Determinants for the Extent and Quality of Corporate Sustainability Reporting
A Meta-Analysis of Empirical Studies

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Linz, in October 2015
Declaration of oath

“I declare that I have authored this thesis independently and without foreign aid, that I have not used other than the declared sources and aids, and that I have explicitly marked all material which has been quoted either literally or by content from the used sources.

This diploma thesis is identical with the electronically transmitted text document. ”

Linz, in October 2015
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<th>Full Form</th>
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<tbody>
<tr>
<td>CC</td>
<td>Corporate Citizenship</td>
</tr>
<tr>
<td>Ceres</td>
<td>Coalition for Environmentally Responsible Economies</td>
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<tr>
<td>Cf.</td>
<td>Confer</td>
</tr>
<tr>
<td>CR</td>
<td>Corporate Responsibility</td>
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<td>CS</td>
<td>Corporate Sustainability</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>DBIS</td>
<td>Datenbank Infosystem</td>
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<tr>
<td>Ed.</td>
<td>Editor</td>
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<tr>
<td>Eds.</td>
<td>Editors</td>
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<tr>
<td>EMAS</td>
<td>ECO-Management and Audit Scheme</td>
</tr>
<tr>
<td>EZB</td>
<td>Elektronische Zeitschriftenbibliothek</td>
</tr>
<tr>
<td>f., ff.</td>
<td>Following</td>
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<tr>
<td>GAAP</td>
<td>Generally accepted accounting principles</td>
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<td>GRI</td>
<td>Global Reporting Initiative</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
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<tr>
<td>MA</td>
<td>Meta-analysis</td>
</tr>
<tr>
<td>N.a.</td>
<td>No author</td>
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<td>N.d.</td>
<td>No date</td>
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<tr>
<td>No.</td>
<td>Number</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>p.</td>
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<td>pp.</td>
<td>Pages</td>
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<tr>
<td>PSI</td>
<td>Pacific Sustainability Index</td>
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<td>respACT</td>
<td>Austrian business council for sustainable development</td>
</tr>
<tr>
<td>TBL</td>
<td>Triple Bottom Line</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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<tr>
<td>UVic</td>
<td>University of Victoria</td>
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<tr>
<td>Vol.</td>
<td>Volume</td>
</tr>
<tr>
<td>WCED</td>
<td>World Commission on Environment and Development</td>
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1 Introduction

1.1 Problem statement

Due to the growing importance of sustainable behaviours in corporate and private life, sustainability issues have become increasingly important over past years. Back in 1987, the Brundtland Commission first proposed a concept to promote sustainability in all areas of human interaction. While this concept supports economic and social development, it also emphasizes the importance of protecting the environment and natural resources.\(^1\) Since then, sustainability has developed into an important part of social interaction in private as well as professional settings.

In recent years, companies have often been accused of causing environmental and social problems.\(^2\) To demonstrate responsibility for corporate actions affecting the environment and society, managers, therefore, have taken into account sustainability issues when conducting business.\(^3\) This trend has been particularly reinforced by a steadily increasing stakeholder orientation of companies and a growing need to legitimize actions.\(^4\) In order to cope with the growing importance of corporate sustainability, companies have to effectively communicate their achievements in regard to economic, ecological and social aspects to the outside world.\(^5\) After initial efforts to publicize isolated reports on social or ecological aspects, companies started to provide more comprehensive corporate sustainability reports dealing with different aspects of sustainability. Since the beginning of the 20\(^{th}\) century, corporate sustainability reporting has finally developed into an integral part of many companies’ regular reporting activities.\(^6\)

While legal regulations to disclose corporate information on sustainability issues exist only in selected countries and industries, most companies are not legally required to report about sustainability issues. Comprehensive corporate sustainability reporting is, therefore, still mainly being undertaken on a voluntary basis.\(^7\) In order to provide an international applicable guideline for the preparation of corporate sustainability reports, the Global Reporting Initiative (GRI) has developed a sustainability reporting framework, aiming to ensure a certain degree of

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comparability and reporting quality. However, despite existing reporting frameworks, the standardization of corporate sustainability reporting around the world still remains low.\(^8\) As a consequence, sustainability reports published by companies in different countries and industries vary significantly in regard to the extent as well as the quality of reporting. Depending on the focus of a study, the research methods used and the frame of reference applied, different empirical studies consider a wide range of different non-financial or financial firm characteristics as the main determinants for corporate sustainability reporting. In contrast, other studies show a relationship between geographical, sectorial characteristics or reporting related factors and the extent and quality of companies’ sustainability reporting activities.\(^9\)

### 1.2 Research objectives

The objective of this master thesis is to identify internationally valid determinants for the extent and quality of corporate sustainability reporting. Using a Meta-analysis (MA) as an analysis tool, this thesis will, therefore, uncover common factors that influence the extent and quality of companies’ sustainability reporting activities in different geographical regions as well as indicate differences between determinants for the extent and quality of corporate sustainability reporting. In descriptively analyzing 40 empirical studies, this thesis will further highlight differences in the research methods, reporting frameworks and theories used in different studies. In order to investigate corporate sustainability reporting on a national and international level, three guiding research questions have been developed:

- What determines the extent of corporate sustainability reporting?
- What determines the quality of corporate sustainability reporting?
- To what extent are determinants for the quality of sustainability reporting different from determinants for the extent of reporting?

### 1.3 Structure of the thesis

The thesis is divided into two main parts. While the first part aims to provide a basic understanding and a theoretical point of reference for the research topic, the second and major part contains an analysis, which was conducted to answer the research questions defined above. As a part of the theoretical section of this thesis, chapter 2 and 3 will explain corporate sustainability and corporate sustainability reporting in general and, therefore, represent the conceptual basis for this master thesis. In chapter 2, corporate sustainability will be conceptually


separated from similar concepts and clearly defined. Building on the definition of corporate sustainability, Chapter 3 will focus on corporate sustainability reporting. Historical developments of corporate sustainability reporting as well as current reporting standards will be examined in this chapter. Furthermore, the current state of research about determinants for corporate sustainability reporting will be analysed in this section. A theoretical framework for the research section will be developed in chapter 4. This chapter will also highlight two often-cited system-oriented theories for the explanation of corporate sustainability reporting. Chapters 5, 6 and 7 will contain the Meta-analysis, which has been used to analyse the results of 40 primary studies. After the methodology used to conduct the Meta-analysis is explained in chapter 5, all studies investigated in this Meta-analysis will be descriptively analysed in chapter 6. A special grid and coding scheme will be used to integrate and classify the findings of different studies, which examine determinants for the extent and quality on a national and international level. The findings of the Meta-analysis will finally be summarized and discussed in chapter 7, thereby allowing for the defined research questions to be answered. To conclude this thesis, some critical considerations and final remarks will be given in chapter 8.

2 Corporate Sustainability

2.1 Sustainability and Sustainable Development

Due to the increasing importance of sustainability in recent years, different concepts and definitions have developed, which cover different aspects of social responsibility and sustainability on a business level. However, until now, there has been no universally accepted definition of sustainability on a corporate level. Rather, the constant change in this particular research field has lead to an ongoing alteration of definitions and ideas over time. Corporate Social Responsibility (CSR), Corporate Responsibility (CR), Corporate Citizenship (CC) as well as Corporate Sustainability (CS) are similar concepts, which are often used in the same context. While the concept of CSR is widespread in Anglo-American countries, the concept of CS is more common in Europe. In order to allow for a consistent understanding of the terminology used, this master thesis will solely refer to the concept of CS.

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13 In German speaking countries, the word Nachhaltigkeit is commonly used to describe Corporate Sustainability.
For more than two decades, sustainability has been at the center of international discussions related to trade and development. The term sustainability can be traced back to the beginning of the 18th century when it was used for the first time to highlight the need for a sustainable development of wood. In the forestry context, the concept suggests that in a certain period of time, only the amount of wood that can be regrown during this particular period should be felled. However, it was not until the World Commission on Environment and Development (WCED) published its famous Brundtland Report in 1987 that sustainability became a vital issue in public. The Brundtland Commission defines sustainable development as a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. This definition emphasizes a sustainable use of natural resources in order to ensure the fulfillment of present as well as future human needs and in doing so, provides the basis for the development of sustainability concepts, which have developed subsequently. As of now, the Brundtland definition is one of the most widely accepted concepts for sustainable development.

2.2 Corporate Sustainability

Corporate Sustainability (CS) refers to the adaptation of the concept of sustainability on a corporate level. According to Dyllick and Hockerts, CS can, therefore, be defined as “meeting the needs of a firm’s direct and indirect stakeholders, without compromising its ability to meet the needs of future stakeholders as well.” Given this definition, the concept of CS can be viewed as the result of management attempts to tackle challenges posed by the need for corporations to move towards the goal of sustainability. Similar to the Brundtland definition for a sustainable development, the definition of CS also involves other perspectives and contains key concepts of equity, needs and limitations. As corporate activities pervade not only the present but also remain critical for the future, CS is necessary for the sustainable development of the economy, the environment and the society. Consequently, while firms had to focus only on their economic wellbeing in the past, CS now requires companies to also take into account the
economic, social and environmental impacts of their business operations.\textsuperscript{25} In the long run, CS can serve as a means for companies to ensure that they stay viable, survive and even strive.\textsuperscript{26} In order to examine the extent and quality of companies’ sustainability reporting activities, the theoretical concept of CS will be used during this thesis.

### 2.3 Dimensions of Corporate Sustainability

As mentioned earlier, three different dimensions are considered in the CS-concept, namely an environmental, economic and a social dimension. The Triple Bottom Line (TBL) paradigm, a multi-dimensional concept that integrates these dimensions of sustainable business management, is the best-known framework to explain the three dimensions of CS and will, therefore, allow for a classification of sustainability reporting.\textsuperscript{27} It uses these three dimensions to examine the effects of business practices on the economy, social equity and the environment.\textsuperscript{28} Generally, the TBL can be seen as a conceptual and analytical framework for accounting and reporting on corporate sustainability performance, not only in terms of economic achievement, but also with regard to environmental and social impacts.\textsuperscript{29}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{dimensions_of_cs.png}
\caption{Dimensions of CS based on the TBL concept (Author’s own illustration)}
\end{figure}

\begin{flushleft}
\textsuperscript{29} Cf. Spellerberg, I. et al. (2012), p. 363.
\end{flushleft}
The basic idea behind the TBL is that the ultimate success of companies should not just be measured by traditional financial indicators but also by its social and environmental performance.\(^{30}\) According to Norman and MacDonald, the term TBL dates back to the middle of the 1990’s, when it was first used by the consulting group “AccountAbility”.\(^{31}\) However, it was only after the British corporate sustainability pioneer John Elkington provided the first definition of TBL, back in 1997, that the term found public currency. Elkington suggested that companies have to achieve three goals simultaneously: social equity, environmental protection and economic prosperity. An alternative definition for the three dimensions of corporate sustainability uses the keywords people, planet and profit, commonly referred to as the 3P-model.\(^{32}\) Nevertheless, due to the high popularity of the TBL-concept in describing corporate sustainability, the TBL-concept has been chosen as a theoretical reference point to explain the three dimensions of CS. The TBL-concept provides a starting point for developing ways to identify and monitor actions that contribute to the three dimensions of sustainability, namely the economy, the environment and social equity, which will be further explained in the following section.\(^{33}\)

### 2.3.1 Environmental dimension

The environmental dimension is the key dimension of corporate sustainability and has a long history in the discussion of CS aspects.\(^{34}\) The environmental dimension focuses on companies’ natural environment and aims to ensure a sustainable utilization of natural resources in order to enable future generations to fulfill their needs.\(^{35}\) Discussions about ecological and environmental impacts of business operations started already in the 1970’s, however, the nature of challenges in regard to the environmental dimensions have changed during the past thirty years. In recent years, the ecological expectations of stakeholders have been steadily rising as the ecological awareness in the public sphere continues to increase, which motivates companies to dedicate more resources to take into account the environmental dimension of CS.\(^{36}\)

Often, the environmental dimension refers to the impact corporate operations have on a company’s surrounding natural environment. Therefore, the environmental dimension of CS includes aspects, such as overuse of natural resources and energy, pollution, waste management,
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Degeneration of biodiversity, climate change, deforestation and many others.\(^{37}\) This dimension of CS aims to increase companies’ eco-effectiveness thus, to reduce the environmental impacts of business activities.\(^ {38}\)

However, companies have to find ways away from purely measuring environmental impacts towards a more active strategy. Only a proactive approach enables them to truly commit to the increasing requirements of the environmental dimension of CS. An environmentally sustainable perspective includes activities to increase the resource productivity, create a cleaner production and to start an active dialogue with different stakeholder groups.\(^ {39}\)

### 2.3.2 Economic dimension

The economic dimension of corporate sustainability pertains to understanding the economic impacts of business operations. This dimension has long been overlooked in the discussion of CS as it has long been assumed that the economic dimension of corporate sustainability was already well managed by corporations and also easier to implement than the other two pillars of CS.\(^ {40}\) As this dimension is usually assumed to belong to more conventional business management, it is often not specifically addressed as an important task of corporate sustainability. However, since economic survival is a basic requirement for continuous corporate activities, this dimension should not be overlooked when deciding about CS goals.\(^ {41}\)

Due to the fact that it is a basic economic principle to generate enough profits to satisfy company managers and external investors, the economic dimension of CS is often mistakenly considered to be equal to pure financial issues.\(^ {42}\) Rather, the economic dimension should also consider the direct as well as indirect economic impacts that companies have on stakeholders and their surrounding community as a whole.\(^ {43}\) Generally, the economic performance of a company has a direct impact on all of its stakeholders, including its owners, employees, local governments, customers, suppliers, competitors and the communities in which the company operates.\(^ {44}\) A multiplier effect, which results from a proper consideration of the economic dimension, allows for a sustainable economic long-term development of all involved stakeholder groups as the

positive effects spread from one stakeholder group to another. This effect can be well demonstrated by the following example: The good economic performance of a company allows for a good business development and consequently, allows firms to invest in the development and the well being of its employees. As a result, the employees of the company get good salaries, which they can use to purchase goods. All of these activities together fuel the local economy and help support community activities.\textsuperscript{45} This example highlights the importance of the economic dimension for all involved stakeholder groups and in doing so, emphasizes its importance as a corporate sustainability dimension.

