for interfering with both individual freedom and efficiency (Utting, 2005). Companies, in particular, prefer not to be subject to legally binding regulation that may create liability for damage by their operations or subject them to criminal law (Clapp, 2003). This is arguably the case in Finland where the institutional and policy frameworks and enforcement capacity are outstandingly adequate. Therefore, regarding social and environmental standards, firms instead prefer co-regulation and self-regulation, with the latter being even more preferable.

3.1.3.2 Co-regulation

Co-regulation is a hybrid policy instrument involving a combination of *government-set targets* and *industry-based implementation*, with even the latter element being underpinned by government control (Gunningham and Grabosky, 1998). Commonly, it entails the creation of not-for-profit, self-funded organizations, led by industry councils or similar bodies to deliver services and programmes in specific markets (Gunningham and Sinclair, 2002). The daily administration of standards is the industry's responsibility, subject to community scrutiny and third-party audit (Sarker, 2013). Meanwhile, the government sets minimum outcome-based standards and reserves the right to impose legal sanctions for breach where enterprises fail to live up to their promises (Gunningham, 1998). Additionally, the government intervenes to prevent free-riding and incentivize continuous improvement (Gunningham, 1998). Examples of co-regulation include multi-stakeholder engagements such as the GRI, Social Accountability International Standard SA8000, the United Nations Global Compact, the Extractive Industry Transparency Initiative (EITI), the Forest Stewardship Council and the European Alliance for CSR (Utting, 2005; Albareda, 2008).

3.1.3.3 Self-regulation

Self-regulation refers to the mechanisms used by organizations, both individually and in conjunction with others, to raise and maintain standards of corporate conduct (Brereton, 2002). Typically, this regulatory system involves a group of firms in a particular industry or profession, voluntarily developing rules or codes of conduct that regulate the behaviour of its members (OECD, 2006). Further, despite criticisms that self-regulation serves the knowledge of the industry rather than the public (Gunningham and Sinclair, 1998), the system

offers greater speed, flexibility, sensitivity to market circumstances, efficiency and less government intervention than command and control regulation (Sarker, 2013). Examples of self-regulatory initiatives include voluntary codes of conduct and standards, codes of corporate conduct and company policies on health, safety, environment and community, such as ISO-14001 standard for environmental management, the ICMM codes of conduct and the Ethical Trading Initiative (ETI) codes of conduct.

Further, in between these three regulatory regimes (see figure 2) lie mechanisms such as economic incentives, audit and technology assistance and education and information, through which the government facilitates organizations to meet and even surpass the regulatory standards (Gunningham and Sinclair, 2002; Martinez et al., 2007). Simultaneously, the society also exerts pressure on the three actors in the regulatory triangle for more responsible corporate behavior.

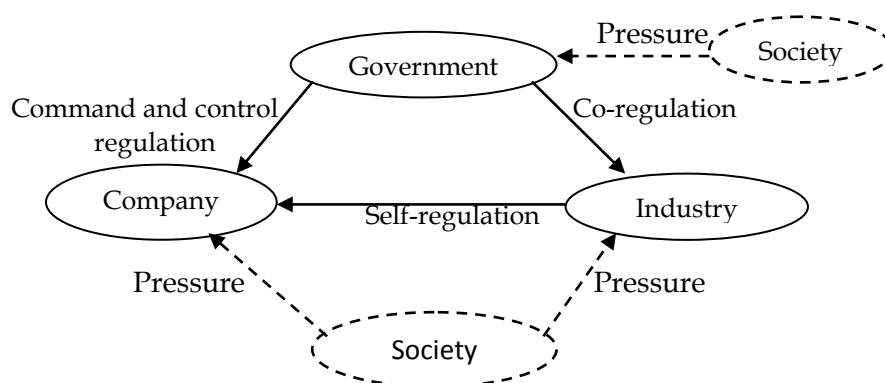


FIGURE 2 The regulatory triangle and the influence of society (Sarker, 2008)

3.2 Corporate social responsibility

According to Gray et al. (1996, p.56), “stakeholder accountability arises only if an organization has a *social responsibility*-otherwise there is no (stakeholder) accountability to discharge”. Therefore, as a necessary point of departure, this subchapter places the research aim within the wider CSR context. However, for reasons of space, not all the aspects of CSR will, herein, be discussed. Accordingly, this subchapter seeks to identify the principal theoretical themes that will underpin the later discussion and analysis.

Corporate social responsibility has its theoretical underpinnings in stakeholder theory, the argument that at the very least other stakeholders (suppliers, customers and employees) are owed something beyond what is specified in their contracts of engagement with the company (Nordberg, 2011, p.183). Underlying the core of this hotly debated concept is the subject of social obligations and impacts of corporations in society (Crane et al., 2009). This has

earned the term, CSR, significant popularity when describing the means by which companies can frame their attitudes and strategies towards, and relationships with, stakeholders and the society at large (Jenkins, 2004). Sometimes this concept comes with the label of *corporate citizenship*, other times just *corporate responsibility* (Nordberg, 2011). Nonetheless, the fundamental idea of CSR is that business corporations have an obligation to work for social betterment (Frederick, 1986, p.4).

As an ethically grounded concept (Unerman et al., 2007), CSR is a controversial topic. The concept has come to mean different things to different people at different times and new issues can easily be included in existing definitions (Pedersen, 2006). Therefore, in order to avoid getting embroiled in definitional arguments, for the purpose of the present thesis, the definition proposed by the World Business Council for Sustainable Development (WBCSD) in 1999 will be adopted. This definition has, to date, become the most useful and commonly used in CSR literature. The WBCSD proposed that:

“ CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.” (WBCSD, 1999)

Underlying the above definition are the ideas of the voluntary nature of CSR efforts, the requirement for a moral basis as a normative foundation for managerial decision-making, and the undertaking of corporate actions within and beyond statutory norms. These central ideas are held in common in all CSR practice and discussion.

At the heart of the CSR debate is the question of what are the social responsibilities that society expects business to assume. According to Carroll (1979, p.500), the social responsibility of business encompasses four responsibilities: *Economic responsibilities*- The first and foremost social responsibility of business as a basic economic unit in society is economic in nature. Business has to produce goods and services that society wants and sell them at a profit. Secondly, business has *legal responsibilities* as society expects business to fulfill its economic mission within the framework of legal requirements. Thirdly, business has *Ethical responsibilities*- Although the economic and legal responsibilities embody ethical norms, society further expects business to fulfill ethical responsibilities by displaying additional behaviors that are not necessary codified into the law but socially considered as morally right. Fourthly, business has *discretionary responsibilities (philanthropic)* about which society has no clear-cut message for business and thus left to individual judgment and choice. However, unfulfillment of discretionary responsibilities such as making philanthropic contributions is not considered unethical per se (Carroll, 1979).

However, opinion differs considerably as to the appropriate level of social responsibility to be expected of corporations. For example, Carroll (1979) suggests that the four kinds of responsibilities can simultaneously exist, but

notes that the history of business suggests an early emphasis on the economic and then legal aspects and a later concern for the ethical and discretionary aspects. Contrary, Moir (2001) claims that whether or not business undertakes CSR, and the forms of responsibilities it assumes, depends upon the economic view of the firm that is adopted. Views on the responsibility of business range on a continuum from a belief that the only ethical responsibility any business has is to maximize its shareholder economic value (Friedman, 1962) through to a belief that businesses have moral responsibilities to all stakeholders upon whom their operations might impact (Freeman, 1984; Friedman and Miles, 2002). At the other extreme, customers, employees, and shareholders are the main groups of people for which the business is responsible. Therefore, depending on the philosophy that a company adopts, the corporate social responsiveness can range from no-action, pro-action and reaction.

At an operational level, companies attempt to address a number of social issues that are tied to social responsibilities in order to be, or at least appear as, socially responsible. However, the author will not exhaustively identify the social issues that business must address because they change, and vary between contexts. Actually, as argued by Carroll (1979), as the times change, so does emphasis on the range of social issues that business must address. Further, social issues can be specific corporate incidents or general (Carroll and Buchholtz, 2009). Nevertheless, according to the European Commission (2011, p.7), CSR at least covers human rights, labor and employment practices (such as training, diversity, gender equality and employee health and well-being), environmental issues (such as biodiversity, climate change, resource efficiency, life-cycle assessment and pollution prevention), and combating bribery and corruption, community involvement and development, the integration of disabled persons, and consumer interests, including privacy. Thus, the concept of CSR envelops both social and environmental issues and their associated economic dimensions.

Accountability is a concept that follows on from the acceptance of responsibilities (Unerman and O'Dwyer, 2007). Although not all companies that accept social responsibility and allocate resources to CSR activities explicitly communicate their social performance to their external stakeholders, accounting for the CSR impacts on stakeholders is a crucial CSR component. This is because there is the danger that companies are responsible for everything but accountable for nothing.

3.3 Social and environmental accounting

This sub-chapter discusses the concept of SEA as the communicative dimension of CSR. The aim is to articulate the conception of accountability within SEA by describing the key motivations, processes and outcomes of SEA. Herein, the author will attempt to distinguish the deontological motivations and outcomes

of SEA, which are related to accountability, from the narrow instrumental concerns of legitimacy.

Implicit within SEA is a belief that with appropriate assignment of responsibility, the creation of measurement systems and by the use of objectives and targets, the impact of an organization can ultimately be measured, managed and controlled. In this context, Gray et al. (1987) provide the most useful and commonly used definition of what is meant by SEA. The authors describe SEA as:

“...the process of communicating the social and environmental effects of organizations’ economic actions to particular interest groups within society and to society at large. As such it involves extending the accountability of organizations (particularly companies), beyond the traditional role of providing a financial account to the owners of capital, in particular, shareholders” Such an extension is predicated upon the assumption that companies do have wider responsibilities than simply to make money for their shareholders.” (p.ix)

Such a view of SEA was considered by Cooper (1992) who pointed out that, accounting does not stand outside of the wider sociopolitical economy. This led Shearer (2002) to assert that there is no point of departure for an elaboration of an accounting that is not implicated in this economy. In short, accountants cannot escape involvement in social and environmental issues. However, not until in recent times, that scholarly interest in SEA has substantially grown (see Gray et al., 1995; Mathews, 1997; Deegan, 2002; Parker, 2005; Cho and Patten, 2007; Owen, 2008; Burritt and Schaltegger, 2010). Recognition of and interest in the subject grew, contemporaneously, with an apparent growth in anxiety about corporate ethics, corporate power, social responsibility and ecological degradation (Gray, 2002). Consequently, much of the academic literature has investigated the motivation behind companies’ decision to undertake SEA.

Generally, companies voluntarily disclose CSR information in order to inform the society and other corporate stakeholders about their social and environmental policies, practices and impacts (Spence and Gray, 2007; Gray et al., 2000; Gibson and O’Donovan, 2000). The academic literature examining the motivation behind such a decision can be divided into two contrasting perspectives. One perspective considers SEA as a practice that transforms business practices to become more socially and environmentally benign. Proponents of this view hold that SEA is an enabling, empowering and emancipatory form of accounting in that it provides both a critique of existing practice and develops alternative forms of accounting which are more ethically grounded, and which have the potential to create a fairer more just society (Bebbington, 1997, p.365). This view considers SEA to offer potential for increased accountability through an expansion of rights to information (Mckernan, 2012), and thus give a greater degree of visibility to corporate social and environmental activities and their consequences, casting light on what is often invisible (Hopwood, 2009).

In stark contrast, critical perspectives consider SEA as a managerial tool to win and regain support of those stakeholders who have the power to substantially influence the achievement of organizational goals (usually profit maximization) (Unerman, 2007). Extreme views hold that the capital-oriented traditional accounting systems cannot change in the ways necessary to materially address social and environmental issues, and thus SEA might do more harm than good (See Bebbington, 1997; Gray, 1992; Lehman, 1995; Owen et al., 1997). Such views consider SEA as an extension of a system of systematically distorted communication practice that supports privileged interests within society (Puxty, 1986). Considering the role of corporate disclosures in constructing and presenting the “reality” of corporate life (Hines, 1989), many studies have indicated that rather than providing a genuine, full and honest account, CSR communications are predominantly used by corporations to portray a very partial image such that the rhetoric is usually different from the reality of underlying corporate activities and impacts (Gray et al., 1996; Unerman et al., 2007). Therefore, given these two perspectives, SEA is potentially part of the solution as well as part of the problem in social and environmental issues.

3.3.1 Communication

Any discussion on SEA would be incomplete without an account of the concept of communication. Therefore, this section addresses precisely this issue. According to Sisk (1977, p.351), in its broadest sense, communication is defined as the transmission of meaning to others. This definition raises questions such as how people create meaning psychologically, socially and culturally, how messages are understood mentally, how ambiguity arises and how it is resolved (van Ruler, 2004). Therefore, for purposes of this thesis which investigates formal written organizational CSR communication, it is necessary to restrict the definition further to *the transmission of intended meaning to others*. This restriction implies that the transmitting organization has a clear concept of the meaning to be conveyed, and as embedded in CSR, it implies moral communication, whereby corporations produce expectations and bind themselves to partially idealistic promises (Golob et al., 2013, p.180) by persistently portraying the message of how they perceive themselves to be part of the community in which they operate (Jenkins, 2004).

Given the consideration that communication is the transmission of intended meaning to others, a further question remains about what makes communication purposeful. Sisk (1977) argues that for communication to be purposeful, the receiver must interpret the message in such a manner that the intended meaning is received. In the accounting context, an important communication consideration is the ability of the readers to effectively digest the information. One response to this is simplification of the disclosures (Nordberg, 2011). This basically involves offering short forms of the accounts with selected highlights. Another response is the use of simple language and

avoiding complex jargon and technical terms that might confuse the reader or obfuscate the meaning (Rainborn et al., 2008).

As an external communication vehicle, CSR reporting comprises of various reporting tools. These take many forms but most commonly is either the production of information in annual report and accounts package (including both voluntary and mandatory information) or the production of stand-alone reports (that are most usually, but not always, voluntary) (Bebbington et al., 2006). Increasingly, companies are also using corporate web reporting. As a means of informing the public, relevant stakeholders, and shareholders about the economic, social, and environmental business conduct of firms (Freeman et al., 2010), CSR communication can also be seen as a process fostering accountability.

3.3.2 Accountability

The subject matter of this thesis is accountability and the mechanisms thereof. However, accountability has proven to be an elusive term that does not lend itself to a precise definition (Sinclair, 1995). One may depart from a distinction between a narrow and broader concept of accountability (Bovens, 2010). Nonetheless, a minimum understanding of the concept implies that it is about answerability, that it is a relational concept involving social interaction and exchange, that it is retrospective and that it is a layered process (Mulgan, 2000; Schillemans, 2013). Besides answerability connotations, accountability also consists of enforcement connotations (Schedler et al., 1999). Therefore, to say that an entity should be accountable for particular events or actions is to hold certain expectations about what this entity should be able and obliged to explain, justify and take responsibility for (Cooper and Owen, 2007). Nevertheless, to get a fair view on the concept, it would be prudent to give a narrow as well as broad definition of accountability.

In its narrow sense, focusing on the answerability connotations of the concept, as highlighted in the introduction chapter, accountability is defined by Gray, Owen and Adams (1996, p.38) as:

“...the duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible”.

Building from this narrow understanding, the duty to provide an account may be moral, legal, or fiduciary, and the actions may come from an entity such as government, people, corporations or a non-governmental organization (NGO) (Fonseca, 2010, p.44). In the present paper, a normative standpoint is adopted by the author, and thus the moral duty is considered. With this consideration in mind, the most intuitive accountees are those individuals or groups that affect or may be affected by the business operations (Freeman, 1984). In other words, they are shareholders, stakeholders and society at large (Benston, 1982, p.88). However, many theories indicate that duties of accountability are owed only to those with power to influence achievement of organizational goals (Unerman

and O'Dwyer, 2006). Nonetheless, whatever the viewpoint one adopts, it is clear from the literature that it is generally accepted that modern corporations are accountable to a wide range of groups in society besides their shareholders.

This brings us to the principal thrust of this thesis; how has Talvivaara communicated its social and environmental performance to the discharge accountability? This is in regard to both generic social issues and the GPL event. As generic social issues are communicated predominantly through the more detailed annual reports, the initial literature review focused on identifying the significant factors that advance accountability in the reports. After an extensive review of literature on this topic, three main requisites of accountability could be detected. Accordingly, the remainder of this subchapter will synthesize these overlapping theoretical perspectives and build a rich conception of accountability. These preconditions will also guide the criteria for the qualitative assessment of the disclosures in the analysis part. On the other hand, literature on how a company can account for specific events and manage legitimacy in general is reviewed in the next subchapter discussing the legitimacy theory. These necessary factors are: (i) comprehensive reporting, (ii) external verification and (iii) stakeholder engagement and dialogue.

