



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Environmental Sustainability Reporting

– Development in Sweden 1998-2008 –

Bachelor Thesis
Financial Reporting and Analysis
May 2009

Mentor: Inga-Lill Johansson

Authors: Michaela Erlandsson
Mattias Olinder

Bachelor Thesis in Financial Reporting and Analysis

Title:	Environmental Sustainability Reporting – Development in Sweden 1998-2008 –
Authors:	Erlandsson, Michaela Olinder, Mattias
Mentor:	Johansson, Inga-Lill
Words of Topic:	<i>Sustainability Reporting, CSR, Environment, GRI, Hållbarhetsredovisning, Miljöredovisning</i>

Abstract

The **Background** of the thesis starts with the fact that environmental issues have grown progressively in the consciousness of the global community, which has turned its eyes to the corporate world and its impact on the environment. Various stakeholders have to an increasing extent requested the corporations to report on these issues, but since there have been no legislation or guidelines on the subject historically; there has been a vigorous debate on how and what to report. Much research and several studies have been made on the subject and worth to emphasize is that the largest corporations tend to lead the way in their respective industries and that Sweden seems to be one of the lagging countries when it comes to Environmental Sustainability Reporting.

The **Purpose** of the thesis is to map out the development in Environmental Sustainability Reporting of the largest corporation in each industry in Sweden over the past eleven years in order to, if possible, identify trends and draw conclusions about the future.

The **Conceptual Framework** of the study is composed of: A definition of Environmental Sustainability Reporting, legislation and recommendations concerning Environmental Sustainability Reporting, information on Sustainability Reporting in Sweden as of 2008, the Stakeholder Theory, the Theory of Legitimacy, information on the qualitative characteristics of accounting, and an introduction to the rhetorical notions of Ethos, Pathos and Logos.

The **Methodology** of the thesis was of a quantitative approach. We obtained and, influenced by the GRI guidelines, assessed information reported in the Annual and Sustainability Reports of the chosen companies and years, translating the quality of the information into scoreboards later used to draw conclusions on.

The main **Restrictions** were the number of corporations chosen to investigate and the number of years to examine. The nine companies chosen for the study were the largest ones in Sweden of each respective industry presented on the Stockholm OMX exchange and the years chosen to inquire into were the three years 1998, 2003 and 2008.

In **Conclusion**, there has been a development towards a more detailed and concrete reporting, leading to an improved relevance. Simultaneously, reliability has improved caused by the progress of verifiability due to the increase of concrete reporting and an enhanced third party assurance, in tandem with an improved validity, albeit possibly biased. With this progress, comparability between companies can also be concluded to have improved; comparability over time will become better since the GRI guidelines have helped improve the quality in setting standards. In conclusion, there seems to be a continual increasing development towards meeting stakeholder requests.

Glossary

<i>ESR</i>	Environmental Sustainability Reporting
<i>GRI</i>	Global Reporting Initiative
<i>ESRA</i>	European Sustainability Reporting Association
<i>Triple bottom line</i>	Three aspects on reporting: economic, environmental and social
<i>CSR</i>	Corporate Social Responsibility
<i>ISO</i>	International Organisation for Standardisation
<i>EMAS</i>	Eco Management and Audit Scheme
<i>ESG</i>	Environmental Social and Governance performance
<i>CERES</i>	Coalition for Environmentally Responsible Economies
<i>G3</i>	Third set of guidelines published by GRI
<i>XBRL</i>	Computer system allowing quantification of qualitative data

Table of Contents

Abstract.....	ii
Glossary.....	iii
1. Introduction.....	1
1.1. Environmental Issues and Efforts in the Context of Annual Reporting.....	1
1.2. Problem Formulation and Purpose.....	2
1.2.1. Problem Discussion.....	2
1.2.2. Research Questions.....	3
1.2.3. Purpose.....	4
1.3. Restrictions.....	4
1.4. Disposition of the Thesis.....	5
2. Conceptual Framework.....	6
2.1. Defining Environmental Sustainability Reporting.....	6
2.2. Legislation and Recommendations.....	6
2.2.1. Swedish Legislation.....	6
2.2.2. International Legislation.....	7
2.2.3. Global Reporting Initiative.....	7
2.2.3.1. <i>GRI Principles and Guidelines</i>	8
2.2.3.2. <i>Critique concerning GRI guidelines</i>	9
2.2.4. Certifications.....	9
2.2.4.1. <i>ISO</i>	9
2.2.4.2. <i>EMAS</i>	10
2.3. Sustainability Reporting in Sweden.....	10
2.4. Stakeholder Theory.....	11
2.5. The Theory of Legitimacy.....	12
2.6. The Qualitative Characteristics of Accounting.....	12
2.7. Accountability and Convincing Means.....	13
2.7.1. Ethos.....	14
2.7.2. Pathos.....	14
2.7.3. Logos.....	14
2.8. Stakeholder requests.....	14
3. Methodology.....	16
3.1. Selected Topic.....	16
3.2. Analytical approach.....	16
3.3. Chosen Investigation Method.....	17
3.3.1. Indicators.....	17
3.3.1.1. <i>Format of the Reports</i>	17
3.3.1.2. <i>Information on Environmental Management</i>	18
3.3.1.3. <i>Environmental Impact</i>	19
3.3.1.4. <i>Information on Third Party Involvement</i>	20
3.3.1.5. <i>Balanced or Unbalanced Reporting</i>	20
3.3.2. Grading scale.....	21
3.3.2.1. <i>Grade 0</i>	21
3.3.2.2. <i>Grade 1</i>	21
3.3.2.3. <i>Grade 2</i>	22
3.3.2.4. <i>Grade 3</i>	22
3.3.2.5. <i>Evaluating Quantitative Indicators</i>	22
3.3.3. Material Information Not Captured by Indicators.....	22
3.4. Collection of Data.....	23
3.4.1. Secondary Data.....	23

3.4.2.	Primary Data	23
3.4.2.1.	<i>Choice of Studied Corporations</i>	23
3.4.2.2.	<i>Choice of Studied Years</i>	24
3.5.	Critique on References and Methodology	24
3.5.1.	Critique on References.....	24
3.5.2.	Critique on Methodology	25
4.	Empirical Findings	26
4.1.	Company preview.....	26
4.1.1.	Lundin Petroleum	26
4.1.2.	Stora Enso	26
4.1.3.	ABB Ltd	26
4.1.4.	H&M	27
4.1.5.	Swedish Match	27
4.1.6.	AstraZeneca	27
4.1.7.	Nordea	28
4.1.8.	Ericsson	28
4.1.9.	TeliaSonera	28
4.2.	Report format.....	28
4.2.1.	1998.....	28
4.2.2.	2003.....	29
4.2.3.	2008.....	31
4.3.	Environmental Management	32
4.3.1.	1998.....	32
4.3.2.	2003.....	32
4.3.3.	2008.....	33
4.4.	Environmental impact	34
4.4.1.	1998.....	34
4.4.2.	2003.....	35
4.4.3.	2008.....	35
4.5.	Third party involvement.....	35
4.5.1.	1998.....	35
4.5.2.	2003.....	36
4.5.3.	2008.....	37
4.6.	Balanced or unbalanced reporting	38
4.6.1.	1998.....	38
4.6.2.	2003.....	39
4.6.3.	2008.....	39
5.	Analysis and Discussion	40
5.1.	Development of Report Format	40
5.2.	Development of Reported Environmental Management.....	45
5.3.	Development of Reported Environmental Impact.....	48
5.4.	Development of Reported Third Party Involvement	49
5.5.	Development of Balance in Reporting.....	51
5.6.	Development in qualitative indicators.....	53
6.	Conclusion	55
6.1.	Development and Trends of Annual Environmental Reporting	55
6.2.	Matching Stakeholder Requests.....	56
6.3.	Differences between Corporations	57
6.4.	Expectations on the Future.....	57
6.5.	Further Studies.....	59

References.....	60
Works Cited.....	60
Legislation and Recommendations.....	61
Student Theses.....	62
Bibliography.....	62
Student Theses:.....	63
Appendix 1 – Calculation of Total Share Value	64
Appendix 2 – Indicators results	65
Appendix 3 – Comments on Indicators	66
Appendix 4 – Development of Qualitative Indicators.....	74

1. Introduction

This chapter provides a brief background to Environmental Sustainability Reporting followed by the Problem Formulation, Purpose and Restrictions of the thesis. To conclude, the disposition of the thesis is presented.

1.1. Environmental Issues and Efforts in the Context of Annual Reporting

Environmental issues have grown progressively in the consciousness of the global community over the past decades, parallel with the observation that the affect of mankind on the environment has become increasingly extensive and sophisticated. About twenty years ago, in 1987, the Brundtland Report *Our Common Future* popularized the concept of *Sustainable Development* and defined its goal to be that humanity “meets the needs of the present without compromising the ability of future generations to meet their own needs.”¹ The Brundtland Report was of great aid in the global progress of dealing with environmental issues, which was later demonstrated by, e.g. the adoption of the *Kyoto Protocol*² and the founding of the *Global Reporting Initiative*³ (GRI) in 1997. A more popular example extracted from the past few years is the movie production *An Inconvenient Truth* by former American Vice President Al Gore. The movie caused many vigorous reactions amongst its viewers, who now in a more expressive way voiced the need for a solution of the green house effect.

The increasing attention to environmental issues by society at large has turned the eyes of the society to the corporate world, since the majority of energy consumption and pollution originates from different industries rather than the homes of the consuming citizens. This has caused corporations and organizations to spend vast resources on environmental development, but knowledge of these efforts and their effects do not always reach the corporations’ stakeholders. The GRI lead the way by starting to set reporting guidelines for sustainability reporting with the goal “to enhance the quality, rigor, and utility of sustainability reporting.”⁴ This implies need for improvement and that there is much work left to do before the sustainability reports can be said to have reached a sufficiently satisfying level of quality.

Focusing on different industries, several studies on sustainability reporting have investigated the purposes and framework of the sustainability reports, together with if and how they can be effectively scrutinized, as well as the usage of the reports and the interest amongst financial analysts. As demonstrated, sustainability reporting can be and has been analyzed from numerous different angles. We would like to make our own contribution to this research and further explore various Swedish corporations’ Environmental Sustainability Reporting.

¹ Brundtland et al. 1987

² http://unfccc.int/kyoto_protocol/items/2830.php (Accessed April 1st, 2009)

³ Global Reporting Initiative Official Website (Accessed April 1st, 2009)

⁴ Brenkert 2004

1.2. Problem Formulation and Purpose

1.2.1. Problem Discussion

Sustainability reporting has been a much debated subject and there are different views regarding why these reports are produced by the companies. Some experts argue that there can be no other reason for sustainability efforts and reporting except the principle of profit maximization. Furthermore, other experts take a practical position, meaning that companies engage in sustainability reporting to improve their corporate image or as a response to existing trends. According to them, this reactive strategy often fails since the reports are not originated from the company's overall business strategies. However, the normative view is that corporations publish these reports to improve the transparency towards their stakeholders externally as well as internally.⁵

If the normative purpose of the reports is to lessen the information asymmetry between the management and the stakeholders, the question whether the purpose is fulfilled becomes interesting. Imagining the abundant quantity of stakeholders most companies have, it becomes reasonable to question which information the different stakeholders need and how the companies satisfy those needs.

A survey conducted amongst sustainability report readers, compounded by investors, business leaders, academics, representatives of NGO's and governmental authorities, showed that a large portion of these types of stakeholders read and were affected by the reports. About 50% took the reports into account when buying products and/or services or in the investment decision making process. The survey further investigated the stakeholders' demands for information, what they were missing and what they would prefer to see in sustainability reports in the future.⁶

By some studies, the interest amongst analysts on the financial markets has been proven to be minor. These student papers claim that analysts focus on the regulated financial reports, such as the balance sheet and income statement, and that they do not take the Sustainability Reports into consideration. This is mainly due to the perceived lack of usability of these reports and the lack of knowledge about sustainability issues amongst the analysts. There are also indications of analysts often finding the information in the sustainability reports irrelevant. In a world where the importance of environmental issues has become of greater cause for debate, it is easy to imagine that the costs which the companies inflict upon themselves in the present can generate economic value in the future. However, the information in the reports is not suited for calculations for when the economic value can be expected and, maybe of greater importance, just how profitable the investments will be.⁷

The aim to satisfy different stakeholders' needs for information is impossible to reach if the reports are not trusted. A problem that is mentioned to be of great importance is the lack of standardized regulations. This problem makes it hard for stakeholders to trust the reports and to compare them to each other. Without regulations, management executives are free to choose which information to disclose. The image provided by the company might therefore not live up to the principle of a *true and fair view*.⁸ One method used to solve the reliability problem is assurance from a third party, but the scrutiny often falters due to the lack of agreed

⁵ MacLean & Rebernak. 2007

⁶ Bartles, Iansen-Rogers & Kuszevski 2008

⁷ Jansson & Johansson 2005

⁸ Brenkert 2004

standards and regulations, as well as the gap of expectations between what actually is monitored and what the readers of the reports expect. The solution to this expectancy problem is presented to be that the auditors to a greater extent should audit what is expected and further describe the magnitude of the scrutiny in their audit reports.⁹

There are numerous organizations supplying guidelines for sustainability reporting, but GRI is the organization with the greatest impact¹⁰. However, it is important to remember that these recommendations are voluntary and compliance can be in various degrees. This means that the level of credibility the recommendations provide to reports can be questioned. There are at the moment no evident signs that Sustainability Reporting will be subject to legislation any time soon. There are also differing points of view whether the area even should be subject to regulation or not. Relative to financial reporting, sustainability reporting is a new area which the market must be allowed to develop by itself.

Although Sweden often is presented as one of the leading nations in the world when it comes to sustainability efforts, according to the latest report of the *European Sustainability Reporting Association* (ESRA), Sweden is one of the lagging nations when it comes to the reporting of these efforts. The ESRA report also states that it is the largest companies that lead the way in this type of reporting. Nevertheless, the author of the ESRA report is positive that the Sustainability Reporting will increase in the future, much because of the *Sustainability Sweden Index* that was launched by *NASDAQ OMX* last year. He thinks that this will put further pressure on Swedish companies to engage in sustainability reporting.¹¹

To conclude, the purpose of Sustainability Reporting, and by extension *Environmental Sustainability Reporting*, is to enhance transparency in order to satisfy different stakeholder needs. To do this, the reported information needs to be of good quality, meaning that it must be relevant, reliable and comparable. This raises the question whether those criteria really are met and how the companies report in order to achieve credibility. Being a relatively new type of accounting, it can be expected that the reporting activities have not yet been perfected, which makes it interesting to study how the development of these issues has been and what can be expected in the future.

1.2.2. Research Questions

Based on the above discussion, we have formulated one main question and three supplementary questions, as followed:

- How has the Annual Environmental Sustainability Reporting in Sweden developed between 1998, 2003 and 2008, looking at the largest corporation in each industry? Can any trends be perceived?
 - How does the direction of the development match the stakeholders' requests?
 - What differences can be discerned between the corporations?
 - Is it possible to form any credible expectations about the future? If so, which expectations can be formed?

⁹ Hansson & Henriksson 2003

¹⁰ Konrad et al. 2006

¹¹ ESRA Official Website (Accessed April 20th 2009)

1.2.3. Purpose

The purpose of this thesis is to map out the development in Environmental Sustainability Reporting of the largest corporation in each industry in Sweden during the period 1998-2008 in order to, if possible, identify trends and draw conclusions about the future. The purpose is not to analyze the reasons behind the observations made or to make assessments on the truthfulness of the companies' reported information.

1.3. Restrictions

In the thesis we have some restrictions that are important to clarify. The study only involves Swedish corporations and the conclusions are therefore restricted to the Swedish market. Since the largest companies lead the way in this type of reporting¹², we intend to study the largest corporation of each industry presented on the Stockholm OMX exchange. Furthermore, there is a restriction in time, considering that we only investigate three periods (1998, 2003 and 2008) over the past eleven years. This means that no conclusions are drawn on how the different corporations' reports were designed during any of the unstudied years. The conclusions can only involve development that becomes visible through examining the reports of 1998, 2003 and 2008. A third restriction is the fact that the thesis only studies *how* the corporations report on certain environmental aspects and design their reports, and not *what* information actually is stated.

¹² ESRA Official Website (Accessed April 20th 2009)

1.4. Disposition of the Thesis

1. Introduction

This chapter provides a brief background to Environmental Sustainability Reporting followed by the problem formulation, purpose and restrictions of the thesis. To conclude, the disposition of the thesis is presented.

2. Conceptual Framework

The Conceptual Framework begins with the thesis's definition of Environmental Sustainability Reporting followed by a presentation of environmental legislation and recommendations. Furthermore, this chapter provides theories and perspectives that have influenced the conduction of the study.

3. Methodology

This chapter describes and motivates chosen investigation methods as well as discusses critique on references. To conclude, a discussion is conducted in order to assess the validity and reliability of the thesis.

4. Empirical Findings

This chapter starts with a brief company presentation, followed by an account of the indicator results of 1998, 2003, and 2008. The indicator results are clustered into the following sections: Report format, Environmental Management, Environmental Impact, Third Party Involvement and Balanced or Unbalanced Reporting.

5. Analysis and Discussion

This chapter describes the development of the studied companies' Environmental Sustainability Reporting. Furthermore, it discusses the empirical findings on the basis of the Conceptual Framework. The discussion will be conducted according to the same disposition as the previous chapter.

6. Conclusion

This chapter highlights the most important aspects of the Analysis & Discussion in order to provide answers and conclusions to the stated research questions. To conclude, suggestions on further studies will be provided at the very end of the chapter.

2. Conceptual Framework

The Conceptual Framework begins with the thesis's definition of Environmental Sustainability Reporting followed by a presentation of environmental legislation and recommendations. Furthermore, this chapter provides theories and perspectives that have influenced the conduction of the study.

2.1. Defining Environmental Sustainability Reporting

Most of the sources of this thesis treat the entire area of Sustainability Reporting, which GRI defines as:

The term “sustainability reporting” is synonymous with citizenship reporting, social reporting, triple-bottom line reporting and other terms that encompass the economic, environmental, and social aspects of an organization's performance.¹³

This means that Sustainability Reporting include three areas, of which the environmental aspect is one. Consequently, this thesis will use the abbreviation *ESR* when discussing the Environmental aspect, since the objective of this thesis is to explore that particular area. The term *Sustainability Reporting* will be applied when discussing Sustainability Reporting in its broader sense, defined in the citation above.

2.2. Legislation and Recommendations

2.2.1. Swedish Legislation

Swedish laws offer little guidance concerning ESR. However, for large companies there are some restrictions. It is mandatory for large corporations to, in the director's report, publish non-financial information that enhances the understanding for the corporation's performance, position and development. By extension, this means that if environmental aspects are of great importance for the company's results and development, those aspects need to be accounted for. The subject in itself, however, is only explicitly mentioned once in the *Annual Accounts Act*. It expresses that companies conducting certain environmentally damaging operations, and thereby according to Swedish environmental legislation are forced to apply for a permit or inform authorities about the operations, have to account for their effect on the environment.¹⁴

Naturally it is difficult to pinpoint which operations affect the environment in a harmful manner, instead every situation is object for interpretation. On the other hand Swedish environmental legislation describes which effects are considered as harmful and which environments are considered as sensitive. If a company's operations have effect on water areas, groundwater or land, a permit is required. It is also necessary to have authorization for businesses involved in gene modification or discharging heavy volumes of green house gases as well as when the government explicitly declares that risk for the environment exists. When changing production processes or waste management, companies that engage in operations

¹³ GRI official website (Accessed April 20th 2009)

¹⁴ Årsredovisningslagen, 6 kapitlet, 1 §, 3 stycket.

classified as environmentally damaging, are obligated to inform authorities about the change.^{15 16}

Recently, it became mandatory for state owned corporations in Sweden to account for their environmental management and impact in accordance with the GRI guidelines. In addition, those reports must be audited by a professional auditor. This law came into effect in 2009.¹⁷

2.2.2. International Legislation

According to the international standard *IAS 37*, probable future expenditures which can be estimated in a reliable manner must be accounted for in the balance sheet. Environmental debts, which arise when the company is responsible for damaging impact on the environment, must therefore be accounted for if the expenditure is probable and can be estimated. If the expenditure is possible but not probable, the company must still inform about the possibility.¹⁸

In conclusion, there exist little legislation concerning ESR but when it does exist; the rules offer little guidance on how companies can construct the reports. However, several organizations have outlined guidance in the form of recommendations. Those recommendations and the most accepted set of guidelines will be presented in the next few sections below.

2.2.3. Global Reporting Initiative¹⁹

Lacking regulations and guidance in the matter of ESR, there exist several organizations that make efforts in order to standardize the reports to some extent. The most used recommendations are published by the multi-stakeholder organization Global Reporting Initiative (GRI). The idea of standardized recommendations for sustainability reporting was by no means a new one when GRI in 1997 was founded by the non-governmental organization *Coalition for Environmentally Responsible Economies* (CERES). However, thus far no guidelines had acquired general acceptance by the market. GRI was a new global initiative which assembled different stakeholders in order to accelerate the issues of transparency, accountability, reporting and sustainability. The approach of having diversity in the parties developing the guidelines is a key element in the credibility received by a large range of stakeholders²⁰.

The framework issued by GRI sets principles and indicators for measurement and reporting of an organization's economic, environmental and social performance. It is believed that the usage of Sustainability Reporting will benefit reporters and readers alike. The first set of guidelines was released in 2000 and in 2006 the third set of guidelines, called *G3*, was published. Meanwhile, the number of stakeholders involved and corporations using the GRI guidelines have increased substantially all over the world.

¹⁵ Miljöbalken, 9 kapitlet, 6 § and 10 kap, 15 §

¹⁶ Lag om handel med utsläppsätter (2004:1199), 2 kapitlet, 1§

¹⁷ Regeringskansliet 2007

¹⁸ International Financial Reporting Standards, International Accounting Standard 37

¹⁹ Unless stated otherwise, the section is based on GRI Official Website 2008 (Accessed April 20th 2009)

²⁰ Schaltegger, Bennett & Burrit 2006

The most recent activity by GRI is the release of the *Amsterdam Declaration on Transparency and Reporting*. The declaration concludes that the various governments are not proactive enough in their efforts to increase corporations' reporting in *Environmental, Social and Governance performance* (ESG). GRI requests governments to take action in order to put pressure on both private and public bodies to engage in sustainability reporting, as well as to take the opportunity to integrate sustainability reporting with the emerging of the financial regulatory framework now being developed by the leaders of the G20-nations. GRI believes that the current financial crisis could have been moderated by a more transparent reporting and they now fear that the financial crisis will make people forget about the sustainability crisis threatening the global economy and welfare.

To meet the need for sustainability information that is useful for the financial markets, GRI has released the report *Reaching Investors- Communicating value through ESG disclosures*. This report examines how companies can report in a manner that meets the needs of investors. Since its inception, GRI has been working close with the investing community in order to create guidelines that meet the demands of the financial markets, to promote Sustainability Reports and to research how the reports are used by the investors. Right now GRI and related investors are introducing a system called *XBRL* that allows users to digitalize qualitative information in order to simplify collection and analysis of data.

Another current priority of GRI is to broaden the Sustainability Reporting concept in order to obtain transparency in the supply chain. To take on this issue, GRI has initiated the *Global Action Network for Transparency in the Supply Chain*. The initiative aims to educate the suppliers of large companies to create Sustainability Reports according to the GRI guidelines.

2.2.3.1. GRI Principles and Guidelines ²¹

As mentioned above, GRI publishes guidelines in three areas; Economic, Environmental and Social Performance; of which the environmental aspect being the focus of this thesis. The reporting principles accentuated by GRI in their recommendations are not very different from the ones that will be discussed below in section 2.6. *Qualitative Characteristics of Accounting*. The GRI recommendations guide organizations to define the content of the report by accentuating principles like materiality and completeness. They also require the companies to take stakeholders into account and to put the reported information into a sustainability context. The principles will help organizations to limit themselves to information that is relevant and essential enough to be of interest for stakeholders. To ensure the quality of the reported information, GRI discusses the importance of accuracy, timeliness, clarity and reliability. Readers of the Sustainability Reports must be able to trust the content. Consequently, it is of great importance that the information is balanced and can be subject for scrutiny.