2.3.3 Social dimension

The social dimension is the latest of the three CS dimensions but has been receiving an increasing amount of attention in recent years.\textsuperscript{46} It includes aspects such as equality of rights, fairness, equity of needs, performance and opportunities.\textsuperscript{47} More precisely, the social dimension refers to the obligation of companies and their managers to make choices and to take action to increase the welfare and consider the interests of the society and company. Consequently, the social dimension of CS concerns the accountability of companies for the direct and indirect social effects on people within the company, people in the supply chain of the company, people in the community as well as customers of the company.\textsuperscript{48} Generally, the social dimension of CS is also related to the social acceptance of a company and the legitimation of its business activities.\textsuperscript{49} According to Uddin at al., companies have to consider the following key aspects when deciding on different goals, which affect the social dimension of CS:\textsuperscript{50}

- Responsibility towards customers: Companies have to treat customers with respect and show responsibility towards them. Furthermore, in addition to these basic requirements, this factor includes aspects such as product safety issues, fair standards of advertising and trading and unambiguous information to potential customers.

- Responsibility towards employees: Employers have to take into account broader expectations that employees may have regarding the quality of their working lives. In addition to the regular terms and conditions of employment contracts, they have to consider additional aspects such as people’s welfare and safety at work, skill

development and workplace satisfaction. Furthermore, socially responsible firms have to treat all employees equally, regardless of their gender, age, race, or religion.

- Responsibility towards the community: All companies depend on the health and stability of the communities in which they operate. In many cases, the majority of companies, employees and customers come from the surrounding areas. Therefore, the image and reputation of a company as an employer and producer might have a significant effect on companies’ overall competitiveness.

In order to maintain and constantly grow their economic, social and environmental capital base, firms have to actively contribute to sustainability in the political domain. While a single-minded focus on one CS-dimension can succeed in the short run, in the long run, more dimensions have to be satisfied to allow for companies’ long-term success.

### 3 Corporate Sustainability Reporting

#### 3.1 Fundamentals and definition

In recent years, the importance for companies to disclose information about the three sustainability dimensions has been steadily increasing. Growing government pressures, changing stakeholder strategies as well as an increasing number of reporting standards, have reinforced this trend recently. An ever-increasing number of managers recognize the sign of time and are devoting more time to integrate environmental and social issues into their regular reporting activities. In particular, the difficulty for external stakeholders to properly observe corporate behaviour lead to the increasing importance of sustainability reporting practices to make business actions more transparent. Nowadays, many companies, especially large multinationals, try to find a balance between their economic, environmental and social performance and to report about their achievements. As a designation for this new systematically integrated form of reporting, the term corporate sustainability reporting finally became established. In contrast to CS, which is merely a theoretical concept to describe sustainability in a business setting, CS reporting can be seen as the practical application of this very concept.

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55 In the following, corporate sustainability reporting will be referred to as CS reporting.
“Sustainability reporting is the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development.”

According to this definition by the Global Reporting Initiative, CS reporting can be described as a formalized means of communication, which provides information about companies’ sustainability activities concerning the three aspects of sustainability covered by the TBL concept. The goal is to inform internal as well as external stakeholders and to prove the sustainable development of companies’ business practices. The term CS reporting usually refers to the publication of external company reports as either printed brochures or online versions published on companies’ websites. One of the main characteristics of CS reporting is the involvement of different stakeholder groups such as the management team, employees and customers, in setting sustainability goals for the company. All these different stakeholder groups are also involved in the collection of sustainability data and the final communication of CS information. It is therefore essential for an effective CS reporting system to take into account the interplay between internal communication processes and reporting activities.

3.2 Historical development

Due to the growing pressure from society to legitimize corporate actions, increasing communication efforts in regard to the CS dimensions have been made by companies in recent years. It is, therefore, not surprising that CS reporting has achieved respectable and fast management relevance during the past decades.

By adding new fields for reporting besides traditional financial accounting, which had already been introduced in the 19th century, many companies have responded to current societal expectations. First precursors for today’s comprehensive CS reporting can be traced back to the early 1970’s when companies started to complement their traditional accounting by adding social reports. The extended performance, which was reported about, was mostly expressed in qualitative and non-financial terms. Even though social reporting was not legally required, societal pressure to reveal actions affecting the society caused more and more companies to prevent an image loss. In the 1980’s, the focus shifted towards environmental reporting and

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issues such as waste generation and emissions replaced social aspects. In this phase of increasing environmental sensibility, companies were often considered the main drivers of environmental problems.\textsuperscript{65} Since the mid-1990’s, more and more companies started to report about the interrelationships between the three dimensions of CS reporting, such as eco-efficiency and socio-efficiency.\textsuperscript{66} After efforts to publicize isolated reports on social or ecological aspects were made between the 1970’s and 1990’s, many companies started to provide more comprehensive corporate sustainability reports at the end of the 1990’s. Since the beginning of the 20\textsuperscript{th} century, corporate sustainability reporting has finally developed as an integral part of many companies’ regular reporting activities.\textsuperscript{67}

Especially after the oil spill in Prince William Sound, Alaska in 1989, interest in comprehensive sustainability reporting increased rapidly. Soon after this disaster, the Coalition for Environmentally Responsible Economies (Ceres), a Boston-based non-profit organization, was founded to develop a ten-point code of corporate environmental conduct. This code of conduct included a periodic requirement to report on environmental management. In order to ensure a

certain degree of quality and comparability of corporate sustainability reporting, Ceres launched the Global Reporting Initiative (GRI) in 1997. Today the GRI is the leading guideline for CS reporting.\textsuperscript{68} For many companies, these developments finally lead to the implementation of a more comprehensive CS reporting, including the environmental, economic as well as social dimension of CS.\textsuperscript{69} While social and ecological aspects have simply been added individually to existing reports, comprehensive CS reporting requires an integrative illustration of the corporate impacts on all dimensions suggested by the TBL.\textsuperscript{70} Furthermore, CS reporting requires a credible explanation of management efforts and a proper disclosure of the CS performance for all different stakeholders.\textsuperscript{71}

### 3.3 Goals and benefits of CS reporting

The main goal of CS reporting is to provide sustainability information towards internal as well as external stakeholder groups, which might have interests in a company.\textsuperscript{72} Sustainability reports can, therefore, be seen as means to picture the achievements of companies in regard to the CS dimensions at a certain point in time.\textsuperscript{73} Besides mere reporting, CS reporting serves as a tool to keep a targeted dialogue with relevant stakeholder groups, which allows companies to adjust and specify the goals and benefits of a sustainable business development.\textsuperscript{74} The goals of CS reporting can be divided into publicly oriented, capital oriented and management oriented goals, as illustrated in figure 3.\textsuperscript{75}

3.3.1 Publicity oriented goals

Companies can use CS reporting to secure the legitimacy of corporate behaviour and protect the company resources that are needed to ensure a positive business development.\textsuperscript{76} Highly qualitative CS reporting further enables companies to increase their overall reputation, which positively affects their prospects of corporate success.\textsuperscript{77} Companies strive to reach publicity oriented goals, especially if neglecting CS aspect that may harm their reputation and, therefore, affect companies negatively. Measures to ensure legitimacy can thus help to ensure their corporate success in the long run.\textsuperscript{78}

3.3.2 Risk oriented goals

In highlighting corporate actions in regard to environmental, economic and social factors, companies try to improve their risk transparency and in doing so, fulfill risk oriented goals. Reducing information-asymmetries through an increased risk transparency is a means for companies to improve their access to financial capital and thus, to increase their liquidity.\textsuperscript{79}

3.3.3 Management oriented goals

Management oriented goals companies want to reach with CS reporting can be improving internal processes for business planning and corporate governance mechanisms. CS reporting can help managers to achieve a more sustainable business development as it allows them to provide comprehensive information about the three CS dimensions as well as interdependencies between them. By creating awareness in employees’ minds that they work for a company that acts sustainably, CS reporting is a means to increase the commitment and motivation of employees and in doing so, to reduce fluctuation.

3.4 Current CS reporting standards

In order to reach the above-mentioned goals and to effectively report towards internal as well as external stakeholder groups about corporate actions concerning sustainability issues, different internationally applicable sustainability reporting guidelines and frameworks have been developed in recent years. However, CS reporting is still considered a voluntary field of reporting. Consequently, due to missing legal regulations, CS reports show significant differences in regard to the content and quality of reporting. In order to allow for a comparable degree of quality, different standards, frameworks and reporting guidelines have been developed in recent years on a national as well as international level. The most popular initiative for the selection of report content and quality are the GRI guidelines, which will be used as a reference during this master thesis. However, other standards have also been developed in recent years.

3.4.1 Global Reporting Initiative

The Global Reporting Initiative was established in 1997 together by the United Nations Environmental Programme (UNEP) and the Coalition for Environmentally Responsible Economies (Ceres). The initiative’s mission was and still is to provide a trusted and credible CS reporting framework that can be used by organizations of any size, sector or location. It also aims to increase the quality and comparability of CS reporting. Furthermore, the GRI framework is intended to serve as a generally accepted standard for reporting on companies’ economic, environmental and social performance and it takes into account practical considerations faced by different types of organizations. In improving the transparency, reliability, timeliness and

comparability of CS reports, the GRI aims to align CS reporting with financial reporting. It contains not only general but also sector-specific content that is generally applicable when reporting about an organization’s sustainability performance.\textsuperscript{86} Since its establishment, the GRI has become an international accepted guideline for transparent CS reporting as it equally considers the economic, environmental and social impacts of organizational performance.\textsuperscript{87} Today, the GRI is the most frequently used CS reporting standard worldwide and the number of companies that publish sustainability reports under the GRI guidelines continues to increase.\textsuperscript{88}

The GRI reporting framework provides a set of metrics and indicators through which corporations can measure the effects of their business activities and publish their results to the public.\textsuperscript{89} In addition to improving sustainability reporting, the objectives of the GRI are to encourage effective stakeholder relations with communities, employees, customers, suppliers and non-government organizations as well as to make better investment decisions.\textsuperscript{90} Attempts for a more comprehensive CS reporting have led to an ongoing alteration of indicators to be reported on over time.\textsuperscript{91}

The fourth generation of the GRI reporting framework, G4, was launched in May 2013 and replaced the version 3.1, which had been in use since 2011. The latest version has been revised and enhanced to take into account important current and future trends in CS reporting.\textsuperscript{92} The framework is modeled after generally accepted accounting principles (GAAP), which had initially been developed for the preparation of financial reports as a way to simplify and unify conflicting accounting methodologies. Therefore, the GRI puts CS reporting into a format that promotes clarity, accuracy, usefulness and comparability, similarly to those of financial reports. In doing so, the GRI guidelines help companies measure and manage their overall impact on the three sustainability dimensions covered by the TBL-concept as it works as a means to improve the quality and transparency of sustainability reporting. The Sustainability Reporting Guidelines are the core of the GRI G4 version. Overall, the G4 guidelines contain ten reporting principles that must be used to create corporate sustainability reports. These principles are implemented through the use of 91 indicators that cover the economic, environmental and social performance

\textsuperscript{86} Cf GRI (2011), p. 2.
\textsuperscript{90} Cf. GRI 2013, p. 43ff.
\textsuperscript{92} Cf. ISO/GRI (2014), p.2
of an organization. All principles and indicators can be classified according to the three sustainability dimensions covered by the TBL:

- **Economic Dimension**: A total of 9 economic indicators cover a company's economic performance, market presence, indirect economic impacts and procurement practices.

- **Environmental Dimension**: The environmental leg, which consists of 34 indicators, is evaluated according to criteria such as the materials used, air quality and emissions, water quality, energy efficiency, waste management and the protection of biodiversity.

- **Social Dimension**: Social equity is assessed by 16 indicators regarding labor practices, 12 indicators that account for human rights, 11 indicators to evaluate societal impacts and 9 indicators to report about product responsibility.

Table 4 highlights the dimensions and selected aspects of the current GRI G4 reporting framework:

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Figure 4: Categories in the GRI G4 reporting guidelines
(GRI G4 Reporting Guidelines (2013), p. 44)

In addition to the reporting guidelines to measure the corporate impacts on the environment, the economy and the society, the GRI also provides other elements to supplement and specify reporting activities. These include indicator protocols, sector supplements and technical protocols.\(^94\) As it creates a way for the public to examine claims of sustainability in light of actual practices and allows for the possibility to achieve a certain degree of transparency and comparability in CS reports, the GRI guidelines has become a benchmark around the world for measuring and CS reporting efforts in recent years.\(^95\)

### 3.4.2 Other reporting frameworks

Besides the GRI, there are also other bodies that promote CS reporting and provide global reporting standards.\(^96\) Some international initiatives that promote CS reporting frameworks include the United Nations Global Compact, the OECD reporting guidelines and the International Organization for Standardization (ISO), which will be briefly explained below.

**UN Global Compact**: The UN Global Compact is a strategic initiative for corporations that are committed to aligning their business operations in the areas of human rights, labor, environment and anti-corruption.\(^97\) The UN Global Compact framework provides a useful tool for companies to develop, implement and disclose sustainability policies and practices and to report about their activities. In order to be able to realize the vision of the CS concept and to deliver long-term benefits to the three CS dimensions, the initiative seeks to globally integrate ten universally accepted principles in business strategies and operations. Annually, members of the UN Global Compact have to report about their progress concerning these ten principles to demonstrate their commitment and increase transparency.\(^98\) Similarly to the UN Compact framework, the OECD guidelines also provide voluntary CS principles and standards for multinational companies in a global context, consistent with internationally recognized standards. The OECD guidelines are the only comprehensive code of business conduct that governments have multilaterally agreed on.\(^99\) Complementary to these guidelines, the ISO promotes additional industrial and commercial standards for different business sectors.\(^100\) Today, the ISO represents the world’s largest developer of voluntary international standards, which contribute to the three dimensions of

\(^98\) Cf. UN Global Compact (Ed.) (n.d.), https://www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html, 26.05.2015.  
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CS.\textsuperscript{101} Two standards are of particular importance for CS, namely ISO 14001 and ISO 26000. ISO 14001 defines criteria for establishing an environmental management system that can be used by any kind of organization for certification.\textsuperscript{102} It can, therefore, be used as a basis for environmental audits.\textsuperscript{103} In contrast to ISO 14001, ISO 26000 provides direct guidance on how corporations can operate in a socially responsible way. It helps companies to translate principles into actions and shares best practices from around the world regarding CS. ISO 26000 is designed to go beyond basic legal compliance and can be applied by all types of organizations, regardless of the industry, size or location.\textsuperscript{104} However, although all of these additional global frameworks and standards also provide basic principles and guidelines for a sustainable business development, they cannot replace the GRI guidelines because they are not recognized as concrete indicators like the GRI.