3.3.2.1 Comprehensive reporting

In ideal terms, reports should give a balanced view of key ethical (including social and environmental) issues facing the company (Adams, 2004). One form of reporting that arguably pursues these ideals is that which is generally known as comprehensive reporting. Albeit varying evaluation criteria proposed by different researchers, comprehensive reporting assesses what and how companies report on particular CSR issues. For example, Adams and Harte (2000) Adams (2004), Adams et al. (1995), Robertson and Nicholson (1996), Vuontisjärvi (2006), and van Staden and Hooks (2007) suggest that companies report comprehensively if they provide information on their (i) aims and intentions, (ii) actions and (iii) subsequent performance concerning different CSR issues. For instance, for the CSR issue 'emissions', this approach means that a company discloses (i) the aim to reduce emissions by a specified quantity, (ii) the specific actions to realize this intention and (iii) the actual reduction achieved (Bouten et al., 2011). Indeed if a company reports in this manner, it is possible to obtain a fair view of the company's acceptance of its social responsibility, and make a reliable estimate of its social and environmental performance. Actually, studies by de Villiers and van Staden (2010), O'Dwyer et al. (2005) and Tilt (2004) have confirmed that stakeholders require a combination of these information types. This thesis will therefore adopt the above conception of comprehensive reporting.

Moreover, this framework has its roots in that literature body concerned to link CSR and accounting. According to Gray et al. (1996) and Adams (2004), in the accountability framework, above all, accountability requires demonstrating corporate acceptance of social responsibility. This can be done through a clear statement of values with corresponding objectives and quantified targets, with

expected achievement dates against which the company must report their progress (Adams, 2004). However, many companies state commitments towards CSR for image reasons. Thus, to honor those commitments, they are expected to take specific actions as part of their implementation and monitoring (Robertson and Nicholson, 1996). Subsequently, they can disclose their social performance information to stakeholders in terms of aims, actions and performance indicators describing the outcomes of accepting and taking social responsibility. In this accounting sense, general (qualitative) disclosures are considered as largely symbolic (de Villiers and van Staden, 2006), particularly, where specific rhetoric for contextualization is missing.

In practice, however, the lack of completeness has been identified as the most serious reporting problem (Adams, 2004; Adams and Evans 2004). Completeness is the coverage of the material topics and indicators and definition of the report boundary that is sufficient to reflect significant economic, environmental, and social impacts and enable stakeholders to assess the reporting organization's performance in the reporting period (GRI, 2002). In this view, it has been argued that accountability is furthered in the form of complete transparency (Roberts, 2009). This argument is based on the literal sense of transparency; which is the ability of light to pass through something so that objects behind it can be seen. Complete transparency, in Roberts's (2009) view, entails an increase in the number of things that are made visible as well as an increase in the ways in which things are made visible, for greater organizational openness. In terms of comprehensive reporting, transparency entails providing more breadth in terms of CSR issues as well as more depth in terms of information types for each issue reported.

However, disclosing with more breadth and depth does not necessarily promote accountability. Previous researchers have expressed valid concerns over what transparency can actually conceal. For instance, Suchman (1995) noted that companies make selective disclosure of numerous indicators of inputs and at the same time information about processes but particularly outcomes are not released (p.292). Similarly, Thomson and Bebbington (2005) observed that all reports take the form of written accounts of selected impacts, using chosen quantitative and qualitative measures as well as carefully selected images. More recently, Hopwood (2009) also voiced his impression that companies report much more on aims and intentions than on actual actions and performance. These findings suggest that managers appear to selectively disclose information to obfuscate the underlying performance, leading to calls for robust and vigorous third party verification.

3.3.2.2 External verification

It is widely posited that the completeness and credibility of CSR reports would be enhanced if they are externally audited and verified (see Adams, 2004; O'Dwyer and Owen, 2005; Power, 1997; Gendron, Cooper and Townley, 2001; Belal, 2002; Porter, 2009; Gillet, 2012). However, this does not imply that all unverified reports are not complete or credible. The essence of external

verification is that a process has been adopted whereby information provided by management is compared against some agreed criteria (Janggu et al., 2013). While this process has traditionally been conducted by accountancy firms and consultancy assurance providers (O'Dwyer and Owen, 2005), recently, stakeholders including trade unions, stakeholder panels and NGOs are being involved to improve the quality of verification (KPMG, 2008; Commission of European Communities, 2001). What results from this is a potentially more relevant, reliable, neutral, understandable and complete report (Wallage, 2000).

However, for a variety of reasons not all reporting organizations seek external assurance. A study by Park and Brorson (2005) in the Swedish context identified credibility enhancement, maintaining the position as the frontrunners and improvement of reporting system as the major motivating factors for adopting assurance practices. Other factors include media attention where companies are challenged with the credibility of environmental and sustainability report, pressures from practicing companies in the same industry, financial auditing firm having the necessary skills for providing assurance on environmental and sustainability report, and integration of the environmental and sustainability report into the annual financial report (Sawani et al., 2010). In several countries, legal requirement is an important driver for the demand of assurance in CSR reports (Wallage, 2000). On the other hand, the lack of legal drivers and compelling business case, early development of reporting process, low level of demand for accurate information across stakeholders group, cost and time have been identified by (Wilson, 2003) as some of the barriers in adopting assurance practices. Park and Brorson's (2005) study also identified high level of assurance fee, uncertainty about the value, the absence of external pressure, and other work priority, cost and also time as other barriers.

Albeit demonstrable capacity to improve the quality of reports, the assurance practice has not been universally acclaimed (see Gillet, 2012; O'Dwyer et al., 2011; Deegan et al., 2006; O'Dwyer and Owen, 2005; Adams and Evans, 2004; Thomson and Bebbington, 2004; Swift and Dando, 2002; Gray, 2000). Concerning the use of assurance standards and the nature of assurance opinions offered, studies by Owen (2007), Adams and Evans (2004) highlighted variability in the key assurance areas such as the level of assurance provided and the inclusion of addressee (Janggu et al., 2013). With such irregularities, report readers have often had great uncertainty in understanding how the assurance provider undertook the engagement, what they actually reviewed and what was the meaning of their conclusion (Deegan et al., 2006). A different study by Gray (2000) found negligible evidence that assurance reports were the result of independent inquiry because they were typically prepared under a strict management brief. In short, as Belal (2002) argues, the value added to the credibility of the reporting process by external verification is limited.

3.3.2.3 Stakeholder engagement and dialogue

Central to the SEA process is the identification and prioritization of social, environmental and economic expectations of stakeholders (Deegan and

Unerman, 2006). It would thus be difficult to imagine how an organization can determine how to compile an effective CSR report without identifying its stakeholders' information needs and expectations (Unerman, 2007). Obviously, any resultant report would not be purposeful. What's more, the resultant reports would be less complete, covering no material aspects from a stakeholder perspective (Adams, 2004). This is where stakeholder engagement and dialogue comes into the SEA process. Thomson and Bebbington (2005) describe stakeholder engagement as a range of practices, such as internet bulletin boards, questionnaire surveys mailed to stakeholders, phone surveys and community based and/or open meetings, through which organizations take a structured approach to consulting with stakeholders (p.517). Some reporting companies have even used selected '*stakeholder voices*' themselves to form part of the report (Unerman and Bennett, 2002). Others have employed third party organizations with some standing and credibility to facilitate stakeholder engagement (Thomson and Bebbington, 2005). These practices have fostered their ability to identify and prioritize stakeholder information needs in the preparation of CSR reports.

However, identifying stakeholder needs and expectations is not the end in itself to the accountability process. Accountability requires the demonstration of both willingness and ability to respond to the concerns that stakeholders may raise regarding the reported CSR aspects (Thomson and Bebbington, 2005). Thus, reporting would be a mere public relations exercise if it fails to provide feedback (Epstein, 2008, p.226), through stakeholder dialogue. Van Ruler (1999) defines stakeholder dialogue as the practice of putting your idea before others and stimulating them to bring in ideas in the hope of improving on the first idea. In accountability terms, this demands formal communication channels for stakeholders to submit concerns based on report contents or relevant exclusions (Cooper and Owen, 2007). In this regard, the main way by which organizations appear to hope to generate dialogue on the basis of the reports themselves is the inclusion of some sort of feedback mechanisms (Thomson and Bebbington, 2005, p.523). Therefore, considering the practical difficulties to conclusively estimate the extent and quality of stakeholder engagement by basing solely on the content analysis of reports, identifying feedback solicitation features provides a solid empirical base for evaluating CSR reports.

Consequently, the resulting dialectical activity makes it possible for organizations to answer, explain and justify, while those holding them to account engage in questioning, assessing and criticizing as accountability requires (Mulgan, 2000). Accountability thereby becomes enforceable and delegates some power to stakeholders to hold the accounting party to account by making CSR disclosures meaningful mechanisms through which organizations can listen to their stakeholders and also learn (Cooper and Owen, 2007). This conception of accountability extends the scope and meaning of the concept in a number of directions well beyond its core sense of being called to account for one's actions. The on-going and participatory nature of the concept under these circumstances brings this thesis to the broader definition of

accountability. Ebrahim (2003) put forward a definition that suits this broad understanding of the concept. The author proposed that:

“Accountability may thus be defined as the means through which individuals and organizations are held externally to account for their actions and as the means by which they take internal responsibility for continuously and scrutinizing organizational mission, goals, and performance.”(p.194)

However, the desirability of this practice by organizations and its ability to enhance accountability is highly doubtful. Owen et al. (2001), for example, question whether it is possible to conduct stakeholder engagement in a manner that enhances accountability. Instead, the authors suggest that the practice carries such an air of inevitability that further discussion of the practicalities of process is largely superfluous (p.267). Similarly, Cooper and Owen (2007) argued that prevailing stakeholder engagement practices have little to do with extending accountability and amount to nothing more than exercises in stakeholder management and corporate spin. In short, stakeholder engagement is not necessarily an act of corporate accountability (Greenwood, 2007).

To recap, to this point this paper has argued that for CSR reports to embody some accountability value, first they should be comprehensive i.e. disclose specific intentions, endeavors and performance indications for each item reported. On this, it has been argued that transparency increases as more items are reported comprehensively. Besides this, the reports need to be externally verified by an independent body. Such verification offers some credibility to the report content. And finally reports should promote dialogue on the basis of their content. In this regard, it has been established that the most meaningful mechanism to promote dialogue is the inclusion of some sort of feedback provision on the report for the readers. This idealized conception of accountability provides an empirical basis for evaluating CSR reports.

By considering the moral duty for organizations to go to this length, the assumed underlying impetus for accountability has been the “*social contract*” i.e. the idea that business owes its existence to society (Gray et al., 1988), which serves to control business by either rewarding or punishing corporate behavior. On this, the preceding discussion has also established that the sufficiency of the social contract to warrant corporate accountability is questionable because CSR disclosures also fulfill legitimation functions. This makes the legitimacy theory, which offers an alternative explanation why organizations engage in the SEA practice, worth exploring in this thesis. Thus, the following subchapter presents an in-depth discussion of the theory.

3.4 The legitimacy theory

Literature on SEA has produced a number of theories as to the motivation of organizations to disclose CSR information, most deriving from the broad theory called Political Economy Theory which is defined as 'the social, political and economic framework within which human life takes place (Gray et al., 1996, p. 47). A review of a number of prior studies found legitimacy theory to be the most widely used theory to explain social and environmental disclosures. Moreover, this theory has an advantage over other theories in that it provides disclosing strategies that organizations may adopt to legitimate their existence that may be empirically tested (Gray et al., 1995). Accordingly, this thesis adopts the legitimacy theory as the theoretical perspective for the purpose of explaining variations in Talvivaara's CSR accounting practices.

Underpinning the legitimacy theory is the notion of social contract between an organization and the society in which it operates (Magness, 2008; Shocker and Sethi, 1974). The social contract is, according to Deegan (2007, p.123), the "*multitude of implicit and explicit expectations that society has about how an organization should conduct its operations*". The idea is that organizations do not possess an inherent right to existence or to resources. The underlying premise is that society, as a collection of individuals, allows organizations to continue their operations so long as they consider the rights of the public at large and appear to conform to societal expectations (Deegan, 2007). Consequently, the term legitimacy has been used to describe institutions that depend on social support and approval for their existence.

In general, legitimacy has been defined by Suchman (1995, p.574) as:

"a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions "

3.4.1 Levels of legitimacy

Analytically, legitimacy occurs at three different hierarchical levels of analysis, depending on the contextual considerations. On the macro level, legitimacy is known as institutional legitimacy. Here, legitimacy deals with how organizational structures as whole have gained acceptance by society (Suchman, 1995). Institutional approaches to legitimacy adopt the viewpoint of the society looking "in", focusing on the collective structurization of entire fields or sectors of organizational life (O'Donovan, 2002). Within this tradition, legitimacy and institutionalization are virtually synonymous. Both phenomena empower organizations primarily by making them seem natural and meaningful (Suchman, 1995).

One layer down from the institutional level is organizational legitimacy, also referred to as strategic or instrumental legitimacy (Tilling and Tilt, 2010).

At this level, the competition and conflict among social organizations originates from conflicting value systems (Suchman, 1995). Here, legitimacy is viewed as a necessary resource that organizations must extract from the society for their ultimate survival, and it is conferred on an organization by its external audiences, reflecting collective perceptions and beliefs about the organization (Suchman, 1995). Strategic approaches to legitimacy adopt the viewpoint of managers looking “out”, focusing on legitimation efforts of a specific organization (O’Donovan, 2002). It is from this level of legitimacy that this study will draw the understanding of legitimacy. Dowling and Pfeffer (1975, p.122) provide an elaborate definition of legitimacy at this level:

Organizations seek to establish congruence between the social values associated with or implied by their activities and the norms of acceptable behavior in the larger social system in which they are a part. In so far as these two value systems are congruent we can speak of organizational legitimacy. When an actual or potential disparity exists between the two value systems there will exist a threat to organizational legitimacy.

The final level of resolution within legitimacy theory can be described as a refinement to organizational theory as it suggests that a firm will go through various phases with regard to its legitimacy (Tilling and Tilt, 2010). According to Ashforth and Gibbs (1990) and Hearit (1995), companies may be in one of the following legitimacy phases; establishing, maintaining, extending or defending legitimacy. These phases are not mutually exclusive (Tilling and Tilt, 2010). Although a synthesis of literature on legitimacy at this level will go beyond the scope of the present thesis, one might ponder on the issues of advance knowledge of the context and the need to manage legitimacy at each level.

3.4.2 Determinants of organizational legitimacy

The determinants of the condition of legitimacy are among the central questions in strategic legitimacy management. Generally, social impacts of policies, programs, and operations are the visible aspects of corporate social performance on which the company's motives will be judged, its use of responsive processes assessed, and its overall performance determined, by stakeholders (Wood, 1991, p.711). Companies are thus perceived to be legitimate when their *methods of operation, output, goals and domain of activity* are congruent with societal expectations (Dowling and Pfeffer, 1975; Lindblom, 1994). The society assesses these factors against the prevailing norms and beliefs which are known to vary between time and context (Scherer et al., 2013), and thus making legitimacy a dynamic constraint.

With respect to different industries, organizations differ considerably in their visibility to society as a whole. Brammer and Millington (2005) define socially exposed industries as sectors which are associated with highly visible social externalities that are subject to strong regulatory regimes (e.g. alcohol and tobacco); are subject to considerable pressure from ethical groups (e.g.

pharmaceuticals) and with higher workplace health and safety concerns (e.g. construction and resource extraction). These industries would be expected to be heavily dependent than others upon social and political support for their survival (Dowling and Pfeffer, 1975; Mathews, 1993). The legitimacy theory suggests that companies in such industries are more sensitive to legitimacy problems, and will always exhibit legitimacy-seeking behavior. They thus make efforts to meet societal expectations by communicating their social and environmental performance (Wilmshust and Frost, 2000).

3.4.3 Legitimation

The idea of the legitimacy theory is that management is able to influence the perceptions of the society towards it (Wilmshust and Frost, 2000). Thus, underlying organizational legitimacy is a process, legitimation, by which an organization seeks approval (or avoidance of sanction) from groups in society (Tilling, 2004). This undertaking is according to Maurer (1971, p.361) defined as:

....the process whereby an organization justifies to a peer or superordinate system its right to exist, that is to continue to import, transform, and export energy, material, or information.

A question remains as to when does an organization's existence need justification? This generally happens when a company is negatively associated with social issues/events (Brown and Deegan, 1999, Patten 1992; Nasi et al., 1997) such as financial scandals, human rights violations, environmental impacts and collaboration with repressive regimes (Palazzo and Scherer, 2006). Thereupon, the society or a segment of it believes that a firm has done something wrong or treated some individual or group unfairly, or in some cases, major laws have been broken (Carroll and Buchholtz, 2009). Subsequently, society perceives that the social contract has been violated, and may be compelled to impose sanctions (Dowling and Pfeffer, 1975) and can enforce them through; consumers boycott products, suppliers limit access to labor or financial capital, employees withhold loyalty and best efforts, stakeholders lobby for legislation, government withholds subsidies or imposes fines and regulations and environmental advocates sue (Wood, 1991; Magness, 2006). Such sanctions pose a serious threat to the survival of organizations.