The recommendations cover three areas; *Profile, Management Approach and Performance indicators*; two of which are intertwined with economic, environmental and social performance. The Profile area presents a general view of the report and discusses the organizational context in order to understand performance. This, among other things, includes strategy, key external impacts and governance. The Management Approach area presents how the company addresses the specific issues and adds a more detailed context for each area. The performance indicators guide the organization in the matter of measurement.

²¹ GRI G3 Guidelines 2006

Concerning reporting on environmental matters, guidance is provided in measuring the company's effect on the environment by setting indicators for consumption of various resources (e.g. raw material, water and energy) and discharge of different pollutions (e.g. green house emissions, chemicals and waste). There are also indicators concerning product and production development that mitigate environmental impact, transports, legal compliance and monetary expenditures for environmental investments. In addition, at the very end of the guidelines, recommendations are given on the distribution of the reports, e.g. frequency and feasibility, as well as ways to assure the reports' credibility.

2.2.3.2. Critique concerning GRI guidelines ²²

Although the need for internationally standardized guidelines in the issue of Sustainability Reporting is apparent, some critical remarks have been aired. Most of the remarks concern the difficulty that appears without a normative use of terms and measurement. It is expressed that five problems about the GRI guidelines need further scrutiny. Firstly, there exists confusion concerning the concept of *performance*. In the context of ESR it could be argued that the organizations often concentrate on the environmental impact of their operations rather than the activities in which they engage to mitigate environmental destruction. By doing this, the organizations loose sight of the causes of the impacts and thereby they complicate attempts to improve the processes causing impact on the environment. Secondly, it is argued that the *distinctions* between economic, environmental and social performance sometimes are blurred. Thirdly, it is stated that the performance indicators of each area have different *perspectives*. The information is heterogeneous, which can be emphasized when listing the different units of measurements used when reporting environmental performance; tons, kilograms, volumes, joules etc. This complicates comparability between companies considerably. Fourthly, GRI give no guide in *evaluating* the importance of the indicators. This means that there exists much room for managers' own assessments, which could harm the credibility of the reports. Lastly, it is implied that the term *impact* must be clarified as the consequences of corporations' choices and operations. It is important that the reported indicators can be derived from the company's own actions and not from random processes that are impossible to control. In conclusion, the challenges facing GRI mostly consists of further conceptualizing Sustainability Reporting and integrating this type of accounting with the financial reports.

2.2.4. Certifications

2.2.4.1. ISO ²³

ISO is an acronym for *International Organisation for Standardization* and is a global non-governmental organization that develops and publishes international standards. These standards enable solutions that meet the requirements of the civil society as well as the business society.

On matters concerning the environment ISO publish several different guidelines standardizing different aspects of business processes. However, when it comes to developing

²² Brenkert 2004

²³ Entire section based on ISO's Official Website (Accessed May 23rd 2009)

environmental management systems there are two standards providing general requirement and guide in developing such systems, namely *ISO 14001* and *ISO 14004*.

ISO 14001 provides a framework for environmental management systems. The standard consists of a number of general requirements that is said to be applicable on any type of industry. To be ISO 14001 certified, the company also has to commit to continual improvement of their environmental management and to apply environmental legislation. While ISO 14001 specifies requirements, ISO 14004 can be consulted when developing and implementing environmental management systems. By applying these ISO standards, the company can provide both internal and external assurance of being environmentally responsible.

*2.2.4.2. EMAS*²⁴

EMAS is an abbreviation of *Eco Management and Audit Scheme* and is a part of the European Union's efforts toward creating a sustainable development. The program is based on the ISO 14001 standard and lists requirements as well as guidelines for management, compliance and auditing for all material environmental matters that are affected by a company. With EMAS, the European Union aims to stimulate corporations and organizations to systematically develop environmental management systems that exceed the legislated requirements.

*2.3. Sustainability Reporting in Sweden*²⁵

The *European Sustainability Reporting Association* (ESRA) is an organization that aims to improve Sustainability Reporting by sharing trends and best practices among European countries. Each year the member nations contribute by respectively constructing a report over the development of Sustainability Reporting and best practicing company. Those reports can later be used for benchmarking and exploration of practices on important markets.

From the latest report turned in by the *Swedish Institute for Accountancy*, FAR SRS, it can be concluded that Sweden is one of the lagging countries when it comes to Sustainability Reporting. However, the number of corporations accounting for sustainability aspects is growing and more and more reports are constructed according to the GRI guidelines. It is mainly the larger companies and industries with a long history of reporting that engage in Sustainability Reporting. The report to ESRA also found that external auditing of the Swedish Sustainability Reports was rare.

In 2008, the GRI guidelines were translated into Swedish, which magnified the interest in using the recommendations. It is believed that the G3 guidelines will have a great impression on the future Sustainability Reports in Sweden.

Finally, the Swedish report identified some achievements and challenges for Swedish Sustainability Reporting. The achievements are the few front runners that represent "best practice" in Sweden and the increased pressure from the Swedish government to engage in Sustainability Reporting. The Swedish government is the first in the world to require that

²⁴ Entire section based on EMAS Swedish website (Accessed May 23rd 2009)

²⁵ Entire section based on ESRA Official Website (Accessed April 20th 2009)

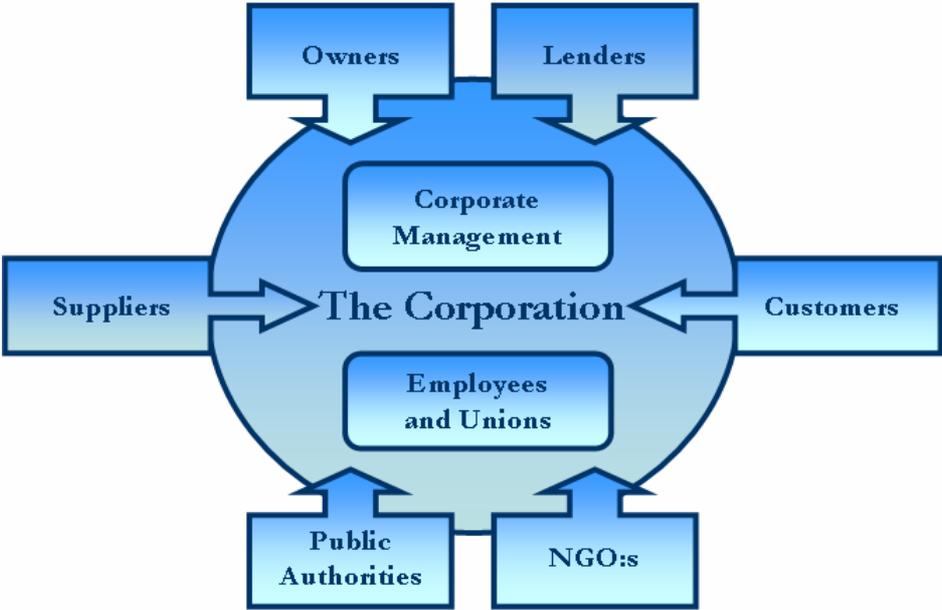
state-owned companies produce Sustainability Reports with independent assurance according to the GRI guidelines.

The challenges however, are more numerous than the achievements. Basically, the challenges regard improvement of the quality of the information in the Swedish Sustainability Reports, to further promote and use the GRI guidelines and to increase the interest in Sustainability Reporting to match other European countries.

2.4. Stakeholder Theory

The Stakeholder Theory is a widely accepted explanatory exposé of a company's different interested parties. It lays down that a corporation is dependent on its surrounding world and that many individuals of various relations to the enterprise are mutually dependent. The different groups of individuals that have an extra strong mutual dependence with the company are called *stakeholders* and these are illustrated in *Figure 2.1.* below. The Stakeholder Theory brings up various aspects of the different stakeholders' wants and needs. These stakeholders are *Owners, Public Authorities, Non-Governmental Organizations (NGO:s), Lenders, Suppliers, Customers, Corporate Management and Employees.*^{26 27}

*Figure 2.1. – Stakeholders*²⁸



The relationships between the company and its stakeholders all entail information asymmetry, which is why a pressure arises for the company to account for information relevant to different stakeholders. This section contains a presentation of what the stakeholders most relevant to this bachelor's thesis might look for in the different reports of the company. The Owners' contribution to the corporation is capital and in return they receive dividends and increases in share value. In the company's reporting, the owner/investor therefore looks for

²⁶ Thomasson 2005

²⁷ Ax, Johansson & Kullvén 2005

²⁸ *Figure 2.1.* is based on Thomasson 2005 and Ax, Johansson & Kullvén 2005

indications that the company is, and will continue to be, profitable. The Public Authorities provide the corporation with infrastructure, education and service, while demanding taxes, various fees, job opportunities and that the company abides with the laws of the country and community. The NGO:s provide the corporation with acceptance and legitimacy if the company acts in the way they demand, i.e. to act socially responsible and/or in an environmentally sustainable way. To portray the image of conductive responsible operations and activities, the company can engage in Sustainability Reporting. The Customers spend their money buying goods and/or services from the company and expect merchandise and/or services of high quality in return. Some customers are also more inclined to buy goods and services from companies which they identify having high moral standards implemented in their operations.^{29 30 31}

*2.5. The Theory of Legitimacy*³²

The question why companies make certain efforts & contributions to society and why they report various aspects of their efforts & contributions is a difficult one to answer and it is furthermore much debated. Put together with the Stakeholder Theory, *the Theory of Legitimacy* attempts to explain the corporations' societal efforts. It does so stating that a company needs to assess the different demands on, and potential reactions to, its various performances in order to ensure that the most valuable stakeholders will want to continue to contribute to the company.

Ljungdahl divides the corporation's stakeholders into two groups, Primary and Secondary Stakeholders. In summary, the *Primary Stakeholders* are defined as the majority of the stakeholders presented in *Figure 2.1.* above, whose mutual dependence with the company usually is based on transactions between the two parties. The Primary Stakeholders are consequently necessary for the survival of the corporation. The *Secondary Stakeholders* can be called "influencers" and are defined as people or groups that are not engaged in transactions with the company. This means that they are not crucial for the corporation's survival, but solely influence or affect the company or are influenced or affected by it.

This division of stakeholders is typical for an "instrumental" view on the corporation's various interested parties considering the fact that it stipulates that the company prioritize the demands of the Primary Stakeholders. It does this without considering the level of fairness in these demands, since the Primary Stakeholders are crucial for the company's survival. However, since the "influencers" can affect the Primary Stakeholders will to contribute with resources to the company, for some companies it becomes very important to actively work with the Secondary Stakeholders to maintain legitimacy.

*2.6. The Qualitative Characteristics of Accounting*³³

This thesis studies ESR in the context of annual reporting. It is widely accepted that annual reporting has one overall objective, which is to supply stakeholders with information about

²⁹ Thomasson 2005

³⁰ Ax, Johansson & Kullvén 2005

³¹ Munro, Rolland & Mouritsen, Jan. (eds.). 1996

³² Entire section based on Ljungdahl 1999

³³ Entire section based on Smith 2006

the company. Different stakeholders demand different kinds of information, as explained by the stakeholder theory. However, irrespective of which stakeholder is using the report, the information must possess some qualities in order to make it useful.

The primary quality is that the information should be *relevant*. The reader must be able to use the information as a basis for decisions. This means that the information should be designed in a way that allows the reader to use it as a basis for predictions about the future and later on to be able to use it to control the correctness of these predictions. To be relevant for any reader, the information also needs to be understandable and current. If one cannot understand the information, or if the information is too old, one cannot use the information as a basis for decisions.

Another qualitative characteristic that is required by the reported information is *reliability*. This requirement can be divided into two aspects. First of all, the given information should create a correct image of the company, that is to say the information must be valid. Validity means that the company report in a manner that takes all material occurrences into account and provides a representation of the company that agrees with reality. Second of all, it must be possible to verify the truthfulness of the information. Verification can be achieved either by documents like receipts or by assessments from third parties.

A third quality is *comparability*. Comparability states that similar occurrences should be accounted for in similar manners or that the reader is informed of which principles are applied in the accounting process. There are two aspects of this characteristic that are quite different. The first aspect is that one should be able to compare different companies in order to make well-founded decisions. The other aspect is that one should be able to make comparisons over time in order to make predictions and assess already made decisions.

Finally, the producer of the report needs to weigh the *benefits* of disclosing information against the *costs* of producing it. However, to apply this restriction on real accounting activities is complicated. It is often nearly impossible to measure the benefits from producing extra information. Another difficulty is that the costs and the benefits may be unevenly distributed amongst the company's different stakeholder.

2.7. Accountability and Convincing Means

When engaging in ESR, the companies, as explained above, intend to disclose information to their stakeholders in order to create a positive image of themselves. For this information to be useful, the reader must be able to trust that it represents the reality and that it is not without substance. In traditional financial reporting there are laws and standards that need to be followed, and compliance is verified by auditors. This ensures the reliability of the provided information. However, in voluntary disclosure, and thereby in ESR, there is virtually no legislation to provide reliability to the information. The companies thereby need to use other means in order to convince the reader of the environmental sustainability reports. In classic rhetoric, the concepts of ethos, pathos and logos are often described as the cornerstones in convincing a critical audience. It is unusual that merely one technique is used, a combination of using two or all three is more probable in most cases. However, one concept is often dominating.

2.7.1. Ethos

When using *Ethos* as a mean to convince the reader or listener, the most important thing is to be trustworthy or to successfully portray an image of being trustworthy. To achieve this, the writer or speaker can refer to his/her or someone else's knowledge or authority on the subject. He or she can also try to create a sense of familiarity or solidarity. In commercials, it is not unusual for companies to claim to have character or to express their values, such as being environmentally responsible. Another way to apply ethos is to amuse the audience trying to make the text pleasant to read or the speech enjoyable to listen to. One application of this could be to make the text or the speaker visually appealing.³⁴

2.7.2. Pathos

Pathos is an argumentative technique were the writer or speaker try to appeal to the audience's emotions. Depending on the purpose of the text or speech the arguer tries to raise excitement, indignation, hope, despair et cetera. This can be done effectively through the showing of own emotions such as tears or laughter or by exhibiting pictures and examples that are relatable. In advertising and politics it is common to use fear or hope in order to send a convincing message.³⁵

2.7.3. Logos

Logos appeals to the message receiver's logic and reason. Here the writer or speaker uses facts and impartial reasoning in order to state a convincing argument. Facts can be statistics, numbers or examples. Logic reasoning activates the reader or listener and can either help or manipulate this person to make sound conclusions. As the receiver of the message it is important to be attentive to the relevance of the provided facts. Otherwise it is easy to draw the wrong conclusions.³⁶

2.8. Stakeholder requests³⁷

If companies produce different kinds of information in order to enhance transparency towards their stakeholders, it is necessary to find out what stakeholders expect by such reports. Studies have been conducted to do just that. As it turns out, the expectations on companies Sustainability Reporting are quite similar across different stakeholder groups despite the groups' different ways of using the information. Overall, both among readers and non readers, there is an opinion that the Sustainability Reporting is relevant and that the provided information can serve as a basis for decisions. Those who choose not to use the reports often feel that they are too extensive and that much of the information is without substance. However, what nonreaders express lacking most when it comes to Sustainability Reporting is knowledge on the value and usability of the information. One group of stakeholders that have been pointed out to rarely use ESR is analysts on the financial markets. They express the

³⁴ Karlberg & Mral 2001

³⁵ Ibid.

³⁶ Ibid.

³⁷ Unless stated otherwise, the section is based on Bartles, Iansen-Rogers & Kuszevski 2008

opinion that the reports often lack quantifiable data, do not contribute to added value to the corporations, and that they do not have the knowledge necessary to use the information.³⁸

However, there naturally exist people who take the reports into consideration. The Sustainability Report readers tend to study reports from multiple companies and industries. The most prevalent purposes for using them are to improve comprehension of the subject, to benchmark and apply best practice or to assess the companies' performance in the sustainability area. Many also use Sustainability Reports when making different types of decisions, e.g. when buying the companies' products or services, when buying or selling company shares, when looking for a dialogue with the corporation and when searching employment or business to business relations. This means that Sustainability Reporting can attract a wide range of stakeholders.

There are several aspects that stakeholders look for in companies' Sustainability Reports. One of the most important aspects is that the companies show genuine commitment to sustainable development. To achieve this in the reports, a link between the companies' overall strategy and sustainability strategy is of great importance. Something that on the other hand do not indicate corporation commitment to sustainability issues are lengthy reports.

Stakeholders also want to see evidence of stakeholder involvement both concerning management as well as the reporting of sustainability matters. The account for stakeholder involvement in Sustainability Reporting should describe the dialogue and its results. Furthermore, stakeholders wish to see the companies reporting their environmental impact and the actions made to influence this impact. The stakeholders want to know exactly how, where and how much the companies affect the environment. In addition, they wish the companies to concretely describe their management of sustainability issues and how these procedures affect a sustainable development. Beside the issue of management, stakeholders are interested in how the companies incorporate research and development as well as supply chain management into their sustainability efforts.

Most stakeholders welcome standards on Sustainability Reporting. It is expressed that standards can improve the quality and comparability of the reports. The GRI guidelines has been pointed out as the guidelines of greatest importance while national guidelines have received little interest, probably since most companies engaging in Sustainability Reporting are multinational.

To be able to trust sustainability reporting, most stakeholders agree that assurance is the way to go. However, there is dissonance regarding how this assurance should be provided but most stakeholders prefer external professional auditors. Another way to acquire assurance in the reports is to inform on different attained environmental certifications. Furthermore, there exist suspicions that the reporting is biased. Many doubt that the image provided by Sustainability Reporting is balanced between positive and negative facts. It is believed that companies avoid reporting failures, dilemmas or environmental risks. To improve the reports' reliability stakeholders request companies to include negative aspects.

³⁸ Jansson & Johansson 2005

3. Methodology

This chapter describes and motivates chosen investigation methods as well as discusses critique on references. To conclude, a discussion is conducted in order to assess the reliability and validity of the thesis.

3.1. Selected Topic

It is widely accepted that the industrialization has been pointed out as one of the most liable causes to the environmental problems of today and that this has caused the upsurge of terms like CSR, Sustainable Development and simultaneously, Sustainability Reporting. In our opinion, an increasing number of companies disclose information on their effects on the environment and what they are doing to decrease their environmental impact in order to ensure a sustainable environment.

We found the subject of Sustainability Reporting very interesting and wanted to explore it further. Our original idea was either to investigate the corporate purpose behind producing Sustainability Reports, or to explore the usage of these reports. When searching for previous studies and research, we realized that these questions had already been asked by other students at bachelor or master level. Therefore, we decided to investigate the development of Environmental Sustainability Reporting (ESR) in Sweden over time; an aspect we felt had not been thoroughly researched before.

Studying different audit firms' websites, we also found out that this angle of research is something that they request. In addition to auditors, we believe that this study is of interest for company stakeholders and the studied corporations, since the thesis is largely based on stakeholder requests and how these are met by the studied companies in their reports.

3.2. Analytical approach

The main purpose of the essay is to describe the development of ESR in Sweden. In order to do this, the conceptual framework and the empirical findings of the study were combined in the analysis. The first three problems were analyzed and discussed using deductive reasoning meaning that we observed the data and made conclusions according to certain premises and theories. The first premise was that the large companies lead the development of ESR in their respective industries. This premise was stated by ESRA's yearly report on practices of Sustainability Reporting in Sweden and helped us in the selection of companies to study and to draw conclusions about the rest of the industry. A second premise concerned the stakeholders and their requests on Sustainability Reporting. This gave us a point of reference to compare to when making conclusions on the second problem of the thesis. Finally, we conducted the study under the opinion that the theories presented in the conceptual framework are applicable.

The final problem of the thesis was analyzed and discussed using inductive reasoning. From the empirical findings on how the development has been historically for the studied companies, we stated expectations about the future when it was possible.

3.3. Chosen Investigation Method

Since the purpose of this essay is to map out the development of ESR in Sweden, it seemed appropriate to study different reports from a selection of Swedish corporations and evaluate these on a number of indicators. The selection of studied corporations is presented in section *3.4. Collection of Data* below.

We investigated 15 indicators, which were selected inspired by the GRI guidelines and the various stakeholder requests on Sustainability Reporting mentioned in the Conceptual Framework. The objective of the chosen indicators was to investigate the *Format of the Reports*, how the companies have reported on their approach in *Environmental Management*, how the companies have reported on their *Environmental Impact*, if they have accounted for any *Third Party Involvement* in their Sustainability Reporting and whether the companies have conducted *Balanced or Unbalanced Reporting*. The chosen indicators are presented below in section *3.3.1. Indicators*.

Many of the chosen indicators were evaluated qualitatively according to a grading scale reaching from 0 to 3. However, some of the indicators were plain two-type questions and therefore had a grading scale of 0 to 1. Other indicators were inquiring for quantities or frequencies and therefore had no upper limit set before finding the answers. The grading scales used to evaluate the different indicators are presented with further definition in section *3.2.2. Grading Scale* below.

3.3.1. Indicators

In order to obtain a broad picture on the development of ESR in Sweden, we wanted to capture different spectra of the reporting when choosing indicators. The indicators would therefore vary from simple quantitative questions regarding the format and extent of the reports to more complicated matters regarding the quality of different kinds of reported information.

The indicators have been quite broadly defined in order to avoid evaluating the companies' efforts and performances instead of evaluating the companies' reporting choices regarding their environmental efforts and performances. With this broad definition of the chosen indicators, we felt that they could be applied on any type of company irrespective of sector, management or size. Examples of given grades for each indicator, to account for our train of thought during the evaluation, can be found in *Appendix 3*.

3.3.1.1. Format of the Reports

We chose five indicators concerning the format of the reports. These indicators were meant to investigate if there had been a development in the extent of both mentioning and reporting on environmental sustainability, as well as to detect how the companies have chosen to distribute their reports. The indicators chosen are as follows:

1.1. ESR Separate and/or Integrated in the Annual Report

The intention of this indicator is to investigate if the corporations have chosen to report on their environmental performances separately through a Sustainability Report or to integrate their information on environmental efforts in their Annual Reports. The

indicator also covers the dimension of a company which has chosen to report its environmental performances both in the Annual Report as well as with a separate Sustainability Report.

1.2.a. Number of Pages of the Environmental Sustainability Chapter in the Annual Report

1.2.b. Number of Pages of the Environmental Sustainability Chapter in the Sustainability Report

These indicators aim to capture the extent of the companies' reporting on environmental issues. The indicators are separated in order to distinguish possible differences in development between the separate Sustainability Reports and the Annual Reports. This will also allow us to conclude if the companies without a separate report have a more extensive environmental sustainability chapter in their annual reports or not.

1.3. Frequency in Number of Chapters in the Annual Report Containing Information on Environmental Sustainability

Examining the number of contexts in which environmental issues are mentioned strives to indicate if environmental issues have become more or less relevant in other areas of the companies' respective businesses. When measuring this indicator, we count every chapter that, at least once, mentions the environment, including the chapter on environmental sustainability if it exists. In deciding what makes a chapter in the different Annual Reports, each decision was based on the disposition of the respective report's table of contents.

1.4. Distribution Format

The objective of this indicator is to answer how the companies chose to distribute their reports, i.e. in hard copy printed versions or electronically, as e.g. PDF documents.

3.3.1.2. Information on Environmental Management

In order to see how the companies have reported through the years on their management of environmental issues, we chose four indicators which we considered applicable on all investigated industries. All companies, irrespective of industry, are probable to have some activity to report on in each of these indicators. Each indicator was then evaluated on the quality of reported information, inspired by the concept of logos. The more concrete, logical and controllable the reported information was, the higher the grade the report received.

2.1. Information on Environmental Sustainability Strategy

This indicator intends to evaluate the quality of the information on the companies' sustainability strategies, inspired by the opinion that a company committed to environmental sustainability should have a long term strategy to take on the issues. However, we realized all companies might not share our terminology and use the concept 'Sustainability Strategy' verbatim, which is why some complementing key words were necessary in order to make sure not to miss any strategies due to too narrow restrictions. Other words acceptable in this context were for example; 'vision', 'goals', 'targets', 'policy', et cetera. This indicator was awarded the

highest grade only if the environmental sustainability strategy was linked to the company's overall strategy.

2.2. Information on Internal Control

Although a strategy provides a long term direction for the company's environmental efforts, it is often difficult to control the activities within the company with a strategy alone. To make sure that the employees know what is expected of them and how they are going to act in accordance with the company's objectives, a company needs some kind of internal control.³⁹ Consequently, we supplemented an indicator with the objective of evaluating the reported information concerning internal control and the tools used to apply this control, such as education, responsibility distribution, IT systems, et cetera.