In addition to those international reporting initiatives, a variety of other national guidelines exist. The Austrian business council for sustainable development (respACT) is the leading initiative for sustainable business development in Austria and has already published CS reporting guidelines for small and middle-sized companies on a national level.\textsuperscript{105} On a European level, the ECO-Management and Audit Scheme (EMAS), which was introduced by the European Commission in 1993, provides a voluntary environmental management tool that aims to improve the environmental performance of organizations in Europe.\textsuperscript{106} Companies that are EMAS validated have to publish about their environmental performance on a regular basis. The issue of the environmental statement has to then be audited by an external environmental verifier who has obtained accreditation in accordance with the EMAS regulation.\textsuperscript{107}

\subsection*{3.5 Extent and quality of CS reporting}

In general, reports have to contain qualitative and quantitative information about how a company has managed its environmental, economic and social effectiveness and efficiency during a

\textsuperscript{101} Cf. ISO/GRI (2014), p. 3.
\textsuperscript{102} Cf. ISO (Ed.) (n.d.), http://www.iso.org/iso/iso14000, 28.05.2015.
\textsuperscript{104} Cf. ISO/GRI (2014), p. 3.
\textsuperscript{105} Cf. respACT (Ed.) (n.d.), https://www.respact.at/site/angebote/toolsinstrumente/nachhaltigkeitsberichters/article/6392.html, 26.05.2015.
reporting period. High-quality CS reporting is characterized by a complete outline of positive as well as negative impacts of corporate actions on all dimensions as well as the interdependencies between them. Only if the provided CS information can be considered to be complete, reliable and truthful by the recipients of the information, companies can utilize the full potential of CS reporting. In order for CS reporting to successfully establish itself as a professional and serious reporting field, similar to financial reporting, a certain degree of quality has to be ensured. Particularly, the comparability of CS reports from different companies operating in different countries and industries is a basic requirement for the assessment of companies’ sustainability efforts and the quality of reporting. Therefore, an equal consideration of formal requirements, similar to those in financial reporting, is required to ensure a high quality of sustainability reporting across countries and industries. The formal requirements of CS reporting are heavily labelled after traditional financial accounting principles. Hofmann’s “House of Sustainability”, can be used to demonstrate the principles and content for CS reporting.

Figure 5: The house of sustainability
(Author’s illustration based on Hofmann (2007), p. 134)

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As can be seen in the “House of Sustainability”, fundamental reporting principles represent the foundation for a highly qualitative CS reporting, similar to financial reporting.\textsuperscript{113} Besides traditional reporting principles, CS reporting, in particular, requires a balanced portrayal of positive as well as negative ecological, economic and social corporate performances.\textsuperscript{114} Moreover, comprehensive CS reporting requires not only the disclosure of information about past performances but also the statement of future oriented information such as long-term sustainability goals.\textsuperscript{115}

Due to the missing standardization of CS reporting and the lacking auditing, verifiability is a fundamental principle for CS reporting as it increases the credibility of reports. In order to ensure and demonstrate a certain degree of CS quality and to further strengthen the credibility of CS reporting, more and more companies these days use external auditing firms to certify their voluntary CS reports.\textsuperscript{116} While CS reporting is regulated in select countries and industries, most companies provide reports solely on a voluntary basis.\textsuperscript{117} Since legal regulations for the regular release of information are missing in many cases, the timeliness of reporting can be considered another core principle for high-qualitative CS reporting. CS reports should be published in regular intervals and communicated to the different stakeholder groups shortly after completion.\textsuperscript{118} Another typical principle for CS reporting is strong stakeholder inclusiveness to align CS reporting with the interests and expectations of stakeholders. For the scope of a CS report, the reasonable expectations and interests of a wide range of stakeholder groups have to be considered. The challenge is, therefore, to balance the specific interests of stakeholders who can be expected to use the reports with those of the general interests and expectations of all stakeholders.\textsuperscript{119} The GRI divides principles for CS reporting into two groups, principles for the report content and principles for report quality. Both groups are intended to create a certain degree of transparency and comparability of CS reports.\textsuperscript{120}

\subsection*{3.5.1 Principles for the content of CS reporting}

For a balanced documentation, the content of a CS report has to be defined reasonably. The determination of the reporting content should not only consider a company’s purpose and

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experience but also the interests and expectations of different stakeholder groups. In particular, the following principles have to be followed when identifying the topics and related indicators that are relevant for a particular CS report.\textsuperscript{121}

- Materiality
- Stakeholder inclusiveness
- Sustainability context
- Completeness

### 3.5.2 Principles for the quality of CS reporting

In contrast to the principles for defining the content of CS reports, reporting principles for the reporting quality contain principles that guide choices to ensure the quality of the reported information. All following principles are fundamental for effective transparency and high-qualitative CS reporting.\textsuperscript{122}

- Balance
- Clarity
- Accuracy
- Timeliness
- Comparability
- Reliability

Guided by these reporting principles, the actual content of CS reporting is mainly determined by the three dimensions of CS, namely the environment, economy and society.\textsuperscript{123} In order to provide a comprehensive picture about corporate actions in regard to these three dimensions, companies have to create an integrated reporting system that allows them to report both their achievements in regard to the single dimensions as well as the interdependencies between them.\textsuperscript{124}

### 3.6 Challenges for CS reporting

According to Gray and Milne, CS reporting remains and is likely to continue to remain dominated by the economic dimension.\textsuperscript{125} Too often, financial information that can be found in

\textsuperscript{121} Cf. GRI (2011), pp. 6ff.

\textsuperscript{122} Cf. GRI (2011), pp. 13ff.


CS reports is limited to selected items taken from financial reports and just slightly adjusted to take into account sustainability issues. However, such a simple approach cannot fulfill the requirements of a well elaborated, high-qualitative CS reporting.\textsuperscript{126} The social and environmental dimensions are often merely included as add-ons and, therefore, the quality of social and environmental reporting needs to be improved significantly. Furthermore, companies would need to focus on entire eco-systems and their carrying capacity as well as thresholds and cumulative effects. Proper accounting techniques for CS would be necessary as a basis for a highly qualitative CS reporting, but it is still not possible to define what a sustainable organization would look like.\textsuperscript{127} Additionally, environmental reporting has been met with considerable opposition from both companies and governments since environmental regulations are perceived to add unnecessary costs to business operations.\textsuperscript{128}

### 3.7 Current state of research

Even though research in the area of CS reporting had already begun in the late 1970’s, research concerning determinants for comprehensive CS reporting, particularly determinants for the extent and quality of reporting, only started during the last two decades.\textsuperscript{129}

Whereas some studies use scientific theories to deduce hypothesis that should be tested, other studies do not refer to any theoretical foundation at all. The extent of CS reporting is regularly assessed by the quantity of disclosed information, which is measured by keyword-counts, sentence-counts, page-counts or the total number of items disclosed. Besides the total number of items disclosed, some studies also measure the number of items for certain categories and the length of narrative disclosures in relation to the number of pages.\textsuperscript{130} In contrast, research about determinants for the quality of reporting generally investigates the provision of information, which ranges from a rather qualitative analysis of disclosure to a more specific and quantifiable analysis of data. In doing so, research on the determinants for quality requests the kind of information being conveyed. However, there are well known difficulties concerning sampling, the measurement of quality of reporting and the empirical methodologies employed.\textsuperscript{131} Most studies use a content analysis to measure CS disclosure.\textsuperscript{132} Based on the results of a qualitative

\textsuperscript{130} Cf. García-Sánchez, I.M. (2008), p. 188.
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oriented content analysis, most studies that deal with determinants for CS reporting use a rather impact-oriented approach and combine it with statistical methods, such as regression analyses, to determine the influencing effect of certain internal and external factors. Such an approach goes beyond a mere descriptive analysis of CS reporting as it reveals cause and effect relationships.

Determinants for CS reporting are being examined on a national and international level from single country studies that investigate CS reporting in just one country to studies with a more international focus that compare CS reporting in different countries. Many of these studies identify firm-specific characteristics, often the size of the company, as the main determinant for CS reporting. While national studies consider firm- or industry characteristics to be the main determinants for the extent or quality of CS reporting, international studies focus more on the impact of country-specific determinants such as geographical location or culture. Nonetheless, different studies that investigate determinants for CS reporting are generally not able to paint a clear picture about globally valid determinants for the extent and quality of CS reporting. On the one hand, this is caused by the fact that many studies focus only on selected impacting factors. However, as different studies analyze different determinants for CS reporting, it is difficult to compare the results of these studies. On the other hand, even different studies that investigate the impact of the same determinants show different results. This fact may be explained by a different operationalization used or by different effects of determinants in different geographical regions, which limits the comparability of studies.

Furthermore, while some studies equally consider all three CS dimensions, other studies focus solely on the environmental or the social dimension of CS. Additionally, some studies investigate determinants for CS reporting only in selected industries while other studies do not limit their research based on the sector that companies work in. Other studies select the reports to be investigated by other criteria such as the size of a company or the availability of reports in databases. Moreover, different studies that investigate determinants for the extent or quality of CS reporting differ significantly in regard to the research methodology used. Some studies use rather simple methods, such as the number of words used in reports, to investigate the quality of CS reporting as well as to draw conclusions about determinants of CS reporting. Other studies

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use more elaborate research methods, such as disclosure indices, that have been developed specifically for the analysis of CS reporting. Such studies often use regression analyses to conclude impacting determinants.

In regard to the statistical methodology employed, many studies employ rather simple methods of estimation, such as ordinary squares derived from content analysis. Thus, many such studies fail to properly control for independent variables. Other studies use disclosure indices as a way to measure the reporting quantity. In most of these studies, unweighted indices are used, whereby all items are considered equally important. If an indicator is reported about, one point is awarded. If the respective indicator is not considered in a report and, therefore, not reported about, no points are awarded for this item. Such disclosure indices have a rather dichotomous character. In literature, there is an ongoing discussion to determine if disclosure indices only measure the extent of CS reporting or if they can also be used as a measuring tool for the quality of reporting. Marston and Shrives, for example, state that: “calculating an index score for a particular company can give a measure for the extent of disclosure but not necessarily the quality of the published information”. Nevertheless, there are also studies that use the methodology of disclosure indices to measure the quality of CS reporting. Those studies often use weighting factors to determine influencing factors for the quality of reporting. However, the weighing factors used for certain indicators can differ widely from study to study. Other studies simply consider the quantity of CS reporting as a main indicator for the quality of reporting.

Different studies that investigate CS reporting on a national as well as on an international level find that varying factors influence the extent or quality of CS reporting. However, even tough different scientists have drawn from a wide range of different theoretical perspectives, they have rather consistently assumed that company size, industry affiliation, location and profitability are the main factors that determine CS reporting. Nevertheless, many studies do not draw a clear line between the extent and the quality of CS reporting. While some studies use rather simple methods to measure the extent of CS reporting, other studies use more complex methods to

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better take into account the quality of CS reporting. The extent of reporting is then often also considered as an indicator for the quality of reporting. For the purpose of this thesis it is therefore, important to make a clear distinction between determinants for the extent and determinants for the quality of CS reporting.

4 Theoretical framework

4.1 System-oriented theories

In recent years, different theories have been developed to explain why companies disclose CS information. However, there is still no comprehensive theoretical point of reference for what exactly determines the extent and quality of CS reporting.\textsuperscript{149} Research has shown that system-oriented theories are well suited to provide reasonable explanations for the extent and quality of CS reporting.\textsuperscript{150} Particularly, the legitimacy theory and the stakeholder theory are often used in literature when dealing with determinants for CS reporting. By different authors these theories have either been supported or rejected, but none of them has consistently been considered true or false as an explanation for CS reporting.\textsuperscript{151} Further theories that are regularly used in regard to CS reporting include the institutional theory, the agency theory and the political cost theory. However, due to the limited scope of this thesis, only the legitimacy and stakeholder theories will be used in this thesis to analyse CS reporting.

The legitimacy and stakeholder theories derive from the broader concept of political economy.\textsuperscript{152} DiMaggio and Powell claim that: “organizations compete not just for recourses and customers, but for political power and institutional legitimacy, for social as well as economic fitness”.\textsuperscript{153} The political economy concept, therefore, suggests that managers are not only concerned with political considerations but also with the demands of other non-governmental interest groups, which try to influence companies. By disclosing information on their social, environmental and economic performance, companies aim to minimize the potential economic costs that might arise from the interaction with its natural and societal environment.\textsuperscript{154} In the context of a system-oriented perspective, CS reporting can thus be viewed as a strategic tool to manage relationships

\textsuperscript{150} Cf. Tagesson, T. et al. (2009), p. 353.
with stakeholders and social institutions with the aim to ensure corporate legitimacy. The legitimacy theory and stakeholder theory will be explained in more detail in the following section and in doing so, will provide a comprehensive theoretical framework for the rest of this thesis.

4.2 Legitimacy theory

4.2.1 Theoretical fundamentals

The legitimacy theory considers CS reporting as a result of societal pressure to legitimize corporate actions that affect the ecological and social coexistence. According to the legitimacy theory, companies need to have a certain level of legitimacy in order to be able to access the resources that they need to successfully conduct business operations. Therefore, companies constantly have to demonstrate that they are operating in accordance with the values and norms of the societies. In doing so, they attempt to make sure that their activities are perceived by stakeholders as being legitimate. According to Suchman, legitimacy can be defined as: “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions”. In order to ensure legitimacy, companies continuously seek congruency between corporate actions and the social norms and values of different stakeholder groups. In the context of business operations, legitimacy can thus be understood as an invisible “license to operate” issued for a company by the respective society.

4.2.2 Layers of legitimacy

Before highlighting the relevance of the legitimacy theory for CS reporting, it seems reasonable to distinguish different layers of legitimacy. In general, there are two levels of legitimacy, as shown in figure 6. On a macro level the institutional legitimacy theory explains how whole organizational structures, such as religions or governments, gain legitimacy from society. On an organizational level, single organizations seek approval from stakeholders and the society. In order to become and remain successful, companies, therefore, constantly try to establish, maintain, extend and defend legitimacy.

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4.2.3 Social contract

The social contract between a company and the society is an essential part of the legitimacy theory. The legitimacy theory suggests that, on an organizational level, companies are not considered to have an inherent right to exist. Rather, all corporate actions are subject to the acceptance from the people and the society. Therefore, according to the legitimacy theory, organizations can only survive as long as the society considers that they are legitimate. This makes legitimacy a crucial factor for companies’ existence. The state of legitimacy is thus dependent on an invisible social contract between a company and its stakeholders. The content of this social contract is mainly determined by explicit as well as implicit societal expectations about correct corporate behaviour. In light of the legitimacy theory, the social contract demands that companies not only comply with legal requirements but more importantly, that they take into account the needs and expectations of the whole society. If the broader society is not satisfied with an organization’s level of legitimacy, it will effectively revoke an organization’s social contract to continue its operations. A broken social contract can result in a loss of consumers, who may decide to reduce their demand for companies’ products, or a loss of

suppliers, who may stop supplying products to the company. Furthermore, employees may choose to work for other organizations if their current company breaks the social contract. Constituents may also start lobbying against an organization.\textsuperscript{167}

When explaining the social contract it has to be mentioned that the social contract is a theoretical construct, rather than a written contract with well-defined content. Due the ambiguity of the social contract, managers may interpret the needs of the society in different ways and thus react differently to the social contract.\textsuperscript{168} These differences might explain why some companies publish separate CS reports while other companies only provide sustainability information in annual reports or choose not to report about CS aspects at all.