As for organizations to remain legitimate, they may conform with or in various ways attempt to alter societal expectations (Dowling and Pfeffer, 1975; Lindblom, 1994). Conformation can involve real material change in organizational goals, structures, and processes or socially institutionalized practices (Ashforth and Gibbs, 1990). However, when faced with a legitimacy threat, such substantive changes and their outcomes in the past have been found to be used to shape the perceptions of the organization. For example, O'Donovan (2002) found an oil company involved in a significant oil spill to

reiterate its past social and environmental achievements (p.348). Therefore responses to legitimacy threats can be symbolic, that is, when characterized by passive conformity and active manipulation (Suchman, 1995). But even substantive actions can be mere *ceremonial conformity*; where an organization adopts certain highly visible and salient practices that are consistent with social expectations while leaving the essential machinery of the organization intact (Ashforth and Gibbs, 1990).

Therefore, legitimacy is about perceptions (Dowling and Pfeffer, 1975), and the central issue is how organizations manage the perceptions of society. Obviously, it would be expected that if a corporation changes its activities or attempts to alter other's perceptions of its activities, these must be accompanied by disclosures (Deegan et al., 2000; Cormier and Gordon, 2001), otherwise, stakeholders will be unaware of what the company is trying to achieve, and legitimacy may remain problematic (O'Donovan, 2002). Thus as Suchman (1995) argued, legitimation relies heavily on communication between an organization and its relevant publics. Although this thesis is not focusing on particular stakeholders, the concept of relevant publics here is important to note because, in practice, it has been found that organizations tend to pay more attention to those constituents of the society with real power to influence their survival (Neu et al., 1998; Lindblom, 1994). Nonetheless, if public disclosures are often used, legitimacy will be largely influenced by the disclosure policies of an organization (Deegan, 2006; 2007).

In view of disclosure policies, it is widely posited that legitimation activities are intensified when an organization is in a crisis situation. Samkin et al. (2010) define a crisis as an unplanned event that results in considerable negative media publicity that causes harm to the organization. Considering the negative media attention that the GPL accident attracted and sustained, it indeed created a crisis situation for Talvivaara. When in such a situation, organizations engage in legitimacy repairing behavior (Suchman, 1995; Samkin et al., 2010). At the same time, society expects the culprit organization to account for the event and take responsibility. To this end, the research on the use of communication strategies by organization to defend their legitimacy has drawn on Dowling and Pfeffer (1975) and Lindblom (1994) and identified four broad communication strategies that a company may use to defend its legitimacy:

1. To inform and educate the relevant publics about changes within the organization.
2. To change the perceptions of the relevant publics, but does not change its own behavior.
3. To deflect attention from issues of concern to other issues.
4. To misrepresent activities of concern to the relevant publics.

These strategies are articulated through and after more specific company responses to legitimacy threats. Compiled together, some of the most relevant strategies for this particular study are summarized in table 2 below:

TABLE 2 Possible response strategies to legitimacy threats

Strategy	Characteristics
1. Offer normalizing accounts	Eliminates moral responsibility
a) <i>Denials</i>	Stress that the event did not occur, or shift the blame to external organization or natural forces.
b) <i>Excuses</i>	Blame internal individuals and authorities
c) <i>Justifications</i>	Stress on good traits of the event or past accomplishments
d) <i>Explanations</i>	Accept that the event occurred, but downplay the extent of the damage
2. Strategic restructuring	Organizational changes
a) <i>Creation of monitors and watchdogs</i>	Post a bond against future recidivism; invite regulation, institute grievance procedures, charter ombudspersons, institute co-optation (decision-making access) procedures, association with charity organizations and charity behavior (e.g. sponsorship)
b) <i>Dissociation</i>	Structural changes to distance an organization from bad influence e.g. Procedural, structural, geographical locale or individuals
3. Corrective action	Plan to solve and prevent recurrence of event
4. Avoid panic	Show decisiveness, use a light touch and display sensitivity to environmental reactions.
5. Mortification	Confess, apologize and seek forgiveness

(Adopted from Suchman, 1995; Ashforth and Gibbs, 1990)

4 RESULTS

4.1 Longitudinal trends

This subchapter describes the longitudinal trends derived from the longitudinal analysis and provides answers to the first three research sub-questions. The results are preceded by tables illustrating the findings. The abbreviations MA, VG and PI have been briefly described in table 1.

4.1.1 Comprehensive CSR reporting

Pertaining to the different CSR issues and information types that can be disclosed: How comprehensively has Talvivaara reported on its social performance from 2008 to 2012?

TABLE 3 Overall characteristics of Talvivaara's CSR reporting

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	9	10	21	19	21
<i>Completeness (%)</i>	25	27.8	58.3	52.8	58.3
<i>VG, MA and PI</i>	3	4	8	13	14
<i>VG and MA</i>	1	1	10	3	2
<i>VG and PI</i>	0	0	0	1	0
<i>MA and PI</i>	2	1	1	1	1
<i>Only VG</i>	0	1	2	1	2
<i>Only MA</i>	3	3	0	0	1
<i>Only PI</i>	0	0	0	1	1
<i>Comprehensiveness Level (%)</i>	33.3	40	38.1	68.4	66.7

As illustrated in table 3, the comprehensiveness level was lowest in the first reporting year of 2008 with 33.3% and highest in 2011 with 68.4%. The 2011 level (68.4 %) displayed the most pronounced upward shift from 38.1% in 2010. Regarding completeness, there is a general upward trend from 2008 to 2010, which fell in 2011 and rose up again in 2012. Further, because the comprehensiveness measure is relevant only when at least one item is reported

with at least all three information types, it was necessary to determine the level of transparency by establishing whether a large number of items was reported comprehensively. It was found that not until 2010, Talvivaara reported less than 50% of the 36 items, yet among those reported items in those years, less than 50% were reported comprehensively in each year. With regard to complete transparency, in 2008 and 2009 Talvivaara reported on less than 50% of the 36 items, of which less than 50% was reported comprehensively. In 2010, the company reported on more than 50% of the items but less than 50% of the reported items were reported comprehensively. However, from 2011 Talvivaara began to report with some degree of complete transparency, in both 2011 and 2012, more than 50% of the items was reported, of which more than 50% was reported comprehensively in both years.

Regarding the distribution of information types for the items reported in the particular years, the results are presented in figure 3 below. The significance of this figure is showing which information types, or combinations thereof, were dominant in which year.

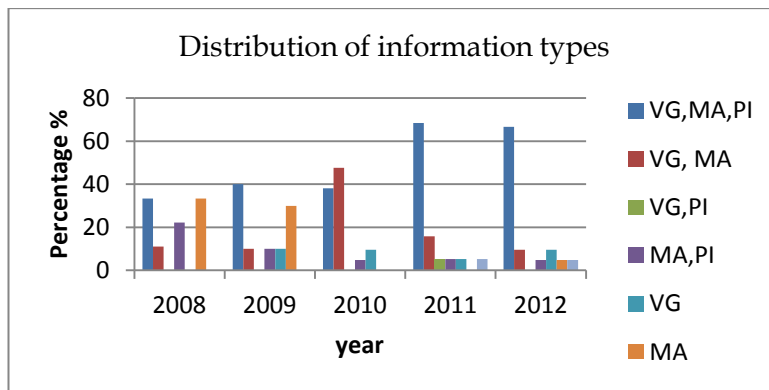


FIGURE 3 Graph of distribution of information types for the reported items

As demonstrated in figure 3 above, in 2008 an equal number of items were reported comprehensively as those with MA information type only. In 2009, more items were reported more comprehensively than with any information type or combination. The second most reported items were covered by MA information. In 2010, more items were communicated with combination of VG-MA than any other combination or information type. In 2011 and 2012, more items were reported comprehensively than with any combination or information type. With both these years, VG and MA is the second most reported information type combination. The results show that no item in 2008, 2009 and 2010 was reported with only PI information type. Also, only in 2011 at least an item was reported with only VG and PI without MA.

In considering the trends in the disclosure of different CSR areas and sub-areas, different pictures emerged for each. To present these results, the following sections start with tables illustrating the general characteristics of the disclosures for the category/subcategory before describing the findings.

4.1.1.1 Environment

TABLE 4 Characteristics of environmental disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	1	3	8	9	9
<i>Completeness (%)</i>	0.1	27.3	72.7	81	81
<i>VG, MA and PI</i>	1	0	2	7	8
<i>VG and MA</i>	0	1	5	0	0
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	0	1	1	1	0
<i>Only VG</i>	0	0	0	0	0
<i>Only MA</i>	0	1	0	0	0
<i>Only PI</i>	0	0	0	1	1
<i>Comprehensiveness Level (%)</i>	100	0	25	77.8	88.9

In considering the trends in environmental disclosures, there was an overall increase in transparency across the timeline with both completeness and comprehensiveness levels increasing. In terms of transparency, 2012 was found to be the most transparent year with both the completeness and comprehensiveness levels being at highest in the studied timeline. However, specific rhetoric was minimal until 2010. In 2008 and 2009, less than 50% of the environmental items were reported with specific rhetoric, with the rest being either not covered or covered by general rhetoric. In 2008, only the compliance item was reported out of the 11 items in the category. Because it was reported comprehensively, the comprehensiveness level in 2008 is 100%. 3 items were reported in 2009 but none was done comprehensively. Besides compliance which was then reported with only MA and PI, air emissions and effluents items were also reported. The air emissions item was reported on with VG and MA, which suggests the presence of commitment and implementation but the absence of monitoring. The effluents item was reported on with only MA information type. Regarding compliance, in 2009, the item was reported on with MA and PI.

From 2010 to 2012, more than 50% of the environmental items were reported. However, in 2010, out of the 8 reported items only 2 items were reported comprehensively. There was a sharp rise in the level of comprehensiveness in 2011 (77.8%) from 25% in 2010. At the same time more items were reported on from 72.7% to 81%. This indicates an increase in transparency. The upward trend of comprehensiveness level continued in 2012 reaching to 88.9% while completeness remained at the 2011 level. The same relatively high number of items was reported but with more depth in 2012. In fact, out the reported items in 2012, the only item that was not reported on comprehensively was overall environmental expenditure where only expenditure figures were given. Furthermore, when considering particular environmental items (see appendix 3), Talvivaara did not report on products and services, and transport using specific rhetoric during the entire studied period. On the other hand, the compliance item was reported with at least MA

and PI disclosure in the entire period. Talvivaara reported for the first time on its total environmental expenditure in 2011 and this was also done in 2012.

4.1.1.2 Human rights

TABLE 5 Characteristics of human rights disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	0	0	2	0	1
<i>Completeness (%)</i>	0	0	5.6	0	2.8
<i>VG, MA and PI</i>	0	0	0	0	0
<i>VG and MA</i>	0	0	2	0	0
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	0	0	0	0	0
<i>Only VG</i>	0	0	0	0	1
<i>Only MA</i>	0	0	0	0	0
<i>Only PI</i>	0	0	0	0	0
<i>Comprehensiveness Level (%)</i>	0	0	0	0	0

Human rights was one of the most poorly reported CSR sub-areas, with minimal specific rhetoric throughout the studied period. None of the 7 human rights items was reported comprehensively in any year. In addition, for those items reported, none was ever done with a PI information type. Talvivaara gave specific rhetoric on human rights for the first time in 2010 when it stated specific intentions and endeavors with regard to investment and procurement practices and child labor. Regarding the former, Talvivaara stated that it intends to *promote equal competition and ensure observance of terms of employment among sub-contractors*. To achieve this, it was stated that Talvivaara *monitors material delivery and carries out regular meetings and inspection of subcontractors*. On child labor, Talvivaara stated that it is committed to *zero tolerance of child labor* and that it has put a *policy in place* to achieve this. In 2012, Talvivaara reported again on the issue of human rights. This time only an intention with regard to investment and procurement practices was stated, and it read that *“we expect our partners and suppliers to comply with respective standards of operation we follow”*.

4.1.1.3 Labor practices and decent work

TABLE 6 Characteristics of labor practices and decent work disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	5	4	5	5	5
<i>Completeness (%)</i>	100	80	100	100	100
<i>VG, MA and PI</i>	2	3	4	4	4
<i>VG and MA</i>	0	0	1	0	0
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	1	0	0	0	0
<i>Only VG</i>	0	1	0	1	1
<i>Only MA</i>	2	0	0	0	0
<i>Only PI</i>	0	0	0	0	0
<i>Comprehensiveness Level (%)</i>	40	75	80	80	80

A different picture, with consistently high levels of completeness and a rising trend in comprehensiveness levels emerged in the labor practices and decent work sub-category. Apart from 2009 when 4 out of 5 items were reported, the level of completeness in other reports was 100%. However, the level of comprehensiveness varied between the first three years. It was lowest in the first reporting year of 2008 when only 2 items out of the five reported items were reported on comprehensively. The number of comprehensively reported items rose to 3 in 2009, to 4 in 2010, and remained at that level in years 2011 and 2012. In considering specific items in this sub-category, Talvivaara has never reported comprehensively on labor/management relations. Specifically, despite disclosing evidence of specific endeavors reported in 2008 and 2010, Talvivaara has never provided figures of employees' membership to trade unions. On the other hand, the occupational health and safety item was reported comprehensively in all the five studied reports. Similarly, with an exception of the 2008 report, employment, and training and education items have been reported on comprehensively in the rest of the analyzed reports.

4.1.1.4 Society

TABLE 7 Characteristics of society disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	2	2	3	1	1
<i>Completeness (%)</i>	40	40	60	20	20
<i>VG, MA and PI</i>	0	0	0	1	1
<i>VG and MA</i>	1	0	2	0	0
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	0	0	0	0	0
<i>Only VG</i>	0	0	1	0	0
<i>Only MA</i>	1	2	0	0	0
<i>Only PI</i>	0	0	0	0	0
<i>Comprehensiveness Level (%)</i>	0	0	0	100	100

Another completely different picture emerged from the disclosure of the society sub-category. It was found that this CSR sub-area was generally poorly reported on in the studied period. However, it was also found that there was significant focus on the *local community* item. This is the only item that is consistently reported on with at least a specific management approach in all the five reporting years studied. Corruption and compliance are the other reported items but inconsistently, incomprehensively and never with a performance indicator. Corruption was reported on in 2008 with only MA information type, and also in 2010 with just an intention. On the other hand, compliance was reported on only in 2009 and 2010 with at least MA information type each year. In 2010, an intention was also added on compliance. In the two most recent reporting years (2011 and 2012), local community was the only item reported on and this was done comprehensively. It was also found that public policy and anti-competitive behavior items were never reported on with specific rhetoric in the studied period.

4.1.1.5 Product responsibility

TABLE 8 Characteristics of product responsibility disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported on</i>	0	0	2	3	3
<i>Completeness (%)</i>	0	0	40	60	60
<i>VG, MA and PI</i>	0	0	0	0	0
<i>VG and MA</i>	0	0	1	3	2
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	0	0	0	0	0
<i>Only VG</i>	0	0	0	0	0
<i>Only MA</i>	0	0	1	0	1
<i>Only PI</i>	0	0	0	0	0
<i>Comprehensiveness Level (%)</i>	0	0	0	0	0

This is the one CSR sub-area where the observation by Suchman (1995, p. 292) that companies make selective disclosure of numerous indicators of inputs and at the same time information about processes but particularly outcomes are not released, was evidenced. It was found that not until in the 2010 report, there was no specific CSR rhetoric on product responsibility. For the entire studied period, none of the items in this sub-area was reported on comprehensively. For those items that were reported on, none was reported with a performance indicator. Customer health and safety is the item focused on in this sub-area, it was consistently reported on with specific intentions and initiatives to realize these intentions from 2010 to 2012. Compliance is another item reported on from 2010 to 2012. Only MA information was given in 2010 while in 2011 and 2012, both VG and MA information types were given. Talvivaara started reporting on the product and service labeling item with specific rhetoric in 2011. That year specific intentions and initiatives to realize the intentions were reported. In 2012, however, only a specific initiative was reported.

4.1.1.6 Economic

TABLE 9 Characteristics of economic disclosures

Variables	2008	2009	2010	2011	2012
<i>Number of items reported</i>	1	1	2	1	2
<i>Completeness (%)</i>	33.3	33.3	66.7	33.3	66.7
<i>VG, MA and PI</i>	0	1	1	1	1
<i>VG and MA</i>	0	0	1	0	0
<i>VG and PI</i>	0	0	0	0	0
<i>MA and PI</i>	1	0	0	0	1
<i>Only VG</i>	0	0	0	0	0
<i>Only MA</i>	0	0	0	0	0
<i>Only PI</i>	0	0	0	0	0
<i>Comprehensiveness Level (%)</i>	0	100	50	100	50

In this CSR category, some level of consistency could be identified in the market presence item. This item was reported on with at least a VG and an MA information type in all the five analyzed reports. It was also found that market presence was the only reported item in the first reporting year of 2008. In the year 2009, 2010 and 2011, this item was reported on comprehensively. Regarding the indirect economic impacts item, the item was reported on only in 2010, and this was done with VG and MA but with no PI information type. In a very interesting turn, in 2012, the direct economic impacts item was reported for the first time in Talvivaara's reporting history, and this was done comprehensively. This was the first time Talvivaara reported on its committed to financially support sustainability and other social and cultural initiatives, the expenditure figures of its corporate sponsorship activities for that year and years 2010 and 2011, and the initiatives to which these funds were spent.