2.3. Information on Supply Chain Management

The two indicators above evaluate how the corporations report on their internal management to take on environmental issues. However, a company's environmental impact is not restricted to the actions inside the company. It is also of great importance to know how a corporation for example sources and transports their input material. This indicator is intended to show how the companies have reported on their sourcing, suppliers and logistics in an environmental context.

2.4. Information on Innovation

The final aspect that aims to evaluate the area of environmental management is innovation in the context of environmental efforts. Innovation in this context can mean improving production processes and/or product development. These activities can improve financial margins, make resource usage more efficient and/or minimize the environmental impact. This indicator evaluates how the companies have reported on such activities.

3.3.1.3. Environmental Impact

The environmental management naturally has a purpose to lessen the environmental impact of the companies. The internal efforts can provide routines, goals, measurements and technology to improve efficiency, which will result in fewer emissions, less waste and better resource usage. To examine how the companies have reported on these issues, one indicator was developed and evaluated according to the same grading scale as the environmental management.

3. Information on Environmental Impact

The most important environmental aspect to report on is perhaps how and to what degree the companies in fact leave environmental footprints. Environmental impact is one of the reporting areas in the concept of triple bottom line reporting, together with economic and social performance. The objective of this indicator is to evaluate how the companies report on their resource usage, green house gas emissions, waste et cetera.

³⁹ Merchant & Van der Stede 2007

3.3.1.4. Information on Third Party Involvement

As mentioned in the Conceptual Framework, third party involvement is an aspect that often is accentuated when discussing environmental reporting. To achieve credibility for voluntarily disclosed information, it is sometimes necessary to account for third party involvement. This is also a way to achieve ethos in the reports. To evaluate how the companies have reported on this matter, we selected three indicators. The first two indicates if the companies have accounted for any third party assurance. The third indicator evaluates to what degree the corporations have reported on stakeholder dialogue in the development of their reports.

4.1. Information on Scrutiny by External Auditor

In financial reporting, it is necessary by law to have the information audited by an authorized auditor. In environmental sustainability reporting this is not the case, but having the information scrutinized by a third party certainly provides extra credibility for the report. This indicator is intended to explore if the companies have chosen to have their reports scrutinized by external auditors or not.

4.2. Information on Certification

Another way to acquire credibility for the corporations is to get assurance for their environmental management systems. Certifications like ISO 14001 and EMAS provide guidance in developing environmental management systems and if a company meets certain standards, it will be certified. This indicator aims to examine if the companies have reported such certifications or not.

4.3. Information on Stakeholder Dialogue

Since ESR is a rather new phenomenon, reporting routines have not yet been laid down. Furthermore, depending on which stakeholders the companies have, the demanded information might vary. In order to improve their environmental reporting, it is necessary for the corporations to listen to their stakeholders' point of views. As mentioned in the Conceptual Framework, stakeholders request such a dialogue and they also want the companies to account for it. The objective of this indicator is to evaluate to what extent the companies have accounted for a stakeholder dialogue concerning the development of their ESR.

3.3.1.5. Balanced or Unbalanced Reporting

5.1. Information on Negative Aspects

As mentioned in the Conceptual Framework, a concern that stakeholders have voiced in the context of ESR and voluntary disclosure is whether the reported information is balanced or not. Many stakeholders suspect the companies to avoid reporting negative aspects, such as failures or possible risks beyond what is required to report by law. This indicator is intended to show if such aspects are accounted for or not. Regarding reported information on a company's environmental impact, it was not considered as a negative aspect since we wanted to avoid double measurement of this aspect.

5.2. Mentioned Solution to Negative Aspect(s)

If a negative aspect has been reported, it is interesting to examine whether it is followed by a positive aspect in the form of a solution or comments that belittles the problem. If the reported negative aspects always are followed by positive statements, it can be discussed whether the information really is balanced. This indicator is therefore meant to inquire if the corporations' reported negative aspects have been followed by solutions or other positive statements.

3.3.2. Grading scale

In order to achieve the purpose of the thesis in mapping the development of ESR in Sweden between 1998, 2003 and 2008, we decided that a quantitative approach would be an appropriate investigation method. The quantitative approach allowed us to investigate more companies and more indicators than would be possible if we had chosen a qualitative approach. This means that the investigation will provide breadth but it will not be able to achieve the same depth as a qualitative method.

However, to be able to analyze the usefulness of the reports, some degree of depth was necessary. In consequence, we chose to evaluate some indicators in a more qualitative manner. These qualitative indicators are the indicators we believe require a more elaborate answer than 'Yes' or 'No'. The qualitative indicators are; 2.1., 2.2., 2.3., 2.4., 3. and 4.3. The grading scale stretches from 0 to 3 and was developed around the concept of logos. This meant that the more concrete and logical the reported information was, the higher the grade was given (for examples, see [Appendix 3](#)). The grades did not take into account the quantity of information that was provided in the reports but merely gave indication on the quality of the reported information. Consequently, a company that has reported on a subject in a manner that is concrete and controllable, and has managed to achieve this in one sentence, could receive a higher grade than a company that has reported an entire page on the same subject but in a manner that is difficult to verify.

3.3.2.1. Grade 0

When a company has failed to mention the subject of a qualitative indicator all together, it has received a grade 0. The subject has to have been mentioned in the context of environmental issues for the company to be considered receiving a higher grade. For example, many companies accounted for their supply chain management, but failed to do so in an environmental context. This could not be considered to be a part of the company's ESR since no information was given on which choices or assessments the company made from an environmental view point.

3.3.2.2. Grade 1

Grade 1 has been given if the corporation has mentioned the subject in the correct context but not concretely described. For example, a company informing that environmental issues are important and that the company has an environmental policy, would receive a grade 1. In this statement, the policy is mentioned but it is not possible for the reader to know what this policy looks like or how it is used in the company's activities. Since we consider such statements as a way to entice positive emotions from the reader, grade 1 is based on the concept of pathos.

3.3.2.3. Grade 2

Grade two has been given when companies have addressed the subject of a qualitative indicator with words and descriptions, without presenting verifiable information. An example for a typical grade 2 could be a company which has reported on its environmental internal control with the information of having conducted employee education in environmental sustainability, having an environmental committee and internal auditors. This company has described which tools are used internally in the organization for environmental management control and has therefore given information at another level than grade 1. However, the information is still open for interpretation and it is not possible to control the truthfulness of the statement, since there is no fixed point of reference to compare with. We consider this a way to appeal to the reader's emotions and opinions on what a good internal control should include, but with the methods of logic reasoning. Therefore, grade two is based on both the notions of pathos and logos.

3.3.2.4. Grade 3

Grade 3 is the top grade and to attain it, the information provided needs to be descriptive and verifiable. This means that the information needs to be confirmed by numbers, graphs or examples from reality. For example, a company reporting on its environmental impact and accounting for the volumes of green house gas emissions or waste would have received a grade 3. The information must be verifiable and a point of reference must be provided, which means that if the information were to be scrutinized, the truthfulness could be assessed. When grading indicator 4.3., we awarded all companies that reported in accordance with GRI the highest grade, since various organized stakeholders are involved in the making of the GRI guidelines for Sustainability Reporting. By following these guidelines, the companies account for how the stakeholders' opinions have assisted in developing the reports. We consider information based on numbers and verifiable facts to appeal to the reader's logic and reason, which is why grade three could be said to be based on the concept of logos.

3.3.2.5. Evaluating Quantitative Indicators

Not all indicators are of a qualitative nature. Some of the indicators consist of two- or three-type questions. These indicators are characterized by the lack of achievable depth in their answers. For example, indicator 1.4. can only give two answers; hard copy or PDF. Other indicators are purely quantitative, concerning the answers are sheer numbers representing nothing else than the quantity itself. For example, indicator 1.3. measures the number of chapters containing information on environmental sustainability.

Indicators 5.1. and 5.2. are considered as two-type questions even though they could be evaluated in a more qualitative manner. However, these indicators do not aim to evaluate the quality of the information on negative aspects or solutions, but merely to point out if there are any negative aspects and solutions accounted for. Consequently, using the grading scale from 0-3 described above would be unnecessary.

3.3.3. Material Information Not Captured by Indicators

The indicators represent the areas necessary to study in order to map the development of ESR in Sweden over the past eleven years. However, the indicators cannot always be applied on

an important piece of information. Therefore, we have been observant throughout the study in order to notice when such situations have arisen. For example, a company might not have had an environmental strategy to account for, but reported that it was being developed at the time of writing the ESR. In these kinds of situations, the appropriate grade was given and the information not captured by the indicator's grade will be accounted for in [Appendix 3](#).

3.4. Collection of Data

3.4.1. Secondary Data

Our secondary data was compounded of academic articles, student theses, legislation, reports and books on the subject. Furthermore, we have studied text books on theories explaining accounting and accountability, e.g. the Stakeholder Theory and the Theory of Legitimacy, as well as accounting principles and rhetoric concepts. We have also studied relevant web sites to the subject, for example the official web sites of GRI, ESRA, EMAS and ISO. These sources of information have been divided into Work Cited and Bibliography. The Work Cited consists of the thesis's references. The Bibliography is a list of additional literature that has helped us obtaining an apprehension of the subject.

The main media used in collection of our secondary sources of information were the Internet. The academic articles were found through searching the data base *Business Source Premier* for relevant information. The internet was also used in finding the different reports used as references in the thesis. The website of Gothenburg University Library and its data bases for theses (*GUPEA*) and literature (*GUNDA*) were used when collecting student theses and some of the books on the subject ESR. We have also been aided by our mentor in finding relevant literature.

3.4.2. Primary Data

The primary sources of information have been the results after evaluating the nine studied corporations' Annual Reports and Sustainability Reports of 1998, 2003 and 2008. These results were compounded in a scoreboard using the Excel spreadsheet application and are presented as raw data in [Appendix 2](#). The raw data was then further processed into graphs and tables in order to enable an understandable presentation of the findings. Some of these graphs and tables required the calculations of mean values in order to enhance understandability.

To collect the relevant reports, we contacted each company and asked them to send us the reports that existed. When it was not possible to acquire versions directly from the companies, or if they failed to distribute their sustainability reports, we downloaded the relevant reports from the respective company's website.

3.4.2.1. Choice of Studied Corporations

Regarding the choice of companies to study, the yearly reports to ESRA have shown that the largest corporations tend to lead the way for their respective industries when it comes to sustainability reporting. Thus, we chose the largest corporation from each industry presented on the Stockholm OMX exchange. In order to decide which company was largest, we chose to define the size by total share value as of December 31st 2008. [Appendix 1](#). describes how

we calculated which corporation was the largest in each industry. The result of our calculations, i.e. the chosen companies to study were: *Lundin Petroleum* (Energy), *Stora Enso* (Materials), *ABB Ltd.* (Industrials), *H&M* (Consumer Discretionary), *Swedish Match* (Consumer Staples), *AstraZeneca* (Health Care), *Nordea Bank* (Financials), *Ericsson* (Information Technology), and *TeliaSonera* (Telecommunication Services).

3.4.2.2. Choice of Studied Years

In the matter of how far back in history we wanted our study to start mapping the development, we chose the year 1998 since the *Global Reporting Initiative* (GRI) was founded that year. The timeframe to conduct this investigation was limited and to study each corporation's annual and sustainability report of each year from 1998 to 2008 would be very time-consuming which could damage the reliability of the thesis. On the other hand, if only studying the difference between 1998 and 2008, the study would be devoid of possible trend shifts, i.e. if there was a more rapid development in either half of the decade or not. The number of years to study thus became three and the reports chosen for observation consequently became those of 1998, 2003 and 2008. In our opinion, the chosen studied years would provide necessary detail in the empirical findings in order for us to be able to draw conclusions.

3.5. Critique on References and Methodology

3.5.1. Critique on References

We consider the references used in the thesis to be reliable and relevant. To ensure reliability we have on several occasions referred to multiple references. When only one reference is referred to, we have examined other literature in order to evaluate the validity of the used reference. All academic articles used in the thesis have been peer reviewed and collected from a trust worthy data base. Furthermore, the described theories are widely accepted and the references to these theories consist of text books used in education at university level. The organizations and corporations which websites and reports we have referred to are considered as trustworthy and knowledgeable in the subject Sustainability Reporting. Lastly, we feel that the studies and the student theses serving as references to the thesis have been conducted with a method that ensures reliability and validity. Concerning the study *Count me in*, conducted by *KPMG*, we consider this reference to be relevant even though the study is conducted among global stakeholders. The studied companies of the thesis are of such a size that it is probable that they have stakeholders from outside of Sweden.

We also consider our primary sources to be reliable. However, *Lundin Petroleum's* Annual Report from 2008 could not be acquired since it had not been completed at the time for our study. Consequently, the Annual Report of 2007 was used instead. In addition, the Sustainability Report of 2003 for *Ericsson* could not be accessed in spite of contact with the company and searches on the company's website. These two occurrences could hurt the validity of the thesis. However, we do not consider that the validity has been damaged to a material extent.

3.5.2. Critique on Methodology

We have throughout the study made efforts in order to ensure valid and reliable results. First and foremost, it is important to clarify that the thesis intended to study the way the various corporations have reported on environmental matters, which means that the only information evaluated is the one the companies have chosen to put in their Annual Reports and Sustainability Reports. Subsequently, the method does not aim to measure how well the companies actually have performed in an environmental context or how good their environmental efforts have been. In our opinion, our methods are suitable to fulfill this purpose which means that the validity of the thesis is high. However, the chosen corporations do not make a statistically assured selection, but considering the studies showing that the largest corporations lead their respective industries in ESR, we consider that validity is still ensured. To further ensure high validity, we have discussed the indicators and the grading scale with fellow students and our mentor. In addition, we have spent a great deal of time and efforts in order to design the indicators to best suit the purpose of the thesis. In the case of indicator 1.4. Hard copy or PDF, the validity can not be assured considering the lack of timeliness in evaluating this aspect.

Furthermore, we consider the thesis to be of high reliability. The qualitative indicators give some depth to the study, but they are still measured quantitatively in the respect of methodology. This makes them sensitive for subjective judgments. In order to obtain the best possible reliability we created the grading scale with as distinct criteria as we found feasible for each grade. We have both been involved in all qualitative assessments which provide additional reliability to the thesis. Given the guidance provided by the examples enclosed in [Appendix 3](#), we believe that we have assured a good reliability of the study. However, it is impossible to avoid interpretations in cases like this, which means that the reliability is not absolute regarding the chosen qualitative indicators.

In the case of the quantitative indicators, our opinion is that a high reliability is provided to the thesis. Those indicators have absolute answers which give little room for subjective assessments. However, there is always a risk that certain aspects are missed, especially considering the high amount of reports that have been studied. Considering this risk, we have both participated in reading and evaluating the reports in order to ensure reliability further.

4. Empirical Findings

This chapter starts with a brief company presentation, followed by an account of the indicator results of 1998, 2003, and 2008. The indicator results are clustered into the following sections: Report format, Environmental Management, Environmental Impact, Third Party Involvement and Balanced or Unbalanced Reporting.

4.1. Company preview

4.1.1. Lundin Petroleum ⁴⁰

Lundin Petroleum is the largest corporation of the Energy Sector on the Stockholm OMX exchange. The company was formed in May 2001 and its operations mainly consist of exploration and production of oil and gas. The vision of Lundin Petroleum is presented as follows:

Our Vision

As an international oil and gas exploration and production company operating globally, our aim is to explore for and produce oil & gas in the most economically efficient, socially responsible and environmentally acceptable way, for the benefit of shareholders, employees, and co-ventures.

Lundin Petroleum applies the same standards to all activities worldwide to satisfy both the commercial, ethical and local requirements. Lundin Petroleum strives to continuously improve the performance and to act in accordance with good oilfield practice and high standards of corporate citizenship.

4.1.2. Stora Enso ⁴¹

Stora Enso is the largest corporation of the Material Sector on the Stockholm OMX exchange. The company was formed in 1998 through the merger of the Finnish Company Enso Oyj and the Swedish Stora Kopparbergs Bergslags Aktiebolag (STORA). Stora Enso's main operations consist of producing paper, packaging and forest products for a global market. The company's vision is presented as follows:

Our vision

Today we as a company, people and planet face new challenges never before seen. The world needs a new approach to materials.

4.1.3. ABB Ltd ⁴²

ABB Ltd is the largest corporation of the Industrials Sector on the Stockholm OMX exchange. The company was formed in 1987 through the merger of ASEA AB and BBC Brown Boveri Ltd. The corporation's main operations consist of providing power and automation technologies to utility and industry customers. The vision of ABB Ltd is presented as follows:

⁴⁰ This section is based on information found on Lundin Petroleum Official Website (Accessed May 8th)

⁴¹ This section is based on information found on Stora Enso Official Website (Accessed May 5th)

⁴² This section is based on information found on ABB Official Website (Accessed May 8th)

ABB's vision

As one of the world's leading engineering companies, we help our customers to use electrical power efficiently, to increase industrial productivity and to lower environmental impact in a sustainable way. Power and productivity for a better world

4.1.4. H&M ⁴³

H&M is the largest corporation of the Consumer Discretionary Sector on the Stockholm OMX exchange. The company was founded in Sweden, Västerås in 1947. H&M has approximately 1700 boutiques all over the world selling clothes and cosmetics. The company does not have a pronounced vision but they do have a business concept that is presented as follows:

Our business concept

Our business concept is to give the customer unbeatable value by offering fashion and quality at the best price.

4.1.5. Swedish Match ⁴⁴

Swedish Match is the largest corporation of the Consumer Staples Sector on the Stockholm OMX exchange. In 1992, AB Svenska Tobaksmonopolet and Svenska Tändsticks AB were merged and included in the Procordia Group, which was renamed to Swedish Match in 1994 to capitalize on the internationally known company name. The corporation's main operations consist of producing and selling smokeless tobacco products, cigars, pipe tobacco and lights products. The vision of Swedish Match is presented as follows:

This is the basis for our vision and strategic direction:

- We should build on our strengths and position the Company as the smokefree leader, not only in Scandinavia, but on a global scale.
- We should develop our cigar business to the best in class; with focus on consumers and customers we should improve profitability.
- Our lights and pipe tobacco businesses should continue to focus on operational excellence and profitability.

4.1.6. AstraZeneca ⁴⁵

AstraZeneca is the largest corporation of the Health Care Sector on the Stockholm OMX exchange. The company was formed in 1999 through the merger of Astra AB of Sweden and Zeneca Group PLC of the UK. AstraZeneca develops and produces medicine that aims to improve the health and life quality of patient around the world. The company's vision is presented as follows:

Our vision is to be an innovation-driven, research-based pharmaceutical company focused on human health and capable of delivering a consistent flow of innovative and differentiated products to patients in markets around the world.

⁴³ This section is based in information found on H&M Official Website (Accessed May 5th)

⁴⁴ This section is based on information found on Swedish Match Official Website (Accessed May 5th)

⁴⁵ This section is based on information found on AstraZeneca Official Website (Accessed May 5th)

4.1.7. Nordea ⁴⁶

Nordea is the largest corporation of the Financials Sector on the Stockholm OMX exchange. The company was established in 2000 after a number of mergers and acquisitions. Nordea provides financial and banking services for a wide variety of customers. The company's vision is presented as follows:

Our vision

To be the leading Nordic bank, acknowledged for its people, creating superior value for customers and shareholders.

4.1.8. Ericsson ⁴⁷

Ericsson is the largest corporation of the Information Technology Sector on the Stockholm OMX exchange. In 1876, Lars Magnus Ericsson laid the foundation for Ericsson together with his former work colleague Carl Johan Andersson. Today, the corporation's main operations consist of providing telecommunications equipment and related services to mobile and fixed network operators. The vision of Ericsson is presented as follows:

OUR VISION

Our vision is to be the prime driver in an all-communicating world.

This means a world in which all people can use voice, data, images and video to share ideas and information whenever and wherever they want.

4.1.9. TeliaSonera ⁴⁸

TeliaSonera is the largest corporation of the Telecommunications Services Sector on the Stockholm OMX exchange. The company was formed in 2002 as a result of the merger between the Swedish Telia and the Finnish Sonera. TeliaSonera offers services for transferring and packaging of voice, images, data, information, transactions and entertainment. An extraction from the company's business concept constitutes that:

Business concept

[...] TeliaSonera aims at creating customer value through its superior customer service, infrastructure and knowledge of customer needs.

4.2. Report format

4.2.1. 1998

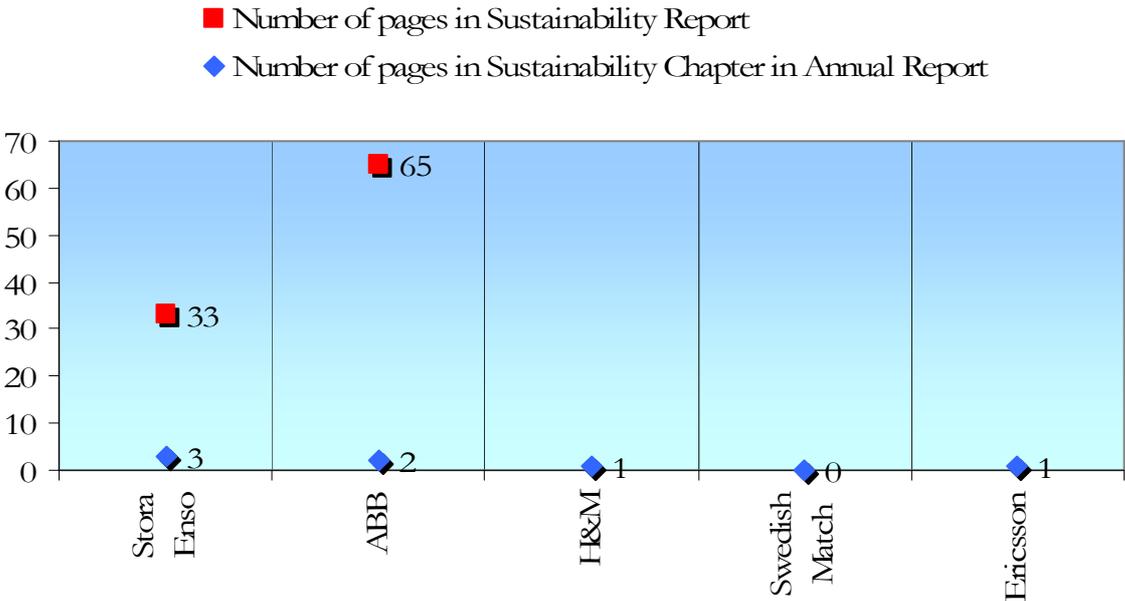
In 1998, four of the five studied Annual Reports included separate chapters with information on matters concerning environmental sustainability. As *Figure 4.1.* shows, the integrated information varies to up to three pages. Stora Enso and ABB were the only companies that produced separate Sustainability Reports. These separate reports were distributed electronically for this study and comprised 33 respectively 65 pages.

⁴⁶ This section is based on information found on Nordea Bank Official Website (Accessed May 5th)

⁴⁷ This section is based on information found on Ericsson Official Website (Accessed May 8th)

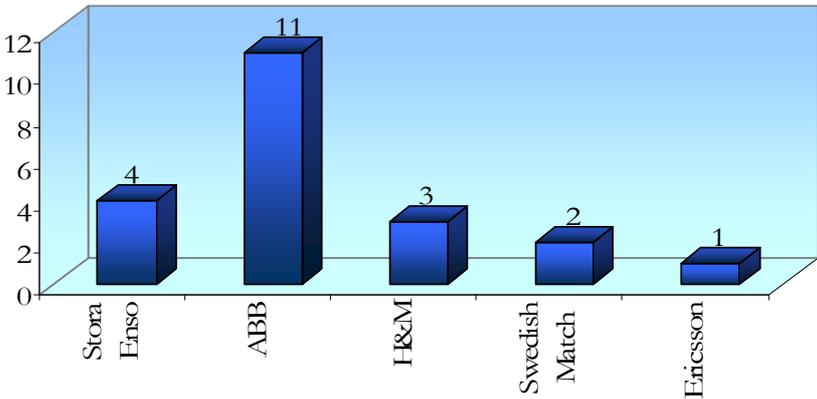
⁴⁸ This section is based on information found on TeliaSonera Official Website (Accessed May 5th)

Figure 4.1. - Environmental Sustainability Chapter in Annual Report vs. Sustainability Report



Albeit not all companies’ Annual Reports included an Environmental Sustainability Chapter, all of them reported on environmental sustainability to some extent in various parts of their reports. As Figure 4.2. shows, ABB includes matters concerning the environment in eleven different chapters and is thereby the only company that mentions the environment in more than four contexts.