### 4.2.4 Legitimacy gap

Organizational legitimacy is threatened if an actual or potential disparity exists between organizational actions and societal expectations about proper organizational behaviour. Such a disparity can create a potential legitimacy gap. If this gap becomes too wide in can consequently result in a loss of legitimacy in the society.\textsuperscript{169} Furthermore, if the expectations and needs of a society change in the course of time, companies have demonstrated that they try to consider these societal changes and act accordingly to the new needs of the society. The legitimacy of companies can also be threatened if companies act accordingly to the norms and values of society but do not properly communicate their achievements to them. Only an appropriate disclosure strategy can, therefore, ensure that corporate behaviour is perceived in the society as being legitimate.\textsuperscript{170} CS reporting can be used as a tool to close a potential legitimacy gap and to prevent a legitimacy loss, which consequently mitigates the risk involved.\textsuperscript{171}

### 4.2.5 Legitimation strategies and actions

In order to convince the society that a company is acting in a sustainable manner and thus, to secure legitimacy, companies can employ different legitimation strategies. Usually, legitimacy strategies aim to gain, maintain, or restore legitimacy.\textsuperscript{172} They can either be used to inform stakeholders about planned sustainability improvements, to change stakeholders’ perceptions, to distract attention away from negative events or to change stakeholder expectations about

\begin{itemize}
\item \textsuperscript{167} Cf. Deegan, C. (2002), p. 293.
\item \textsuperscript{169} Cf. Khan, A./Muttakin, M. B./Siddiqui, J. (2013), p. 211.
\item \textsuperscript{171} Cf. Khan, A./Muttakin, M. B./Siddiqui, J. (2013), p. 211.
\end{itemize}
To reach the intended goals of these strategies and to gain, maintain or restore legitimacy, they have to be combined with proper actions. According to Dowling and Pfeffer, these actions include adapting practices and outcomes to conform to the widely accepted definition of legitimacy or trying to become identified with values or symbols that represent social legitimacy. Additionally, companies can try to alter the definition of social legitimacy to conform to current practices. However, as changing social norms is rather difficult, it is likely that most companies will either adapt to the constraints imposed by the society or try to identify their current practices with values that are believed to be legitimate. The adoption of certain strategies and corresponding actions depends largely on what is expected by companies to close a potential legitimacy gap. In providing a tool for targeted external communication, CS reporting can be used as a means to alter society’s perception of the organization and in doing so, to ensure legitimacy in the society. The relationship between the above-mentioned strategies and actions is illustrated in figure 7.

![Legitimacy theory diagram](image-url)

**Figure 7: Legitimacy strategies and actions**

(Author’s illustration based on Haniffa, R. M./Cooke, T. E. (2005), p. 396)

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4.2.6 Legitimacy theory and CS reporting

CS reporting can be seen as a potential way to establish trust and achieve acceptance within the society. It allows companies to convince the broader society that they are fulfilling their expectations and meeting their demands. On a corporate level, companies can, therefore, use targeted CS reporting as a tool to gain, maintain and defend legitimacy. As legitimacy is a resource that organizations are dependent on for future survival, companies pursue legitimacy strategies to increase their level of legitimacy whenever the legitimacy gap is in danger of becoming too large. In relation to the legitimacy theory, such strategies include targeted CS reporting or an increase in the extent or quality of CS reporting. As corporate legitimacy can be influenced by sustainability disclosure strategies, CS can be a means for companies to legitimize their actions and justify their existence. Furthermore, in ensuring the legitimacy of corporate behaviour, CS reporting can enable companies to protect relevant company resources and consequently, secure an organization’s further existence.

4.3 Stakeholder theory

4.3.1 Theoretical Fundamentals

Besides the legitimacy theory, the stakeholder theory is also often used to explain CS reporting. In general, companies have obligations towards a variety of different stakeholders and the acceptability of a company is directly linked to stakeholder thinking. According to the stakeholder theory, organizations should, therefore, be managed in the interests of all their constituents rather than just the interest of their shareholders. Freeman defines stakeholders as: “any group or individual who can affect or is affected by the achievement of the organization’s objectives”. This definition includes both internal stakeholders such as managers, shareholders and employees, as well as external stakeholders such as customers, suppliers, different communities, governments and the general public. The stakeholder theory, therefore, suggests that companies have to take into account the perspectives and expectations of a large group of constituents that have interests in corporate activities and emphasizes a proper management of corporate relationships with stakeholders.
The stakeholder theory is descriptive, instrumental and normative in nature. On the one hand, the stakeholder theory explains how the relationships between firms and stakeholders are managed and how firms respond to different stakeholder needs. This emphasizes the descriptive component of the theory. On the other hand, it is also instrumental as it allows companies to effectively communicate with stakeholders. Finally, the stakeholder theory also has a normative character as it suggests that companies should respect stakeholder needs and respond to them also for ethical reasons.\textsuperscript{186}

4.3.2 Stakeholder importance

Given its instrumental nature, the stakeholder theory has a rather strategic character. According to the stakeholder theory, serving stakeholder interests is a critical factor for a company’s long-term success as it allows for the maximization of company profits in the long run. An adequate stakeholder orientation and a proper management of stakeholder relationships are, therefore, vital for business success. In order to reach their strategic goals, managers have to steadily assess the needs of different stakeholder groups. The importance of stakeholders is especially reflected in their power to control those resources, which are needed to ensure the future survival of a company.\textsuperscript{187} Firms can generally not remain successful in the long run if they consistently disregard the interests of key stakeholders.\textsuperscript{188} From a stakeholder-oriented viewpoint, internal and external stakeholders can, therefore, be considered the main drivers for CS practices. Furthermore, managers need to recognize shifts in the corporate environment among different stakeholder groups in order to be able to immediately react to changes and stay successful. According to the stakeholder theory, a targeted dialogue with stakeholders enables managers not only to gain the support of related stakeholder groups, but also to constantly adjust goals for sustainable corporate development.\textsuperscript{189}

4.3.3 Primary and secondary stakeholders

Companies have a constant need for tangible and intangible resources that are controlled by different stakeholders. Neglecting stakeholder interests could, therefore, result in a loss of access to crucial company resources such as financial capital or human labor.\textsuperscript{190} If the resources

\begin{small}
\textsuperscript{190} Cf. Feeman, R. E. et al. (2010), pp. 94f.
\end{small}
provided by certain stakeholders are considered to be crucial for a company, serving these particular stakeholders’ needs will generally be of higher priority than serving the needs of stakeholders that provide less important resource.\textsuperscript{191} According to Clarkson, one can therefore distinguish between primary and secondary stakeholders. Primary stakeholders are interest groups that have a significant influence on the long-term economic success of a company. Fulfilling their needs and demands is of primary importance for companies. Neglecting their interests could threaten a company’s future survival. As illustrated in figure 8, primary stakeholders include customers, employees, communities, financiers, communities and the company itself. In contrast to primary stakeholders who have a direct impact on companies, secondary stakeholders affect companies indirectly, meaning, they impact the relationship between companies and their primary stakeholders.\textsuperscript{192} Secondary stakeholders include the government, consumer advocates and special interest groups as well as the media.\textsuperscript{193}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{stakeholder_diagram.png}
\caption{Primary and secondary stakeholders (Author’s illustration based on Freeman R. E. et al. (2010), p. 24)}
\end{figure}

4.3.4 Stakeholder theory and CS reporting

CS reporting provides the basis for a targeted dialogue between a firm and its primary and secondary stakeholders. The stakeholder theory considers CS reporting as a means to achieve wealth maximization in the long run. While companies are expected to meet the economic needs of its shareholders, they also have to consider the interests of other stakeholders. As they control important company resource, primary stakeholders have a significant influence on business activities. The importance that a company attributes to CS actions is therefore heavily related to the respective power of different stakeholder groups. From a stakeholder perspective, CS reporting can be seen as an essential part of the dialogue between the company and its stakeholders. It allows companies to disseminate relevant information to a variety of stakeholders and provides opportunities for companies to influence their perception regarding future prospects of a company.

Additionally, the stakeholder theory considers the fulfillment of obligations towards stakeholders in all three sustainability dimensions as a part of CS reporting. In order to enhance the acceptability of stakeholders, the fulfillment of stakeholder needs has to be properly measured and subsequently reported about in special sustainability reports. Marshall et al. are observing a shift in the pattern of reporting that “incorporates a sustainability mandate, refuting clearly the old thinking of limitless resources, unbounded growth, and technologically derived solutions.” In contrast to traditional financial reporting, which mainly aims to fulfill shareholders’ information needs, comprehensive CS reporting provides valuable information to a much broader audience. In demonstrating how well companies deal with issues concerning the environment, the society and the economy, CS reporting provides a means to fulfill the information needs of all relevant stakeholder groups.

5 Meta-analysis

5.1 Types and benefits

For the purpose of this master thesis, a Meta-analysis (MA) was used as an analysis tool. The MA is a secondary analysis that investigates and summarizes the findings from primary

research.\textsuperscript{201} While primary research concerns the analysis of original data, secondary research aims to reanalyse already existing data to answer new questions or to answer original research questions but with improved statistical methods.\textsuperscript{202} Consequently, a MA can be defined as an analysis of an analysis.\textsuperscript{203} According to Glass, a MA can be used to “refer to the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings.”\textsuperscript{204} Like most other classical descriptions of a MA, this description refers to rather quantitative oriented approaches of MAs. However, for the purpose of this master thesis, a qualitative MA will be conducted. The difference between a quantitative and qualitative MA will be explained in more detail in the following sections.

5.1.1 Quantitative Meta-analysis
The MA is a preliminary quantitative analysis tool that uses statistical methods to process and analyse large amounts of data and information.\textsuperscript{205} Researchers in social sciences are particularly known for using quantitative MA to integrate the findings of different primary studies, thereby utilizing quantitative methods.\textsuperscript{206} The aim of such methods is to analyse complex relationships between certain factors and to understand complex scientific phenomena. With its statistical component, the quantitative MA allows for the analysis of factors and interrelationships that may have been overlooked or may not have been considered relevant in primary studies and can therefore produce new knowledge.\textsuperscript{207}

5.1.2 Qualitative Meta-analysis
Whereas the MA often has a rather quantitative character, it can also be used as a qualitative research tool.\textsuperscript{208} The qualitative MA can be broadly described as a descriptive review of primary studies.\textsuperscript{209} In contrast to the quantitative MA, the qualitative MA does not use statistical tools to analyse different primary studies. Instead, the qualitative MA aims to systematically analyse primary studies. This approach allows for a more comprehensive overview regarding a particular research topic and can enable researchers to reveal research gaps in literature.\textsuperscript{210} Therefore, a qualitative MA is particularly suitable for new fields of research with few available studies. This

\textsuperscript{203} Cf. Glass, G. V. (1976), p. 3.
\textsuperscript{204} Glass, G. V. (1976), p. 3.
type of analysis can then be used to integrate the findings of different studies and to undertake a general assessment of the studies even though inconsistencies between the studies may exist.\footnote{Cf. Hunter, J. E./Schmidt, F. L./Jackson, G. B. (1982), p. 129.}

As a qualitative MA allows providing a comprehensible overview about a new field of study and enables to analyse inconsistencies in research, it seems suitable to use this research tool to examine determinants for the extent and quality of CS reporting. The qualitative MA will therefore be used to answer some guiding research questions, which will be developed in section 5.2.1.

**5.1.3 Benefits of Meta-analyses**

While single studies are rarely able to extensively answer research questions and fully serve a research topic, by integrating different studies, the MA can often produce more reliable results than primary research. Moreover, a MA can aggregate knowledge that is distributed across numerous studies. This allows for the detection of potential research gaps in a particular field of research.\footnote{Cf. Hunter, J. E./Schmidt, F. L. (2008), p. 21.} By extracting valuable knowledge and information from primary research, the MA determines the current state of research on the basis of which questions for further studies can be developed.\footnote{Cf. Glass, G. V. (1976), pp. 4f.}

Furthermore, the consideration of primary studies that use different methodologies and different theoretical points allows for a high degree of objectivity. Also the methodological quality of primary studies does generally not affect its inclusion or exclusion in a MA. The selection of studies for a MA is rather based on the suitability to answer certain research questions and is determined by predefined selection criteria.\footnote{Cf. Fricke, R./Treinies, G. (1985), p. 36.}

The studies used in a MA are usually listed in a special grid and subsequently analysed according to a special coding scheme, which allows for an extensive documentation of research findings. Nevertheless, there are also some points of criticism regarding the usage of a MA as a secondary research tool. The comparability of studies, which uses different techniques and research methods as well as the comparability between high and low quality studies, is limited. Furthermore, the study selection can be biased and non-independent data can be mistakenly integrated into the MA.\footnote{Cf. Glass, G. V./McGaw, B./Smith, M. L. (1981), p. 218.}
5.2 Methodology

Literature suggests a five-step process to conduct a MA, which includes the formulation of research questions, the collection of research findings, the evaluation of the research results, the analysis of the results, and the final presentation of the results.\textsuperscript{216} As this procedure is normally suitable for quantitative MAs, the methodology used for the purpose of this master thesis was slightly adapted to meet the requirements of qualitative MAs. The methodological approach used for the purpose of this master thesis is illustrated in figure 9.

![Figure 9: Five steps of a qualitative MA](Author's own illustration)

5.2.1 Development of research questions

The first step of this MA was to develop three distinct research questions to investigate determinants for CS based on a brief literature review. The initial research focus that was planned for this MA was to examine determinants for the quality of CS reporting only. However, after reviewing a wide range of different literature, it turned out that a significant proportion of studies deal with determinants for CS reporting only on a rather general level but do not set a particular research focus. Another part focuses solely on determinants for the extent of CS reporting. In contrast to the studies mentioned, it turned out that the availability of studies that examine determinants for the quality of CS reporting was rather limited.

Determinants for the Extent and Quality of Corporate Sustainability Reporting  
Matthias Grillnberger

A Meta-Analysis of Empirical Studies

Due to the different research study focuses and the limited availability of studies dealing with determinants for the quality of CS reporting, the aim of this thesis was slightly redefined. The research purpose has therefore been modified to examine determinants for the extent and quality of CS reporting separately as well as to determine differences between them. Based on a more extensive literature review, the following research questions have finally been redefined to guide the MA:

- What determines the extent of corporate sustainability reporting?
- What determines the quality of corporate sustainability reporting?
- To what extent are determinants for the quality of sustainability reporting different from determinants for extent of reporting?