4.1.2 External verification

TABLE 10 The provision of assurance in annual reports

External Verification	2008	2009	2010	2011	2012
<i>Present</i>					✓
<i>Absent</i>	X	X	X	X	

The analysis found that except for the 2012 report, Talvivaara's annual reports were not accompanied by an independent assurance report (see table 10). In all the previous reporting years, there was no mention of external verification or assurance in the annual reports. Alongside the 2012 annual report Talvivaara offered an assurance statement and explicitly stated that the report had been externally verified in a statement under a sub heading "**Verification**", which read as follows:

This report has been verified by an independent party, the Finnish sustainable development consulting firm Tofuture Oy. The verifier's statement has been published on pages 68–69. (p. 28)

4.1.3 Feedback mechanism

Table 11 The provision of feedback mechanisms in the annual reports

Feedback mechanism	2008	2009	2010	2011	2012
<i>Present</i>					✓
<i>Absent</i>	X	X	X	X	

The conducted analysis indicated that Talvivaara solicited feedback to the report readers for the first time in its entire CSR reporting history in the 2012 report (see table 11). There was no evidence of feedback solicitation in all the previous reports. Under a report section titled **“Read more online and leave feedback”** in the 2012 annual report, Talvivaara referred the report readers to its corporate website and a special blog for additional information, and also provided a specially designated email address for report feedback (p. 28). These report features are illustrated in the excerpt below:

More information about Talvivaara's sustainable development is available on our website www.talvivaara.com and our environmental blog www.paikanpaalla.fi. You can also leave feedback on this report by email to sustainability@talvivaara.com.

4.2 Legitimation strategies

This subchapter discusses the results from the cross-sectional analysis and provides answers to the fourth research sub-question. The analysis revealed a number of legitimation features. As one would expect, denying or avoiding the accident in Talvivaara's disclosures was unlikely, whereas conforming to societal expectations both substantively and symbolically, to alter their perceptions was conspicuously evident. The identified legitimation strategies are categorized into five categories and subcategories discussed below:

4.2.1 Corrective action

Talvivaara's first press release after the accident was published on the 5th of November 2012, a day after the leakage was detected. Under the title *“Leakage detected at the gypsum pond - metals production temporarily suspended”*, the document focused on communicating immediate corrective actions. The legitimation discourse was dominated by explanations on what had happened

and the immediate safeguarding measures implemented to minimize damage. In the process of meaning creation, the messages were carefully selected. Notably, the toxic wastewater discharges were first referred to as *water* and then later contextualized with technical terms in a statement that read: "*The water in the gypsum pond contains more metals and sulphates than Talvivaara's normal purified discharge water*". In addition to the immediate corrective action, Talvivaara reiterated its long term corrective plans, of introducing reverse osmosis purification plants as shown in the excerpt below:

A leakage in the gypsum pond of the mine site of Talvivaara Mining Company Plc ("Talvivaara" or the "Company") was detected at 7.30 am (Finnish time) on Sunday 4 November 2012. The levees of the pond are intact, but water is filtering through the lower part of the levee on the east side of the pond. The authorities have been informed.....The root cause and the extent of the leakage are being investigated, and the immediate safeguarding measures have been taken. The safety dams below the gypsum pond will be utilized to contain the leakage within the mining concession area. The water in the gypsum pond contains more metals and sulphates than Talvivaara's normal purified discharge water.....As a precautionary measure, the Company's metals recovery plant has been temporarily suspended in order to avoid further pumping of tailings into the gypsum pond while the leakage is being repaired.....During the shutdown, the piping installations required for the commissioning of the reverse osmosis plants will also be completed. The piping installation work was originally scheduled for a later date in November. The reverse osmosis plants will be used to purify the sulphate-containing discharge waters, and they will reduce the raw water in-take and improve overall water balance management of the mine.

The rhetoric in the subsequent press release issued on the 7th of November titled "*Talvivaara has located the gypsum pond leakage and the flow is being successfully stemmed. Preparations for re-start of metals recovery plant are underway*", focused on the efforts to stem the leakage, plans to restart the plant and the long term corrective measures. Also, information about the extent of the damage was released but in a controlled manner. As previously done, there was careful selection of words. However, this time the aim was not to downplay the extent of damage, but to over-qualify the remedial efforts. Most noticeably, the use of phrases such as "*the flow is being successfully stemmed*" and "*the flow has already substantially diminished*" to encourage optimism. Additionally, there was some technically justified emphasis on the need to urgently restart the plant, with assurances that the leakage will not reoccur, as shown in the extracts below.

Talvivaara..... has located the gypsum pond leakage detected on Sunday morning 4 November 2012 near the center of the approximately 60-hectare pond. The process of plugging has been initiated and as a result, the flow has already substantially diminished.....As a result of the leakage, some elevated nickel concentrations have been detected in the northerly direction in the vicinity of the mining concession area. No leakage waters have been discharged from the mining concession area towards south as a consequence of the emergency dams and the measures takenDuring the shutdown, Talvivaara has reconfigured the process flows enabling the isolation of the damaged gypsum pond from the solution circulation. In addition, the new reverse osmosis plant connections have been completed. The re-start of production at the plant will not cause additional strain on the damaged gypsum pond, or impact the measures or timing of

repairing the pond.....Talvivaara believes that the re-start of the plant is an important step in the overall environmental risk management of the mine, as the bioheapleaching process is a continuous process that cannot be stopped over the short term. The recovery of metals leached into solution is important and justified as opposed to the accumulation metal-in-solution in the process ponds.

The stock exchange release issued on the 9th November, 2012, five days after the accident, focused on updating stakeholders about the progress in the leakage stemming process and reiterating the imperatives of restarting the plant. Therein, because Talvivaara had in the previous press release communicated that the leakage was being successfully stemmed, the company attempted to defend the technical competence of its team by labeling the continued leakage as a separate incident from the previous.

.....the gypsum pond leakage towards the South was completely stemmed in the early morning of 9 November 2012, but during the day a further small leakage has occurred, and work to stem it continues. The leakage to the North was entirely stopped in the early morning of 8 November 2012.....The water released from the safety dam has been neutralized such that its acidity has been decreased and metal contents have been materially reduced compared to the water in the gypsum pond. As a result, environmental effects outside the mining concession area have been limited so far. According to the statement by Finland's environmental administration today, the discharge has not materially worsened water quality in downstream waters, as the majority of the nickel discharge from the gypsum pond has been contained within the mining concession area.

Furthermore, for the first time since the detection of the leakage, Talvivaara communicated about the environmentally sensitive topic of uranium. The tactic this time was to use under-qualified phrases of “*somewhat increased*” and “*sufficiently small*” to downplay the extent of the potential consequences. In addition, Talvivaara associated an authority, the Radiation and Nuclear Safety Authority of Finland, in offering safety guarantees.

The uranium content in nearby waters has somewhat increased.....According to the statement by the Radiation and Nuclear Safety Authority of Finland earlier today, uranium concentrations in the mining concession area and its surroundings are sufficiently small not to have radiation protection materiality or pose any danger to health.

The discourse on the immediate corrective actions was culminated in the press release published on the 14th November 2012 when it was communicated that the leakage had been completely stopped. In the following stock exchange release titled “*Talvivaara's metals recovery plant has received permit to re-start*”, Talvivaara further reiterated its long term commitment to environmental safety.

In conjunction with the re-start of the metals recovery plant, Talvivaara will also commission the new reverse osmosis-based water treatment plant. The reverse osmosis technology enables the Company to achieve a nearly closed circuit water circulation system, which in turn allows a significant reduction in or complete stoppage of raw water intake into the process. (Stock exchange release, 21st November, 2012)

4.2.2 Organizational restructuring

Organizational restructuring messages were first communicated through the press release issued on the 5th December 2012; approximately a month after the leakage was detected. Talvivaara announced the formation of a committee to investigate the accident. The first task of the committee, which was to commission the VTT Technical Research Center of Finland to investigate the accident, was also communicated as shown in the excerpt below:

Talvivaara Mining Company Plc's.....Board of Directors decided on 9 November 2012 to set a committee and an independent study group to examine the circumstances leading to and causing the gypsum pond leakage on 4 November 2012. The Committee is led by the Chairman of Talvivaara's Board of Directors, Mr. Tapani Järvinen, and includes the Company's independent Board Member Ms. Kirsi Sormunen. The investigation will involve industry-leading experts independent of Talvivaara from Finland and abroad.....As a first step in its work, the Committee has selected VTT Technical Research Centre of Finland to conduct an independent study of the reasons and circumstances leading to the leakage.....The investigation into the root causes of the accident will involve a broad review of technical problem areas in dam and pond structures as well as other reasons in the Company's operating environment, internal processes and operations which may have contributed to the realization of the risk.

Another evidence of restructuring communication was about the launch of a project group called operation otter which was intended to investigate short term and long term water balance management. This project was first communicated in the annual report and more about the project is discussed later in the section discussing the repetition legitimization strategy.

4.2.3 Normalizing accounts

As predicted by both the legitimacy and accountability theories, Talvivaara attempted to explain and justify the accident. A number of normalizing accounts used as part of Talvivaara's legitimization process were identified. These were divided into excuses and justifications.

4.2.3.1 Excuses

Excuses were first relayed through a stock exchange release in November 2012, and intensified in the subsequent annual report. Weather conditions, heavy rainfall in particular was the main excuse given. However, the excuses were not straight forward; the cause-effect relationship was not explicated, so the meaning could be understood at least as partial excuses. Throughout the sustainability section of the annual report, the extremity of the weather conditions around the accident time was stressed by using over-qualifying adjectives such as *historically heavy rainfall*, *exceptionally heavy rainfall* and *exceptional weather conditions*. Statements containing the overly emphasized weather conditions preceded nearly all the GPL accident accounts, as the extracts below demonstrate:

As a result of the gypsum pond leakage and the preceding unusually rainy summer, Talvivaara has had to store excess water in the mine area. (Stock exchange release, 21st November 2012)

The water balance situation caused by a year of historically heavy rainfall and rapid snow melt had a material impact on our production in 2012, and ultimately culminated in the gypsum pond leakage in November. (Stock exchange release, 14th February, 2013)

Exceptionally heavy rainfall posed a huge challenge, when the mine was literally filled with rainwater and the company had to suspend its ore production. In November, Talvivaara's ability to handle vast amounts of water was put to an even greater test, when the gypsum pond began to leak.....It is clear that incidents such as exceptional weather conditions can no longer be used as an excuse for the gypsum pond leak. (Annual report, p.25)

However, 2012 turned out to be the most difficult year in Talvivaara's history. Due to external circumstances and our own miscalculations, the need for additional funds became a necessity at the end of the year. (Annual report, p.10)

4.2.3.2 Justifications

At least two rhetorical attempts by Talvivaara to justify the accident were identified in the annual report. In the first attempt, through the CEO's statement, Talvivaara stressed one good trait of the consequences of the accident. In the second attempt, Talvivaara attempted to convince readers that environmental accidents are the norm in the mining industry as shown below:

While publicity has put pressure on our employees, it has also boosted the Talvivaara spirit, and hence our performance. (p.10)

Mining operations always effect the environment. As a responsible company, Talvivaara strives to minimise emissions from the mine and the impacts of its operations. (p.37)

4.2.4 Attention deflection

With this strategy, Talvivaara attempted to deflect attention away from the GPL accident to other related and unrelated issues. This was done by stressing Talvivaara's past accomplishments, how the accident had clouded the achievements and progress, and subsequently victimized the company. An extreme example of this strategy was the message about intended layoffs due to the accident, and later about the suspension of the plan. This is shown in the extracts below:

Following the consultations, Talvivaara will temporarily lay off 184 employees between 18 February and 30 June 2013. The maximum duration of the lay-off period is 90 days per individual employee. At the start of the consultations, the Company estimated the maximum number of employees impacted to be 230. Talvivaara currently employs approximately 580 people in total. (Stock exchange release, 31st January 2013).....Talvivaara Mining Company Plc ("Talvivaara" or the "Company") terminates the temporary lay-offs it started in February 2013 in order to re-start currently suspended mining and materials handling operations during May 2013. (Stock exchange release, 27th

April 2013)..... Although production stoppages and large-scale environmental measures have eroded Talvivaara's profitability, I am pleased that, even in such a difficult situation, the company managed to avoid job losses, while promoting open communications and building fruitful cooperation with the surrounding community. (Annual report, p.25)

Other statements that were evidence of attention deflection strategy included:

Despite the enormous pressure placed on us by our financial situation and the media, we managed to bring the situation under control and eventually normalise it...In particular, 2012 will be remembered for the gypsum pond leak in November, posing major challenges in terms of finances, production and the environment. On the other hand, **the leak overshadowed the progress we had made in many areas.** (Annual report, p.10)

We also suffered a great setback in environmental issues in November, when a leakage in our gypsum pond, from which metal containing, acidic solution leaked outside the pond, was discovered. A proportion of the water had to be led to downstream waters. was discovered in our gypsum pond. **Measures to repair the leak tied up our resources for several weeks.** (Annual report, p.24)

2012 was a split year for Talvivaara in terms of sustainable development. In early 2012, we were making brisk progress towards our environmental targets, had improved our responsibility communications, introduced new forms of stakeholder engagement, and made considerable investments in HR management. However, **this favourable start was curbed by a large-scale gypsum pond leak.** (Annual report, p.24)

The development trend was good and we were progressing towards our emission goals ahead of our schedule. However, the exceptionally large rainfall and the related challenges in managing the excess water on site, as well as **the gypsum pond leakage in November, reversed this favourable trend** in our environmental responsibility work at the year-end. (Annual report, p.34)

4.2.5 Image enhancement

Talvivaara extensively used the image enhancement strategy to defend its legitimacy after the accident. Three distinct approaches could be identified under this legitimation strategy. All the three approaches involved making selective self-laudatory disclosures to link Talvivaara with positive social values. The self-praising information stressed Talvivaara's CSR commitments, activities and accomplishments both in regard to the remedial actions of the accident and to the society in general.

4.2.5.1 Self-promotion

This strategy involved using behavior patterns in terms of past accomplishments to make generalizations about Talvivaara's social competitiveness, and protest superior competence. To be more specific, Talvivaara made general national-level comparisons while stressing superior social and environmental performance. In at least two statements in the annual

report, Talvivaara claimed outstanding sustainability performance among its Finnish peers. Below are the statements:

Since Talvivaara's early years, we have pledged to provide information about our operations, their impact, and any improvements as openly as possible. That is why we publish more comprehensive results of our environmental monitoring than many other industrial companies in Finland. (p.24)

In mining and other natural resource industries, business success requires society's approval of a company's operations, which is one reason for the Board taking sustainability issues seriously. Talvivaara is one of the few companies operating in Finland that has a separate Sustainability Committee. (p.27)

4.2.5.2 Message repetition

Talvivaara repeated the same remedial action information several times in the same section of the annual report. An extreme example of this strategy was the message about the launch of the *Operation Otter*, which was part of the restructuring programme intended to improve water balance management. In the sustainability section of the report alone there were at least five statements on different pages with similar descriptions.

Following the gypsum pond leak, Talvivaara launched Operation Otter, with the purpose of developing the company's water balance management in the long term. (p.25)

As soon as we had stopped the gypsum pond leakage, we launched Operation Otter tasked with identifying sustainable solutions for improving water balance management at the mine site while reducing the burden on water systems both in the short and long term. (p.34)

Following the gypsum pond leakage, we launched Operation Otter, a project team tasked with improving Talvivaara's water balance management in both the short and long term (p.36)

After blocking the leak, we asked external experts to assess the fundamental causes of the accident and launched Operation Otter, whose purpose was the aftercare of the leak as well as the improvement of our water balance. (p.44)

In November, we launched Operation Otter, which focuses on water management, including aftercare of the leak as well as the long-term improvement of our water balance management. (p.45)

4.2.5.3 Attestation

In this peculiar strategy, the annual report consisted of numerous special interviews with carefully selected Talvivaara officials to attest to Talvivaara's CSR view, commitment, efforts and achievements. Therein, section titles, questions and answers were meticulously configured to present the message of an exceptionally socially responsible company. Further, socially appealing statements were deliberately selected and, using larger fonts, displayed on a different part of the same pages for emphasis.

One of the interviews involved a member of Talvivaara's board of directors, and it was intentionally positively titled: **"Sustainability High on the Board's Agenda"** (p.27). In that interview one question and part of its answer read as follows:

In your opinion, how should sustainability be understood by a listed company's Board of Directors?