Figure 4.2. - Frequency in Number of Chapters in the Annual Report Containing Information on Environmental Sustainability

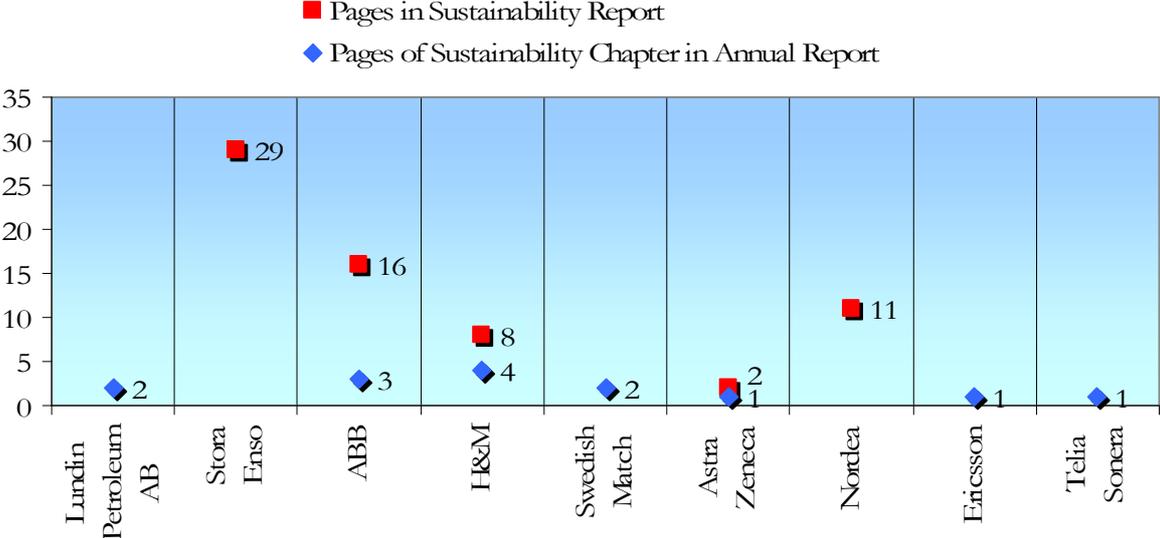


4.2.2. 2003

Figure 4.3. demonstrates the disposition and extent of the companies’ ESR in 2003. Seven of the nine companies had separate Environmental Sustainability Chapters in their Annual Reports. These chapters comprised up to four pages. The corporations that did not include such a chapter were Stora Enso and Nordea. Stora Enso, ABB, H&M, AstraZeneca and Nordea all published separate Sustainability Reports. It should also be mentioned that Ericsson claims to have published a Sustainability Report in 2003. However, the company

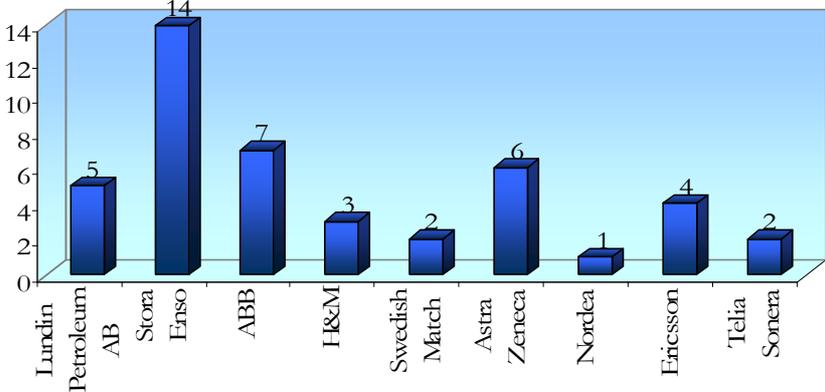
failed to locate both the printed version as well as the PDF version when requested to do so. The reports from Stora Enso, ABB and AstraZeneca were distributed as printed versions for this study, the other two were sent electronically as PDF documents. As showed in *Figure 4.3.*, these reports' Environmental Sustainability Chapter varied in quantity of pages. Stora Enso had the most extensive chapter with 29 pages and AstraZeneca had the least extensive chapter with two pages.

Figure 4.3. - Environmental Sustainability Chapter in Annual Report vs. Sustainability Report



Albeit two of the companies' Annual Reports lacked an Environmental Sustainability Chapter, *Figure 4.4.* illustrates that all of the companies did cover environmental sustainability somewhere in their reports. All companies except Stora Enso mentioned the environment in everything between one and seven different chapters in the Annual Report. Stora Enso referred to the subject in fourteen chapters and thereby in the most numerous contexts.

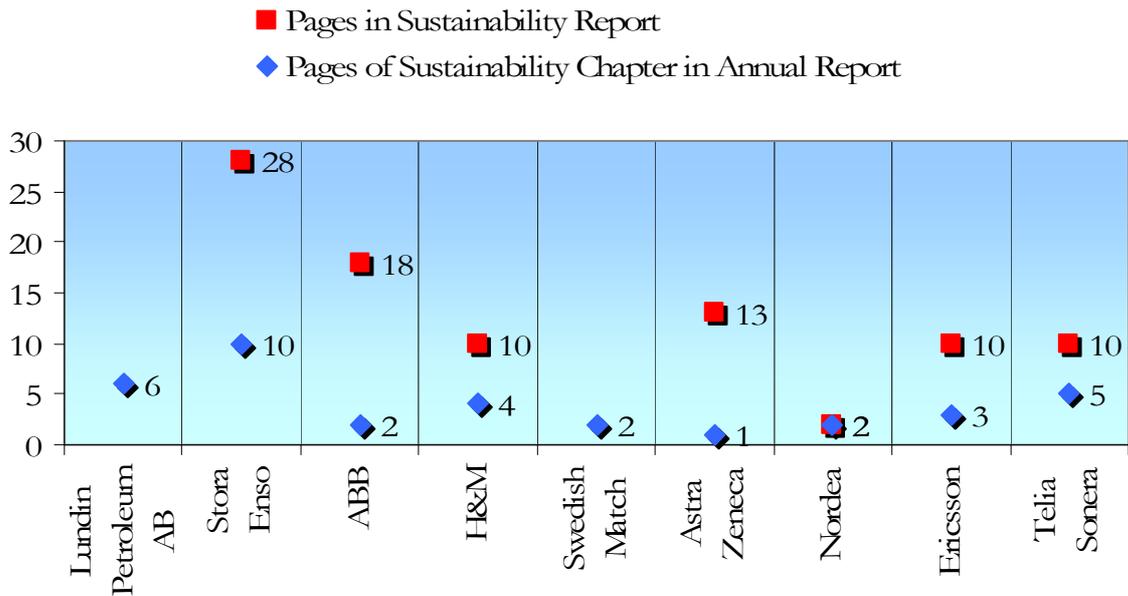
Figure 4.4. - Frequency in Number of Chapters in the Annual Report Containing Information on Environmental Sustainability



4.2.3. 2008

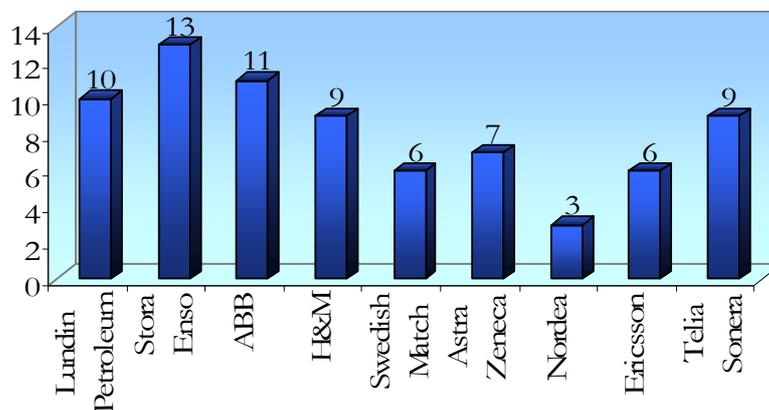
In 2008, all the companies had an Environmental Sustainability Chapter in their Annual Reports. These chapters covered up to ten pages, but only Stora Enso had a chapter that comprised more than six pages, which is shown in *Figure 4.5*. All corporations except Swedish Match and Lundin Petroleum published a separate Sustainability Report in 2008. The extent of these reports varied with the extremes once again being Stora Enso and Nordea. The Sustainability Reports from Ericsson and AstraZeneca were distributed in printed forms for this study. The other reports were sent electronically as PDF documents.

Figure 4.5. - Environmental Sustainability Chapter in Annual Report vs. Sustainability Report



Apart from having a separate chapter devoted to information on matters concerning the environment, all companies mentioned the environment in other contexts to various degrees. This is illustrated in *Figure 4.6*. Nordea, including environmental information in three different chapters, were the company to write about such matters in the least numerous contexts. Stora Enso mentioned the environment in thirteen chapters, thus being the company to include this kind of information most frequently. The rest of the companies varied in frequency mentioning the environment in the span of six to eleven chapters.

Figure 4.6. - Frequency in Number of Chapters in the Annual Report Containing Information on Environmental Sustainability

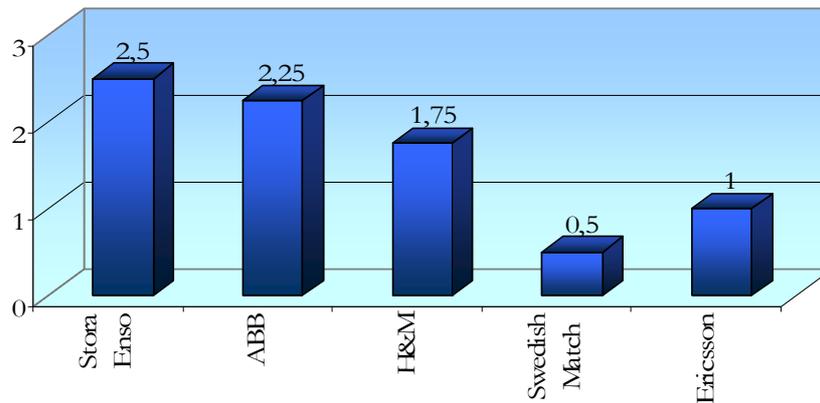


4.3. Environmental Management

4.3.1. 1998

A summary of the Environmental Management results of the existing companies in 1998 is illustrated below in *Figure 4.7*. Each bar represents the mean of the indicator grades given on the information concerning Environmental Management reported by respective corporation in their various reports. Worth noticing is the wide gap between the companies, with the lowest mean being 0,5, the highest 2,5 and the others spread out in between. The average mean of 2008 is 1,60.

Figure 4.7. – Environmental Management (mean)



An aid to interpret the means presented above can be found below in *Table 4.1*. This table includes each separate grade concerning the information given on the chosen indicators concerning Environmental Management. As can be observed there is a notable variation amongst the companies' reporting standards, both in regards of comparing them with each other, but also within the companies and their own reporting standards for the different areas. For instance, ABB varies from grade 1 in Supply Chain Management to grade 3 in Internal Control as well as Innovation, and Ericsson differs from grade 0 in Internal Control to grade 2 in Supply Chain Management. The most common grades the companies received were a 1 (6 times) or a 2 (7 times) and the grade 0 was given at three times.

Table 4.1. – Graded Reporting on Environmental Management

Corporation	Strategy	Internal control	Supply Chain Mngmt	Innovation	Mean
Stora Enso	2	2	3	3	2,5
ABB	2	3	1	3	2,25
H&M	2	2	2	1	1,75
Swedish Match	1	1	0	0	0,5
Ericsson	1	0	2	1	1

Average mean 1,60

4.3.2. 2003

The bars in *Figure 4.8*. below represent the means of the companies in 2003, thus illustrating the average grade given on their reporting of Environmental Management. Worth to notice is that the reporting standards of the corporations differ quite a bit, with Lundin Petroleum and

TeliaSonera in the bottom with an average grade of 0,5 and H&M at the top with the mean 2,75. The remaining companies spread out in between and the average mean of 2003 is 1,69.

Figure 4.8. – Environmental Management (mean)

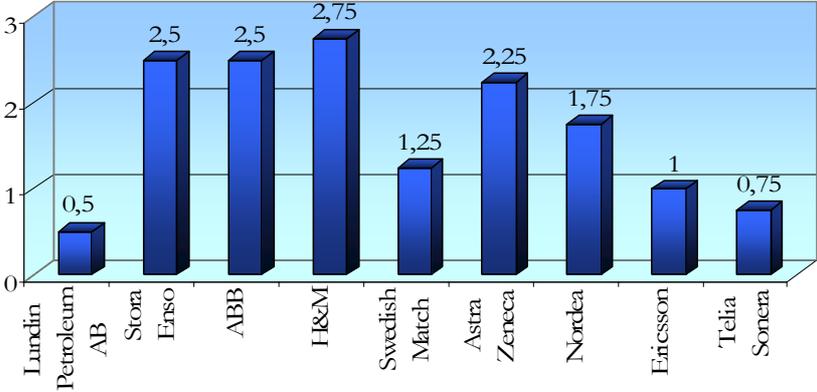


Table 4.2. below is an aid in the interpretation of the above figure, by splitting the means of the reported Environmental Management into its constituent parts. The variation on reporting standards remains, both between as well as within each company. This can be illustrated by comparing H&M with TeliaSonera, as well as comparing the different grades given to the reporting of Swedish Match. The most common grade was a 1 (14 times), followed by a 3 (11 times) and the grade 0 was given at four occasions.

Table 4.2. – Graded Reporting on Environmental Management

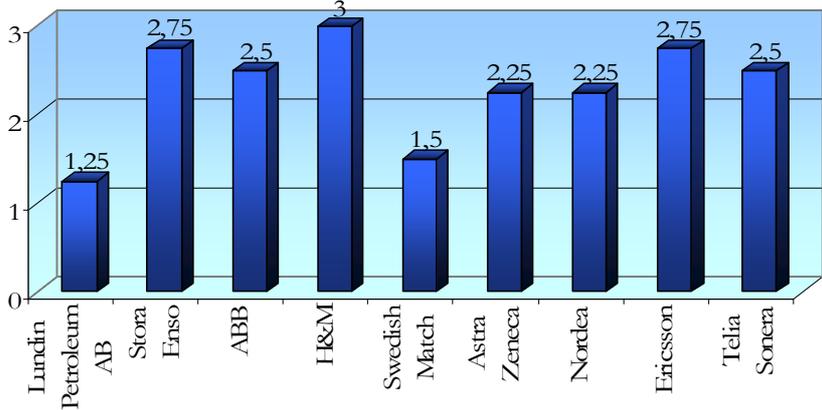
Corporation	Strategy	Internal Control	Supply Chain Mngmt	Innovation	Mean
Lundin Petroleum	1	1	0	0	0,5
Stora Enso	2	2	3	3	2,5
ABB	2	3	3	2	2,5
H&M	3	3	3	2	2,75
Swedish Match	3	1	0	1	1,25
AstraZeneca	3	2	1	3	2,25
Nordea	1	2	1	3	1,75
Ericsson	1	1	1	1	1
TeliaSonera	1	1	0	1	0,75

Average mean 1,69

4.3.3. 2008

The grading of the Environmental Management reporting of 2008 is illustrated in Figure 4.9. below, where each bar represents the mean grade of its respective corporation’s reporting. Worth noticing is that most companies have an average above 2 and that H&M reached a grade point average at 3. The gap between the corporations have decreased and the average mean of 2008 is 2,31.

Figure 4.9. – Environmental Management (mean)



As the previous two tables, *Table 4.3.* below works as an aid in the interpretation of the above figure, by dividing into the separate components of which the graded Environmental Management mean is calculated. There is still a variation between the companies, which can be illustrated by observing the grades of H&M vs. Swedish Match, as well as within some of them in regard to their reporting standards in different areas, which is illustrated by the grades of Lundin Petroleum that differs from a 0 to a 3. This year, only one corporation received a grade zero and the most common grade of the reported indicators was a three (19 times).

Table 4.3. – Graded Reporting on Environmental Management

Corporation	Strategy	Internal Control	Supply Chain Mngmt	Innovation	Mean
Lundin Petroleum	1	3	0	1	1,25
Stora Enso	3	2	3	3	2,75
ABB	2	2	3	3	2,5
H&M	3	3	3	3	3
Swedish Match	1	2	1	2	1,5
AstraZeneca	2	2	2	3	2,25
Nordea	3	2	1	3	2,25
Ericsson	2	3	3	3	2,75
TeliaSonera	3	3	1	3	2,5

Average mean 2,31

4.4. Environmental impact

4.4.1. 1998

In 1998, only two companies gave any information on their impact on the environment. These two companies were Stora Enso and ABB. Both of these companies concretely described how their activities affected the environment. In addition, the provided information was confirmed by verifiable numbers which earned both of the companies the highest grade. Swedish Match, H&M and Ericsson on the other hand, did not account for their environmental impact, nor did they mention the subject.

4.4.2. 2003

This year, there were six companies that reported their environmental impact. Lundin Petroleum, Ericsson and TeliaSonera did not mention this subject at all. However, Ericsson may have reported on their environmental impact in their Sustainability Report of 2003 but it has not been acquired. The companies that did report on environmental impact did this concretely with verifiable facts. Consequently, all of the companies providing information on their resource usage, discharges, etc. were given the highest grade on the indicator concerning environmental impact.

4.4.3. 2008

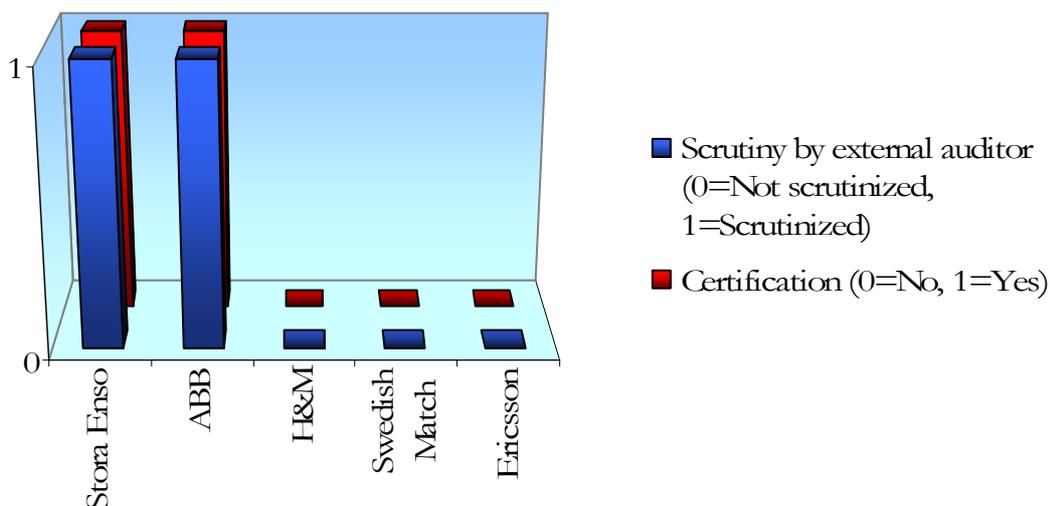
All the companies reported on their environmental impact in 2008. The only company that did not acquire grade 3 was Lundin Petroleum, which was given grade 2. Lundin discussed the impact which the company had on the environment, but failed to provide facts that could be measured and verified. Nevertheless, eight of the nine companies provided information that was confirmed by verifiable facts.

4.5. Third party involvement

4.5.1. 1998

The companies that used assurance in 1998 were Stora Enso and ABB. Assurance was given both for their activities and their reports concerning environmental sustainability. This can be concluded after examining *Figure 4.10*. The other companies did not have any external scrutiny of their annual reporting apart from the auditing of their financial reports. Furthermore, none of the other three corporations mentioned having certified environmental management control systems.

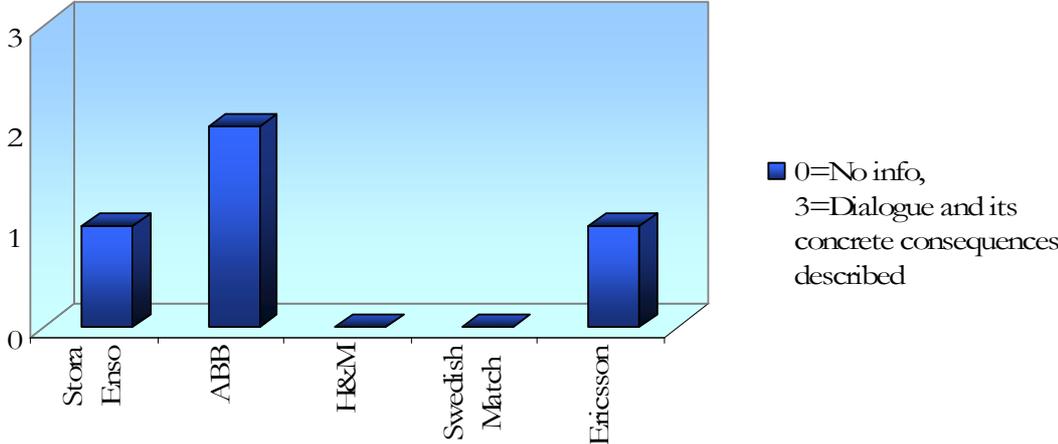
Figure 4.10. - Assurance



The way the companies reported on stakeholder dialogue concerning Sustainability Reporting in 1998 is shown in *Figure 4.11*. It is apparent that the only company that accounted for a dialogue with its stakeholders in order to improve their Sustainability Reporting was ABB.

ABB did on the other hand not describe any concrete consequences from this dialogue, which is the reason that the highest grade was not awarded. Stora Enso and Ericsson mentioned their stakeholders and described them as important for the business. However, they did not do this in the context of Sustainability Reporting. H&M and Swedish Match did not mention their stakeholders at all.

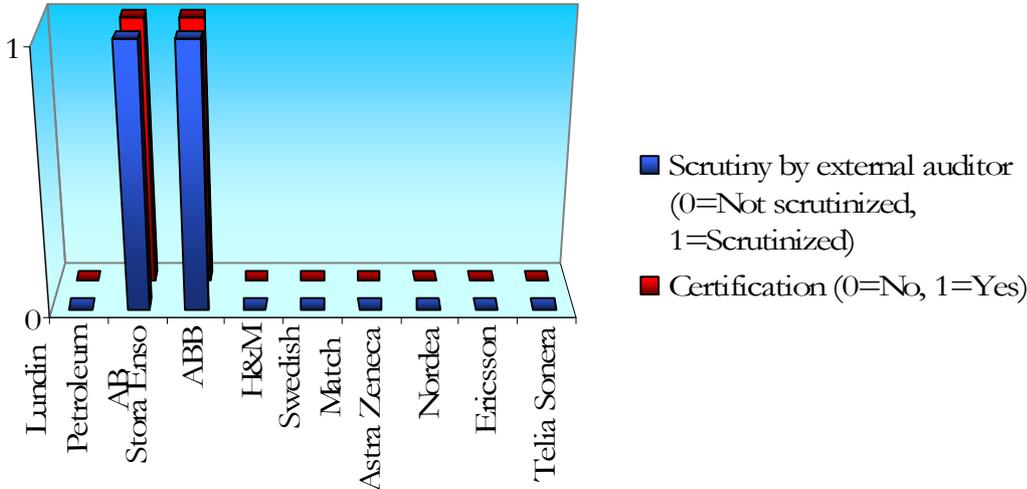
Figure 4.11. – Info on Stakeholder Dialogue in the Development of Sustainability Reporting



4.5.2. 2003

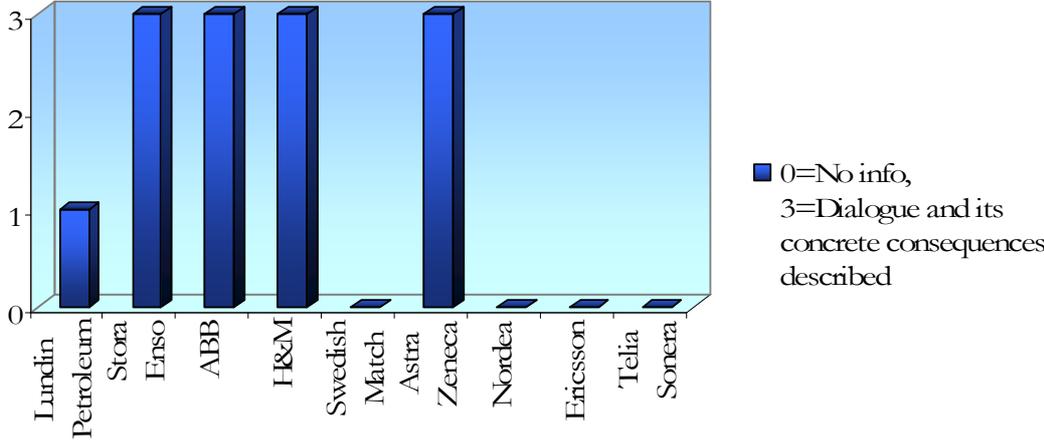
As can be seen in Figure 4.12., Stora Enso and ABB still were the only companies with any kind of assurance in 2003. Both of the companies had their Sustainability Reports scrutinized by an external auditor. In addition, both Stora Enso and ABB had certification of their environmental management control systems. The mentioned certifications were ISO 14001 and EMAS. The other companies neither had assurance of their reports, nor did they report any certification assuring their environmental management systems.