5.2.2 Research and study selection

Primary studies from different geographical regions have been selected based on their perceived suitability to answer the research questions. As part of the first step, all papers that seemed potentially useful to answer the research questions were collected. At this point, a pre-selection was intentionally avoided as to prevent bias in the study selection. The goal was rather to get a broad overview about available studies. After a brief review of each paper, only those that seemed actually suitable to fulfill the purpose of this master thesis were used for further analysis.

The search for suitable studies was not constrained to certain types of studies. All types of studies published in scientific journals or other scientific sources as well as dissertations and other research papers from universities that were considered suitable were used for further investigation. Only book reviews and editorial notes were explicitly excluded. In addition, studies published in German as well as in English were used for the MA. However, due to the fact that the majority of literature concerning this topic was published solely in English, the majority of studies consist of English studies. Furthermore, studies published in all geographical regions have been included to prove the international character of this topic. Due to the fact that comprehensive CS reporting only developed in the late 1990’s, only studies that have been published after the year 2000 have been used for the MA. In general, a great emphasis was placed on including the most recent studies available concerning this particular field of research. If similar studies were published in different years, the later ones were included in the MA while older studies were rejected. As the field of CS reporting can be considered very dynamic in nature, it seems particularly important to focus on the most recent studies available.

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The qualitative nature of this MA allowed for an investigation of studies with both, a qualitative and quantitative research nature. However, the majority of studies that have been used for the purpose of this MA have a qualitative nature with quantitative elements. To research and find suitable studies, several databases and searching tools were used. Due to its large reach and its ease of use, the database of the University of Victoria (UVic)\textsuperscript{218} turned out to be a good tool to detect suitable studies and has thus been used as the main database for the study collection. The UVic database is a Meta-database, which lists a wide variety of articles and studies published in scientific papers all around the world and also provides links to other databases. Additional databases used to identify suitable studies include Google Scholar, ScienceDirect, Wiley, the Elektronische Zeitschriftenbibliothek (EZB) as well as the Datenbank-Infosystem (DBIS).

In order to detect and collect suitable studies from these databases and to adequately cover the research field, an extensive search using the following keywords was conducted: “sustainability”, “corporate sustainability”, “CSR”, “triple bottom line”, “TBL”, “determinant”, “extent”, “quality”, “reporting”, “disclosure”, “Nachhaltigkeitsberichterstattung”, “Umweltberichterstattung” and “Berichtsqualität”. The terms have been linked with the Boolean operators AND and OR to specify the research. To further optimize the search and to increase the number of hits, truncation was used. Thus, in addition to the terms mentioned above, the following search terms were used: “sustainab* report*”, “CSR report*”, “corp* sustainab* report*”, “TBL report*”, “triple* report*”, “report* quality”, “*extent”, “disclosure*” “Nachhaltigkeitsbericht*”, “Berichts*”, “*qualität”. After suitable studies were identified and briefly reviewed, citations that referred to publications with similar research focuses were used to identify additional suitable studies. This approach allowed for a targeted collection of suitable studies.

5.2.3 Coding and classifying studies

A special grid was developed to provide a systematic overview of the studies investigated. The grid contains formal aspects of the studies as well as information about the methodology used, the type of study, the sample and the findings of the respective study. This step served as a means to systematically examine if a study was suitable to answer the first, second or third research question and to classify the studies accordingly. Additionally, the studies have been coded based on a special coding scheme, which was developed especially for the purpose of this study.

\textsuperscript{218} The author has been studying at the University of Victoria from August 2014 to October 2014 and had therefore access to all University databases during the time this Master thesis was written.
MA. Even though the coding process is very complex and time-consuming, its importance should not be underestimated as it can be seen as a critical part of a MA.\textsuperscript{219}

The coding process was used to identify important factors, as well as to filter out information of little importance. Furthermore, the studies were classified into specific categories according to the information identified. Therefore, this step served as a logical basis on which the descriptive analysis could be built. The grid and the coding scheme will be explained in more detail in chapters 5.3. and 5.4.

5.2.4 Descriptive analysis of studies

Based on the coding scheme, the studies have been clustered into certain categories for further analysis. These categories include studies that examine determinants for the extent or quality of reporting and studies that do not differentiate between extent and quality of reporting. The studies classified in each category were then qualitatively analysed and evaluated. After briefly describing the studies to highlight their research focus, the methodology and the theoretical framework used, the determinants found in different studies were subsequently explained in more detail in each respective category. This approach allowed to successfully integrate and group the findings of each study and thus to provide a better picture of the research topic. Due to differences in the quality of studies and the different research methodologies used in the studies investigated, some studies are described in more detail than other studies in this section. Studies that turned out to be less relevant for the research topic during the research have only been discussed briefly in the descriptive analysis section. Furthermore, studies that have been coded with the same coding factors have been consolidated in this section. This approach allowed giving a better idea about the importance of certain determinants for either the extent or the quality of CS reporting.

Due to its qualitative nature, the descriptive analysis can be considered a narrative research tool. In contrast to a classical quantitative MA, the descriptive analysis allows for an analysis of quantitative studies that use statistical tools as well as qualitative studies. As a descriptive analysis of studies allows for the investigation of a research topic from many perspectives, it can be considered a multi-methodological approach.\textsuperscript{220}

5.2.5 Interpretation and discussion of research findings

In the last step, the findings of the descriptive analysis of studies were interpreted and further discussed. An essential part of this last part of the MA was to summarize the key elements of the analysis, to highlight unexpected findings and to identify possible research gaps.\textsuperscript{221} The summarized research findings from the descriptive analysis have finally been used to answer the three research questions defined earlier. As this section served the initial purpose of this master thesis, this final step can be considered one of the most important elements of the whole MA. Furthermore, this last step links the results of the MA with the theories discussed earlier and in doing so, it integrates this research into an appropriate field of research.

5.3 Study grid

The study grid provides a tabular summary of the studies that have been selected for the purpose of this MA. In total, 40 studies have been used for the following MA. The study grid is divided into three sections based on the research focus of the study investigated and the suitability of the study in answering the first or second research question. Category I (CI) includes studies which investigate determinants for the extent of CS reporting, whereas category II (CII) only considers studies that analyse determinants for the quality of CS reporting. In addition, category III (CIII) includes studies that do not differentiate between the extent and quality of CS reporting or studies that combine both factors and can, therefore, not be attributed to category I or II. Moreover, it has to be mentioned that two studies investigate both, determinants for the extent as well as determinants for the quality of CS reporting and have consequently been listed as CI and CII study. This increases the final number of studies shown in the study grid to 42. Out of the 42 investigations, 18 can be classified as CI-studies, 18 as CII-studies and the remaining 6 belong to category CIII. The study grid contains the following information:

- **Author(s):** The name of the author(s) who conducted a study is mentioned in the study grid, which also provides the basis for the alphabetical study order.
- **Year:** The year in which a study was published refers to the actuality of the research findings and, therefore, represents a valuable piece of information.
- **Title of study:** The title of a study can give valuable indications about the research focus of a study and allows for an easy identification in the list of references.

\textsuperscript{221} Cf. Stamm, H./Schwab, T. M, pp. 18f.
- **Geographical region**: The geographical region in which a study was published can give indications about the general research focus in particular countries. It also allows one to deduce if a study has a rather national or international nature.

- **Methodology**: The methodology employed in a study is briefly explained. Underlying research methods, such as the use of a content analysis or the application of more precise analytical tools, such as certain statistical methods, are mentioned here.

- **Sample**: The sample sizes as well as the medium of analysis are displayed in this column. Further details about the sample, such as industry or stock market listing, are also given.

- **Coding element**: The coding element indicates the corresponding element derived from the coding scheme developed for this MA. It displays the element symbol as well as the literal description of the element and in doing so, gives a first indication about the determinants identified in a study.
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<th>Author(s)</th>
<th>Year</th>
<th>Title of study</th>
<th>Geographical</th>
<th>Sample</th>
<th>Methodology</th>
<th>Regression</th>
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<th>Performance</th>
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### CII - Studies Investigating Determinants for the Quality of CS Reporting

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<td>Brammer, S. / Pavelis, S.</td>
<td>2008</td>
<td>Factors Influencing the Quality of Corporate Sustainability Reporting</td>
<td>300 companies</td>
<td>Industry membership</td>
<td>Regression analyses</td>
<td>UK</td>
<td>Environmental Disclosure Quality of Corporate Sustainability Reporting</td>
<td>T. Blahna, T. Frey, J. / Pavelis, S.</td>
<td>Regression analyses</td>
<td>UK</td>
<td>Environmental Disclosure Quality of Corporate Sustainability Reporting</td>
<td>T. Blahna, T. Frey, J. / Pavelis, S.</td>
</tr>
<tr>
<td>Tagesson, T. / Blank, V. / Broberg, P. / Collins, S.</td>
<td>2003</td>
<td>What explains the extent and content of social and environmental disclosures on corporate websites in Sweden?</td>
<td>Separate CS reports of 267 private and state-owned companies consisting of the 160 largest companies in Germany and the USA</td>
<td>Industry membership, Company size</td>
<td>Regression analyses and correlation analysis</td>
<td>Multivariate regression analysis</td>
<td>Sweden</td>
<td>Corporate Website disclosures on concentration of social and environmental disclosure</td>
<td>Regression analyses</td>
<td>Germany and the USA</td>
<td>Environmental Disclosure Quality of Corporate Sustainability Reporting</td>
<td>T. Blahna, T. Frey, J. / Pavelis, S.</td>
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<tr>
<td>Tagesson, T. / Blank, V. / Broberg, P. / Collins, S.</td>
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<td>Regression analyses</td>
<td>Germany and the USA</td>
<td>Environmental Disclosure Quality of Corporate Sustainability Reporting</td>
<td>T. Blahna, T. Frey, J. / Pavelis, S.</td>
</tr>
</tbody>
</table>

### Notes
- A Meta-Analysis of Empirical Studies
- Multivariate analyses correspond to environmental, social, and governance disclosure at the level of the individual country.
- What explains the extent and content of social and environmental disclosures on corporate websites in Sweden?
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Year</th>
<th>Country</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinants for the Extent and Quality of Corporate Sustainability Reporting</td>
<td>Matthias Grillnberger</td>
<td>2009</td>
<td>Germany</td>
<td>Multivariate regression analysis</td>
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<tr>
<td>Sustainability Reporting in Germany</td>
<td>Clausen, J./Loew, T./Westermann, U.</td>
<td>2005</td>
<td>Germany</td>
<td>Weighted disclosure index</td>
</tr>
<tr>
<td>CS reports of 150 companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry membership</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Media presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FTSE 100</td>
<td></td>
<td></td>
<td>USA</td>
<td>Analyse: Verfliischende empirische Evaluation: Eine inferenzielle Methodik</td>
</tr>
<tr>
<td>CS reports of 90 companies</td>
<td></td>
<td></td>
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<tr>
<td>Industry membership</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Report length</td>
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<td></td>
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<td></td>
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<tr>
<td>CS reports of 30 companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Industry membership</td>
<td></td>
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<tr>
<td>Company size</td>
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<td></td>
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</tr>
<tr>
<td>CS reports of 156 companies</td>
<td></td>
<td></td>
<td>Germany</td>
<td>Report length: The DAX 30 companies</td>
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<tr>
<td>Industry membership</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No clear determinant</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CS reports of 100 companies</td>
<td></td>
<td></td>
<td>Switzerland</td>
<td>Approach: Analyze methodological approaches: Assessing the quality of sustainability reporting in Switzerland</td>
</tr>
<tr>
<td>Industry membership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS reports of 150 companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry membership</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Determinants</td>
<td>Methodology</td>
<td>Country/Region</td>
<td>Sample Size</td>
<td>Date</td>
</tr>
<tr>
<td>-------------</td>
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<td>------</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Benchmarking</td>
<td>Austria</td>
<td>7 Austrian companies and 20 selected MNCs</td>
<td>2006</td>
</tr>
<tr>
<td>Company size</td>
<td>Content analysis, Multivariate regression</td>
<td>UK</td>
<td>Separate CS reports and annual reports of 112 firms listed on the London Stock Exchange</td>
<td>2013</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Multiple regression analysis</td>
<td>Worldwide</td>
<td>Separate CS reports of 75 industrial companies and global companies providing environmental and social information</td>
<td>2011</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Special scoring system</td>
<td>North America, Europe and the Asia-Pacific regions</td>
<td>27 companies in the forest, paper and packaging sector selected from the PwC sustainability reporting of the forest and paper sector</td>
<td>2008</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Special scoring system</td>
<td>Austria, Germany</td>
<td>Separate CS reports, HDX index and annual reports of 103 companies listed on the World Economic Forum's Doing Business 2013</td>
<td>2010</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Multiple regression analysis</td>
<td>Worldwide</td>
<td>Separate CS reports, HDX index and annual reports of 103 companies listed on the World Economic Forum's Doing Business 2013</td>
<td>2013</td>
</tr>
<tr>
<td>Industry membership</td>
<td>Content analysis, Multiple regression analysis</td>
<td>Worldwide</td>
<td>Separate CS reports, HDX index and annual reports of 103 companies listed on the World Economic Forum's Doing Business 2013</td>
<td>2010</td>
</tr>
<tr>
<td>Company size</td>
<td>Content analysis, Special scoring system</td>
<td>Austria</td>
<td>Separate CS reports of 75 industrial companies and global companies providing environmental and social information</td>
<td>2011</td>
</tr>
<tr>
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</tr>
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<tr>
<td>Industry membership</td>
<td>Content analysis, Multiple regression analysis</td>
<td>Worldwide</td>
<td>Separate CS reports of 75 industrial companies and global companies providing environmental and social information</td>
<td>2011</td>
</tr>
</tbody>
</table>
### Table: Determinants for the Extent and Quality of Corporate Sustainability Reporting

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Title of Study</th>
<th>Geographical Region</th>
<th>Sample</th>
<th>Methodology</th>
<th>Coding Element</th>
<th>Sample Size</th>
<th>Sample Details</th>
<th>Methodology</th>
<th>Sample Details</th>
</tr>
</thead>
</table>
| Quick, R./Knocinski, M. | 2006 | Nachhaltigkeitsberichtsprüfung – Empirische Befunde zu Berichterstattung von HDAX-Unternehmen | Germany | CS reports of 26 companies listed on the German HDAX index | Ranking on Nachhaltigkeitsberichtsprüfung behind the German HDAX index | A1.1 Company size, A1.2 Profitability, A1.3 Industry membership, A1.4 Media presence, A1.5 Company presence
| Cormier, D./Magnan, M. | 2003 | European Perspective: a continental environmental reporting imperative | France | Environmental reporting catalogues and database analysis | Content analysis, Correlation and Regression analysis | A2.2 Industry membership, A2.3 Financial characteristics, A2.4 Profitability
| Boesso, G./Kurten, K. | 2007 | Drivers of corporate voluntary disclosure | USA, Italy | Voluntary disclosure | Weighted disclosure index | A1.1 Company size, A1.2 Media presence, A1.3 Industry membership
| Boesso, G./Kurten, K. | 2009 | Drivers of corporate voluntary disclosure | USA, Italy | Voluntary disclosure | Weighted disclosure index | A1.1 Company size, A1.2 Media presence, A1.3 Industry membership
| Cormier, D./Magnan, M. | 2003 | European Perspective: a continental environmental reporting imperative | France | Environmental reporting catalogues and database analysis | Content analysis, Correlation and Regression analysis | A2.2 Industry membership, A2.3 Financial characteristics, A2.4 Profitability
| Boesso, G./Kurten, K. | 2007 | Drivers of corporate voluntary disclosure | USA, Italy | Voluntary disclosure | Weighted disclosure index | A1.1 Company size, A1.2 Media presence, A1.3 Industry membership
| Boesso, G./Kurten, K. | 2009 | Drivers of corporate voluntary disclosure | USA, Italy | Voluntary disclosure | Weighted disclosure index | A1.1 Company size, A1.2 Media presence, A1.3 Industry membership

**Notes:**
- **C III:** Studies that do not distinguish between extent and quality of CS reporting or combine both factors.
- **C II:** Studies that distinguish between extent and quality of CS reporting.
<table>
<thead>
<tr>
<th>Table 1: List of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td>2013</td>
</tr>
</tbody>
</table>
5.4 Coding scheme

The coding scheme used for the MA was developed based on an extensive literature review as well as information provided in the studies investigated. Furthermore, in the course of the investigation of single studies, the coding scheme has continually been adjusted and improved to take into account new findings. The coding scheme provides the basis for a systematic and logical analysis of the studies and, at the same time, gives an overview about the determinants found in certain studies. Generally, the coding scheme is divided into two parts: the research focus of a study as well as the determinants found in certain studies.