For me, sustainability is more than corporate responsibility in the traditional sense, such as reputation risk management or charity work. It can also be defined on a broader basis as responsible business operations guaranteeing a company's acceptance by society and its financial success.....(p.27)

From that interview, using a larger font, one extract was displayed on a different part of the same page for emphasis. It read as follows:

Responsibility is not just an expense item, but a megatrend originating in the challenges of sustainable development. As such, it affects the success and business environment of companies in a variety of ways. (p.27)

In a similar manner, this strategy was repeated in the environment and health and safety sections of the report. Despite the relatively small sustainability section of the report, there were five interviews asking up to seven questions with long and elaborated answers.

4.2.6 Redefining of means and ends

Talvivaara first demonstrated its desire to redefine its means and ends in the annual report. Therein, messages espousing a moral mission and a change in Talvivaara's business philosophy could be noticed. For the first time in the company's reporting history, CSR was declared as a fundamental part of Talvivaara's strategy. Simultaneously, the phrase "*shareholder value*" was conspicuously missing from the 2012 strategy statement, in contrast to all previous reports. Meanwhile, the CEO's statement redefined what constitutes Talvivaara's corporate performance, stressing on measures beyond financial terms. Part of the statement read as follows:

In 2012, we achieved significant improvements in all areas, which are not necessarily reflected in our financial or production reports. (p.10)

Other parts of Talvivaara's annual report further exhibited this strategy as follows:

To ensure its operational preconditions, Talvivaara must earn the trust of its stakeholders and partners, and play an active role in Finnish society. (p.12)

For Talvivaara, 2012 provided a valuable reminder that a company's sustainability goals go hand in hand with its financial ones. (p.25)

Sustainable development safeguards the company's licence to operate, as well as its financial success. (p.27)

TABLE 12 Summary of legitimation strategies

Strategy	Talvivaara's employment of the strategy
1. Corrective action	Informed the public that a leakage had been detected, explained the situation, the immediate safeguarding measures taken; including the suspension of operations, and the long term corrective actions planned; including the commissioning of reverse osmosis water treatment plants.
2. Organizational restructuring	Formed a committee to investigate the accident and the Operation Otter project group to investigate water balance management issues.
3. Normalizing accounts	
3.1 <i>Excuses</i>	Partially attributed the accident to heavy rainfall, and emphasized the extremity of weather conditions during the accident period.
3.2 <i>Justifications</i>	Claimed that the accident had boosted the Talvivaara spirit and performance, and that mining activities always affect the environment.
4. Attention deflection	Deflected attention away from the GPL accident to employee layoff plans, media pressure on the company and the reversed company progress.
5. Image enhancement	
5.1 <i>Self-promotion</i>	Claimed to publish more comprehensive environmental monitoring results than many other industrial companies in Finland, and also to be one of the few companies operating in Finland with a separate sustainability committee.
5.2 <i>Message repetition</i>	Repeated the same remedial action information several times in the same section of the annual report without additional elaboration. Messages about the launch of the operation otter was an extreme example.
5.3 <i>Attestation</i>	Communicated numerous interviews with carefully selected Talvivaara officials to attest to Talvivaara's CSR view, commitment, efforts and achievements.
6. Redefine means and ends	For the first time, declared CSR as a fundamental part of the company strategy, excluded the phrase " <i>shareholder value</i> " from the strategy statement, emphasized broader performance measures, a vision for the Finnish society and steps already taken to operate sustainably.

5 DISCUSSION

Extant research investigating CSR disclosures of companies after a crisis have tended to focus on the legitimation perspective of SEA. In contrast, this thesis aimed to determine how Talvivaara utilized the communication of its social and environmental performance to discharge stakeholder accountability. The research task was executed in two stages; the first stage evaluated the CSR reporting elements that arguably promote accountability. At this stage, special attention was paid to both the answerability and enforcement connotations of corporate accountability with regard to reporting on generic social issues. The research sub-objectives investigated how and whether the issues were reported comprehensively, the reports externally verified and dialogue on the basis of the reports solicited. The aim was to establish how these characteristics changed in the period leading to and in the GPL accident year. In the second stage, the research task examined the reporting aspects that are associated with both answerability and furthering the legitimacy of the reporting entity. The research task paid special attention to language clarity and substance (or lack thereof) in Talvivaara's rhetorical expressions of responsibility with regard to the accident and the society in general. Thereafter, the content analysis results were reflected against the background theory to identify where they corroborate, extend, refine or conflict with it. The result was an overall impression of the quality and motive of Talvivaara's CSR accounting practices.

5.1 Comprehensive reporting

Pertaining to the different CSR areas, items and information types that can be reported to communicate a company's social performance: How comprehensively has Talvivaara reported on its social responsibility in its annual reports from 2008 to 2012?

In overall, the results have indicated an inconsistent trend in the level of comprehensive reporting by Talvivaara across the studied timeline. This is in spite of the general increase in the level of CSR disclosures in that period, which

is consistent with many empirical findings from extant research (e.g. Deegan et al., 2002). In terms of transparency, it could be argued that Talvivaara's stakeholders were given relatively sufficient information to scrutinize Talvivaara's actions only after 2011, when more than 50% of the total items were reported, of which more than 50% were reported comprehensively. The company was evidently invisible in the previous years. As these were the earliest production years, it is conceivable that Talvivaara's focus was on its economic and legal responsibilities as Carroll (1979) argues. Actually, besides the conspicuous attempts to assure shareholders of economic growth and legal compliance that were evident in the manner in which the early reports were titled and structured, the analysis found the *compliance* item of the environment category and the *labor practices and descent work* item of the social category to be the most consistently and comprehensively reported in the early years. This observation of early emphasis on employees and environmental legal compliance supports Carroll's argument. It is thus arguable that since Talvivaara did not have a social responsibility (beyond economic and legal), there was no stakeholder accountability to discharge (Gray et al., 1996).

Alternatively, the low level of specific rhetoric and the consequent low comprehensiveness level in the annual reports of the first three production years could also be explained by Talvivaara's focus on establishing legitimacy. As stated earlier, legitimacy is a necessary resource for organization's survival, and organizations undergo different phases of legitimacy including establishing, maintaining, extending or defending legitimacy (Ashforth and Gibbs, 1990; Hearit, 1995). Although these stages are not mutually exclusive (Tilling and Tilt, 2010), establishing legitimacy is logically the first phase immediately after inception. This logic further corroborates the claims by de Villiers and van Staden (2006), that general and largely qualitative disclosures are associated with legitimation motives. Therefore, given the above plausible two explanations, mandatory reporting requirements could foster more comprehensive reporting by newly established mining companies.

For the different CSR categories, the comprehensiveness level is zero in a given year because Talvivaara did not provide at least all three information types for at least one reported item. This was the case for human rights and product responsibility social subcategories across the studied timeline. The reason for the lack of disclosures on human rights could be that since such issues are basically non-existent in a developed country like Finland, Talvivaara found them not materially worthy of publishing. On the other hand, perhaps the fact that Talvivaara's products are not sold to final consumers could explain the minimal disclosure on product responsibility. Nevertheless, the observation that their disclosures were predominantly general and only qualitative suggests that their reporting was purely for image reasons.

Meanwhile, while dominant explanations for the increasing disclosures across the timeline are unknown, it is obvious that Talvivaara's reporting system was maturing. As this increasing trend was clearly seen in the environment category, it is conceivable that it was partly due to an increasing

level of environmental activism against mining in Finland, which has intensified in recent years (See e.g Tuusjarvi 2013), requiring mining companies to justify their existence. This could also explain the observation that Talvivaara reported on its environmental performance more completely and comprehensively in recent years. But nonetheless, a number of other explanatory factors are plausible.

The observation that Talvivaara disclosed a broader range of CSR items in the 2012 report than in 2011 one but with less depth indicates the legitimation process and intent to repair legitimacy. Disclosing information with less specific rhetoric has been argued to serve legitimation purpose (de Villiers and van Staden, 2006). In overall, the lack of consistency in comprehensive reporting supports the assertion by Thomson and Bebbington (2005) that all reports take the form of written accounts of selected impacts, using chosen quantitative and qualitative measures. Meanwhile, evidence for Suchman's (1995) claim that companies make selective disclosure of numerous indicators of inputs and at the same time information about processes but particularly outcomes are not released depended on the year and level of analysis. For example, it was evident in the environment category in 2010 (see appendix 3); where 5 out of the 8 reported items were reported with only intentions and actions, and also in the human rights and product responsibility sub-areas, and labor/management relations, investment and procurement practices items, where no performance indicator was disclosed across the studied period. In general, Suchman's claim was evident in years and CSR categories and items with minimal disclosures.

The emphasis on labor practices and descent work social subcategory is consistent with Deegan et al. (2002). The authors also found that human resources disclosures accounted for the highest proportion of total disclosures across their studied timeline, with the employee health and safety theme of the human resources issue to have the greatest amount of disclosure. Similarly, this study also found the occupational health and safety item to have been reported comprehensively across the timeline. Deegan et al. (2002) explained their findings after analyzing media articles where they found the employee health and safety theme to attract the greatest level media attention. This could also explain this paper's findings, but generally the relationship between a company and its employees has been regarded as a precondition for CSR: if a company does not assume a high level of responsibility to its own staff, it is unlikely to do so to the social and natural environment in which it works (Johnston, 2001). However, despite the stress on labor practices and descent work area, the labor/management relations item was never reported quantitatively across the timeline, for instance, in terms of percentage or number of employees covered by collective bargaining agreements. Therefore, considering the fact that the main annual report target audience has traditionally been the financial community, it is possible that the stress on the labor practices and descent work area was meant to project the message of a company with a competent workforce for the job rather than one very responsible for its employees.

The first time reporting on the (voluntary) direct economic impacts by Talvivaara only after the accident was another clear indication of the legitimation process. Reporting comprehensively on its philanthropic activities in terms of aims, activities and expenditure figures was conceivably intended to highlight links with charity. This is a well-known legitimation strategy (Dowling and Pfeffer, 1975). It potentially facilitated Talvivaara to deflect the negative criticism by signaling that the company does actually care about the society. In addition, the peculiar observation that corporate sponsorship expenditure figures for the years 2010 and 2011 were also reported in the 2012 report albeit missing in their respective reports further indicates Talvivaara's struggles to repair legitimacy and confirms that the 2010 and 2011 reports presented partial reality of Talvivaara's activities and impacts. This important finding demonstrates how comprehensive reporting can be used to paint a favourable picture of a firm in times of a crisis.

5.2 External verification

Pertaining to the credibility of the accounting process and the information disclosed: What evidence of external verification has Talvivaara provided on the annual reports?

The analysis has established that no evidence of external report verification was provided except for the 2012 report (see table 10). Obviously, the credibility of the unverified reports is highly questionable and Talvivaara's willingness to enhance it was evidently lacking. Whereas a multitude of arguable reasons could explain this finding, the most plausible explanations could be tied to the early development of the reporting process, evidenced by the general trend of increasing disclosures. Another plausible factor is the absence of sufficient external pressure before the accident. Without doubt, the pressure exerted on Talvivaara by the media, NGO's, the public and the government after the accident influenced the company's decision to seek report assurance. As stated earlier, companies assure their reports to enhance their credibility so as to increase user confidence (Park and Brorson, 2005). This user confidence was conceivably most urgent in the 2012 report as it was the first comprehensive account of the accident. Therefore, the 2012 turnaround could be interpreted as a tactical decision pressured by the accident to enhance the image of Talvivaara rather than desire for greater accountability.

5.3 Feedback mechanism

Pertaining to possible stakeholder reactions to report content and exclusions: What feedback mechanisms has Talvivaara provided alongside the reports to solicit dialogue on the basis of those reports?

As stated earlier, feedback solicitation features provide a solid empirical base for evaluating CSR reports because of the practical difficulties to conclusively estimate the extent and quality of stakeholder engagement by basing solely on the content analysis of reports (Thomson and Bebbington, 2005). The indication that Talvivaara did not solicit feedback on the basis of the reports except for the 2012 report suggests that the possibility for strategically productive dialogue to have arisen from the previous reports was limited. This implies that the (one way) communication process was more concerned about influencing stakeholders and less about listening and learning from them. As the latter are essential in the accountability process (Cooper and Owen, 2007), the process was without a doubt impeded.

Whereas the reasons for the lack of feedback solicitation can only be assumed, it is highly unlikely that Talvivaara believed that no one actively read its reports before 2012, as one may intuitively argue. This is because the longitudinal analysis revealed an increasing trend of CSR disclosures and indicated a maturing practice. Only a belief of an active report audience can explain the continuous improvement in some reporting aspects. This suggests that Talvivaara's decision not to promote dialogue was deliberate and conscious. This was arguably as a protest that the reports presented an objective "reality" (Thomson and Bebbington, 2005). Thus, considering the significance of the GPL accident, the feedback solicitation could be interpreted as a form of legitimating behavior known as co-optation (Dowling and Pfeffer, 1975). Co-optation involves offering stakeholders mechanisms that symbolize influencing managerial decision making, depending on the salience of the legitimacy issue which varies over time and context (Dowling and Pfeffer, 1975). Without doubt, in Talvivaara's case, the 2012 accident raised the salience of the legitimacy issue to unprecedented heights. Therefore, it could be argued that the first time feedback solicitation was a tactic meant to rather give the impression of a responsible and accountable organization, willing to listen to stakeholders.

5.4 Legitimation strategies of communication

Pertaining to the legitimacy threat posed to Talvivaara due to the gypsum pond leakage accident: How did Talvivaara express its responsibility in the subsequent legitimation discourses?

Evidently, Talvivaara did not express responsibility for the accident itself but for the consequences. The accident constitutes an example of a breach of the social contract, that is, a failure by Talvivaara to meet reasonable societal expectations (Shocker and Sethi, 1974). Consequently, as the social contract is what justifies Talvivaara's existence (Deegan et al., 2002), it desperately needed to explain and justify the event. In such a situation, whereas legitimation simply manages perceptions (Dowling and Pfeffer, 1975), accountability required Talvivaara to intelligibly explain, justify and take responsibility for the accident

(Cooper and Owen, 2007). First and foremost, in contrast to Total (Cho, 2009), Talvivaara's first press releases contained no self-laudatory statements. Such statements are known to trigger more critical voices and potentially exacerbate crises. Thus, their avoidance by Talvivaara could be explained by the need to avoid panic, exhibit sensitivity to the environment and to portray the image that the situation was under control (Suchman, 1995). Further, Talvivaara arguably attempted to conform to societal expectations by initiating immediate safeguarding measures in order to portray the image of a repentant and responsible organization without directly offering apologies or accepting full responsibility for the accident itself.

Obviously, denying the accident was not an option given its magnitude and possible fears that subsequent revelations would exacerbate the crisis. However, essentially, the first press releases highlighted Talvivaara's positive response actions and obfuscated negative environmental effects of the accident. Beside the substantive actions, the underlying explanations used complex wording to conceal negative information. Surely, a layman could not comprehend what is the quality of "*Talvivaara's normal purified discharge water*" that was, according to the first press release, exceeded. No additional information, for example, on whether the excess discharges were harmful or harmless to life forms or whether any law was breached was given. It is clear that Talvivaara concealed unpleasant facts because they could have potentially further undermined its legitimacy. The subsequent reiteration of future plans to introduce reverse osmosis plants further reinforces the idea that Talvivaara's main intention was to defend legitimacy. As the accident pertained to poor operation methods, it is conceivable that it was an attempt to dissociate the company from the then delegitimized methods of operation.

Organizational restructuring was a response action relayed subsequent to the immediate corrective actions. Its potential legitimating effect was assurance to the public of Talvivaara's commitment to change. The move further symbolized contrition despite not accepting responsibility for the accident itself. In accountability terms, organizational restructuring further constitutes the taking of responsibility for the accident beyond immediate remedial activities. However, the extent to which such restructuring discharges *true accountability* depends on how the underlying motives go beyond changing stakeholder perceptions and securing pragmatic exchanges with them. This response could as well have been an act of *ceremonial conformity* (Ashforth and Gibbs, 1990), where despite the restructuring that projected conformity to social expectations and desire to change, Talvivaara's essential machinery was left intact.

Conceivably, normalizing accounts were meant to separate the threatening revelations from larger assessment of Talvivaara as a whole (Suchman, 1995), and decouple the company from a situation that could reflect unfavourably on its image or claims to legitimacy (Ashforth and Gibbs, 1990). It is thus plausible that Talvivaara offered the excuse of extreme weather conditions in an attempt to cover its management's competence, for example, in terms of disaster preparedness. Arguably, this was not done explicitly because of fears that any

future revelations of technical faults would lead to accusations from the public of misinformation. In fact, the investigation report by the FIA concluded that the accident was caused by pond structural failure; resting the responsibility solely upon Talvivaara. Therefore, meaning obfuscation is here seen as an insurance against future damning revelations. On the other hand, it clearly impedes the discharge of accountability by projecting false impressions.