Figure 4.12. - Assurance



In 2003, four companies received the highest grade on accountability concerning stakeholder dialogue in the context of Sustainability Reporting. This is illustrated in *Figure 4.13*. The companies that were awarded grade 3 all reported to some extent in accordance with the GRI guidelines. Lundin Petroleum mentioned their stakeholders but not in the context of Sustainability Reporting. Swedish Match, Nordea, Ericsson and Telia did not mention their stakeholders at all in the reports of 2003.

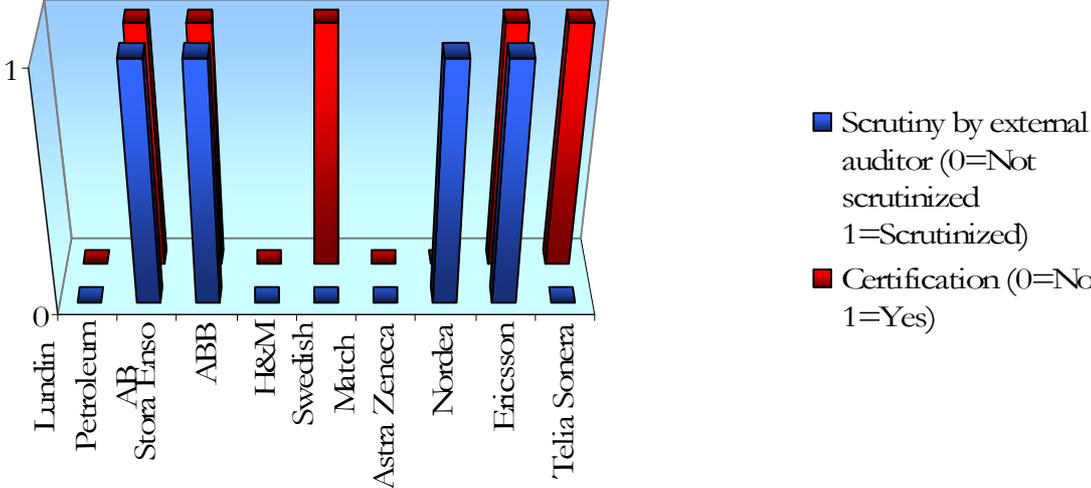
Figure 4.13. – Info on Stakeholder Dialogue in the Development of Sustainability Reporting



4.5.3. 2008

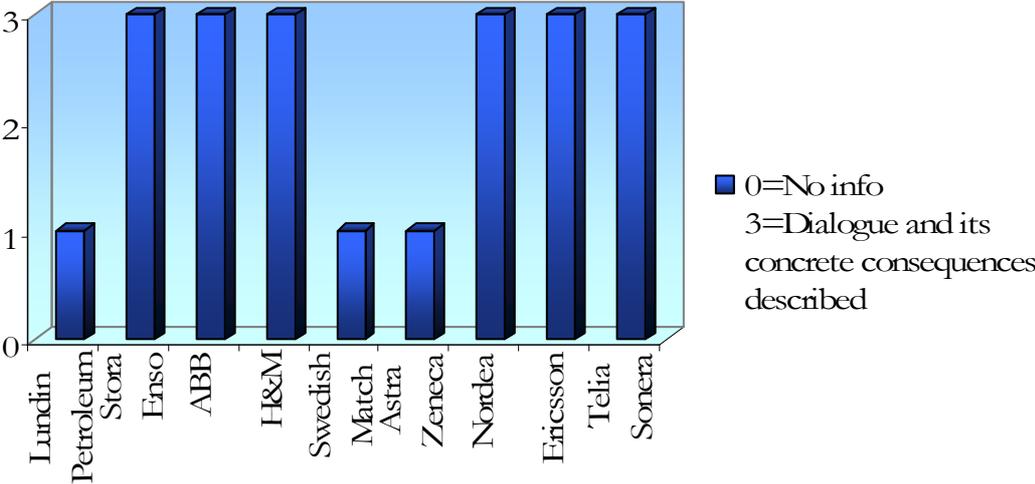
In 2008, Stora Enso and ABB as well as Nordea and Ericsson had their Sustainability Reporting scrutinized by an external auditor, which can be observed in *Figure 4.14*. Out of these four companies, three also reported having certified environmental management systems. In total, five of the companies were certified and the certifications involved are ISO 14001 and EMAS. Lundin Petroleum, H&M and AstraZeneca neither had assurance of their reports, nor did they report certifications on their environmental management control systems.

Figure 4.14. - Assurance



In 2008, all companies reported on their stakeholder dialogue to some extent. However, as shown in *Figure 4.15*, only six companies mentioned the dialogue concerning Sustainability Reporting. All of these six produced their Sustainability Reports in accordance with GRI which earned them grade 3. Lundin Petroleum, Swedish Match and AstraZeneca all mentioned their stakeholders, but not in context of improving their Sustainability Reports.

Figure 4.15. – Info on Stakeholder Dialogue in the Development of Sustainability Reporting

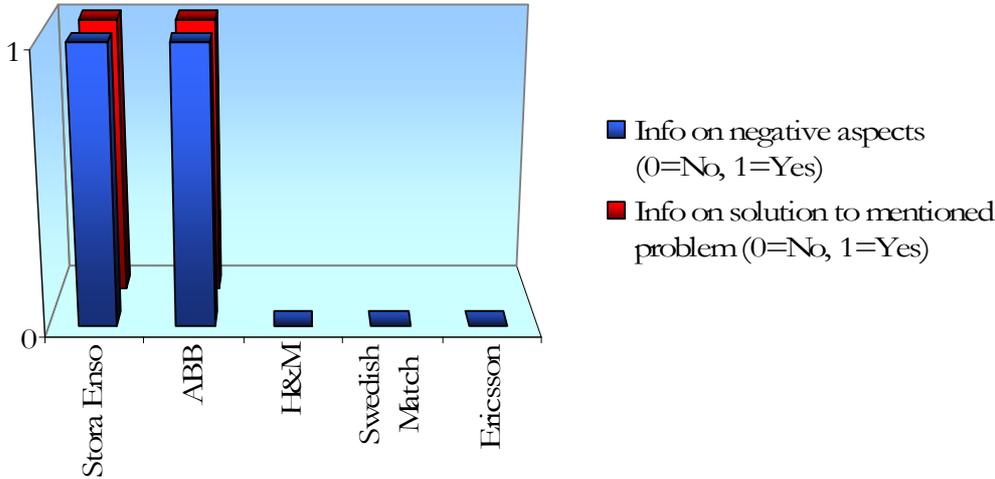


4.6. Balanced or unbalanced reporting

4.6.1. 1998

In 1998, two companies reported on negative aspects apart from what was required by law, which can be noted below in *Figure 4.16*. In Stora Enso’s case, the negative reporting was followed by information on how the problems were solved. In ABB’s case, the negative aspect was portrayed as not being of great importance.

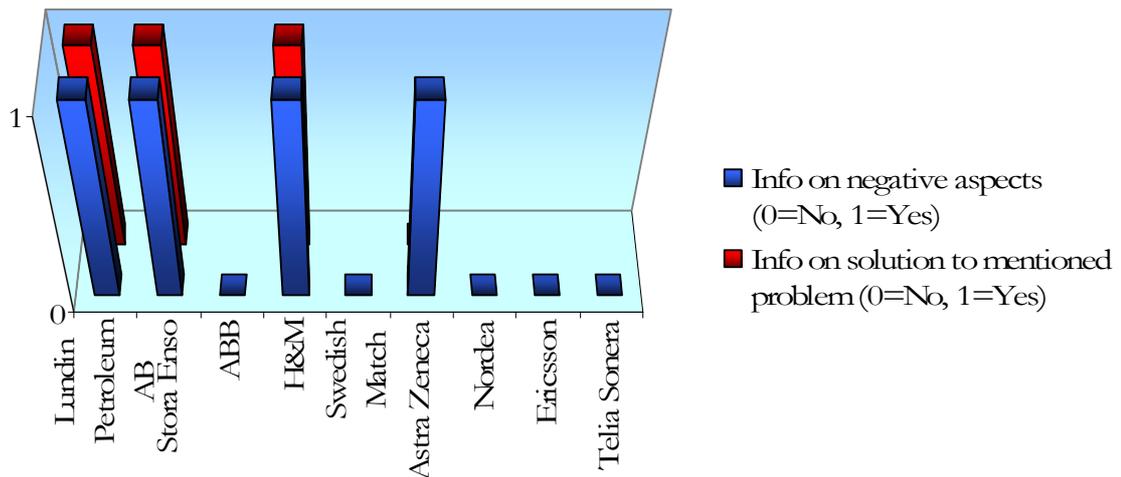
Figure 4.16. – Balanced or Unbalanced Reporting



4.6.2. 2003

In 2003, Lundin Petroleum, Stora Enso, H&M and AstraZeneca gave information on negative aspects. This can be concluded when examining *Figure 4.17*. Three out of these four companies provided some kind of explanation or solution to the problem which belittled the negativity of the information. Only AstraZeneca provided negative information without explanation or solution.

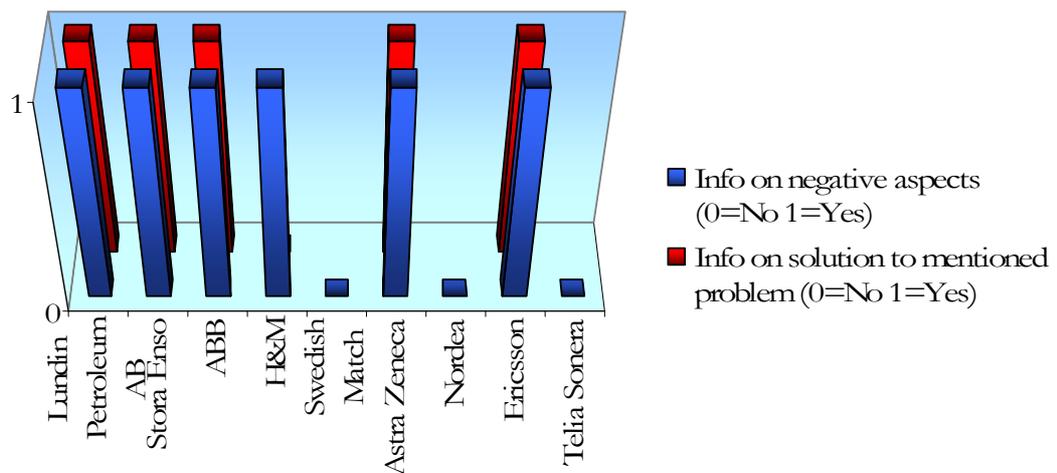
Figure 4.17. – Balanced or Unbalanced Reporting



4.6.3. 2008

As is apparent in *Figure 4.18.*, in 2008, six companies reported negative aspects, such as risks or failures. H&M was the only company to report on negative aspects without providing any explanation or solution to the problem. Swedish Match, Nordea and TeliaSonera gave no additional information on negative aspects.

Figure 4.18. – Balanced or Unbalanced Reporting



5. Analysis and Discussion

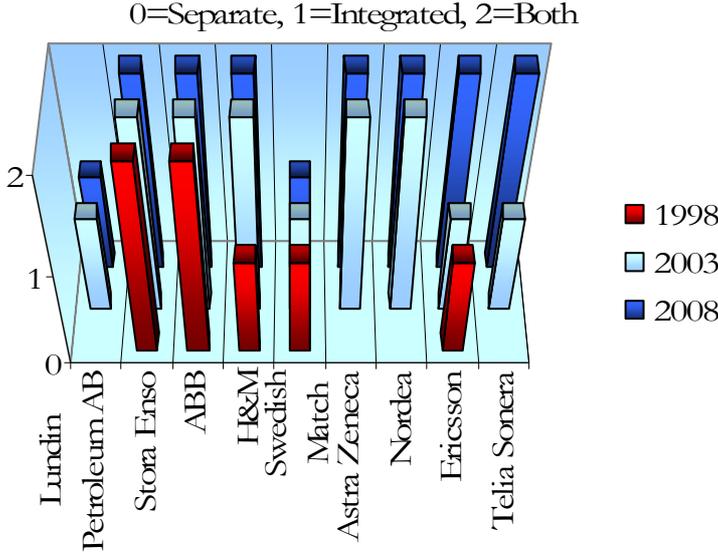
This chapter describes the development of the studied companies' Environmental Sustainability Reporting. Furthermore, it discusses the empirical findings on the basis of the Conceptual Framework. The discussion will be conducted according to the same disposition as the previous chapter.

5.1. Development of Report Format

The analysis of the *Report Format* considers how the companies have chosen to design and distribute the information on environmental matters. This analysis examines how the ESR has developed over the years in extent, disposition as well as in distribution.

As illustrated in *Figure 5.1.* below, the development from 1998 to 2008 shows an increasing share of the companies reporting on environmental sustainability both separately as well as integrated in their Annual Reports. Lundin Petroleum and Swedish Match are the only companies which have not produced a separate Sustainability Report for neither of the studied years.

Figure 5.1. – Sustainability Report Integrated with and/or Separate from Annual Report



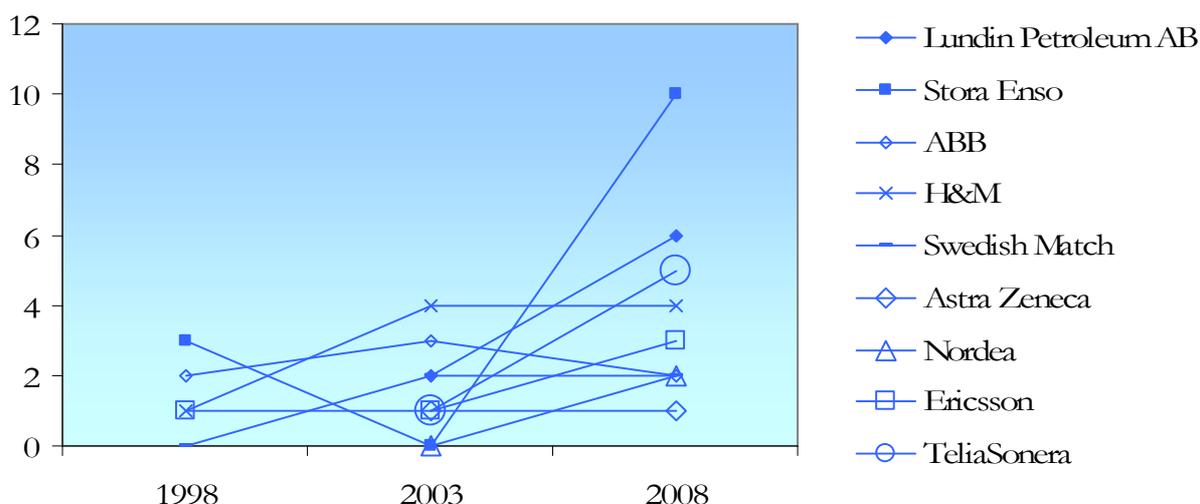
Albeit not all companies have produced separate Sustainability Reports throughout the years, all companies report on Environmental Sustainability integrated in their Annual Reports each year. As can be observed in *Table 5.1.* below, the mean number of pages in the Environmental Sustainability Chapters integrated in the Annual Reports has increased over the years. When examining the five companies existing the entire studied period, the average number of pages have increased from 1,4 pages to 4,2. The remaining four companies have also increased the amount of pages in their Environmental Sustainability Chapters from an average of 1 in 2003 to 3,5 in 2008. This results in a mean for all the companies of 1,6 pages in 2003 and 3,9 in 2008. *Table 5.1.* also shows an increase in number of pages greater between 2003 and 2008 than between 1998 and 2003.

Table 5.1. – Number of Pages of Environmental Sustainability Chapter in Annual Report

Corporations studied	1998	2003	2008
Mean of the five existing corporations in 1998	1,4	2	4,2
Mean of the four corporations founded after 1998		1	3,5
Mean of all corporations		1,6	3,9

Apart from the generally observed mean increase of pages, the result of the study also shows an increased gap between the corporations in number of pages. This is illustrated below in *Figure 5.2.*, where the number of pages varies between one and three in 1998, one and four in 2003, and finally between one and ten in 2008.

*Figure 5.2. – Number of Pages of Environmental Sustainability Chapter in Annual Report **



* When a zero occurs in the figure, it indicates that the corporation did not include an Environmental Sustainability Chapter in their Annual Report of the current year. The reason why there are only five corporations with marks in 1998 is because the remaining four had not been founded at that time.

When inquiring if a company choosing not to produce a separate Sustainability Report would balance this by producing a more filling Environmental Sustainability Chapter in their Annual Report, we could find no such tendencies. Below, *Table 5.2.* illustrates that the companies producing separate Sustainability Reports actually have lengthier Environmental Sustainability Chapters than the companies without separate Sustainability Reports in 1998 and 2003, while the companies not producing separate Sustainability Reports produced slightly lengthier Environment Sustainability Chapters in 2008. Subsequently, we could find no consistent trend of dependency between the length of the Environmental Sustainability Chapter of the Annual Reports and whether the respective company had produced a separate Sustainability Report or not. The only possible trend to be discerned was that the gap in number of pages of the Environmental Sustainability Chapter decreased between the two groups. In 1998, the difference between the means was 1,5, in 2003 1,17 which can be compared to the difference in 2008 which was 0,14.

Table 5.2. – Number of Pages in Environmental Sustainability Chapter in Annual Report Corporations With vs. Without Separate ESR

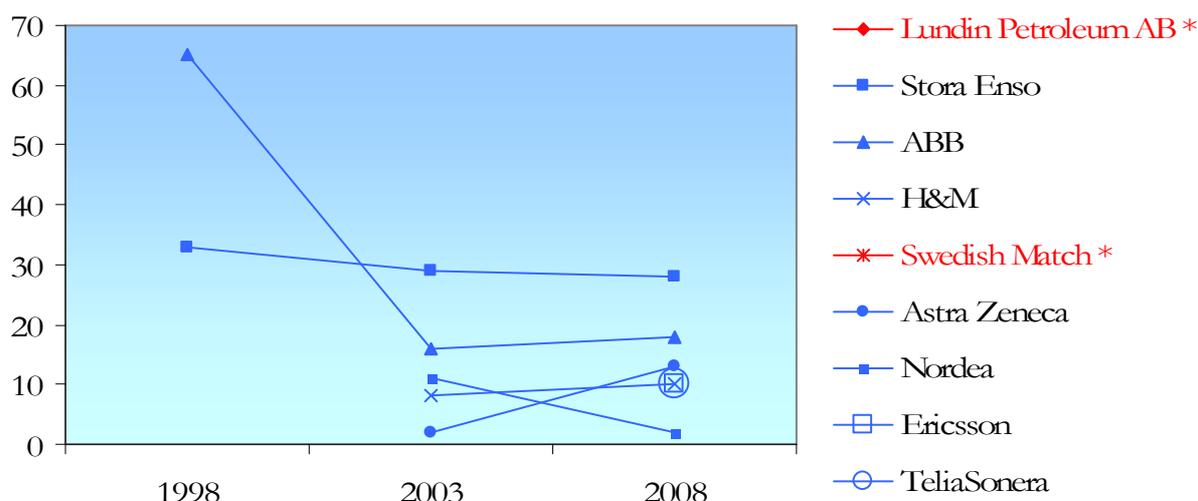
Corporations with a Separate Sustainability Report				Corporations without a Separate Sustainability Report			
	1998	2003	2008		1998	2003	2008
Lundin Petroleum				Lundin Petroleum		2	6
Stora Enso	3	N/A	10	Stora Enso			
Abb	2	3	2	Abb			
H&M		4	4	H&M	1		
Swedish Match				Swedish Match	N/A	2	2
AstraZeneca		1	1	AstraZeneca			
Nordea		N/A	2	Nordea			
Ericsson			3	Ericsson	1	1	
TeliaSonera			5	TeliaSonera		1	
Mean number of pages	2,50	2,67 *	3,86	Mean number of pages	1 **	1,5	4

* In 2003, Stora Enso and Nordea produced a separate Sustainability Report, but did not dedicate a chapter in their Annual Reports to ESR. Including these companies in the calculation of the mean of 2003, counting their non-existing chapters as zeroes, the mean would be 1,6.

** In 1998, Swedish Match did neither have a Sustainability Report or a separate Sustainability Chapter in their Annual Report. Including the company in the calculation of the mean of 1998, counting their non-existing chapter as zero, the mean would be 0,67.

While the Environmental Sustainability Chapters integrated in the Annual reports have increased in mean number of pages, the Environmental Sustainability Chapters in the separate Sustainability Reports have had another development. As can be noted when observing Figure 5.3. below, the variation in number of pages seems to decrease when comparing the different companies with each other, moving towards a more harmonized level between 10 and 20 pages. However, considering the fact that there has been an immense development towards more corporations publishing Sustainability Reports, it is difficult to draw any absolute conclusions on the development of pages in the included Environment Sustainability Chapters. The comparison over time becomes a little deceptive without enough historical facts and figures to compare with when drawing conclusions.

Figure 5.3. – Number of Pages in the Environmental Sustainability Chapter of the Sustainability Report



* Lundin Petroleum and Swedish Match have not produced sustainability reports either of the studied years.

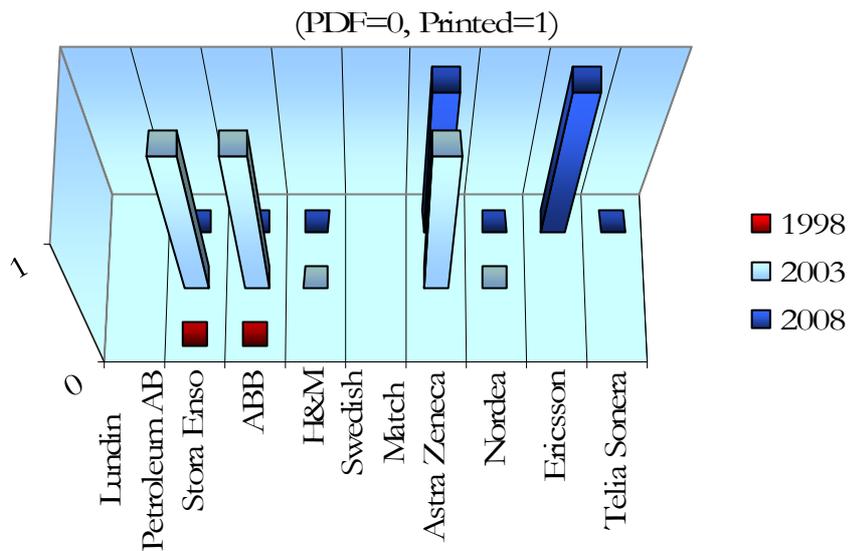
Returning to the Annual Reports, it is not only the number of pages in their Environmental Sustainability Chapter that have increased. Information on matters concerning the environment also seems to be mentioned in an increasing amount of contexts. Below, *Table 5.3.* shows the mean of the amount of Annual Report chapters in which the companies chose to mention the environment. For every studied year, the average amount of pages increases, irrespective if the calculations are made on the companies existing in 1998, those founded after 1998 or the entire set of studied corporations. Most of the companies have an increasing frequency of mentioning the environment in similar patterns, although the frequency varies in degree. However, three companies indicate different patterns. ABB actually included the environment in fewer chapters in 2003 than in 1998. Nevertheless, the number of chapters was back on the 1998 level in 2008. Stora Enso and AstraZeneca stayed on the approximate same level between 2003 and 2008 while other companies had their greatest increase in that period.