The first part of the coding scheme concerns the research focus of a study, which allows for the division of the studies into three distinct categories classified as coding factors CI, CII and CIII. Studies are grouped together according to their suitability to answer different research questions and the different factors that were analysed in each particular study. As already mentioned in section 5.3, Category I (CI) includes studies that explicitly investigate determinants for the extent of CS reporting, whereas category II (CII) only considers studies that analyse determinants for the quality of CS reporting. Furthermore, Category III (CIII) includes studies that do not differentiate between the extent and quality of CS reporting or combine both factors and could, therefore, not be attributed to category I or II. An initial classification has already taken place in the study grid, however, the coding elements will also be used to group studies during the descriptive analysis.

The second part deals with the determinants detected in each study for either the extent or quality of CS reporting. The coding factor A refers to factors that are directly linked to companies, also known as company-specific characteristics and these can further be subdivided into non-financial characteristics (A.1) and financial characteristics (A.2). Non-financial firm characteristics include visibility factors, corporate governance factors as well as strategic factors. The visibility factors are comprised of company size (A.1.1), media presence (A.1.2) and reputation of a company (A.1.3), while corporate governance factors include ownership structure (A.1.4), governance structure (A.1.5) and management factors (A.1.6). Moreover, strategic factors are represented by stakeholder orientation (A.1.7), sustainability performance (A.1.8) and communication strategy (A.1.9) of a company. In contrast to non-financial firm characteristics, financial characteristics include profitability (A.2.1), liquidity (A.2.2), level of leverage (A.2.3) and average asset age (A.2.4) of the company.
The **coding factor B** addresses determinants that are related to geographical factors, as suggested by many different studies. More explicitly, the coding factor B includes geographical location of a company (B.1), cultural factors (B.2), impact of the national government (B.3) and institutional factors (B.4) in a country as well as the level of internationalisation of a company (B.5).

The **coding factor C** discusses the impact of sectorial characteristics on the extent and quality of CS reporting, as represented by the membership of a particular industry (C.1) and the systematic risk (C.2) inherent to an industrial sector, often denoted by the beta factor.

The last **coding factor D** can be divided into factors that are directly related to CS reports as well as factors that are linked to the process of reporting. In the coding scheme, report related factors are represented by the format used (D.1), such as annual reports, environmental reports or comprehensive CS reports as well as the lengths of reports (D.2) and the reporting framework (D.3) applied. In contrast, the intended audience of CS reports (D.4) and a potential voluntary auditing by an external audit firm or internal auditing (D.5) are classified as reporting related factors.

The following figure provides a clear overview of the coding scheme used for the MA.
## Coding scheme

<table>
<thead>
<tr>
<th>A</th>
<th>Company-specific characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Non-financial characteristics</td>
</tr>
<tr>
<td>A.1.1</td>
<td>Company size</td>
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<tr>
<td>A.1.2</td>
<td>Media presence</td>
</tr>
<tr>
<td>A.1.3</td>
<td>Reputation</td>
</tr>
<tr>
<td>A.1.4</td>
<td>Ownership structure</td>
</tr>
<tr>
<td>A.1.5</td>
<td>Governance structure</td>
</tr>
<tr>
<td>A.1.6</td>
<td>Management factors</td>
</tr>
<tr>
<td>A.1.7</td>
<td>Stakeholder orientation</td>
</tr>
<tr>
<td>A.1.8</td>
<td>Sustainability performance</td>
</tr>
<tr>
<td>A.1.9</td>
<td>Communication strategy</td>
</tr>
<tr>
<td>A.2</td>
<td>Financial characteristics</td>
</tr>
<tr>
<td>A.2.1</td>
<td>Profitability</td>
</tr>
<tr>
<td>A.2.2</td>
<td>Liquidity</td>
</tr>
<tr>
<td>A.2.3</td>
<td>Leverage</td>
</tr>
<tr>
<td>A.2.4</td>
<td>Asset age</td>
</tr>
<tr>
<td>B</td>
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</tr>
<tr>
<td>B.1</td>
<td>Geographical location</td>
</tr>
<tr>
<td>B.2</td>
<td>Cultural factors</td>
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<tr>
<td>B.3</td>
<td>Impact of local government</td>
</tr>
<tr>
<td>B.4</td>
<td>Institutional factors</td>
</tr>
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<td>B.5</td>
<td>Internationalization</td>
</tr>
<tr>
<td>C</td>
<td>Sectorial characteristics</td>
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<tr>
<td>C.1</td>
<td>Industry membership</td>
</tr>
<tr>
<td>C.2</td>
<td>Industry risk</td>
</tr>
<tr>
<td>D</td>
<td>Report and reporting related characteristics</td>
</tr>
<tr>
<td>D.1</td>
<td>Reporting format</td>
</tr>
<tr>
<td>D.2</td>
<td>Report length</td>
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<tr>
<td>D.3</td>
<td>Reporting framework</td>
</tr>
<tr>
<td>D.4</td>
<td>Intended audience</td>
</tr>
<tr>
<td>D.5</td>
<td>Auditing</td>
</tr>
</tbody>
</table>

Figure 10: Coding scheme
(Own diagram)
6 Descriptive analysis of the studies

In total, studies from 40 different authors have been included in this MA. All of these studies will be qualitatively analysed in the following section. It has to be mentioned that two of the studies examine both, determinants for the extent as well as determinants for the quality of CS reporting, which increases the final number of investigations to 42 contributions. The studies in each category will first be briefly described and then classified based the determinants found.

6.1 CI - Studies investigating determinants for the extent of CS reporting

Out of the 42 contributions, 18 studies particularly deal with determinants for the extent of CS reporting. However, the studies differ significantly in regard to their research focus, the theoretical framework used, the CS dimensions considered and the methodology employed.

To determine the isolated influence of several predetermined factors on both, the extent and quality of CS reporting, in large German and American companies, Blaesing conducted a quantitative content analysis. The investigation is based on a theoretical framework from which the author deduces certain hypotheses to guide his investigation. Specific theories that are used as basis for this study derive mainly from the scientific field of institutionalism. In particular the legitimacy theory, the stakeholder theory, the principal agency theory and the positive accounting theory are used to explain potential determinants in this study. In order to determine influencing factors for the extent of CS reporting, a non-weighted disclosure index, which is based on the GRI G3 reporting framework, was used for Blaesing’s investigation. If a company reported about an indicator, one point was given otherwise no points were awarded. To figure out the impact of certain possible determinants on the extent of reporting, a multivariate correlation and regression analysis were used in this study. The results of the study suggest that particularly the company size and the systematic risk of an industry determine the extent of CS reporting. Blaesing finally compared the determinants for the extent of CS reporting with determinants for the quality of reporting, which he also investigated. Only separate CS reports were analysed as part of this study.

Ho and Taylor also conducted an empirical analysis of CS reporting in two selected countries. They investigated the CS disclosure of large Japanese and American companies in order to

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discover determinants for the extent of reporting. Twenty disclosure criteria were developed for each of the three sustainability dimensions. CS information provided in annual reports, in separate CS reports as well as on corporate websites was then examined by the use of a content analysis. However, in contrast to Blaesing, Ho and Taylor based their criteria development not only on the GRI framework but also on extensive literature review as well as business surveys. In order to empirically analyse the main determinants for the extent of CS reporting, the authors performed a multivariate regression analysis.\textsuperscript{225} The findings of the study indicate that the geographical region that a company operates in has considerable effects on the extent of reporting, whereby the level of reporting varies between the different sustainability dimensions.\textsuperscript{226}

\textit{Gamerschlag, Möller and Verbeeten} conducted a study similar to those of the authors mentioned previously. However, due to a better comparability of companies within similar political and societal backgrounds, they focused their investigation solely on large companies in one country, namely Germany. Based on the political cost theory, which served as a theoretical basis for this research, certain hypotheses were developed.\textsuperscript{227} To quantify the amount of CS information provided in corporate reports and to further determine the impact of certain factors on the extent of reporting, a content analysis was conducted. The quantity of specific key words used in CS reports has been used as a unit of analysis to determine the extent of CS reporting in this study. Finally, a regression analysis was performed to test the impact of certain factors.\textsuperscript{228} The results suggest that the extent of German companies’ CS disclosure issues is affected by their visibility, shareholder structure and the relationship with stakeholders.\textsuperscript{229} As a national study, this study did not investigate the impact of the geographical location on the extent of CS reporting.

\textit{Bhattacharyya} examined the extent of social and environmental reporting in Australia and analysed the association between firm characteristics and the extent of CS reporting. The GRI guidelines were used to determine the extent of reporting, however, the study is limited to the use of selected social and environmental disclosure indicators.\textsuperscript{230} Several hypotheses were developed based on a theoretical framework that includes the legitimacy theory, institutional

\begin{itemize}
\item \textsuperscript{225} Cf. Ho, L. J./Taylor, M. E. (2007), pp. 135ff.
\item \textsuperscript{227} Cf. Gamerschlag, R./Möller, K./Verbeeten, F. (2011), p. 236.
\item \textsuperscript{228} Cf. Gamerschlag, R./Möller, K./Verbeeten, F. (2011), pp. 240ff.
\item \textsuperscript{229} Cf. Gamerschlag, R./Möller, K./Verbeeten, F. (2011), p. 257.
\item \textsuperscript{230} Cf. Bhattacharyya, A. (2014), p. 25.
\end{itemize}
theory, resource dependence theory and stakeholder theory. A regression analysis was subsequently used to test the predefined hypotheses. In order to adequately assess the impact of size and industry affiliation on the extent of reporting, companies of different sizes and industries were included in the sample. The findings suggest that in general the extent of CS disclosure in annual reports is fairly low. The study also shows that the extent of reporting differs between industries and companies of different sizes and profitability.

In a Spanish study, Sotorrio and Sánchez analysed the type and extent of CS information MNCs disclose in social reports or on corporate websites. Furthermore, the study investigated whether the intended audience of reports has an influence on the extent of CS reporting. Based on a brief literature review, the authors developed seven hypotheses to examine the impact of country origin, sector type, company resources and corporate visibility on the extent of CS reporting. However, the authors did not relate their investigation to specific theories. Thus no comprehensive theoretical framework was used for this study. The results of the study suggest that the extent of CS reporting is indeed influenced by the intended audience of reports. MNCs tend to report more aggregate CS information for a global audience than they would do for a local audience. However, due to the small sample size of this investigation compared to other studies, the results have to be considered with caution.

Another study that measured the extent of CS reporting and tried to find respective determinants was conducted by Naser and Hassan. This study focused solely on non-financial companies in Abu Dhabi. Similarly to other studies, the authors used a content analysis and a subsequent multiple regression analysis to identify the main determinants for the extent of reporting. The study reveals that the overall CS disclosure of Abu Dhabi-based companies is low, which shows that sustainability is not a primary concern in this country. For the purpose of this study, the annual reports of 60 companies were analysed for details related to certain sustainability issues. The sustainability issues investigated by this study were environment, energy, HR, products, commodity and customers, and others. A disclosure index of 26 items, modelled after those used in prior studies, was used to assess the level of reporting by the companies investigated. The results of the study suggest that in Abu Dhabi, the extent of CS reporting is mainly influenced by

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company size, industry membership and profitability. As this study was also conducted as a national study, no inter-country effect could be investigated.

Herbohn et al. focused particularly on the relationship between sustainability performance and the extent of CS reporting, which has been widely neglected in other studies thus far. However, for the purpose of their study, the authors only took into account Australian companies operating in the energy and mining industry. The entire investigation was framed within the context of the stakeholder theory, which also served as a basis to derive the main hypothesis that had to be tested. Nevertheless, the chosen approach was similar to other studies. By modifying the sustainability index used in a prior study and by the help of a sustainability reporting scorecard, a special sustainability disclosure index that seemed suitable for the purpose of this study was developed. Information provided in annual reports, separate CS reports as well as web-based disclosures was analysed. A multivariate analysis was used to assess the impact of certain factors on the extent of CS reporting. The main result of this study was that CS reporting is significantly related to companies’ sustainability performance, however, company size and communication strategies also seem to determine CS reporting in Australia. Nevertheless, due to the fact that the results of the study are specific to the extractive industries, industry differences could not be determined. Also, country influence was neglected in this study.