Having not explicated the cause of the accident could explain Talvivaara's decision to offer some justifications. Claiming that the accident boosted its employees' spirit and company performance without elaborating how was a clear attempt to change stakeholders' perceptions of the accident, by informing them about its plausible positive outcomes. Meanwhile, reiterating that *mining operations always affect the environment* was a move to change stakeholder's expectations about Talvivaara's performance, by educating them of the inherent dangers in the industry. These were persuasive statements to vindicate Talvivaara. However, because no justification could rationalize the event, perhaps that is why Talvivaara further saw the need to resort to deflecting attention away from it. Undoubtedly, claiming victimhood while stressing past efforts was a clear attempt to solicit sympathy from society and possibly suppress criticism. The messages about plans and cancellations of layoffs were intended to first deflect attention away from the accident and negative criticism and later to signal that Talvivaara cared for employees during the crisis, which potentially further deflected criticism.

The image enhancement strategy appeared to be Talvivaara's most preferred legitimation strategy in the annual report. Although differently in some respects, BP (Summerhays and De Villiers, 2012) and Total (Deegan et al., 2002) also used this strategy after environmental crises. The comparative self-promotion statements claimed by Talvivaara were intended purely for image reasons because they were not substantiated by any statistical data. It has been argued that protests of competence are more likely when actual competence is problematic or unknown (Ashforth and Gibbs, 1990). In Talvivaara's case, report readers wondered how many industrial companies in Finland publish their environmental monitoring results and how many have, or don't, separate sustainability committees. Furthermore, the self-promotion strategy suggests that Talvivaara was aware that the information it provides may be used to compare its social performance to that of its industry peers (Peck and Sinding, 2003). This shows that image reasons underlie Talvivaara's reporting motives.

The continuous repetition of the same remedial activities was a captivating legitimation approach. Summerhays and De Villiers (2012) also discovered this strategy in BP's annual reports. Surely, many stakeholders, particularly, local communities and environmental groups, were interested in knowing how Talvivaara contained the accident and how it would prevent a similar accident from reoccurring. But by repeating the same remedial messages without any elaboration, Talvivaara was mostly concerned with regaining legitimacy. This strategy is interpreted as an attempt to increase the volume of environmental disclosure without providing any additional information that

may lead to deeper assessment of the company by stakeholders, and result into consequences such as litigation against the company (Summerhays and De Villiers, 2012; Peck and Sinding, 2003). Therefore, in accountability terms, this strategy effectively minimized the amount of information given to stakeholders.

The attestation method was another interesting image enhancement strategy. The exhibitionistic manner in which Talvivaara made selective choices of officials, questions, answers and symbolic displays of statements shows how creative accounting techniques of legitimation have become. It extends the research by Thomson and Bebbington (2005), who observed that all reports take the form of written accounts of selected impacts, using chosen quantitative and qualitative measures as well as carefully selected images, by showing that the images can take the form of socially appealing statements placed in larger fonts. It also extends the work by Cho (2009) and Summerhays and De Villiers (2012) by showing how Talvivaara attempted to “pad” the annual report with numerous interviews, in addition to message repetition.

Finally, the accident clearly exhibited poor role performance by Talvivaara. Perhaps the event created fears to the company that its entire mission was at issue. This could explain the reactive decision to recast the meaning of the company’s means and ends. The first time declaration of CSR as a fundamental part of the business strategy strongly evidences this. Arguably, the move was meant to signal the adoption of a moral mission, and obviously with such a mission, the presence of the phrase “*shareholder value*” in the strategy statement would project contradicting values. This could explain its exclusion from the 2012 strategy statement. The move was perhaps an attempt to educate the society that Talvivaara had abandoned the ‘shareholder primacy’ philosophy. Its potential effect is identifying the company with values with a strong legitimacy base by projecting an image of stakeholder orientation. This logic is supported by the simultaneous decision to inform the public that Talvivaara’s performance was not measured only in financial terms, state a vision for the Finnish society, and also claim that it was already operating in a way that ensures environmental protection. The longitudinal results further support this logic. Reporting comprehensively for the first time on the direct economic impacts was undoubtedly meant to reinforce the message of a moral mission. Such a move highlights links with charity, projecting an image of a charitable organization. Nonetheless, a question of interest here is whether the revision of the strategy statement changed Talvivaara’s subsequent actions, as accountability requires.

6 CONCLUSIONS

This thesis was set out to explore how Talvivaara presented information on its social and environmental performance to discharge its duty of accountability to stakeholders. This was done by analyzing selected material from the company's website. The basis of analysis was a set of indicators defined on the basis of what Talvivaara disclosed or not and how. As for the study itself, exploring Talvivaara's SEA practices was a complex task that required the use of both historical and analytical insights. The usefulness of the detailed case study strategy could be clearly seen in the deep understanding of Talvivaara's reporting patterns and how the longitudinal and cross-sectional analyses' results revealed complimentary insights on Talvivaara's legitimation process.

By focusing on social, environmental and economic aspects of CSR, a comprehensive scope of Talvivaara's CSR issues could be evaluated. The distinct patterns that have emerged from each CSR area suggest that studies with narrower scopes are prone to producing inconclusive results. This further acknowledges the coverage imperatives of the GRI guidelines in developing company reporting procedures. Further, the longitudinal analysis was implicitly based on the question "Do Talvivaara's reports offer a complete picture of the company and form part of the management philosophy?" If the answer is yes, then the reporting must be comprehensive, credibility of the reports enhanced with independent assurance and the readers considered in the communication process by explicitly offering possibilities for giving feedback, and of course this is done consistently or in a clear trend.

Consequently, the content analysis was deliberately kept simple to increase reproducibility while simultaneously capturing the main reporting characteristics and trends. Specifically, the GPL accident was a test to Talvivaara's commitment to accountability. Whereas the longitudinal analysis generated insights on whether the company responses were proactive or reactive by indicating the reporting trends, on the other hand, the language that Talvivaara used to express responsibility for the accident and the society produced a clear complimentary snapshot. By doing this, the imperative of combining both analyses was shown in the manner the longitudinal analysis

revealed how Talvivaara highlighted its links with charity, practiced co-optation and symbolically sought for assurance after the accident. This was in addition to indicating a clear legitimation process by showing how the 2012 annual report disclosed more items but less comprehensively than in 2011.

Furthermore, the imperative of analyzing multiple sources was evident in the disposition for press and stock-exchange releases to contain more targeted, precise and reactive information with meaning obfuscation features while the annual report to disclose more comprehensive information but dominated with image enhancement and some attention deflection strategies. The relative importance and complimentary roles of the different communication channels (Aerts and Cormier, 2009) were clearly visible. This study confirmed that in times when legitimacy is challenged, press releases are a swift tool to manage stakeholders' perceptions (Zeghal and Ahmed, 1990; Aerts and Cormier, 2009). Consequently, the use of various data sources offered the possibility to capture wider company rhetorical responses to the accident.

The longitudinal results show an inconsistent reporting pattern across the studied timeline, the tendency of disclosures to be descriptive and general by their nature while quantitative information largely missing in the early years and the trend of reporting more comprehensively in recent years. They further indicate the disposition to focus mainly on the labour practices and descent work, and more recently on the environment themes, which is consistent with many previous studies. Additionally, specific rhetoric on human rights and product responsibility items was largely missing across the studied timeline. Meanwhile, Talvivaara's reactive decision to verify its report and solicit feedback only after the accident was a reactive tactic to tag the report with accountability symbols. Therefore conducting surveys and employing independent third-party organizations (Thomson and Bebbington, 2005) to gain insights about stakeholders and their information and participatory needs may be a more substantive way forward for Talvivaara.

On the other hand, Talvivaara partially disclaimed responsibility for the accident despite taking responsibilities for its consequences. The outcome of the cross-sectional analysis is that six legitimation strategies could be discerned (see table 12). Among them, image enhancement was the most common in the annual report. Generally, whereas obfuscation ensured that readers hardly understood the negative consequences of the accident, the message repetition and numerous interviews ensured that they could barely miss the remedial actions and positive developments. The exaggeration of substantive actions and their positive outcomes, attribution of the cause of the accident to extreme weather conditions and the concealment of "bad news" projected a biased picture of what happened. In essence, the post-accident communications had limited accountability value because of the desire by Talvivaara to primarily defend its legitimacy. Hence, examining the purpose of each communication and clarifying the ideas may be beneficial in a similar situation in the future.

These findings are overwhelmingly consistent with the legitimacy theory predictions. Particularly, when the accident is taken into account, the legitimacy

theory provides the most plausible explanation to the present thesis's findings. Indeed, the accident's significance had a major effect on Talvivaara's subsequent disclosure decisions. Perhaps one of the most troubling findings is the coincidence of first time report assurance and the dominance of image enhancement and other legitimation features in the "verified" report. This extends the doubts over the usefulness of the assurance practice. Leaving aside the theoretical concerns, involving key stakeholders (KPMG, 2008; Commission of the European Communities, 2001) may enact a more meaningful assurance practice for Talvivaara.

The overarching conclusion reached as to how Talvivaara has utilized the communication of its social and environmental performance to discharge accountability to its stakeholders is that, instead of discharging the duty of accountability, Talvivaara was more focused on presenting itself in a positive light. Thus, Gray's (2002) idea that a key purpose of corporate accountability mechanisms is to hold organizations accountable for the social, environmental and economic outcomes arising from their actions is in this case less compelling. Unfortunately, many prior similar studies have reached to the same conclusion (see O'Donovan, 2002; Cho, 2009; Deegan and Rankin, 1996; Deegan and Gordon, 1996; Simmons and Neu, 1998). Therefore report readers may need to pay closer attention to how much space, context and clarity is given to *bad news* concerning issues material to them, if they are to make sense out of CSR accounts. Meanwhile, whilst the stakeholder demands for greater accountability will inevitably continue to grow, the lack of worldwide binding guidelines and mandatory regulations will continue to render it difficult for corporations like Talvivaara to decide how SEA should be conducted. It thus remains to be seen whether the accident was a wakeup call for Talvivaara to be more accountable to its stakeholders.

6.1 Limitations and future research

Like all studies, this paper has some limitations. First and foremost, the conclusions reached are based solely on the information disclosed by Talvivaara yet there are two sides to the communication process; the sender and the receiver. Despite uncovering evidence of obfuscation and symbolic legitimation strategies, by relying solely on Talvivaara's disclosures it is obvious that they offered one sided perspective, and was clearly incomplete to conclusively ascertain how the company has been accountable to its stakeholders. Therefore, an obvious extension of the legitimacy and accountability theories is for future studies to identify and collect data from Talvivaara's target stakeholders and ascertain how their information needs have been met by the company and also the extent to which the legitimation strategies have worked.

Another limitation relates to the treatment of dependent variables. Because the longitudinal analysis was concerned with establishing the general

trends leading to and after the accident, dependent variables have been treated as independent observations. One consequence of this is failure to attribute plausible causes on the variations that could result to more reliable explanations. Future research could use statistical techniques that can ascertain serial correlations with independent variables such as firm size and media attention. This implies collecting and analyzing data from relevant media articles which can act as proxies for social pressure. This would produce more conclusive results.

In the same line, as an exploratory study, the current thesis used simple content analysis in the longitudinal analysis and focused on establishing only the existence of an information type for each CSR item but not the frequency. The downside of this approach is that CSR items which were reported with ten actions or with commitments reiterated more than once, were treated the same as those with an information type appearing only once. Although at least one appearance of an information type was sufficient to ascertain how a CSR issue has been reported, the present study failed to capture the emphasis placed on particular CSR items by Talvivaara. Therefore, future research could count the frequency of the information types and attach weight on the scores to ascertain the true extent of emphasis placed on different CSR issues.

Finally, it should be re-emphasized that annual reports, press-releases and stock-exchange releases are just some of the many possible media and ways used by Talvivaara to publicly disclose social and environmental information and thus they are unsuitable as bases of judgment on the company's disclosure practices as a whole. Companies are increasingly disclosing their CSR information via their corporate websites, special blogs and also through other communication media. However, it would be expected that at least an explanation of incomplete information in the documents analyzed in this thesis is given, and reference where additional relevant information can be found also provided. Nonetheless, future research could focus on analyzing the company's website to establish how it is being utilized by Talvivaara to complement or supplement the sources used in this thesis.

6.2 Contributions

Limitations aside, this thesis makes considerable contributions. First, extant studies that have investigated the disclosure decisions and practices of companies after environmental accidents have focused exclusively on the legitimacy perspective of SEA (See e.g. De Villiers and Summerhays, 2012; Cho, 2009; Deegan et al., 2002; Patten, 1992; O'Donovan, 2002). The present thesis contributes to SEA literature by also investigating the accountability aspects of CSR reporting of a leading mining company after a major environmental accident. Therefore, this paper can be viewed as an attempt to highlight the struggles to balance the obligation to discharge accountability duties with the

need to defend legitimacy in times of a crisis. Second, most extant researchers who have investigated post-accident legitimation strategies have used either longitudinal or cross-sectional analysis. This study further contributes to SEA literature by utilizing both approaches. It thus underscores how both analyses can complement each other for more comprehensive and conclusive results. Finally, according to the author's knowledge, there is no study to date that has investigated Talvivaara in this particular line of enquiry. Hence, this paper makes an important contribution by informing the public on how Talvivaara has (not) been accountable to its stakeholders, and how the accident was communicated. It thus enlightens the ongoing public debate on the role of the corporation in the Finnish society.

REFERENCES

- Adams, C. A. 2004. The ethical, social and environmental reporting-performance portrayal gap. *Accounting, Auditing & Accountability Journal*, 17(5), 731-757.
- Adams A. & Evans R. 2004. *Accountability, Completeness, Credibility and the Auditing Expectation Gap*. Greenleaf Publishing, JCC 14 Summer.
- Adams, C., & Harte, G. 2000. Making discrimination visible: The potential for social accounting. *Accounting Forum*, 24(1), 56-79.
- Adams, C. A., Hill, W. Y., & Roberts, C. B. 1995. Environmental, employee and ethical reporting in Europe. London: ACCA Research Report, No. 41.
- Aerts, W. & Cormier, D. 2009. "Media legitimacy and corporate environmental communication", *Accounting, Organizations and Society*, 34(1), 1-27.
- Anderson, R.H. & Epstein, M. 1995. "The usefulness of annual reports", *Australian Accountant*, April 25-28.
- Ashford, B. E. & Gibbs B. W. 1990. "The Double-Edge of Organizational Legitimation", *Organization Science*, 1(2), 177-194.
- Barratt, M., Choi, T.Y., & Li, M. 2011. Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management*, 29(4), 329-342.
- Bebbington, J. 1997. "Engagement, education and sustainability: A review essay on environmental accounting", *Accounting, Auditing & Accountability Journal*, 10(3), 365 - 381.
- Bebbington, J., Larrinaga-Gonzalez, C. & Moneva, J. 2008. "Corporate Social Reporting and Reputation Risk Management", *Accounting, Auditing and Accountability Journal*, 21(3), 337-361.
- Belal, A.R. 2002. "Stakeholder accountability or stakeholder management: a review of UK firms' Social and Ethical Accounting Auditing and Reporting (SEAR) practices", *Corporate Social Responsibility and Environmental Management*, 9(1), 8-25.
- Benston, G. J. (1982). Accounting and corporate accountability. *Accounting, Organizations and Society*, 7(2), 87-105.
- Berg, B. L. 2008. *Qualitative Research Methods for the Social Sciences*. Pearson Education.
- Bouten, L., Everaert, P., Van Liedekerke, I., De Moor, L. & Christiaens, J. 2011. Corporate social responsibility reporting: A comprehensive picture? *Journal of Accounting Forum*, 35(3), 127-208.
- Bouten, L, Everaert P. & Roberts, R.W. 2012. How a Two-Step Approach Discloses Different Determinants of Voluntary Social and Environmental Reporting. *Journal of Business Finance & Accounting*, 39(5-6), 567-605.
- Brereton, D. 2002. The Role of Self-Regulation in Improving Corporate Social Performance: The Case of the Mining Industry. Australian Institute of Criminology Conference on Current Issues in Regulation: Enforcement and Compliance, Melbourne, September 2002.
- Brosio, G., 2008, Cases for and against transparency/obfuscation in intergovernmental