Table 5.3. – Frequency in Number of Chapters in the Annual Reports Containing Information on Environmental Sustainability

Corporations studied	1998	2003	2008
Mean of the five corporations founded before 1998	4,2	6	9
Mean of the four corporations founded after 1998		3,5	7,25
Mean of all corporations		4,9	8,2

When examining *Figure 5.4.*, the distribution format of the Sustainability Reports seems to have gone in the direction from printed versions to be sent out electronically as PDF documents. However, this conclusion is made on the premise that the various corporations distribute their different Sustainability Reports in the same format today as they did when the reports were sent out to their different stakeholders. For example, it is not likely that Stora Enso and ABB went from distributing their Sustainability Reports as PDF documents in 1998 only to return to the old form of printed versions in 2003. In this case we find it more likely that the companies have rationalized their archives and saved the Sustainability Reports in digital form, thus distributing the reports to us in this form when we requested the documents. In addition, Ericsson had not finalized their Sustainability Report when we first contacted them and we received their Sustainability Report in printed version while writing this analysis. Since we believed Ericsson had their report mainly in PDF version (found on their homepage) before we received the printed form, there might be other corporations described as distributing their reports electronically while they in reality mainly distribute their 2008 reports in printed form. Some companies, however, mention in their reports that they made an active choice to distribute their Sustainability Reports as PDF documents to decrease the negative impact on the environment.

Figure 5.4. – Distribution Format



To summarize the development of Report Format, there is a clear pattern on a development towards using both a separate Sustainability Report as well as integrating this information in the Annual Report. Lundin Petroleum and Swedish Match have not yet produced a separate Sustainability Report, but considering the development amongst the other corporations and the translation of the GRI guidelines into Swedish, it would not be surprising to see their ESR in a separate form as well in the near future.

Furthermore, the chapter on Environmental Sustainability in the Annual Reports has had an expanded variation between companies over the years, as well as the frequency of discussing Environmental Sustainability in other chapters of the Annual Report. In the Sustainability Report, however, the chapter on Environmental Sustainability has decreased in number of pages for some corporations and increased for others, leaving a development towards a more harmonized and comparable amount of pages.

Considering the earlier mentioned stakeholder requests, the format of the reports was of some importance. The most important aspect on the format issue was the length of the reports. Since the development of Annual Reports is different from the one on Sustainability Reports it is difficult to form any general conclusions whether the development has gone in the direction requested by the stakeholders or not. On the one hand, looking only to the Sustainability Reports with their development towards a more harmonized amount of pages in their environmental sustainability chapters, it seems as though the length have gone in the requested direction. On the other hand, looking only to the environmental sustainability chapters in Annual Reports and their increasing mean number of pages, this contradicts the very same requests. Furthermore, if a company receives low grades on their given information, but still distributes a lengthy report, this could be interpreted as the corporation using the thickness of the report to make the appearance of showing genuine interest in environmental issues, i.e. making an attempt to communicate environmental efforts via pathos.

In addition, the trend towards more companies producing separate Sustainability Reports over the years indicates that the issue has become more important for the corporations to pay

attention to. They clearly find the benefits of distributing the separate reports exceeding the costs of producing it.

Regarding the distribution format of the Sustainability Reports, it is difficult to draw any conclusions on whether the companies have gone in either the direction towards printed or digital material, since the information collected on these formats has no true relevance. We would subsequently have needed to currently request the reports in each respective year to be able to evidently observe the distribution method chosen.

5.2. Development of Reported Environmental Management

The analysis of the Environmental Management reporting development compares the graded reports of 1998, 2003, and 2008, as well as illustrates the development with figures and tables. The analysis begins with the reporting of Sustainability Strategies, continues with Internal Control / Follow-ups, Supply Chain Management, and finalizes with Innovation and Product & Efficiency Development.

The mean grades of the companies' *Sustainability Strategies* can be observed in *Table 5.4*. have generally increased from year to year. Looking solely to the five companies founded before 1998 and their development from 1998 to 2008, the mean only increased between 1998 and 2003, and remained unchanged when comparing 2008 to 2003. The reason why this mean remained the same between 2003 and 2008 is because Swedish Match went from a grade of 3 to one of 0, meanwhile Ericsson and Stora Enso received grades one point higher in 2008 than 2003, thus leaving only H&M and ABB keeping the same grades both years. This means that even though the mean remained, there still was motion in differences of grading amongst the companies' reports.

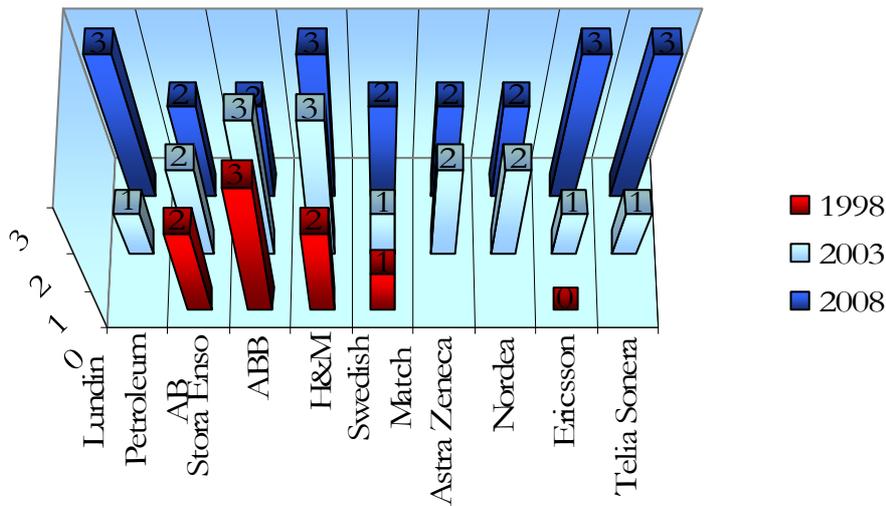
Albeit the mean grade of the five existing companies in 1998 did not change between 2003 and 2008, both the mean grades of the four corporations founded after 1998 as well as the entire set of companies for each year demonstrate a solid development towards a more precise reporting standard.

Table 5.4. – Sustainability Strategy

Corporations studied	1998	2003	2008
Mean of the five corporations founded before 1998	1,60	2,20	2,20
Mean of the four corporations founded after 1998		1,50	2,25
Mean of all corporations		1,89	2,22

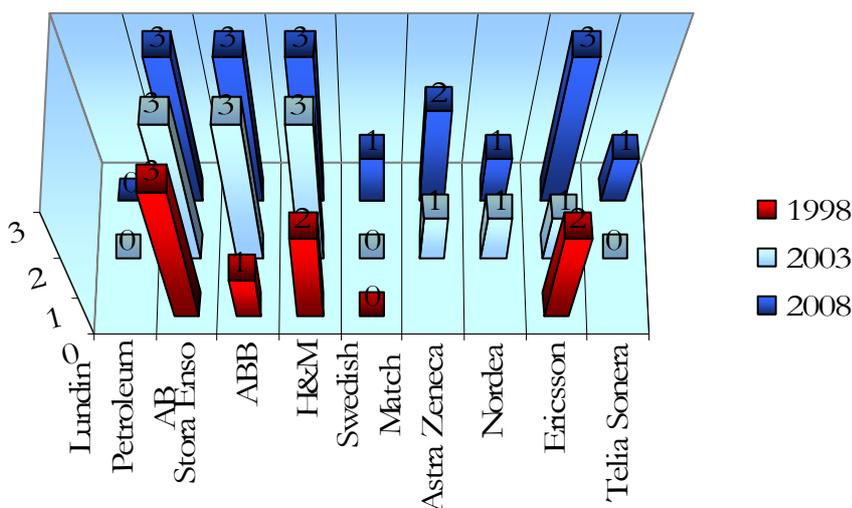
Regarding the development of *Internal Control/Follow-ups*, *Figure 5.5*. below illustrates the companies' grading for the years 1998, 2003, and 2008. It can be noted that the corporations in general either keep the same level of reporting or improve it from year to year, with ABB as the only exception from the rule receiving a lesser grade in 2008 than in 2003.

Figure 5.5. – Information on Internal Control / Follow-ups



Observing Figure 5.6. below, the same general conclusion made from the figure in Internal Control can be drawn about the development of reporting on *Supply Chain Management*. Each corporation except for one (this time Ericsson between 1998 and 2003) either keep the same level of reporting on Supply Chain Management or improve from one year to another. Another interesting observation which can be made is that certain companies perform exceptionally in their reporting on Supply Chain Management compared to other management area. At the same time, companies like Lundin Petroleum do not even mention Supply Chain Management or even suppliers in an environmental context in their reports. Stora Enso, ABB and H&M form a group reporting thoroughly on the subject, followed by Ericsson. AstraZeneca has started improving their reporting standards on Supply Chain Management and is followed by Swedish Match, Nordea, and TeliaSonera.

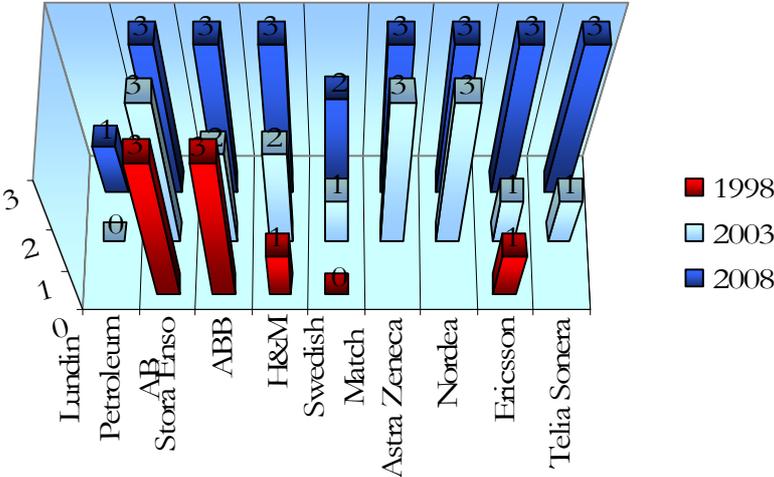
Figure 5.6.- Information on Supply Chain Management



Illustrating the development of reporting on *Innovation in product & efficiency development*, below Figure 5.7. manifests an evident development towards more distinct reporting. As the previous two figures, there is one exception that proves the rule, this time represented by ABB

between the years of 1998 and 2003. The corporations are far better in reporting on matters concerning this subject than on any other in the area of Environmental Management at present, which has not previously been an obvious reality.

Figure 5.7. – Information on Innovation in Product & Efficiency Development



To sum up the overall development in reporting on Environmental Management, it is clear that the reporting in general has turned more defined and specific, since the mean grades rise over the years. Regarding Supply Chain Management, it is also noticeable that some companies stand out with thorough reporting standards and others hardly even mention their supply chain in an environmental context. However, this is the only area within Environmental Management Reporting where there is a distinguished separation of clusters with different levels of reporting standards.

This development obviously indicates an increased usability of the given information. Overall, the reporting on Environmental Management is increasingly consisting of verifiable facts and concrete descriptions indicating that the companies are trying to be convincing through using logos. This is also what the stakeholders demand. They wish for the companies to describe their environmental management in detail, linking it to the companies’ core activities. With the information becoming more detailed and specific, the quality of the information is improved. The reports can serve as a basis for decisions to a greater extent both in terms of relevance and reliability. The increased usage of facts, numbers and examples offers possibilities to evaluate already made decisions and to make forecasts, all of which improve relevance. Evident facts are also possible to verify, which improves the reliability.

The indicator closest to satisfy the stakeholders’ need for information is the one on innovation. In 2008, seven out of nine companies achieved a reporting that effectively demonstrated integration of environmental efforts and their results. This is probably due to the companies’ own interests of portraying future success and added value. Engaging in product and efficiency development often entail both improved financial margins as well as decreased environmental impact.

Supply Chain Management is the reporting area which still needs improvement for the greatest amount of companies in order to meet the stakeholders’ requests. However, considering the focus of GRI on enabling improved environmental consciousness in selecting

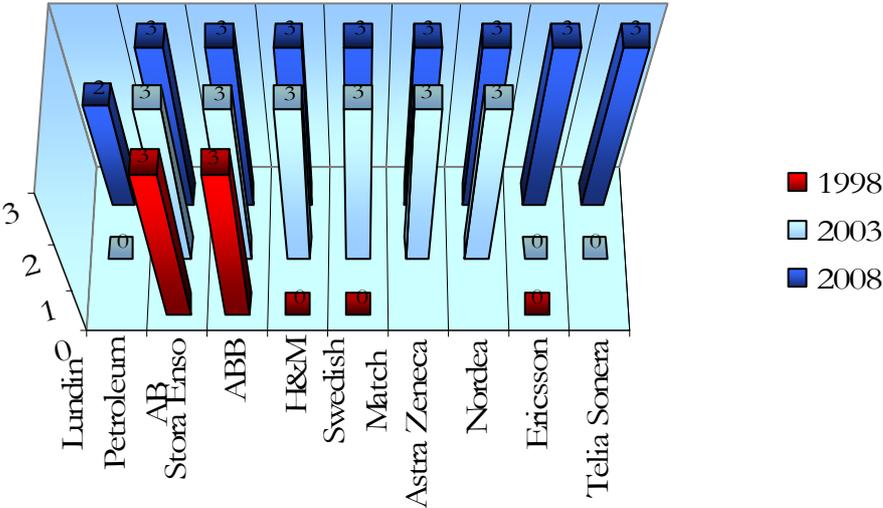
supply chain services in tandem with stakeholder demands, it is likely that the information on supply chain management will improve in the future. Concerning the reporting on Supply Chain Management and why some corporations stand out with their thorough reporting standards and others hardly even mention the supply chain in an environmental context, it is possible that stakeholders have affected this development. Since the more thorough companies in the area (Stora Enso, ABB and H&M) have products or services that affect the environment to a greater extent than most others and since these companies depend heavily on suppliers and transports, it is not surprising if different stakeholders have affected the companies to therefore report in how they deal with these issues in a much more detailed manner. What is surprising, however, is that Lundin Petroleum with their immense environmental impact does not even mention in their reports matters concerning their Supply Chain Management, e.g. on transports in an environmental context.

5.3. Development of Reported Environmental Impact

The analysis of *Development of Reported Environmental Impact* will compare the reporting of the corporations both between the corporations as well as over the years. First, there will be a discussion on the observations from the data and figure, after which a summary of the most important observations will follow, ending with conclusions in reference to the conceptual framework.

As shown in *Figure 5.8.* below, the reporting of the different corporations' Environmental Impact has become more common over the years. In 1998 two out of the five companies accounted for the impact they had on the environment. In 2003, all but three reported environmental impact and in 2008 all companies included this kind of information. What is interesting is that once a company chooses to report on their discharges, waste, resource usage etc., the corporation tends to report this concretely and based on measurable facts. An exception is Lundin Petroleum, which only received a grade 2 when reporting on their environmental impact, for failing to deliver facts that could be verified.

Figure 5.8. – Information on Environmental Impact



In summary, it has become more common for the corporations to report on their Environmental Impact. When reporting on Environmental Impact, the companies also tend to provide precise, measurable facts, in exception for Lundin Petroleum. Still, reporting on Environmental Impact seems to have become a matter of course when engaging in ESR.

Consequently, the development has gone in the direction requested by the stakeholders. The reports now reveal, in a logos-inspired way of communication, exactly how, where and how much the companies affect the environment.

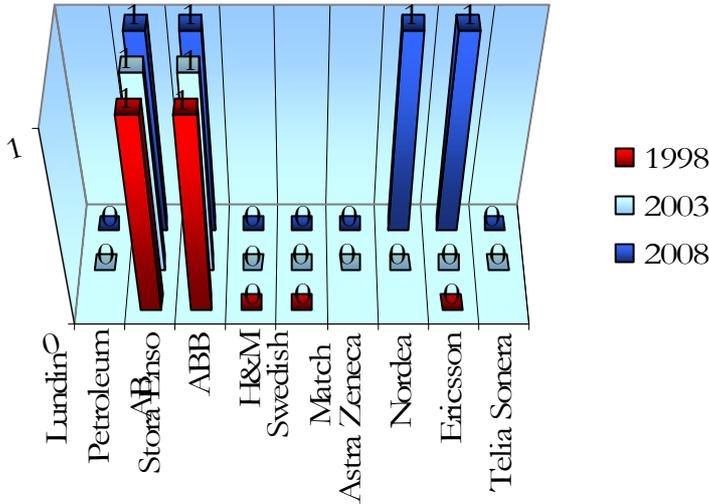
In conclusion, the qualitative characteristic of comparability between companies has improved over the years since more and more companies report on environmental impact, and that they do this with numbers and precise facts. Concerning comparability over time, there is a variation between the companies to what degree they are comparable over the studied periods. The degree of comparability is excellent for a couple of companies (Stora Enso and ABB), decent for a few more (H&M, Swedish Match, AstraZeneca and Nordea), and poor for the last few (Lundin Petroleum, Ericsson and TeliaSonera), since there is a variation on when the different companies started reporting on their environmental impact. Albeit the dissimilarity between companies of comparability over time looking back, the comparability will be better from now on for almost all corporations, on the assumption based on historical observations that the companies do not impair their reporting over time.

5.4. Development of Reported Third Party Involvement

With figures and tables as an aid to portray the development of *Third Party Involvement*, this analysis will commence on the subject *Scrutiny by External Auditors*, followed by *Information on Certification*, and finalize with *Information on Stakeholder Dialogue*.

Regarding the matter of *Scrutiny by External Auditors*, *Figure 5.9* below illustrates the development over the years in question. The figure shows that a majority of the corporations do not choose to turn to external auditors. However, it also indicates that companies that have chosen to use an external auditor one year tend to afterwards remain on the same course. Considering the fact that two new companies began using external auditors in 2008, we discern a possible future trend in the prevalence of external auditors in these contexts.

Figure 5.9. – Information on Scrutiny by External Auditor



When observing *Figure 5.10.* below, which illustrates the development of companies issuing *Information on Certification*, the same conclusions as the ones on external auditors arises. A company which has reported being certified, e.g. ISO 14001, keeps meeting the demands of the certification and continues reporting being certified in their Annual Reports. In 2008, three new corporations began reporting being certified, which, again similar to the conclusion on external auditors, could be discerned as being a possible future trend of an increased share of companies reporting environmental certifications.

Figure 5.10. – Information on Certification

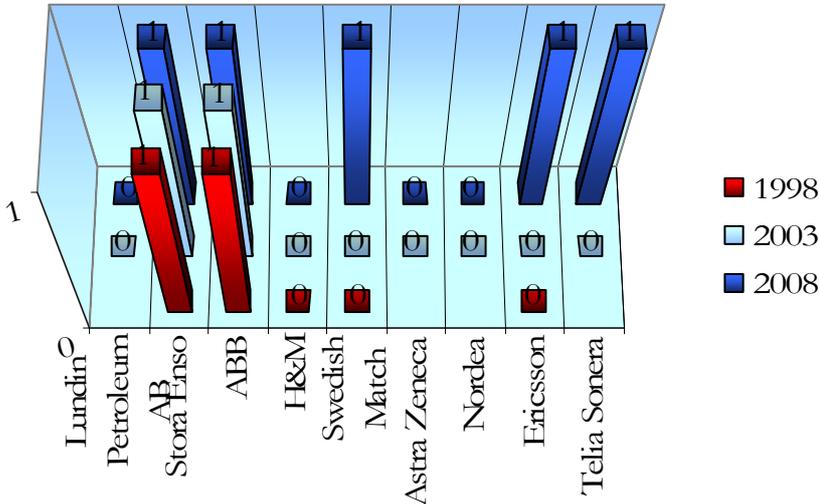
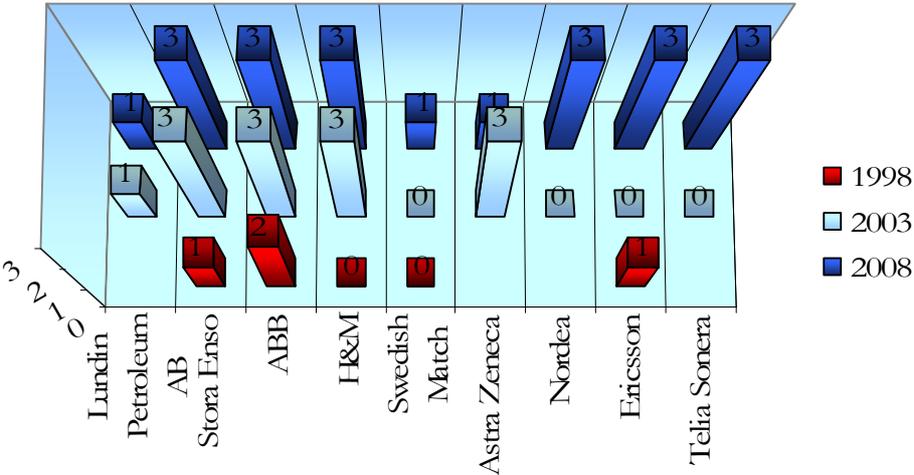


Figure 5.11. below illustrates the development of *Stakeholder Dialogue* in producing the reports. With a majority of corporations receiving the top grade in 2008, there seems to be a trend towards reporting more on stakeholder dialogue as the years pass. AstraZeneca, being the only company which has seemingly decreased their information on stakeholder dialogue from one year to another, received a lesser grade in 2008 than in 2003 due to the fact that they reported following the GRI guidelines in their 2003 report, but not in the one of 2008. Each report receiving a grade 3 mentioned following the GRI guidelines.

Figure 5.11. – Information on Stakeholder Dialogue



To summarize the development of Reported Third Party Involvement, corporations which have chosen to assure their reporting and/or performances by external auditors respectively various certifications tend to continue providing information on their chosen assuring methods. A possible future trend with a larger share of companies assuring their reporting and performances can also be discerned, especially considering the stakeholder requests for third party assurance. In addition, it seems like as the years pass, it becomes more prevalent with corporations inviting their stakeholders to a dialogue when producing their reports, as well as using the GRI guidelines.

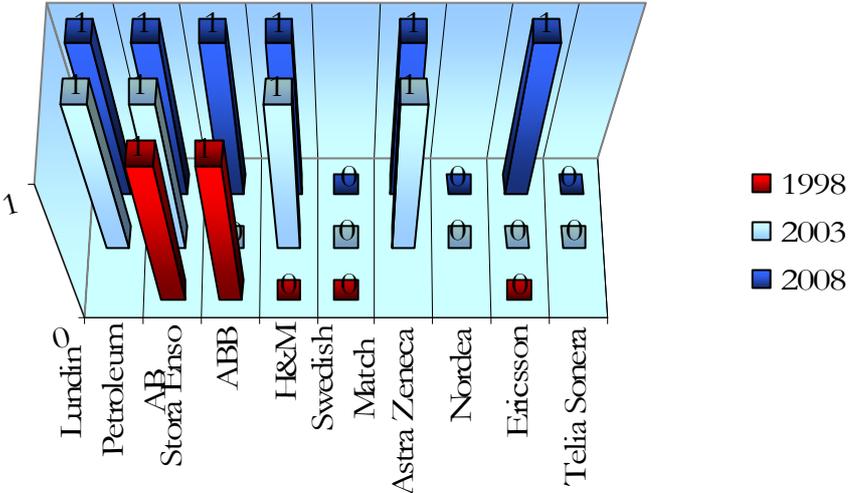
In conclusion, more and more companies make use of ethos in their communication by having third parties with formal status assuring the corporations’ performances and reporting. Moreover, this trend, as well as the trend of inviting stakeholders to a dialogue in the making of the reports, positively matches the stakeholder requests in the area. Since using the GRI guidelines has become more prevalent, it contributes to the comparability between corporations and at length, comparability over time, in tandem with ensuring that the information given will be of better quality since the guidelines include the qualitative characteristics.

5.5. Development of Balance in Reporting

The analysis of *Development of Balance in Reporting* looks for trends in the development over the years. These trends are visualized by comparing the different reporting standards over the years and between the companies. The analysis begins with observing the frequency of reporting on negative aspects, continues with investigating if the companies reporting negative aspects also mention solutions to them, and finalizes with a summary and discussion on the observations.