In a similar study, Clarkson et al. also investigated the relationship between performance and the extent of reporting by polluting industries in the US. However, in contrast to other studies, they solely focused on the environmental dimension, while the social and environmental dimensions of sustainability were not considered. Only voluntary disclosure on company websites or information provided via separate CS or environmental reports were analysed by this study. The relation between environmental performance and reporting was examined by testing predictions, derived from socio-political theories. These socio-political theories included the political economy, legitimacy and stakeholder theory. Furthermore, an extensive literature research was conducted to develop hypotheses. To assess the extent of discretionary information in environmental and CS reports, a content analysis as well as a disclosure index, based on the GRI guidelines, were used. To further test the hypotheses, a special econometric model was

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employed. Overall, a positive relationship between environmental performance and the extent of environmental and social reporting was confirmed within this study.\(^{240}\)

Similar to Clarkson et al. also Patten conducted a study to examine the impact of environmental performance on the extent of environmental disclosure. For this investigation, only environmental disclosures in annual reports were analysed. As in the above-mentioned study, other dimensions of CS were neglected for the purpose of Patten’s investigation. A brief literature review served as a basis for the development of a rather rough hypothesis.\(^{241}\) A content analysis and a simple line count were used to investigate the extent of reporting. The environmental performance was then quantified through the amount of toxics released in the environment by a specific company. Company size and industry affiliation served as control variables in the investigation. The association of those factors was subsequently measured through a multiple regression analysis.\(^{242}\) In contrast to other studies, Patten found a negative relationship between environmental performance and environmental reporting. In addition, he was able to confirm the influence of company size and industry membership on the quality of reporting.\(^{243}\)

*Da Silva Monteiro and Aibar-Guzman* did not only focus on the influence of performance issues, but rather investigated the impact of different firm characteristics on the extent of CS reporting. Nevertheless, similar to the previously mentioned papers, this study only analyses the extent of environmental disclosure, but it does not assess the extent of social and economic disclosures. In a complementary way, the stakeholder theory and legitimacy theory were used as a theoretical foundation of this study.\(^{244}\) Based on the theoretical framework and the findings of prior studies, certain firm characteristics were selected and hypotheses about their impact were developed. In order to assess the extent of environmental reporting of Portuguese companies in annual reports, a content analysis was employed. The influence of the predefined characteristics on the level of environmental reporting was then empirically tested. The study shows that the level of environmental reporting in Portugal is still low, however, it has steadily increased in recent years. The results suggest that only the size of companies and whether they are publicly listed

are considered as significant influencing factors for the extent of CS reporting. The impact of other factors could not be confirmed within the study.\(^{245}\)

While most other studies examined only annual reports and separate paper-based CS reports, Tagesson et al. focused on the extent and content of CS information on corporate websites. The authors justify their research focus by arguing that, as an information dissemination channel, the Internet has become more and more important in recent years.\(^ {246}\) To find explanations for differences in the extent and content of online CS information, a multi-theoretical framework was used, however, no particular theory was chosen for their study. Hypotheses were then deduced from the results of prior studies rather than from a profound theoretical basis. The authors chose an unweighted scoring approach where one indicated that the information was disclosed while zero indicated that there was no information disclosed. The standard issues of the GRI and previous research were used as a reference. Lastly, multiple regressions were used to examine the impact of possible determinants on the extent of reporting on the Internet.\(^ {247}\) This study was the only one that considered ownership identity, namely private versus public ownership, as a determinant for the extent of reporting. Due to the different research focus of this study it adds value to this thesis.

Suttipun conducted a study to investigate the relationship between corporate characteristics and the level of CS reporting in Thai companies. The annual reports of 100 SET-listed firms were analysed with a content analysis that used a simple word count to quantify the extent of reporting. A number of theories, including the agency theory, legitimacy theory, stakeholder theory, institution theory and social political theory were briefly explained to create a theoretical foundation for the investigation. However, the stakeholder theory served as the main framework from which the development of hypotheses was based.\(^ {248}\) The findings of the study indicated an increase in CS reporting in Thailand in recent years, whereby the extent of reporting about the economic dimension significantly exceeded disclosures about social and environmental aspects.\(^ {249}\) The study showed that mainly company size, ownership structure, sustainability performance and industry type determine the extent of CS reporting in Thailand.\(^ {250}\)

Also Gray et al. conducted a study to assess the impact of corporate characteristics on the extent of CS reporting. A literature review served as a basis for certain assumptions about potential determinants that were tested in this study. Nevertheless, the authors did not use an elaborate theoretical framework to derive hypotheses. In contrast to most other authors who conducted an own content analysis, this study is based on data from a special social and environmental disclosure database that contains the results of a content analysis of 100 British annually reports.\textsuperscript{251} Similar to other studies also this study shows that size and industry affiliation affect CS reporting in annual reports. Additionally, in contrast to most other studies, the authors of this paper also identified profitability as a determinant for the extent of CS reporting.\textsuperscript{252}

In a cross-sectional study, Amran and Devi investigated the influence of government and foreign affiliates on the extent of CS reporting in the evolving economy of Malaysia. The investigation was based on the institutional theory, as it provides an appropriate theoretical framework to explain CS reporting in the context of a developing economy.\textsuperscript{253} Based on this theoretical framework different hypothesis were elaborated and then tested. The authors used a content analysis to examine annual reports of Malaysian companies and a multiple regression analysis to evaluate the impact of governmental and foreign factors on the extent of reporting. However, due to the fact that the study does not examine separate CS reports, but only information provided in annual reports, there is limited validity to this investigation. Furthermore, the findings can only be considered true for developing economies since their socio-economic structure differs significantly from that of developed economies.\textsuperscript{254}

*Khan et al.* focused on the impact of corporate governance mechanisms on the extent of CS reporting. Once again, only sustainability disclosure in annual reports was examined, while separate CS reports were not considered. In order to explain the influence of certain corporate governance mechanisms such as ownership structure, board structure, or the presence of an audit committee on the extent of reporting, a legitimacy theory framework was built. Several hypotheses were developed based on this framework and a brief literature review. To assess the extent of reporting, a checklist consisting of 20 items was constructed, whereby a dichotomous procedure was applied. A regression analysis was finally used to test the relationship between the corporate governance variables and the level of CS disclosure.\textsuperscript{255} The results of the study

suggest that the ownership structure has a significant effect of the extent of CS reporting in Bangladesh. The study shows that corporate governance characteristics play an important role in ensuring legitimacy for companies and thus affects the extent of CS reporting. Nevertheless, the findings cannot be generalized as the study was conducted in an emerging economy and only manufacturing companies were investigated.

The impact of corporate governance characteristics on the extent of CS reporting was further investigated by Haniffa and Cooke. The legitimacy theory served as a theoretical foundation for this investigation of Malaysian companies. The extent of reporting was measured by the number of words used and an index score and the impact of certain variables was subsequently assessed with a multiple regression analysis. The results of the study show a significant relationship between the extent of disclosure and corporate governance characteristics, such as for example board composition and ownership structure. Additionally the authors were able to confirm an impact of the control variables size, profitability and industry membership on the extent of reporting. However, only annual reports were analysed by this study.

Another Malaysian study was conducted by Abd-Mutalib who examined both, the extent and quality of CS reporting. Only annual reports were investigated by this study. Separate CS reports and information from company websites were neglected. A simple sentence count was used to assess the extent of reporting and no theoretical framework was used for this study. Rather than to test predefined hypotheses, the extent of reporting was simply measured and set in relation to sectorial characteristics of the companies investigated. The findings suggest that, while Malaysian firms have the tendency to report about CS, the content is rather limited to general information and the extent of reporting differs between industries.

The last study considered in this MA that deals with determinants for the extent of CS reporting was conducted by Kolk. In a longitudinal study, the author investigated trends in CS reporting of the 250 largest companies in the world and drew conclusions about the impact of location and sector affiliation on the extent of reporting. Both, printed and online versions of comprehensive CS reports, separate environmental or social reports as well as annual reports were analysed if they contained sustainability information. Rather than to rely on a theoretical framework, the

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results of a content analysis were simply compared with the results of a previous study to derive trends in CS reporting. The study shows that reporting on non-financial issues has increased considerably in recent years. In particular, the number of companies that publish separate CS reports rather than isolated reports about certain CS dimensions has increased significantly. According to the study, both location and sector affiliation determine the extent of reporting to some extent. 261

The majority of these studies suggest that company-specific characteristics determine the extent of CS reporting around the world. According to the studies investigated, non-financial firm characteristics seem to have a stronger impact on CS reporting than financial firm characteristics. Furthermore, the results of many studies also show that sectorial characteristics determine the extent of reporting. In contrast, the impact of geographical characteristics and reporting related characteristics on the extent of reporting seems to be relatively low. Table 2 summarizes the results of the CI studies.

<table>
<thead>
<tr>
<th>Determining factors</th>
<th>Category</th>
<th>Amount of indicators found</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-specific characteristics</td>
<td>A</td>
<td>40</td>
<td>66.67%</td>
</tr>
<tr>
<td>Non-financial characteristics</td>
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<td>30</td>
<td></td>
</tr>
<tr>
<td>Financial characteristics</td>
<td>A.2</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Geographical characteristics</td>
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<td>5.00%</td>
</tr>
<tr>
<td>Sectorial characteristics</td>
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<td>13</td>
<td>21.27%</td>
</tr>
<tr>
<td>Reporting related characteristics</td>
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<td>2</td>
<td>2.00%</td>
</tr>
<tr>
<td>Total number of determinants found</td>
<td></td>
<td>60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2: Factors determining the extent of CS reporting

6.1.1 Company-specific characteristics (A)

6.1.1.1 Non-financial characteristics (A.1)

The results of many studies revealed a relationship between the non-financial firm characteristics and the extent of CS reporting. As illustrated in figure 10, non-financial firm characteristics can be further divided into visibility factors, corporate governance factors as well as strategic factors. All of these factors will be qualitatively analysed in the following section.

Visibility factors

Factors related to the visibility of a company turned out to have a significant impact on the extent of reporting. Out of the 60 determinants that were discovered in the CI studies investigated, 17 were related to visibility factors. Factors that determine the visibility of a company include company size (A.1.1), media presence (A.1.2) and reputation (A.1.3).

Almost all authors who investigated determinants for the extent of CS reporting identified a strong relationship between company size (A.1.1) and the level of reporting. According to the studies conducted by Naser and Hassan and Blaesing, the size of a company can even be considered the most important determining factor for the extent of reporting. Due to the increasing complexity that is linked to an increase in company size and growing information asymmetries, large companies tend to use CS reporting as a means to reduce asymmetries, thus, to reduce uncertainty. In order to avoid political costs, such as for example obligatory reporting requirements or environmental taxes, large companies are more inclined to provide information about the three sustainability dimensions than their smaller counterparts. Also, the studies of Amran and Devi, Bhattacharyya, Da Silva Monteiro and Aibar-Guzman, Haniffa and Cooke, Patten, Suttipun, Sotorrío and Sánchez, Grey at al., Gamerschlag et al., Tagesson et al, Herbohn et al. and Ho and Taylor reveal a significantly positive impact of company size on the extent of CS reporting. According to all of these studies, the extent of disclosure increases with company size, meaning that large companies report more than smaller ones.

In addition to the impact of company size on the extent of CS reporting, Gamerschlag et al. demonstrated that the media presence (A.1.2) of a company also determines the extent of reporting. According to the authors, companies that are constantly in the media spotlight are especially susceptible to political actions. As they are more affected by social and political constraints than less visible companies they try to disclose more CS information in order to prevent potential political costs. Sotorrío and Sánchez also found a positive correlation between the visibility and media presence of a company and the extent of CS reporting.

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According to Sotorrio and Sánchez, visibility is mainly determined by a company’s reputation (A.1.3). The results of their study reveal a negative relationship between a company’s reputation and the extent of reporting. Thus, companies with a negative reputation can be expected to show higher levels of reporting. Therefore, in addition to firm size and media presence, also the reputation of a company determines the extent of CS reporting. The reason for this may lie in the fact that firms aim to improve their reputation by increasing the extent of CS reporting.

Given the results of all the above-mentioned studies, the visibility of a company, which is determined by the size of a company, its media presence and its reputation, have a strong impact on the extent of CS reporting. Between all company related characteristics, visibility factors are the most important determinants for CS reporting.

Corporate Governance factors

In addition to factors that relate to the visibility of a company, the studies investigated showed that corporate governance factors also have a considerable impact on the extent of CS reporting. Corporate governance factors include companies’ ownership structures (A.1.4), governance structures (A.1.5) and management related factors (A.1.6).

Six out of the 18 CI studies revealed a significantly positive relationship between the ownership structure (A.1.4) of a company and the level of CS reporting. Gamerschlag et al. for example, showed that the concentration of ownership within a company determines the extent of CS reporting. They suggest that the extent of disclosure increases if the ownership structure of firms is rather dispersed. While companies with a high ownership concentration have little incentive to disclose information, companies that are widely held try to increase information asymmetries by disclosing more information about their CS dimensions. Therefore, according to their study, ownership dispersion leads to a higher level of reporting while high ownership concentration leads to a reduced level of reporting. Silva Monteiro and Aibar-Guzman further revealed that companies that are listed on the stock market show higher levels of environmental disclosure than non-listed companies. As stock market listing usually goes along with dispersed ownership, this study reinforces the finding that dispersed ownership leads to higher levels of CS reporting. Furthermore, Tagesson et al. showed that ownership identity can also determine the

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extent of reporting to some extent. According to their study, state-owned companies in Sweden report more about their CS behaviour than do privately-owned companies.\textsuperscript{272} Similarly, Suttipun also discovered that state-owned companies show a greater extent of CS reporting than private companies.\textsuperscript{273} Generally, state-owned companies tend to be more closely monitored and audited than private companies, which leads to higher levels of disclosure.\textsuperscript{274} Also, Khan et al. found a significant relationship between ownership structure and the extent of CS reporting. Their results suggest that public and foreign ownership have a positive impact on the level of disclosure while private ownership affects the extent of reporting negatively. Similar to Khan et al., the results of \textit{Haniffa and Cooke} also revealed a positive relationship between foreign ownership and the extent of CS reporting.\textsuperscript{275} As the results of all these studies show, it can be assumed that ownership structure, as part of the corporate governance, determines the extent of CS reporting significantly.

Another factor that affects the extent of CS reporting is the governance structure (A.1.5) of a company. Two studies supported this relationship. The findings of Khan et al. suggest that board independence, meaning the share of independent directors in the board, determines the level of reporting. Generally, the presence of independent directors tends to enhance the extent of CS reporting.\textsuperscript{276} \textit{Haniffa and Cooke} also found a significant effect of the governance structure on the extent of CS reporting. Their findings show that the nationality of directors presumably influenced by their cultural values, board composition as well as chair multiple directorship are determinants for the extent of reporting.\textsuperscript{277}

A proof of the impact of management factors (A.1.6) on the extent of reporting could not be revealed within the CI studies. Nevertheless, the ownership- and governance structure as part of a company’s Corporate Governance system determine the extent of reporting to a considerable extent.

\begin{footnotesize}
\begin{enumerate}
\item Cf. Tagesson, T. et al. (2009), pp. 360f. \textsuperscript{272}
\item Cf. Suttipun, M. (2015), p. 323. \textsuperscript{273}
\item Cf. Tagesson, T. et al. (2009), pp. 360f. \textsuperscript{274}
\item Cf. Haniffa, R. M./Cooke, T. E. (2005), pp. 409ff. \textsuperscript{275}
\item Cf. Khan, A./Muttakin, M. B./Siddiqui, J. (2013), p. 212. \textsuperscript{276}
\item Cf. Haniffa, R. M./Cooke, T. E. (2005), p. 409ff. \textsuperscript{277}
\end{enumerate}
\end{footnotesize}
Strategic factors

The third category of non-financial company characteristics relate to strategic factors, which include a company’s orientation towards its stakeholders (1.7), its sustainability performance (A.1.8) and its communication strategy (A.1.9).