- relations, A. Breton, G. Galeotti, P. Salmon and R. Wintrobe (eds.) *The Economics of Transparency in Politics*, Ashgate.
- Brundtland, G. H. 1987. World Commission on Environment and Development. *Our common future*, 8-9.
- Campbell, D., Craven, B. & Shrides, P. 2003. "Voluntary social reporting in three FTSE sectors: A comment on perception and legitimacy", *Accounting, Auditing and Accountability Journal*, 16(4), 558-581.
- Cho, C.H. 2009. Legitimation strategies used in response to environmental disaster: a French case study of Total SA's Erika and AZF incidents. *European Accounting Review*, 18(1), 33-62.
- Commission of the European Communities (COM) (2001). Green paper: Promoting a European Framework for Corporate social responsibility", Commission of the European Communities (COM), Brussels 18.07.2001, 366 final.
- Cooper, C. 1992. The non and nom of accounting for (m)other nature. *Accounting, Auditing and Accountability Journal*, 5(3), 16-39.
- Cooper, S. 2004, *Corporate Social Performance: A Stakeholder approach*. Hants: Ashgate Publishing Limited.
- Coopers and Lybrand Consultants. 1997. "Environmental reporting", *On Environmental Reporting*, 2(1).
- Corando, G. & Fallon, W. 2010. Giving with one hand: On the mining sector's treatment of indigenous stakeholders in the name of CSR. *International Journal of Sociology and Social Policy*, 30(11/12).
- Cormier, D. & Gordon, I.M. 2001. "An Examination of Social and Environmental Reporting Strategies", *Accounting, Auditing, and Accountability Journal*, 14(5), 587-616.
- Carroll, A.B. & Buchholtz, A.K. 2009. *Business and Society: Ethics and Stakeholder Management*, 7th edn. Mason, OH: South-Western Cengage Learning.
- Carroll, A.B. 1979. A Three-Dimensional Conceptual Model of Corporate Performance. *The Academy of Management Review*, 4(4), 497-505.
- Carroll A.B. & Shabana K.M. 2010. The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice. *International Journal of Management Reviews*, 12(1), 85-105.
- Clapp, J. 2003. "Transnational corporate interests and global environmental governance: negotiating rules for agricultural biotechnology and chemicals," *Environmental Politics*, 12(4), 1-23.
- Cormier, D., & Gordon, I. 2001. An examination of social and environmental reporting strategies. *Accounting, Auditing & Accountability Journal*, 14(5), 587-616.
- Deegan, C. 2007. *Australian Financial Accounting*, 5th ed. Sydney: McGraw Hill
- Deegan, C. 2006. "Legitimacy theory", in Z. Hoque (Ed.), *Methodological issues in accounting research: Theories and methods*, London: Spiramus Press Ltd.
- Deegan, C., Rankin, M. & Voght, P. 2000. "Firms' Disclosure Reactions to Major Social Incidents: Australian Evidence", *Accounting Forum*, 24(1), 101-130.
- Deegan, C., Rankin, M. & Tobin, J. 2002. "An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory", *Accounting, Auditing & Accountability Journal*, 15(3), 312- 343.
- Deegan, C. & Gordon, B. 1996. "A Study of the environmental disclosure practices of Australian corporations". *Accounting and Business Research*, 26(3), 187-199.
- Deegan, C. & Blomquist, C. 2006. Stakeholder influence on corporate reporting: an exploration of the interaction between WWF-Australia and the Australian mineral industry. *Accounting, Organizations and Society* 31(4-5), 343-372

- Deegan, C., Cooper, B.J., & Marita, S. 2006. An investigation of TBL report assurance statement: UK and European evidence. *Managerial Auditing Journal*, 21(4), 329-371.
- de Villiers, C., & van Staden, C. J. 2006. Can less environmental disclosure have a legitimising effect? Evidence from Africa. *Accounting, Organizations and Society*, 31(8), 763-781.
- Donaldson, T. 1982. *Corporate morality*. Englewood Cliffs, NJ: Prentice-Hall.
- Donaldson, T. & Preston, L. E. 1995. 'The stakeholder theory of the corporation: concepts, evidence, and implications'. *Academy of Management Review*, 20(1), 65-91.
- Denzin N.K. & Lincoln Y.S. 1994. Introduction. Entering the field of qualitative research. In: Denzin NK, Lincoln YS (editors). *Handbook of Qualitative Research*. Thousand Oaks (CA): Sage Publications.
- Domegan, C., & Fleming, D., 2007. *Marketing research in Ireland: Theory and Practice*, 3rd ed. Dublin: Gill and Macmillan.
- Donaldson, T. & Dunfee, T. W. 1999. *Ties That Bind: A Social Contracts Approach to Business Ethics*. Boston: Harvard Business School Press.
- Dowling J. & Pfeffer J. 1975. Organizational legitimacy: social values and organizational behavior. *Pacific Sociological Review*, 18(1), 122-36.
- Ebrahim, A. 2003. "Making sense of accountability: conceptual perspectives for Northern and Southern nonprofits", *Nonprofit Management and Leadership*, 14 (2), 191-212.
- Eisenhardt, K. M. 1989. 'Building theories from case study research', *Academy of Management Review*, 14(4), 532-550.
- Fonseca, A. 2010. "Requirements and barriers to strengthening sustainability reporting among mining corporations", University of Waterloo, Waterloo, ON, doctoral dissertation.
- Frederick, W.C. 1986. Toward CSR3; Why Ethical Analysis is indispensable and Unavoidable in Corporate Affairs. *California Management Review* XXVIII, 126-141.
- Freeman, R.E. 1984. *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B.L., & de Colle, S. 2010. *Stakeholder Theory: The State of the Art*. Cambridge: Cambridge University Press
- Friedman, A., & Miles, S. 2002. Developing stakeholder theory. *Journal of Management Studies*, 39(1), 1-21.
- Gibbert, M., Ruigrok, W. & Wicki B. 2008. What Passes as a Rigorous Case Study? *Strategic Management Journal*, 29(13), 1465-1474.
- Gillet, C., 2012. A Study of sustainability verification practices: the French case. *Journal of Accounting and Organizational Change*, 8(1), 62-84.
- Gillham, B. 2000. *Case study research methods*. London: Continuum
- Global Reporting initiative (GRI). 2002. *Sustainability reporting guidelines*. Amsterdam: GRI.
- Graneheim, U.H. & Lundman, B. 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.
- Gray, R. 2010. Is accounting for sustainability really accounting for sustainability and how would we know? An exploration of narratives of organizations and the planet. *Accounting, Organizations and Society*, 35(1), 47-62.

- Gray, R. 2002. "The social accounting project and accounting organizations and society: privileging engagement, imaginings, new accountings and pragmatism over critique", *Accounting, Organizations and Society*, 27 (7), 687-708.
- Gray, R. & Bebbington, J., 2000. Environmental accounting, managerialism and sustainability: is the planet safe in the hands of business and accounting? *Advances in Environmental Accounting and Management*, 1(1), pp. 1-44.
- Gray, R., Kouhy, R. & Lavers, S. 1995. "Constructing a research database of social and environmental reporting by UK companies", *Accounting, Auditing and Accountability Journal*, 8(2), 78-101.
- Gray, R., Owen, D. & Maunders, K. 1987. *Corporate Social Reporting - Accounting & Accountability*, Prentice-Hall, UK.
- Gray, R., Owen, D. & Adams, C., 1996. *Accounting and Accountability: Changes and Challenges in Corporate and Social Reporting*. Prentice Hall, London.
- Greenwood, M. 2007. Stakeholder Engagement: Beyond the Myth of Corporate Responsibility. *Journal of Business Ethics*, 74(4), 315-327.
- Gunningham, N. & Grabosky, P. 1998. *Smart regulation: Designing environmental policy*. New York: Oxford University Press.
- Gunningham, N. & Sinclair, D. 2002. *Leaders and Laggards: Next Generation Environmental Regulation*. UK: Greenleaf Press
- Guthrie, J. & Abeysekera, I. 2006. Content analysis of social, environmental reporting: What is new? *Journal of Human Resource Costing & Accounting*, 10(2), 114-126.
- Guthrie, J., Petty, R., Yongvanich, K., Ricceri, F., 2004. Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital*, 5 (2), 282-293.
- Hancock, D.R. & Algozzine, B. 2006. *Doing Case Study Research. A Practical Guide for Beginning Researchers*. New York: Teachers College Press.
- Harwood, T., & Garry, T. 2003. An overview of content analysis. *The Marketing Review*, 3(4), 479-498.
- Hiatt, J. F. 1986. Spirituality, medicine, and healing. *Southern Medical Journal* 79(6), 736-743.
- Hearit, K. M. 1995. Mistakes were made: Organizations, apologia, and crises of social legitimacy. *Communication Studies*, 46(1-2), 1-17.
- Hines, R. D., 1988, "Financial Accounting: In Communicating Reality, We Construct Reality", *Accounting, Organizations and Society*, 13(3), 251-261.
- Hopwood, A. G. 2009. Accounting and the environment. *Accounting, Organizations and Society*, 34, (3-4), 433-439.
- Hopwood, A. G., Unerman, J. & Fries, J. 2010. *Accounting for sustainability: practical insights*, London ; Washington, DC, Earthscan.
- Hybels, R., 1995. On legitimacy, legitimation and organizations: A critical review and integrative theoretical model. *Academy of Management Journal*, Special Is., 241-245.
- International Accounting Standards Board. 1988. *Framework for the preparation and presentation of financial statements*. London: IASCF Publications Department.
- International Council on Mining and Metals (ICMM). 2006. Position statement: climate change. ICMM, London, p 2.
- Jenkins, H. 2004. Corporate social responsibility and the mining industry: conflicts and constructs. *Corporate Social Responsibility and Environmental Management*, 11(1), 23-34.
- Johnston, P. 2001. 'Corporate Responsibility in Employment Standards in a Global Knowledge Economy, in S. Zadek, N. Hojensgard and P. Raynard (eds.),

- Perspectives on the New Economy of Corporate Citizenship (TheCopenhagen Centre) pp. 43–47.
- Kauppila, P., Räisänen, M-L. and Myllyoja, S. 2011. Best environmental Practices in Metal Ore Mining. Finnish Environment 29en/2011.
- Krippendorff, K. 1980. Content analysis: An Introduction to its Methodology. Beverly Hills: Sage.
- KPMG International. 2008. KPMG International Survey of Corporate Responsibility Reporting 2008, Amstelveen, The Netherlands: KPMG International.
- Lamberton, G. 2005. "Sustainability accounting—a brief history and conceptual framework", Accounting Forum, 29(1), 7-26.
- Lamin, A. & Zaheer, S. 2012. 'Wall Street vs. Main Street: firm strategies for defending legitimacy and their impact on different stakeholders'. *Organization Science*, 23, 47–66.
- Lehman, G. 1995. 'A Legitimate Concern for Environmental Accounting', *Critical Perspectives on Accounting*, 6(5), 393-413.
- Lindblom, C.K. 1994. "The implications of organizational legitimacy for corporate social performance and disclosure," Paper presented at the Critical Perspectives on Accounting Conference, New York.
- Magness, V. 2006. "Strategic posture, financial performance, and environmental disclosure: an empirical test of legitimacy theory," *Accounting, Auditing and Accountability Journal*, 19(4), 540-563.
- Martinez, M.G., A. Fearne, J. Caswell, A. & Hensen, S. 2007. "Co-regulation as a Possible Model for Food Safety Governance: Opportunities for Public-Private Partnerships, in *Food Policy*, 32(3), 299-314.
- Mathews, M. R. 1993. *Socially Responsible Accounting*. London: Chapman & Hall
- Maurer, John G. 1971. *Readings in Organizational Theory: Open-System Approaches*. New York: Random House.
- McKernan, J.F. 2012. *Accountability as aporia, testimony, and gift*. *Critical Perspectives on Accounting*, 23(3), 258-278.
- Milne, M. J. & Adler, R.W. 1998 'Exploring the Reliability of Social and Environmental Disclosures Content Analysis. Conference paper, Apira 98, August 4–6 (Osaka City Media Center).
- Milne, M., & Gray, R. 2007. Future prospects for corporate sustainability reporting. In J. Unerman, J. Bebbington, and B. O'Dwyer (Eds.), *Sustainability accounting and accountability*. London: Routledge.
- Moir, L. 2001. What do we mean by Corporate Social Responsibility? *Corporate Governance*, 1(2), 16-22.
- Morgan, G. 1988. Accounting as reality construction: Toward a new epistemology for accounting practice. *Accounting, Organizations and Society*, 13(5), 477–485.
- Nasi, J., Nasi, S., Phillips N., & Zyglidopoulos, S. 1997. The evolution of corporate social responsiveness. *Business and Society* 36(3), 296–322.
- Mulgan, R. 2000. "Accountability": an ever-expanding concept?, *Public Administration* 78(3), 555-573.
- Nasi J, Nasi S., Phillips, N. & Zyglidopoulos, S. 1997. The evolution of corporate social responsiveness. *Business and Society*, 36(3), 296–322.
- Neu, D., Warsame, H. & Pedwell, K. 1998. Managing Public Impressions: Environmental Disclosures in Annual Reports, *Accounting, Organizations and Society*, 23(3), 265-282.

- O'Donovan, G. 2002. "Environmental Disclosures in The Annual Report: Extending the Applicability and Predictive Power of Legitimacy Theory", *Accounting, Auditing & Accountability Journal*, 15(3), 344-371.
- Owen, D., Gray, R., and Bebbington, J. 1997. 'Green Accounting: Cosmetic Irrelevance or Radical Agenda for Change?', *Asia-Pacific Journal of Accounting*, 4(2), 175-199.
- Owen, D., Swift, T., and Hunt K., 2001. Questioning the role of stakeholder engagement in social and ethical accounting. *Accounting Forum*, 25(3), 264-82.
- Owen, D.L., Swift, T.A., Humphrey, C., & Bowerman, M., 2000. The new social audits: accountability managerial capture or the agenda of social champions?. *European Accounting Review* 9(1), 81-98.
- Palazzo, G. & Scherer, A. 2006. 'Corporative Legitimacy as Deliberation: A Communicative Framework'. *Journal of Business Ethics* 66(1), 71-88.
- Parker, L.D. 2005. "Social and environmental accountability research: A view from the commentary box", *Accounting, Auditing & Accountability Journal*, 18(6), 842 - 860.
- Patten, D. 1992. "Intra-industry environmental disclosures in response to the Alaskan oil spill: a note on legitimacy theory," *Accounting, Organizations and Society*, 17(5), 47-475.
- Peck, P., & Sinding K. 2003. Environmental and social disclosure and data richness in the mining industry. *Business Strategy and the Environment*, 12(3), 131-146.
- Pedersen, E.R. 2006. Making Corporate Social Responsibility (CSR) Operable: How Companies Translate Stakeholder Dialogue into Practice. *Business and Society Review*, 111(2), 137-163.
- Porter, M. E., & Kramer, M. R. 2006. 'Strategy and society: The link between competitive advantage and corporate social responsibility'. *Harvard Business Review*, 84(12), 76-92.
- Puxty, A.G. 1986. "Social accounting as immanent legitimation: A critique of a technicist ideology". *Advances in Public Interest Accounting*, I, 95-112.
- Roberts J. 2009. 'No one is perfect: the limits of transparency and an ethics for "intelligent" accountability.' *Accounting, Organisations and Society*, 34(8), 957-70.
- Robertson, D. C., & Nicholson, N. 1996. Expressions of corporate social responsibility in U.K. firms. *Journal of Business Ethics*, 15(10), 1085-1106.
- Samkin, G., Allen, A. & Wallace, K. 2010. 'Repairing organisational legitimacy: the case of the New Zealand police. ', *Australian Accounting Business and Finance Journal*, 4(3), 23-44.
- Sarker, T. K. 2013. Voluntary codes of conduct and their implementation in the Australian mining and petroleum industries: is there a business case for CSR? *Asian Journal of Business Ethics*, 2(2), 205-224.
- Sarker, T.K. 2008. An empirical examination of factors influencing managers' environmental investment decisions in the Australian offshore petroleum industry. PhD Thesis, Australian National University.
- Sellnow, T L, Ulmer, R R & Snider, M 1998, 'The compatibility of corrective action in organizational crisis communication', *Communication Quarterly*, 46(1), 60-74.
- Shearer, T. 2002. Ethics and accountability: from the for-itself to the for-the-other. *Accounting, Organizations and Society*, 27(6), 541-573.
- Schedler, A., Diamond, L. & Plattner, M.F. Eds. 1999. *The Self-Restraining State: Power and Accountability in New Democracies*. Boulder, CO:Lynne Rienner Publishers.