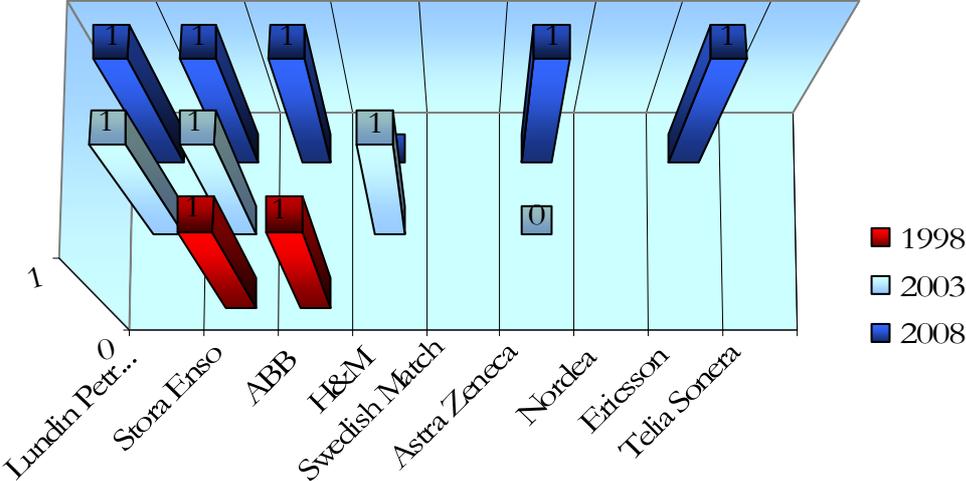
Figure 5.12. below shows that the companies over the years increasingly report negative aspects concerning the environment, as e.g. unsuccessful projects or research, unplanned discharges and specific environmental risks that arise due to their respective operations. In 2008, six out of the nine companies reported on some negative aspect compared to four out of nine in 2003 and two out of five in 1998.

Figure 5.12. – Information on Negative Aspects



As illustrated in Figure 5.13. below, most of the reported negative aspects, no matter what year, were followed by some kind of solution. The problems were either explained and belittled by a statement concluding the negative aspect being of little importance on an overall perspective, or reported in connection with a solution of the mentioned problem. Two companies gave negative information without explanation or solution, AstraZeneca in 2003 and H&M in 2008.

Figure 5.13. – Information on Solution to Mentioned Problem



In summary, there is a discernable trend showing that companies have increasingly been reporting on negative aspects as the years have passed. At the same time, there is a clear pattern of simultaneously reporting solutions to the problems, or at least explaining and/or belittling them.

Accounting for negative aspects is, as earlier explained, of great importance if the companies wish for their reports to be perceived as reliable. The increase in accounting for negative aspects indicates an improved validity of the reports since they become more balanced and therefore probably portray a more representative image. However, because the negative

aspects in the majority of the cases are followed by positive information, the balance of the reports can be interpreted as biased. Without knowledge of the companies' activities it is impossible to say if the reports are presenting valid information or not. Nevertheless, the trend does indicate that the reports have become more valid.

5.6. Development in qualitative indicators

The qualitative indicators measure the quality of the information in the studied reports. The calculated mean value of these indicators for each year and company shows the general development of the reports' quality over the years. *Table 5.5.* shows the average grades given to each company over the years and total average of the grades given on all examined reports for each company (See *Appendix 4* for calculation of the values in the *Table 5.5.*). From the mean grades it can be noted that the first studied reports are of different quality depending on company. The oldest studied ESR from Stora Enso, ABB and AstraZeneca have a mean grade of over 2 while the first studied reports from Lundin Petroleum and Swedish Match are quite low, equal to and below 0,5. The average mean grade shows which companies have had the best overall quality in their ESR when taking the grading of all three years into perspective. H&M have in this aspect joined Stora Enso, ABB and AstraZeneca in having the higher average mean grades. Lundin Petroleum and Swedish Match however, remained as the companies having the lowest quality in their ESR.

Table 5.5. Mean grade on qualitative indicators

Company \ Means	1998	2003	2008	Average Mean
Lundin Petroleum	<i>N/A</i>	0,50	1,33	0,92
Stora Enso	2,33	2,67	2,83	2,61
ABB	2,33	2,67	2,67	2,56
H&M	1,17	2,83	3,00	2,33
Swedish Match	0,33	1,33	1,67	1,11
AstraZeneca	<i>N/A</i>	2,50	2,17	2,34
Nordea	<i>N/A</i>	1,67	2,50	2,09
Ericsson	0,83	0,67	2,83	1,44
TeliaSonera	<i>N/A</i>	0,50	2,67	1,59

It is apparent that the development has lead to ESR of better quality. *Table 5.6.* below shows in absolute numbers to what degree the companies' grades have changed between each studied year as well as the total change between 1998 and 2003 for the companies that existed in 1998. Here, it can be noted that different companies' ESR have developed in different ways. The company with the most development is TeliaSonera which received a mean grade of 0,5 in 2003 but achieved one of the highest grades in 2008. Other companies with immense developments are Ericsson and H&M. Ericsson actually got lower grades on average in 2003 than in 1998 but managed to improve their reports until 2008, which earned the company a mean grade in 2008 that equalled Stora Enso's. H&M also managed to improve the quality of their ESR between 1998 and 2008. Most of this improvement was achieved between 1998 and 2003. In 2008 H&M were the only company receiving grade three on all qualitative indicators.

The companies indicating the least development of the quality in their ESR are Stora Enso and ABB. However, these two companies had the highest mean grade on their reporting from start, which means that there was little room for improvement according to the available grading scale. The only company that has decreased the quality of their ESR is AstraZeneca.

The decreased average grade is due to the company’s choice to stop reporting according to the GRI guidelines and not reporting on any other stakeholder dialogue concerning their Sustainability Reporting. If Stakeholder Dialogue were to be excluded from the calculations of the mean grades in the tables above, an indication on improved reporting quality would be apparent.

Table 5.6. Change in mean grade on qualitative indicators

Company \ Increase	98-03	03-08	Increase 98-08
Lundin Petroleum		0,83	
Stora Enso	0,34	0,16	0,50
ABB	0,34	0,00	0,34
H&M	1,66	0,17	1,83
Swedish Match	1,00	0,34	1,34
AstraZeneca		-0,33	
Nordea		0,83	
Ericsson	-0,16	2,16	2,00
TeliaSonera		2,17	

In sum, the companies’ ESR has on average become of better quality. However, different companies have improved their ESR to different degrees and at different times. As discussed above, there also lies a difference in how the grades of the various qualitative indicators have developed.

6. Conclusion

This chapter highlights the most important aspects of the Analysis and Discussion in order to provide answers and conclusions to the stated research questions. To conclude, suggestions on further studies will be provided at the very end of the chapter.

6.1. Development and Trends of Annual ESR

The main purpose of the thesis was to map the development of ESR in Sweden between 1998, 2003 and 2008 and to see if any trends could be discerned. What can be concluded in general is that ESR in Sweden has increased in extent. This increase indicates that today, companies in general consider the benefits of distributing their reports outweigh the costs of producing them. This is hardly surprising, considering the great attention paid to environmental issues in the society of today. The study shows that an increasing number of companies have chosen to produce separate Sustainability Reports. Simultaneously, the amount of pages concerning the environment in the Annual Reports has increased for some companies, leading to an increasing difference between the corporations. The frequency of mentioning the environment in different chapters of the Annual Reports has also increased, indicating that corporations have come to consider environmental issues more relevant in a growing number of contexts. The extent of the Environmental Sustainability section in the separate Sustainability Reports, however, has proven to become less varied as the years have passed. Concerning the development of distribution of the separate Sustainability Reports, it is difficult to make any reliable conclusions, but if any should be presented, it seems like more and more companies have chosen to distribute their Sustainability Reports in the form of PDF documents.

The ESR in Sweden has not only expanded, it has also increased in quality over the years. From one studied period to another, the information in the reports has become more detailed and concrete, revealing more information about the company and its environmental efforts to the reader. This ultimately leads to an improved relevance, since it alleviates for stakeholders to make assumptions and use the information as basis for decisions.

An improved reliability can also be noted. First and foremost, the information has become easier to verify, due to the increased reporting on evident facts, measurements and numbers. In addition, verifiability has improved considering the increased number of companies that receive third party assurance, both in the case of reporting as well as management. Furthermore, there are indications on an improved validity for many of the companies. There has been an increased amount of companies voluntarily reporting on negative aspects like risks, failures or accidents that do have, or could have, material environmental impact. However, most of these companies also provide information to show that the situation is under control, which raises the question whether the ESR really is balanced. In order to conclude if the companies' ESR represents a true and fair view, it is essential to know what the companies in fact do.

In terms of comparability, it can be concluded that the quality has been improved. As an increasing amount of corporations apply the standards of GRI and provide relevant and verifiable information, it becomes easier to compare different companies to each other. In terms of indicators, the companies' information on Environmental Impact is the easiest to compare across different companies. The comparability over time however, is different depending on which company is subject for comparison. The majority of the studied

companies have experienced much development in the area of ESR, which complicates comparisons of a corporation's reports from different years.

The improved quality is not only unevenly distributed on different companies but also on different indicators. Environmental Impact, followed by Innovation, is the indicator that is most thoroughly reported on in 2008, as well as being the indicator which has undergone the greatest transformation concerning amount of companies reporting using logos. The indicator with the weakest results is information on Supply Chain Management. Four of the companies make excellent account for integrating the supply chain in their reporting of environmental issues in 2008. In general, these companies have also reported on Supply Chain Management in an environmental context effectively in the past. However, a majority of the companies received low grades on this indicator. Furthermore, the qualitative indicator showing the most inconsistent development is the one on Strategy. Different companies reported widely different and two companies actually lowered their reporting standards on one occasion.

Regarding stakeholder involvement in the development of the Sustainability Reports, we observed an increase in companies applying the GRI guidelines. Since GRI consists of organized stakeholders, this provides the companies' stakeholders a greater part in the process of improving ESR. No other reporting recommendations have been noted in the study, and no company have received grade 3 on the indicator Stakeholder Dialogue without mentioning the use of GRI. This indicates that GRI has become the natural stakeholder organization to turn to when making efforts to develop ESR and that the GRI guidelines make out somewhat of a norm when applying standards and recommendations in the area.

Concerning the corporations' ways of convincing the reader of the veracity of the reports, a trend can be perceived. Some companies have reported verifiable facts during all the studied years. However, what can be said generally is that logic reasoning, facts, and numbers have increased as time has passed. This development indicates that the companies are basing their reports on the logos notion of rhetoric to a greater extent today than in the past, when the use of the notion of pathos could be said to be dominant. It is also clear that it has become more popular to refer to different authorities on the subject of ESR and environmental management, such as GRI, auditors and certifications. This indicates a development towards convincing the readers of the reports through the notion of ethos.

6.2. Matching Stakeholder Requests

On an overall perspective, it can be concluded that the stakeholder request are being met to an increasing degree. In regards of qualitative indicators, the companies have generally improved their reporting as time has passed, meaning that the information in the reports has become more concrete, relevant and verifiable. There are of course certain exceptions, but they merely seem to prove the rule. The indicators least meeting the requests of the stakeholders are Strategy and Stakeholder Dialogue. The indicators best to satisfy stakeholder requests are Environmental Impact and Innovation. The increasing number of companies applying assurance as well as the GRI standards is also in line with the requests of the stakeholders. In addition, more companies report on negative aspects, which according to stakeholders add to the reliability of the reports.

Nevertheless, when it comes to the length of the reports it is hard to say what different stakeholders consider to be a justifiable versus unjustifiable length. The answer probably varies with the stakeholder groups. The development shows an improved quality of ESR,

which might justify an increasing extent of ESR. However, the only overall increases in pages that can be concluded from the studied years and companies is, on the one hand, the increase that follows from more corporations choosing to produce separate Sustainability Reports and, on the other hand, the increase that follows the amplified frequency of mentioning the environment in other chapters of the Annual Reports.

Consequently, no conclusion can be made on the length of the reports in themselves, only that more companies have begun reporting in a similar way. Adding the observed development of higher quality in the reports, this strongly implies a development towards a broader and improved matching of stakeholder requests.

6.3. Differences between Corporations

Although there is a general trend of all the studied corporations moving in the same direction, the development of ESR is different in character and extent depending on which company is under examination. Looking at the mean grades given on the qualitative indicators, it is possible to divide the studied companies into four groups. Within each group, there are similarities in how the companies' ESR has developed.

Group one consists companies of which their first studied reports were of high quality in regards to reporting on their environmental efforts; reports that left little room for improvement according to the available grading scale. The companies referred to are Stora Enso, ABB and possibly AstraZeneca. Stora Enso and ABB have both made additional improvements over time. AstraZeneca, on the other hand got a lower average grade in 2008 than in 2003. This was due to them not reporting using the GRI standards, which lead to a lower grade on reported Stakeholder Dialogue. When excluding Stakeholder Dialogue from the calculations however, the new mean value indicated improved reporting quality.

Group two consists of H&M and Nordea. In their respective first studied reports, the two companies both had poor reporting quality. However, their mean grades were above 1 and over time the reporting quality has improved to equal to respectively close to 3.

Group three consists of two companies that started out with a mean grade below 1 for their first studied reports. These two companies are Ericsson and TeliaSonera. Between 2003 and 2008, the quality of these two companies' ESR developed drastically, earning them mean grades in 2008 at the same level as the companies in group one and two.

The two remaining companies, Lundin Petroleum and Swedish Match, constitute the fourth group. These two companies are characterized by poor reporting quality in their first studied reports. Later on, the two companies have improved their ESR, but not been able to reach the same levels in 2008 as the three previous groups. Lundin Petroleum and Swedish Match are also the only two companies not to have applied the GRI recommendations in any of the studied years.

6.4. Expectations on the Future

It is impossible to know with certainty what the future will bring. However, based on the mentioned studies, which claim that the largest companies usually lead the development of their respective industries in the matter of reporting on environmental sustainability, some

assumptions can be made about the future development of ESR in Sweden simply by observing the latest development of the largest companies in each respective industry. These observations are presented in the beginning of this chapter and will not be further discussed. This section looks only to the studied companies and therefore intends to draw conclusions for possible expectations on the future only for these corporations.

The empirical findings of the study show that producing separate Sustainability Reports have become more usual as time has passed. Taking this into consideration along with the facts that the GRI recommendations have been translated into Swedish and that stakeholders find environmental issues relevant, it is reasonable to expect this trend to continue. As more companies have chosen to publish separate reports, no indications have implied that the information in the Annual Reports is to disappear, leading to the conclusion that Annual Reports are probable to continue including environmental reporting in the future.

Furthermore, assuming that the previous development trends will be continual, we were able to draw some conclusions on what one could expect from the companies in the future by looking to the past. Given these assumptions, the quality of the reported information will improve in terms of providing measurable, concrete and verifiable facts. The observed development trends also indicate that companies will increasingly account for their environmental management and its effects, as well as for the corporations' impact on the environment.

In addition, there will be a growing pressure on companies to integrate their supply chain in their reporting on environmental efforts. GRI is presently focusing on this issue and the empirical findings of the study show that most of the companies that heavily rely on suppliers and transports already report on this indicator in a qualitative manner. These companies have proven to be pioneers in other aspects of ESR, which indicates that the other corporations will follow.

As more companies produce separate Sustainability Reports, the pressure for assurance and auditing is likely to intensify. The Swedish government has already taken a step towards demanding all corporations in Sweden to produce reports concerning sustainability. Today, it is mandatory for state-owned companies to produce audited Sustainability Reports in compliance with the GRI guidelines. Simultaneously, the GRI is pressuring governments around the world to take such measures.

Moreover, with increased concrete and high quality information, the usability of the reports will further improve for the group of stakeholders that has expressed discontent about the Sustainability Reports so far, namely financial analysts. They believe that ESR could indicate future added value, but claim to have been unable to use these reports so far due to lack of knowledge and lack of quantifiable facts. As the reported information become more comprehensible, reliable and comparable, in tandem with GRI making efforts in creating computer systems like XBRL, these obstacles will probably be eliminated.

In sum, the future development of ESR in Sweden will probably entail continual increase in the production of separate Sustainability Reports, many of which will be produced according to the GRI recommendations and audited by a third party. The quality of the provided information will remain under continual improvement in all environmental aspects and in all industries. In addition there will be more stakeholders actively using the reports as a basis in making different types of decisions.

6.5. Further Studies

When conducting the study, some questions arose, which could not be answered based on the empirical findings. The questions could serve as ideas for future studies and theses. First of all, it is peculiar that Lundin Petroleum shows such poor results. Being of a heavy industry with massive impact on the environment, according to the stakeholder theory and the theory of legitimacy the corporation should be much more inclined to report on environmental efforts than it appears to be.

Another question that was raised in the conduction of the study is the validity of the reports. Without knowing the entire truth about the companies' environmental management and impact, it is impossible to asses how well the reports match the reality. This question could be answered through the conduction of a case study.

Thirdly, the study mentions the convincing means of ethos, pathos and logos to have inspired the grading scale and helped in the matter of analysis. However, this study has first of all examined the quality and format of the ESR and a fully-fledged argumentative analysis has not been conducted. It would be interesting to see in greater detail how the corporations in the different industries attempt to make their respective reports be perceived as more reliable. This question could be answered through a qualitative text analysis.

References

Works Cited

- ABB Official Website <http://www.abb.com> (Accessed May 8th 2009)
- AstraZeneca Official Website <http://www.astrazeneca.com> (Accessed May 5th 2009)
- Ax, Christian., Johansson, Christer & Kullén, Håkan. (2005) *Den nya Ekonomistyrningen*. Malmö: Liber.
- Bartels, Wim., Iansen-Rogers, Jennifer & Kuszewski, Judy. (2008) *Count me in – The readers' take on sustainability reporting*. GRI & KPMG report.
- Brenkert, George G. (ed.). (2004) *Corporate Integrity & Accountability*. Thousand Oaks: Sage Publications, Inc.
- Brundtland, Gro Harlem., et al. (1987) *Our Common Future. Report of the World Commission on Environment and Development, United Nations*.
- Ericsson Official Website <http://www.ericsson.com> (Accessed May 8th 2009)
- Global Reporting Initiative Official Website. <http://www.globalreporting.org> (Accessed April 1st & April 20th 2009)
- H&M Official Website <http://www.hm.com> (Accessed May 5th 2009)
- Karlberg Maria & Mral Birgitte (2001) *Heder och påverkan – Att analysera modern retorik*, Stockholm: Bokförlaget Natur & Kultur.
- Konrad A., et al. (2006) Empirical Findings on Business-Society Relations in Europe. *Journal of Business Ethics*, vol. 63, issue 1, pp. 89-105.
<http://www.springerlink.com.ezproxy.ub.gu.se/content/y84890035140j107/fulltext.pdf>
(Accessed April 2nd, 2009)
- Larsson, Lars Olle (2008) European Sustainability Reporting Association 2008 report for Sweden. *The European Sustainability Reporting Association*.
<http://www.sustainabilityreporting.eu/sweden/index.htm> (Accessed April 1st, 2009)
- Ljungdahl, Fredrik. (1999) *Utveckling av miljöredovisning I svenska börsbolag – praxis, begrepp, orsaker*. Lund: Wallin & Dalholm Boktryck AB.
- Lundin Petroleum Official Website <http://www.lundinpetroleum.com> (Accessed May 8th 2009)
- MacLean, Richard & Rebernak, Kathee. (2007) Closing the Credibility Gap: The Challenges of Corporate Responsibility Reporting. *Environmental Quality Management*, vol. 16, issues 4, pp. 1-6.

<http://www3.interscience.wiley.com.ezproxy.ub.gu.se/cgi-bin/fulltext/114280658/PDFSTART?CRETRY=1&SRETRY=0>
(Accessed April 2nd, 2009)

Merchant, K.A. & Van der Stede, W.A. (2007) *Management Control Systems: Performance Measurement, Evaluation and Incentives*, 2nd edition. Prentice Hall.

Munro, Rolland & Mouritsen, Jan. (eds.). (1996) *Accountability – Power, Ethos & the Technologies of Managing*, 1st edition. London: International Thomson Business Press.

Nordea Bank Official Website <http://www.nordea.com> (Accessed May 5th 2009)

Schaltegger, Stefan., Bennet, Martin & Burritt Roger. (eds.). (2006) *Sustainability Accounting and Reporting*. Dordrecht: Springer.

Smith, Dag. (2006) *Redovisningens Språk*, 3rd edition. Studentlitteratur.

Stora Enso Official Website <http://www.storaenso.com> (Accessed May 5th 2009)

Swedish Match Official Website <http://www.swedishmatch.com/> (Accessed May 5th 2009)

TeliaSonera Official Website <http://www.teliasonera.com> (Accessed May 5th 2009)

Thomasson, Jan., et al. (2005) *Den nya affärsredovisningen*. Malmö: Liber.

Legislation and Recommendations

Eco Management Audit Scheme Official Swedish Website. www.emas.se
(Accessed May 23rd 2009)

Global Reporting Initiative. (2006) *Sustainability Reporting Guidelines*, version 3.

International Financial Reporting Standards

International Organisation for Standardization Official Website. www.iso.org
(Accessed May 23rd 2009)

Lag om utsläppsrätter

Miljöbalken

Regeringskansliet (2007) *Guidelines for external reporting by state-owned companies*.
<http://www.regeringen.se/sb/d/108/a/94120> (Accessed May 20th, 2009)

United Nations Framework Convention on Climate Change.
http://unfccc.int/kyoto_protocol/items/2830.php (Accessed April 1st, 2009)

Årsredovisningslagen

Student Theses

- Hansson, Susanne & Henriksson, Karin. (2003) *Hållbarhetsredovisning – En kommande redovisningsform?* Luleå University of Technology. <http://epubl.luth.se/1404-5508/2003/156/LTU-SHU-EX-03156-SE.pdf> (Accessed March 26th, 2009)
- Jansson, Ann-Sofie & Johansson, Linda. (2005) *Miljöredovisning: är den användbar ur analytikernas synvinkel.* School of Business, Economics and Law at the University of Gothenburg. <https://gupea.ub.gu.se/dspace/bitstream/2077/1694/1/05-06-15M.pdf> (Accessed March 26th, 2009)

Bibliography

- Bennet, Martin., Rikhardsson, Pall M. & Schaltegger, Stefan. (eds.). (2003) *Environmental Management Accounting: Purpose and Progress.* Dordrecht: Kluwer Academic Publishers.
- Cooper, Stuart M., & Owen, David L. (2007) Corporate social reporting and stakeholder accountability: The missing link. *Accounting, Organizations and Society*, vol. 32, issue 7/8, pp. 649-667.
http://www.sciencedirect.com.ezproxy.ub.gu.se/science?_ob=MIimg&_imagekey=B6VCK-4NCKJV0-1-1&cdi=5957&user=646099&orig=search&coverDate=11%2F30%2F2007&sk=999679992&view=c&wchp=dGLbVtz-zSkWz&md5=fb38a2238a5922abd0595abd8c174bce&ie=/sdarticle.pdf
(Accessed April 2nd, 2009)
- Flening, Birgit. (2005) *Finansmarknaden, miljön och redovisningen.* Rapport. Stockholm: Naturvårdsverket. <http://www.naturvardsverket.se/Documents/publikationer/620-5521-6.pdf> (Accessed March 30th, 2009)
- Gray, Rob., Bebbington, Jan & Walters, Diane. (1993) *Accounting for the Environment.* London: Chapman.
- Johannesson Kurt. (1998) *Retorik – eller konsten att övertyga* 2nd edition, Stockholm: Nordstedts Förlag.
- KPMG. (2000) *Vem behöver miljöredovisningarna.* Rapport. Stockholm: Naturvårdsverket.
- Nyquist, Siv. (2003) Environmental information in annual reports: a survey of Swedish accountants. *Managerial Auditing Journal*, vol. 18, issue 8, pp. 682-691.
<http://www.emeraldinsight.com.ezproxy.ub.gu.se/Insight/viewPDF.jsp;jsessionid=E10D5FE9EF22B44E221600321038726A?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/0510180808.pdf> (Accessed April 7th, 2009)
- Perrini, Francesco. (2005) Building a European Portrait of Corporate Social Responsibility Reporting. *European Management Journal*, vol. 23, issue 6, pp. 611-627.
http://www.sciencedirect.com.ezproxy.ub.gu.se/science?_ob=MIimg&_imagekey=B6V9T-4J2V4BS-6-V&cdi=5907&user=646099&orig=search&coverDate=12%2F31%2F2005&sk=

[999769993&view=c&wchp=dGLbVzz-zSkWz&md5=ef608127efc10d382718a5fcb02c3cf3&ie=/sdarticle.pdf](http://www.ebscohost.com/ehost/abstract?vid=4&hid=14&sid=9d0b041c-af72-4d85-8f50-c07b9c05610f%40sessionmgr9)
(Accessed April 2nd, 2009)

Williams, Cynthia Clark. (2008) Toward a Taxonomy of Corporate Reporting Strategies. *Journal of Business communication*, Vol. 45, Issue 3, pp. 232-264.
<http://web.ebscohost.com.ezproxy.ub.gu.se/bsi/pdf?vid=4&hid=14&sid=9d0b041c-af72-4d85-8f50-c07b9c05610f%40sessionmgr9> (Accessed April 2nd, 2009)

Student Theses:

Berglund, Anna., Nilsson, Jeanette & Rask, Hanna. (2004) *Förväntningsgap vid frivillig miljöredovisning?: en studie av upprättande, granskning och krav på revisorn vid frivillig miljöredovisning*. School of Business, Economics and Law at the University of Gothenburg. <https://gupea.ub.gu.se/dspace/bitstream/2077/1541/1/04-05-53.pdf>
(Accessed March 26th, 2009)

Brodendal, Anna & Sjöberg, Susanna. (2004) *Hållbarhetsredovisning – för vem och i vilket syfte?* School of Business, Economics and Law at the University of Gothenburg.
<https://gupea.ub.gu.se/dspace/bitstream/2077/1799/1/03-04-71D.pdf>
(Accessed March 26th, 2009)

Dellbratt, Martin., Krönström, Jens & Rapp, Kristofer. (2009) *Hållbarhetsredovisning – En studie utifrån GRI:s ramverk*. School of Business, Economics and Law at the University of Gothenburg.
https://gupea.ub.gu.se/dspace/bitstream/2077/19764/1/gupea_2077_19764_1.pdf
(Accessed March 26th, 2009)

Nilsson, Henrik & Brättemark, Maria. (2007) *Miljöredovisning – En studie av svenska börsbolag inom industrisektorn*. School of Business, Economics and Law at the University of Gothenburg. <https://gupea.ub.gu.se/dspace/bitstream/2077/9487/1/07-08-3.pdf> (Accessed March 26th, 2009)

Appendix 1 – Calculation of Total Share Value

The corporations studied are the corporations with the largest total share value on the 12th of December in 2008. When calculating total share value, we multiplied the single share value with the number of shares for every company:

$$\text{Total Share Value} = \text{Single Share Value} * \text{Number of Shares}$$

The largest company in each industry on the Stockholm OMX exchange is presented in the table below.