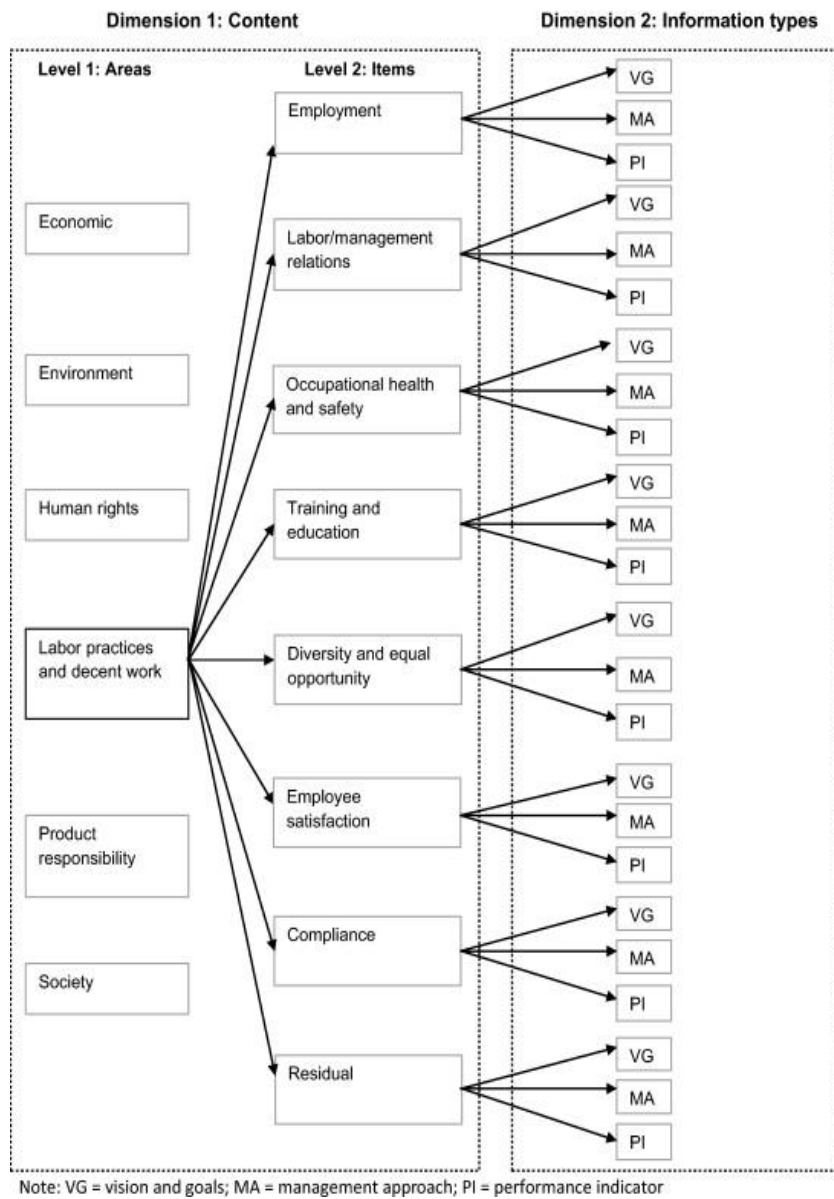
- Scherer, A.G., Palazzo, G. & Seidl, D. 2013. 'Managing Legitimacy in Complex and Heterogeneous Environments: Sustainable Development in a Globalized World'. *Journal of Management Studies*, 50(2), 259-284.
- Shocker, A. D. & S. P. Sethi. 1974., "An Approach to Incorporating Social Preferences in Developing Corporate Action Strategies," In S. P. Sethi (Ed.), *The Unstable Ground: Corporate Social Policy in a Dynamic Society*, 67-80, Los Angeles: Melville.
- Sillanpaa, M. 1998. "The Body Shop Values Report -towards integrated stakeholder auditing". *Journal of Business Ethics*, 17(13), 1443-1456.
- Sisk, H. L. 1997. *Management and organization*. 3rd ed. Cincinnati: Southwestern
- Stake, R. 1995. *The art of case study research*. Thousand Oaks, CA: Sage.
- Suchman, M.C. 1995. *Managing legitimacy: strategic and institutional approaches*. *Academy of Management Review*, 20(3), 571-610.
- Summerhays, K., & De Villiers, C. 2012. Oil company annual report disclosure responses to the 2010 Gulf of Mexico oil spill. *Journal of the Asia-Pacific Centre for Environmental Accountability*, 18(2), 103-130.
- Sutantoputra, A.W. 2009. The relationship between environmental performance and environmental disclosure: evidence from Australia. Paper presented at the 10th Oikos PhD Summer Academy 2009: Sustainability-Driven Business Models, Gais, Switzerland, 1st September.
- Svensson, P., 2009. 'Embracing left and right: image repair and crisis communication in a polarized ideological milieu', *Management Communication Quarterly*, 22(4), 555-576.
- Swift, T., & Dando, N. 2002. 'From Methods to Ideologies: Closing the Assurance Expectations Gap in Social and Ethical Accounting, Auditing and Reporting', *Journal of Corporate Citizenship*, 8 (Winter 2002), 81-90.
- Thomson, I. & Bebbington, J. 2005. Social and environmental reporting in the UK: a pedagogic evaluation. *Critical Perspectives on Accounting*, 16(5), 507-533
- Tilling, M. V. 2004. *Communication at the edge: Voluntary social and environmental reporting in the annual report of a legitimacy threatened corporation*. Paper presented at the 4th Asia Pacific Interdisciplinary Research in Accounting (APIRA) Conference. Singapore, 4-6 July.
- Tilling, M.V. & Tilt, C.A. 2010. The edge of legitimacy: voluntary social and environmental reporting in Rothmans' 1956-1999 annual reports. *Accounting, Auditing, and Accountability Journal*, 23(1), 55-81.
- Tilling, MV 2004, Refinements to legitimacy theory in social and environmental accounting, Flinders University Commerce Research Paper Series No. 04-6
- Tilt, C. A. & Symes, C. F. 1999. "Environmental Disclosure by Australian Mining Companies: Environmental Conscience or Commercial Reality?" *Accounting Forum*, 23(2), 137-154.
- Törmä, H. & K. Reini .2009. Suomen kaivosalan aluetaloudelliset vaikutukset elinkeinorakenteeseen ja työllisyyteen. *Helsingin yliopisto, Ruralia-instituutti, raportteja* 37. 57 s.
- Unerman, J. 2000. Methodological issues: Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing & Accountability Journal*, 13(5), 667-680.
- Unerman, J. 2007. Stakeholder engagement and dialogue. In: Unermann, Jeffrey / Bebbington, Jan / O'Dwyer, Brendan, *Sustainability Accounting and Accountability*, Chapter 5, London: Routledge, pp. 86-103.

- Unerman J. & Bennett M. 2002 "Increased Stakeholder Dialogue and the Internet: Towards Greater Corporate Accountability or Reinforcing Capitalist Hegemony?" presented at the Irish Accounting and Finance Association Annual Conference, NUI, Galway, Ireland.
- Utting, P. 2005. Rethinking Business Regulation: From Self-Regulation to Social Control. Programme on Technology Business and Society, Paper No. 15. UNRISD, Geneva.
- Van der Laan. S. 2009. The Role of Theory in Explaining Motivation for Corporate Social Disclosures: Voluntary Disclosures vs 'Solicited' Disclosures . *Australasian Accounting Business and Finance*, 3(4), 15-29.
- van Ruler, B. 2004. The communication grid: An introduction of a model of four communication strategies. *Public Relations Review*, 30(2), 123-143.
- van Staden, C. J., & Hooks, J. 2007. A comprehensive comparison of corporate environmental reporting and responsiveness. *British Accounting Review*, 39(3), 197-210.
- Voss, C., Tsiriktsis, N. & Frohlich, M. 2002. 'Case research in operations management', *International Journal of Operations & Production Management*, 22(2), 195-219.
- Vuontisjärvi, T. 2006. Corporate social reporting in the European context and human resource disclosures: An analysis of Finnish companies. *Journal of Business Ethics*, 69(4), 331-354.
- Waddock, S., Bodwell C. & Graves, S.B. 2002. Responsibility: The New Business Imperative. *Academy of Management Executive*, 16(2), 132-148.
- Wallage, P. 2000. "Assurance on sustainability reporting: an auditor's view", *Auditing: Journal of Practice and Theory*, 19 (supplement), 53-65.
- Waye, A., Young, D., Richards, J.P. & Doucet, A. 2009. Sustainable Development and Mining - An Exploratory Examination of the Roles of Government and Industry. In: Richards, J.P. (ed.), *Mining, Society, and a Sustainable World*, DOI 10.1007/978-3-642-01103-0_7, Springer-Verlag Berlin Heidelberg 2009.
- Wilmshurst, T. D. & Frost, G. R. 2000. "Corporate environmental reporting: a test of legitimacy theory", *Accounting, Auditing & Accountability Journal*, 13(1), 10-26.
- Wood, D.J. 1991. Corporate social performance revisited. *Academy of Management Review*, 16(4), 691-718.
- Woodward, D., Edwards, P., & Birkin, F. 1996. "Organizational legitimacy and stakeholder information provision", *British Journal of Management*, 7(4) 329-47.
- Yin, R. 1989. *Case study research: Design and methods* (Rev. ed.). Newbury Park, CA: Sage Publishing.
- Yin, R. 1994. *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage Publishing.
- Zeghal, D. & Ahmed, S.A. 1990. "Comparison of Social Responsibility Information Disclosure Media Used by Canadian Firms", *Accounting, Auditing & Accountability Journal*, 3(1), 38-53.
- Ziessler, S., Eerola, T. & Tuusjärvi, M. 2013. Stakeholder engagement of mineral exploration companies in Finland. *Sustainable Development in Minerals Industry (SDIMI)*, Milos, Greece 2013, conference proceedings.

Internet sources

- Colorado State University. 1994-2012. Content Analysis. <http://writing.colostate.edu/guides/pdfs/guide61.pdf> . Retrieved: 22.12.2013
- Crane, A., McWilliams, A., Matten, D., Moon, J. & Siegel, D. 2009. "The Corporate Social Responsibility Agenda." Oxford Handbooks Online. Oxford University Press. <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199211593.001.10001/oxfordhb-9780199211593-e-001>. Retrieved: 14.01.2014
- European Commission .2011. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A renewed EU strategy 2011-2014 for Corporate Social Responsibility. COM(2011)681 final. Brussels. http://ec.europa.eu/enterprise/policies/sustainable-business/files/csr/new-csr/act_en.pdf . Retrieved: 03.01.2014
- ICMM. 2013. Adapting to a changing climate: Implications for the mining and metals industry. Retrieved on 09.01.2014 at: <https://www.icmm.com/document/5173>
- KPMG. 2008. Count in me. The readers' take on sustainability reporting. <https://www.globalreporting.org/resourcelibrary/Count-Me-In-The-Readers-take-on-Sustainability-Reporting.pdf>. Retrieved: 25.12.2013
- Nuclear Heritage. 2013. Talvivaara mine: Environmental disaster in Finland. http://www.nuclearheritage.net/index.php/Talvivaara_mine_environmental_disaster_in_Finland . Retrieved: 21.12.2014
- Stop Talvivaara. 2013. Talvivaara news stream. <http://www.stoptalvivaara.org/fi/newsstream.html>. Retrieved: 22.12.2013
- Talvivaara. 2013. Talvivaara's gypsum pond leakage has stopped. http://www.talvivaara.com/mediaen/Talvivaara_announcements/stock_exchange_releases/stock_exchange_release/t=talvivaara-mining-company-plc/id=30703024. Retrieved: 20.11.2013
- Talvivaara. 2014. History. <http://www.talvivaara.com/about-us/history> . Retrieved: 20.02.2014
- Talvivaara. 2014. All Talvivaara annual reports and financial statements. http://www.talvivaara.com/investors/financial_information/Annual-reports. Retrieved: 03.02.2014
- Uusisuo, M. 2013. Sector reports: The Mining Industry. http://www.temtoimialapalvelu.fi/files/1796/Mining_Industry.pdf. Retrieved: 15.12.2013
- WBCSD. 1999. Meeting Changing Expectations. Corporate Social Responsibility. www.wbcd.org/publications/csrepub.htm. Retrieved: 25.11.2013
- Yle. 2012. "Stop Talvivaara" protests bring carnival mood to Helsinki. http://yle.fi/uutiset/stop_talvivaara_protest_brings_carnival_mood_to_helsinki/6376956. Retrieved: 20.11.2013
- OECD. 2006. Alternatives to traditional regulation. <http://www.oecd.org/gov/regulatory-policy/42245468.pdf>. Retrieved: 11.01.2014

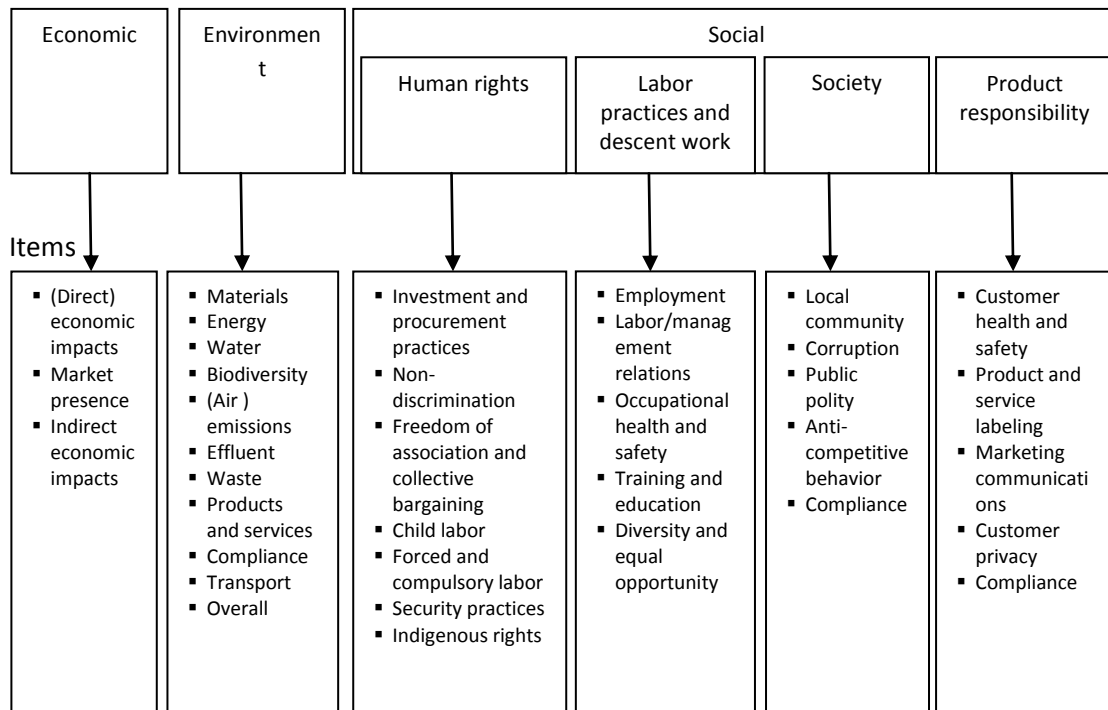
APPENDIX 1 The coding structure



(Adopted from Bouten et al., 2011)

APPENDIX 2 The GRI as reference for the content dimension

Areas



The author also made some necessary changes to the GRI guidelines which were also made by the original developers of the content analysis framework (see Bouten et al. 2011). The item 'economic performance' was narrowed to voluntary disclosures. Reporting on revenues, operating costs, employee compensation of members of the board of directors, retained earnings and payment to capital providers and governments and finally financial assistance received from governments is fully covered in either the mandatory International Financial Reporting Standards (IFRS) or Finnish standards and cannot be considered as voluntary. The author also felt that this area records important information on direct economic impacts on non-financial stakeholders, like donations to charities, he opted to only narrow the item, and rename it 'direct economic impacts'. This category now involves only the economic impact of the company on non-financial stakeholders.

APPENDIX 3 Information types disclosed for each CSR item

1. Environment	2008	2009	2010	2011	2012
Material	-	-	VG, MA	VG, MA, PI	VG, MA, PI
Energy	-	-	VG, MA	VG, MA, PI	VG, MA, PI
Water	-	-	VG, MA	VG, MA, PI	VG, MA, PI
Biodiversity	-	-	VG, MA, PI	VG, MA, PI	VG, MA, PI
Air emissions	-	VG, MA	VG, MA	VG, MA, PI	VG, MA, PI
Effluents	-	MA	VG, MA	VG, MA, PI	VG, MA, PI
Waste	-	-	VG, MA, PI	VG, MA, PI	VG, MA, PI
Products and services	-	-	-	-	-
Compliance	VG, MA, PI	MA, PI	MA, PI	MA, PI	VG, MA, PI
Transport	-	-	-	-	-
Overall	-	-	-	PI	PI
2. Social					
2.1 Human rights					
Investment and procurement practices	-	-	VG, MA	-	VG
Non-discrimination	-	-	-	-	-
Freedom of association and collective bargaining	-	-	-	-	-
Child labor	-	-	VG, MA	-	-
Forced and compulsory labor	-	-	-	-	-
Security practices	-	-	-	-	-
Indigenous rights	-	-	-	-	-
2.2 Labor practices and decent work					
Employment	MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI
Labor/management relations	MA	-	VG, MA	VG	VG
Occupation health and safety	VG, MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI
Training and education	MA	VG, MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI
Diversity and equal opportunity	VG, MA, PI	VG	VG, MA, PI	VG, MA, PI	VG, MA, PI
2.3 Society					
Local community	VG, MA	MA	VG, MA	VG, MA, PI	VG, MA, PI
Corruption	MA	-	VG	-	-
Public policy	-	-	-	-	-
Anti-competitive behavior	-	-	-	-	-
Compliance	-	MA	VG, MA	-	-
2.4 Product responsibility					
Customer health & safety	-	-	VG, MA	VG, MA	VG, MA
Product & service labeling	-	-	-	VG, MA	MA
Marketing communications	-	-	-	-	-
Customer privacy	-	-	-	-	-
Compliance	-	-	MA	VG, MA	VG, MA
3. Economic					
Direct economic impacts	-	-	-	-	VG, MA, PI
Market presence	MA, PI	VG, MA, PI	VG, MA, PI	VG, MA, PI	MA, PI
Indirect economic Impacts	-	-	VG, MA	-	-