Corporation	Single share value 2008-12-31	Number of shares 2008-12-31	Total share value 2008-12-31
Lundin Petroleum	41	317910580	13 034 333 780
Stora Enso	60,75	789538499	47 964 463 814
ABB	116	2322792835	269 443 968 860
H&M	298	827536000	246 605 728 000
Swedish Match	111,75	255000000	28 496 250 000
AstraZeneca	307	1453000000	446 071 000 000
Nordea	42,6264	4030167808	171 791 545 051
Ericsson	58,8	3226451736	189715362077
TeliaSonera	38,9	4490457088	174 678 780 723

Appendix 2 – Indicators results

This appendix accounts for the evaluation of all indicators in 1998, 2003 and 2008. The results are presented in the tables below.

Indicator results 1998

Company \ Indicator	1.1.	1.2.a.	1.2.b.	1.3.	1.4.	2.1.	2.2.	2.3.	2.4.	3.	4.1.	4.2.	4.3.	5.1.	5.2.
Lundin Petroleum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stora Enso	2	3	33	4	0	2	2	3	3	3	1	1	1	1	1
ABB	2	2	65	11	0	2	3	1	3	3	1	1	2	1	1
H&M	1	1	N/A	3	N/A	2	2	2	1	0	0	0	0	0	0
Swedish Match	1	0	N/A	2	N/A	1	1	0	0	0	0	0	0	0	0
AstraZeneca	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nordea	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ericsson	1	1	N/A	1	N/A	1	0	2	1	0	0	0	1	0	
TeliaSonera	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Indicator results 2003

Company \ Indicator	1.1.	1.2.a.	1.2.b.	1.3.	1.4.	2.1.	2.2.	2.3.	2.4.	3.	4.1.	4.2.	4.3.	5.1.	5.2.
Lundin Petroleum	1	2	N/A	5	N/A	1	1	0	0	0	0	0	1	1	1
Stora Enso	2	N/A	29	14	1	2	2	3	3	3	1	1	3	1	1
ABB	2	3	16	7	1	2	3	3	2	3	1	1	3	0	
H&M	2	4	8	3	0	3	3	3	2	3	0	0	3	1	1
Swedish Match	1	2	N/A	2	N/A	3	1	0	1	3	0	0	0	0	
AstraZeneca	2	1	2	6	1	3	2	1	3	3	0	0	3	1	0
Nordea	2	N/A	11	1	0	1	2	1	3	3	0	0	0	0	
Ericsson	1	1	N/A	4	N/A	1	1	1	1	0	0	0	0	0	
TeliaSonera	1	1	N/A	2	N/A	1	1	0	1	0	0	0	0	0	

Indicator results 2008

Company \ Indicator	1.1.	1.2.a.	1.2.b.	1.3.	1.4.	2.1.	2.2.	2.3.	2.4.	3.	4.1.	4.2.	4.3.	5.1.	5.2.
Lundin Petroleum	1	6	N/A	10	N/A	1	3	0	1	2	0	0	1	1	1
Stora Enso	2	10	28	13	0	3	2	3	3	3	1	1	3	1	1
ABB	2	2	18	11	0	2	2	3	3	3	1	1	3	1	1
H&M	2	4	10	9	0	3	3	3	3	3	0	0	3	1	0
Swedish Match	1	2	N/A	6	N/A	1	2	1	2	3	0	1	1	0	
AstraZeneca	2	1	13	7	1	2	2	2	3	3	0	0	1	1	1
Nordea	2	2	2	3	0	3	2	1	3	3	1	0	3	0	
Ericsson	2	3	10	6	0	2	3	3	3	3	1	1	3	1	1
TeliaSonera	2	5	10	9	0	3	3	1	3	3	0	1	3	0	

Appendix 3 – Comments on Indicators

1.1. ESR Separate and/or Integrated in the Annual Report

No examples are needed to illustrate our train of thought concerning this indicator, since there are three concrete and easily separable answers to the same question. Each corporation fits into one of the three categories below.

0: The corporation has a Sustainability Report separate from the Annual Report, but no integrated Environmental Sustainability Chapter in the Annual Report

1: The corporation has a chapter on Environmental Sustainability integrated in the Annual Report but no separate Sustainability Report

2: The corporation has both a separate Sustainability Report as well as an integrated chapter on Environmental Sustainability.

1.2.a. Number of Pages of Environmental Sustainability Chapter in Annual Report

On this indicator, we counted the number of pages in the chapter of Environmental Sustainability in each Annual Report. No example is needed to illustrate our train of thought concerning this indicator, since there is no risk of subjectivity in the matter of counting pages.

1.2.b. Number of Pages of Environmental Sustainability Chapter in Sustainability Report

On this indicator, we counted the number of pages in the chapter of Environmental Sustainability in each Sustainability Report. No examples are needed to illustrate our train of thought concerning this indicator, since there is no risk of subjectivity in the matter of counting pages.

1.3. Frequency in Number of Chapters in the Annual Report Containing Information on Environmental Sustainability

On this indicator, we first highlighted the text of whenever a company mentioned Environmental Sustainability, after which we counted the amount of chapters mentioning the subject in one way or another. No examples are needed to illustrate our train of thought concerning this indicator, since there is no risk of subjectivity in the matter of counting chapters.

1.4. Distribution Format

No examples are needed to illustrate our train of thought concerning this indicator, since there is no risk of subjectivity in assessing if a document is a printed hard copy (1) or if it is in a digital form of a PDF document (0).

2.1. Environmental Sustainability Strategy

Concerning the matter of Environmental Sustainability Strategy, the different grades possible to achieve were between 0-3. A brief description of each grade with examples of companies receiving them is presented below.

0: To receive a grade 0, it would mean the company does not mention strategy or keywords related to strategy at all in an environmental context. However, no grade 0 was given for any of the reports on this indicator.

1: Grade 1 would be given to companies mentioning keywords related to strategy, but not describing their strategy further. An example is Swedish Match, a company that in 1998 mentioned they were about to develop a strategy. Since they mentioned a development of their strategy, but neither in what direction it would aim, nor giving any other leads on what the strategy would be like, Swedish Match received a grade 1 this year.

2: Grade 2 was given to companies mentioning their strategy and describing it as a whole. In 2003, Stora Enso and ABB reported a strategy, but neither was linked to the respective corporation's overall strategy, thus providing the companies with a grade 2.

3: Grade 3 was given to companies describing their strategy and linking it to their overall strategy, or the like. To exemplify our made assessments when giving this grade, H&M (2003) and Nordea (2008) are quoted below.

H&M 2003

The strategy below is an exemplary strategy, both on the CSR issues and with a clear link to the general strategy of the corporation.

CSR VISION AND STRATEGY

CSR Vision

To uphold Human Rights, contribute to Sustainable Development and thereby earn trust from our Stakeholders

CSR Strategy

H&M's general strategy is to continue to grow whilst maintaining good profitability. H&M believes that good relations with the world around and long-term profitability depend on H&M taking responsibility for how people and the environment are affected by our activities.

The following quote from our environmental policy very well concludes the general strategy that H&M has on Corporate Social Responsibility:

"Continuous improvements are significant for all H&M activities. This includes our environmental and social efforts, which are conducted within the framework of our business operations. H&M's business concept is to give our customers unsurpassed value by offering fashion and quality at the best price. Our quality concept is based on ensuring that our customers are satisfied with our products and H&M as a company. To this end, we are committed to acting responsibly in our community. We shall also co-operate with our suppliers to improve the social and environmental standards in the factories that manufacture H&M clothing, thereby contributing to sustainable development in these areas."

- *H&M Sustainability Report 2003, p. 5*

CSR as defined by H&M

H&M has chosen to define CSR as "a concept whereby companies integrate social and environmental concern in their business operations and in their interaction with their stakeholders on a voluntary basis in order to meet or exceed the ethical, legal, commercial and public expectations that society has of business".

Nordea 2008

We gave Nordea the grade 3 for their Sustainability Strategy, for presenting their strategy and its activities on pp. 6-7 of their CSR report, and linking the Sustainability Strategy to top executive management and future corporate goals. See quotation of the linking of strategy below.

“Following the introduction of new Nordea values in 2007, a process to create a new CSR strategy was initiated. The proposal was presented to Group Executive Management in June 2008. The overall purpose of the proposed new CSR strategy and its related activities is to support the Nordea values and the Group’s strategic move towards the creation of a Great Nordea.”

- *Nordea Annual Report 2008, p. 24*

2.2. Information on Internal Control

Concerning the matter of Internal Control, the different grades possible to achieve were between 0-3. A brief description of each grade with examples of companies receiving them, when necessary, is presented below.

0: Grade 0 was given to companies not mentioning internal control or how the company dealt with environmental issues internally. The only corporation receiving a grade 0 was Ericsson in 1998.

1: Grade 1 was given to companies shortly mentioning internal control or follow-ups on internal goals and strategies in an environmental context.

2: Grade 2 was given to companies concretely describing their internal control in areas such as contribution to the employees' personal development in environmental issues, reporting concretely on responsibility distribution in sustainability issues, et cetera. To exemplify our made assessments when giving this grade, below is a quote from H&M in 1998 and our assessment in giving them the grade 2.

H&M 1998

H&M received a grade 2 in 1998 since their information was thoroughly described, but demonstrated a lack of verifiable solid and qualitative facts. They mentioned having “an” Environmental manager, but not who that person was; they mentioned that they were going to have training “about environmental issues”, but not how profound the education would be or what demands they would make to their employees regarding knowledge and/or skills; lastly they mentioned having made a review to use as a basis for training, but not in what directions this training would lead to or how the training was going to be conducted.

“H&M consolidated its environmental organisation in 1998. An Environmental Manager and a group were appointed to deal with Group environmental issues. An environmental co-ordinator handles H&M’s environmental efforts, and an organisation of environmental co-ordinators from throughout the Group was established. All members of the environmental organisation will undergo further training in 1999 to learn more about environmental issues. A review of the company’s environmental impact in all aspects of the operation was conducted to serve as – a basis for training and continued environmental efforts.”

- *H&M Annual Report, p. 15*

3: Grade 3 was given to companies providing detailed information in the same way as would give a grade of 2, but with additional information on e.g. the names of people responsible or of the tools used, as well as degree of fulfilment, with words, numbers and graphs. As an example of a company receiving grade 3, Stora Enso’s report in 1998 listed their different trainings and educations with their names and contents; what was measured in their control mechanisms; and which tools they had used as well as which they started to use during the year. All information was verifiable and responsible people were named.

2.3. Information on Supply Chain Management

Concerning the matter of Supply Chain Management in an environmental context, the different grades possible to achieve were between 0-3. The assessments in grading this qualitative indicator are much alike those made when grading Internal Control. A brief description of each grade is presented below.

0: Grade 0 was given to corporations not mentioning their supply chain management in an environmental context. Lundin Petroleum was the only corporation which did not once receive a higher grade than 0.

1: Grade 1 was given to corporations shortly mentioning the subject in their ESR, but without further information.

2: Grade 2 was given to corporations with concrete reporting on their demands on their suppliers or transports, including information on how the corporation had educated and trained its suppliers.

3: Grade 3 was given to companies providing detailed information in the same way as would give a grade 2, but with additional information on e.g. fulfilment of demands, training and education. To exemplify our made assessments when giving this grade, ABB received a grade 3 in 2008.

ABB 2008

Since they reported distinct and easily controllable demands on their suppliers (e.g. ISO 14001), with additional follow-up and fulfilment figures, ABB was given the grade 3 in 2008.

“For example, ABB favors suppliers who have implemented ISO 14001 environmental management systems [...]

About 47 percent of 1,400 key suppliers are externally certified to ISO 14001 for their environmental performance and a further 11 percent have implemented “self-declared” environmental management systems.”

- ABB Sustainability Review 2008, p. 8

2.4. Information on Innovation

Concerning the matter of Information on Innovation in an environmental context, the different grades possible to achieve were between 0-3. A brief description of each grade is presented below.

0: Grade 0 was given to corporations not mentioning innovation or product & efficiency development in an environmental context.

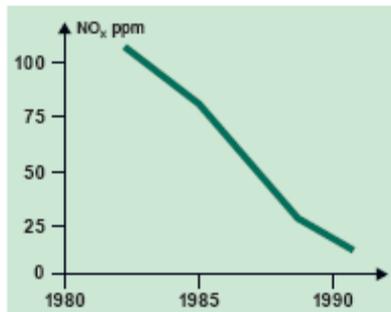
1: Grade 1 was given to companies shortly mentioning the subject, but not providing any further information or explanations on how it has been conducted in an environmental context.

2: Grade 2 was awarded when describing concretely with words, without providing any numbers or more profoundly verifiable facts.

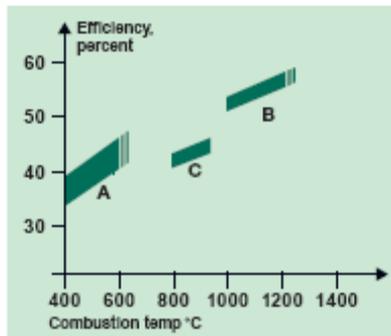
3: Grade 3 was given to a corporation describing the subject concretely, with verifiable consequences of their efforts described and information on which investments had been made and what they resulted in. To exemplify our made assessments when giving this grade, ABB received a grade 3 in 1998.

ABB 1998

The graph and quote below were provided by ABB in 1998 when reporting on their innovation and product and efficiency development. The figure provides us with an illustration of the efficiency development in tandem with an illustration of decreased environmental impact as a consequence. The quote provides us with verifiable numbers of the efficiency development. Thus ABB reports in an exemplary manner this year.



NO_x emissions for ABB combined-cycle power plants.



Power plant efficiency.

”Environmental aspects

Much progress has been made in recent years in raising the efficiencies of thermal power plants. From an average of 35-45 percent for the existing pool of power plants, efficiencies have been raised to 55-60 percent when using today’s designs of gas turbines operating in the combined-cycle mode. Moreover, in the combined heat and power mode (CHP), fuel utilization of up to 90 percent can be achieved. The operation of the plants causes the main environmental impact by far.”

- ABB Environmental Management Report 1998, p. 16

3. Information on Environmental Impact

Concerning the matter of information on Environmental Impact, the different grades possible to achieve were between 0-3. A brief description of each grade is presented below.

0: A company was given a grade 0 if they had not mentioned their Environmental Impact.

1: Grade 1 was given to a company briefly mentioning that they had an Environmental Impact, but without further explanations or reporting on these impacts. No corporation was graded 1, but an example of a company in the borderline between the grade 0 and 1, along with our assessment, is presented below.

H&M 1998

H&M received the grade 0 in 1998, since they never explicitly stated that they had an impact on the environment, merely implicitly mentioning that they strived to be more environmentally friendly, exemplified by the following quote.

“[...] giving priority to the avoidance of substances, which are hazardous to health and the environment.
 [...] limiting the use of chemicals [...] shifting to more environmentally friendly transportation.”

- H&M Annual Report 1998, p. 15

2: Grade 2 was given to a company describing their Environmental Impact concretely with words, without backing up these words with concrete numbers and/or graphs. Lundin Petroleum was the only company that received this grade and did this in 2008 for the exact reasons explained above.

3: Grade 3 was given to companies describing their Environmental Impact concretely with words, numbers and/or graphs. To exemplify our made assessments when giving this grade, below is an example on a reporting which we considered qualifying for the top grade.

Nordea 2003

In 2003, Nordea received a grade 3 for presenting the below figure together with explanatory text, since the volumes of CO₂ emissions were thoroughly presented, describing which kind of payment methods caused the larger volumes of emissions as well as describing how large emissions they caused. In addition, Nordea motivated that they presented the information this way in order for them to be able to make as good priorities as possible in the choices of which payment methods should be stimulated and encouraged and which should be put to a halt.

Emissions of payments [tonnes of CO ₂]	2001	2002	2003
Over-the-counter	870	780	740
Internet	630	820	950
ATM ²	2,490	2,270	1,990
Postal payments	4,950	4,500	4,070
Total	8,900	8,400	7,700
Change %	-	-6.2%	-7.6%

Table 1. Total annual emissions from personal customer payments by payment method [tonnes of CO₂]

- Nordea ESR 2003, p. 4

4.1. Information on Scrutiny by External Auditor

No examples are needed to illustrate our train of thought concerning this indicator. Either the company reports having an external auditor (1) or no such information is provided in the report (0).

4.2. Information on Certification

No examples are needed to illustrate our train of thought concerning this indicator. Either the company reports being certified (1) or no such information is provided in the report (0).

4.3. Information on Stakeholder Dialogue (in the development of the report) (0, 1, 2, 3)

Concerning the matter of information on Stakeholder Dialogue in the development of the reports, the different grades possible to achieve were between 0-3. A brief description of each grade is presented below.

0: A company was given a grade 0 if they had not mentioned their Stakeholder Dialogue.

1: Grade 1 was given to a company mentioning keywords concerning Stakeholder Dialogue at large, which means that the dialogue didn't necessarily have to be involving the reports and their contents.

2: Grade 2 was to be given to a company describing the dialogue with their stakeholders concerning the development of their reports, but ended up to be given at one single time and of a different reason, explained below.

ABB 1998

ABB was the only company in the entire studied period to obtain a grade 2 on Stakeholder Dialogue. Throughout the period, no company described their Stakeholder Dialogue without also reporting on its consequences on the corporation's ESR (which resulted in a grade 3). However, as ABB begun with their ESR in 1998, as can be noted in the quotation below, they explained in this first report that they wished for a dialogue with its stakeholders in order for their reporting to evolve. In this wish, they explained how they wanted the stakeholders to take contact with them and made it clear that this was explicitly an invitation to a dialogue concerning their ESR, which convinced us to give this report a grade 2 in Stakeholder Dialogue.

“We need your input

We believe setting environmental goals is of vital importance to all of us. While our presentation of Environmental Declarations is far from complete, we have chosen to offer it at this early stage to get views from readers as quickly as possible. So please let us know how you feel about it. Mail or fax your comments to the address below[...]"

- ABB Environmental Management Report 1998, p. 9

3: Grade 3 was given to a company describing its Stakeholder Dialogue in the development of their ESR, followed by concrete consequences in form of actions taken due to the dialogue. All companies that have received this grade have reported according to the GRI guidelines. Since GRI is a stakeholder organization it becomes evident how stakeholder has taken part in the development of ESR.

5.1. Information on Negative Aspects

Either the company reports on Negative Aspects and their consequences (1) or no such information is provided in the report (0). These aspects, are not to be confused with general information about negative impact on the environment, since that kind of information is measured by indicator 3. A negative aspect accounted for in this indicator could be an accident resulting in environmental damage, as in the case of Lundin Petroleum reporting on oil leakages in 2003 and 2008.

5.2. Mentioned solution to Negative Aspects

No examples are needed to illustrate our train of thought concerning this indicator. Either the company follows their previously reported negative aspect with a solution or by belittling the impact it had on the environment (1), or no such information is provided in the report (0). A corporation not accounting for a negative aspect would not receive a grade on this indicator.

Appendix 4 – Development of Qualitative Indicators

To find the mean of each year for each respective company, we added the grades of the qualitative indicators (represented by *each indicator number* in the example below) and then divided its sum with the number of indicators (represented by *n* below), as follows:

$$\text{Mean} = \frac{(2.1. + 2.2. + 2.3. + 2.4. + 3. + 4.3.)}{n}$$

Thus, for the calculation of Stora Enso's mean in 1998, the calculation was as follows:

$$2,33 = \frac{(2 + 2 + 3 + 3 + 3 + 1)}{6}$$

Using this method, we obtained the means of each year, put them into a table and calculated the average mean throughout the studied period, figures are demonstrated in the table below.

Company	Mean 1998	Mean 2003	Mean 2008	Average Mean
Lundin Petroleum	N/A	0,50	1,33	0,92
Stora Enso	2,33	2,67	2,83	2,61
ABB	2,33	2,67	2,67	2,56
H&M	1,17	2,83	3,00	2,33
Swedish Match	0,33	1,33	1,67	1,11
AstraZeneca	N/A	2,50	2,17	2,34
Nordea	N/A	1,67	2,50	2,09
Ericsson	0,83	0,67	2,83	1,44
TeliaSonera	N/A	0,50	2,67	1,59

After obtaining these figures, we calculated the difference of the means between the years 1998 & 2003, 2003 & 2008 and between 1998 & 2008, subtracting the latter year from the former. To illustrate, we calculated the differences between the means of Stora Enso as follows:

$$\begin{aligned} \Delta \text{Mean } 2003 - \text{Mean } 1998 &= 2,67 - 2,33 = 0,34 \\ \Delta \text{Mean } 2008 - \text{Mean } 2003 &= 2,83 - 2,67 = 0,16 \\ \Delta \text{Mean } 2008 - \text{Mean } 1998 &= 2,83 - 2,33 = 0,50 \end{aligned}$$

These calculations resulted in the following table:

Company	Increase 98-03	Increase 03-08	Increase 98-08
Lundin Petroleum *	<i>N/A</i>	0,83	<i>N/A</i>
Stora Enso	0,34	0,16	0,50
ABB	0,34	0,00	0,34
H&M	1,66	0,17	1,83
Swedish Match	1,00	0,34	1,34
AstraZeneca *	<i>N/A</i>	-0,33	<i>N/A</i>
Nordea *	<i>N/A</i>	0,83	<i>N/A</i>
Ericsson	-0,16	2,16	2,00
TeliaSonera *	<i>N/A</i>	2,17	<i>N/A</i>

* Since the companies Lundin Petroleum, AstraZeneca, Nordea and TeliaSonera had not been founded in 1998, it was not possible to calculate an increase involving this year.