While no study identified an impact of stakeholder orientation on the extent of CS reporting, four studies suggest that corporate sustainability performance (A.1.8) affects the extent of CS reporting. According to Herbohn at al., companies with a good CS performance also report about more about their CS actions than sustainability performers.\(^ \text{278}\) Also Clarkson et al. identify a relationship between sustainability performance and the extent of reporting. In their study, which focused solely on the environmental dimension, they find a positive relationship between environmental performance and the level of voluntary environmental reporting.\(^ \text{279}\) According to Clarkson et al, good performers try to communicate their ‘type’ of firm by highlighting their environmental achievements, which are difficult to mimic by inferior performers. In the same way, inferior performers are likely to disclose less about their sustainability performance in order to remain in a pool that would be described by stakeholders as an ‘average type’. Consequently they would not be compared with the first type of firms.\(^ \text{280}\) Suttipun further discovers that companies that win awards for CS achievements report more about CS than do other companies. This also suggests that sustainability performance positively affects the extent of reporting.\(^ \text{281}\)

In contrast to the studies, which found a positive relationship between environmental performance and environmental reporting, Patten found a significant negative relation between those factors. His study shows that in the US, high levels of toxic releases are related with a greater extent of CS reporting. The results of this study, therefore, suggest that environmental unfriendly companies report to a greater extent than environment friendly companies do. However, the study also shows that the impact of sustainability performance on the quality of reporting varies between different industries.\(^ \text{282}\) Consequently, even though there seems to be a relationship between sustainability performance and sustainability reporting, the direction of this relation is rather unclear.

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\(^ {279}\) Cf. Clarkson, P. M. et al. (2008), pp. 303ff.
Furthermore, the chosen **communication strategy** (A.1.9) of companies can influence the extent of CS reporting. *Herbohn at al.* discovered that there is a significant relationship between a firm’s communication strategy and the extent of CS reporting. This relation is mainly measured by a firm’s press release activity relative to its level of CS disclosure. Their findings suggest that a proactive communication approach with stakeholders leads to a higher extent of reporting.\(^{283}\)

By summarizing these findings, it can be concluded that the impact of strategic aspects on the extent of reporting is relatively low. In addition to the lacking support for the impact of stakeholder orientation and communication strategy on the extent of reporting, the findings regarding the impact of sustainability performance are rather mixed.

### 6.1.1.2 Financial characteristics (A.2)

Even though the impact of financial firm characteristics on the extent of CS seems to be lower than the impact of non-financial characteristics, many studies still find support for such a relationship. Non-financial firm determinants found in the studies include profitability (A.2.1), liquidity (A.2.2), leverage (A.2.3) and asset age (A.2.4).

From all financial firm characteristics that were found to have an impact on CS reporting, **profitability** (A.2.1) seems to be the strongest determinant for the extent of CS reporting. According to the study of *Naser and Hassan*, the profitability of a company is negatively correlated with the extent of CS reporting, which indicates that profitable companies report less detailed about CS than do profitable companies. This finding could be explained by the fact that highly profitable companies believe that their high profitability is already a signal to stakeholders that the management of a company is working effectively. Thus they believe that less CS reporting is needed. Conversely, less profitable companies need to increase their level of CS disclosure to show proof of a sustainable business development to investors and creditors as well as to explain to them what went wrong and how they plan to change it.\(^{284}\) *Ho and Taylor* as well as *Bhattacharyya* also found significantly negative relationships between profitability and the extent of CS reporting in their studies.\(^{285}\) However, while the extent of reporting of social issues was significantly higher in companies with low profitability in Bhattacharyya’s study, the impact on the extent of environmental reporting was insignificant.\(^{286}\)

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In contrast to the above previously mentioned studies, Sotorrío and Sánchez find that profitability has a positive impact on the extent of CS reporting. According to their investigation, the level of voluntary CS reporting rises with an increase in financial resources.\(^{287}\) Also Tagesson et al., Haniffa and Cooke and Gray et al. find a positive relationship between the profitability of a company and the extent of CS reporting.\(^{288}\) Their results suggest that corporations that are profitable can afford to disclose more and, therefore, often increase the extent of reporting. Due to the mixed results concerning the impact of profitability on CS reporting, the relevance of profitability as a determinant for the extent of CS reporting is unclear. Even though profitability might influence the extent of CS reporting, the direction of influence seems uncertain.

Ho and Taylor discovered that not only a company’s profitability but also its liquid\(\text{it}\)y (A.2.2) can determine the extent of CS reporting.\(^{289}\) This may be explained by the fact that users of CS reports, such as investors and creditors, might have concerns regarding a company’s going concern status. Consequently, highly liquid companies may have stronger incentives to report more about their CS performance.\(^{290}\)

Another financial resource that is found to have some impact on the extent of CS reporting is the level of leverage (A.2.3), thus the gearing ratio of a company. Sotorrío and Sánchez consider the existence of slack financial resource as an important determinant for companies voluntary CS reporting. Their study reveals a negative relationship between leverage and the extent of reporting. Therefore, high levels of debt can be expected to lead to a lesser extent of reporting.\(^{291}\)

Interestingly, Herbohn et al. determine a significantly positive relationship between the average age of assets (A.2.4) and the extent of CS reporting. The authors explain this finding by the fact that newer assets employ less polluting technologies that result in a better environmental performance. Thus, firms with newer equipment have a lesser need to manage stakeholder expectations about environmental performance by CS reporting activities.\(^{292}\) However, it can be

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assumed that this factor mostly affects the extent of reporting regarding the environmental dimension of CS.

In conclusion, it has to be mentioned that most studies did not find a distinctly significant relationship between financial characteristics, such as profitability, liquidity or leverage, and the extent of CS reporting. Due to the mixed results of the studies above and the fact that many studies could not prove a correlation between financial factors and reporting at all, the financial situation of a company cannot be considered a distinct determinant for the extent of CS reporting.

6.1.2 Geographical characteristics (B)
Out of the 18 studies that assessed determinants for the extent of CS reporting, only four revealed an impact of geographical characteristics on the extent of CS reporting. In total, five indicators, consisting of the geographical location (B.1), cultural factors (B.2), the impact of local government (B.3), institutional factors (B.5) and the level of internationalization (B.5) have been identified.

The biggest support was found for the impact of the geographical location (B.1) on the extent of CS reporting. Ho and Taylor found that the extent of overall CS reporting, concerning all three dimensions of CS, is higher in Japanese companies than in American firms, with environmental reporting being the key dimension of reporting.293 Also, Kolk found support for the fact that the geographical location determines the level of reporting. The author discovered that the level of reporting of companies in France and South Korea is considerably lower than in other European countries and Japan.294 It can be assumed that this difference in the level of reporting can be either caused by differences in national cultures, different regulations or institutional factors between the two countries.295 Given the results of these two studies it can be concluded that the geographical location determines the extent of CS reporting to some degree.

Furthermore, Gamerschlag et al. found that, besides other factors, the relationship with US stakeholders affects the extent of CS reporting in German companies.296 It can, therefore, be concluded that cultural factors (B.2) play a role on when it comes to the extent of CS reporting.

Due to different cultural systems that reflect institutions and social relations, stakeholder interests as well as political costs vary across cultures. In their study, they found that disclosure levels change when companies move into different institutional environments. In the case of their study, the level of disclosure augmented with the increasing interest of US stakeholders in German companies.297

In their investigation of CS reporting in Malaysia, Amran and Devi found evidence for a significant impact of the local government (B.3) on the extent of CS reporting. Their study provides justification for the local government’s role in promoting CS reporting in a country. The study shows that the higher the government shareholdings is, the greater will be the level of CS disclosure.298 However, the authors attribute the governmental influence directly to institutional factors (B.4), such as the Malaysian socio-economic factors, which makes it difficult to exclude governmental influence from the institutional factors. Consequently, the institutionalization of the government’s commitment and thus, both, governmental influence and institutional factors, can be considered determinants for the extent of CS reporting as they go hand in hand with each other.299

Considering the results of the above-mentioned studies, the total impact of geographical characteristics on the extent of CS reporting seems to be relatively low. However, from all geographical factors, the geographical location of a company determines the extent of CS reporting the most.

6.1.3 Sectorial characteristics (C)

Sectorial characteristics consist of the industry membership (C.1) of a company and the systematic risk (C.2), which can be attributed to certain industries. Many national and international studies have identified a relationship between sectorial factors and CS reporting. They suggest that factors related to an industrial sector determine CS reporting around the world.

Out of the 18 studies investigated, 12 studies revealed significant influence of industry membership (C.1) on the extent of CS reporting. According to Gamerschlag et al. companies from “polluting industries” tend to have higher levels of CS reporting than other companies.300

Also, *Naser and Hassan* consider the type of industry that a company operates in to be an important determinant of the extent of CS disclosure. The findings of their study suggest that companies in the manufacturing industry tend to be more capital intensive and seek external funding. Therefore they are more likely to disclose information about pollution, environment, safety and health than companies operating in other sectors of the economy. \(^{301}\) Similar to *Naser and Hassan*, *Ho and Taylor* also found that companies in the manufacturing industry have higher levels of CS disclosure than companies from other sectors. \(^{302}\) *Tagesson et al.* found that there are even differences in the extent of reporting about different sustainability dimensions between industries. According to their study, companies in the consumer goods industry report more about the social dimension than companies in other industries, whereas raw material companies disclose more information about the environmental dimension. \(^{303}\) Other studies that found a positive relationship between industry membership and the extent of CS reporting include *Amran and Devi, Kolk, Abd-Mutalib, Patten, Bhattacharyya, Suttipun, Haniffa and Cooke* and *Gray et al.*.\(^ {304}\)

Additionally, *Blaesing* found a positive relationship between the **systematic risk** (C.2) affecting an industry and the extent of CS reporting activities. By providing information about the three dimensions of CS, companies aim to improve the risk transparency of their company in a respective industry.\(^ {305}\)

The strong impact of industry affiliation on the extent of CS reporting can be explained by pressure for companies, which operate in a certain industry, to adopt similar disclosure policies as their peer companies. High levels of CS reporting by dominant firms within an industry may, therefore, cause other companies in the same industry to increase their extent of reporting as well. In contrast, there may remain significant differences regarding the extent of reporting to other industries that do not feel the peer pressure to change their extent of CS reporting.\(^ {306}\) With 13 items that relate to industry factors in the studies investigated, sectorial characteristics can be considered the second most important determinant for the extent of CS reporting after non-financial firm characteristics.

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6.1.4 Report and reporting related characteristics (D)

In addition to firm-, geographical- and sectorial characteristics there are also report and reporting related factors that can have an impact on the extent of CS reporting. However, the results of the studies show that the impact of such factors on the extent of reporting is relatively low.

Report factors

Factors that are related to CS reports include the reporting format (D.1), the report length (D.2) and the reporting framework (D.3) applied. However, none of these factors was found to have an impact on the extent of CS reporting.

Reporting factors

Reporting factors include the intended audience (D.4) of reports as well as an external or internal auditing (D.5) of CS reports. Two studies revealed a relation between reporting factors and the extent of CS reporting.

In their study about reporting differences between MNCs in Spain, Sotorrio and Sánchez revealed that the extent of reporting differs in regard to the intended audience (D.4) of reports. According to their investigation, the extent of reporting is significantly higher if reports are intended for global stakeholders than for domestic ones. Besides differences in the degree of reporting, the type of information also differs between reports that are intended for different audiences.\(^{307}\) This finding might be explained by additional costs that come along with the production of CS reports and the lower pressure of local stakeholders compared to global ones.\(^{308}\)

Khan et al. further identified that report auditing (D.5) has an effect on the extent of reporting. The results of their study show that the level of CS disclosure tends to be higher in companies that employ an auditing committee to certify CS reports.\(^{309}\) It can thus be concluded that external auditing is a determinant for the extent of disclosure.

6.2 CII - Studies investigating determinants for the quality of CS reporting

Similar to the CI studies mentioned in section 6.1, another 18 studies that deal with determinants for the quality of reporting were identified and qualitatively analysed. The studies have been

classified as CII studies for the purpose of this MA and will be briefly described in the following to highlight similarities and differences between the different studies.

As mentioned in section 6.1, Abd-Mutalib examined not only determinants for the extent of CS reporting but also investigated determinants for the quality of reporting. For the purpose if his study, the author analyzed the annual reports of 300 Malaysian companies. To evaluate the reporting quality, a four-point index was used to rate 30 different factors that were related to CS. The factors were rated according to the subjective quality of reporting, whereby zero denoted non-reporting and four denoted significant and meaningful reporting.310 The findings of the study reveal that the overall quality of reporting is rather poor, however, differs significantly between different industries.311

Similar to Abd-Mutabik, Blaesing also separately investigated determinants for the quality of CS reporting besides determinants for the extent of reporting in his study. As mentioned in the beginning of section 6.1, his whole investigation is based on an elaborate theoretical framework that allows for the development of hypotheses about potential determinants for both, the extent and the quality of CS reporting.312 In order to investigate factors that influence the quality reporting, a suitable disclosure index was developed and used in the study. To properly evaluate the quality of reporting, a weighted disclosure index was used. Based on the quality of reporting, a certain amount of points could be reached. The impact of certain factors on the quality of reporting was then properly measured by a multivariate correlation and regression analysis. The results of the study suggest that determinants for the quality of reporting differ significantly from determinants for the extent of reporting. Determinants for the quality of CS reporting can be found in non-financial company-specific characteristics as well as geographical or sectorial characteristics.313

For the purpose of another investigation of determinants for the quality of CS reporting, Morhardt collected CS information that was provided on corporate websites of more than 450 companies and operating in 25 different industrial sectors. The data was then descriptively and statistically analysed. In contrast to most other studies, Morhardt used a global sample, consisting of companies from America, Asia and Europe. Due to its large scope, the study

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Matthias Grillnberger

Derives assumptions about globally universal determinants for the quality of reporting. The quality of reporting was analysed by the use of the Pacific Sustainability Index (PSI). However, no theoretical framework was developed for the purpose of this study and no hypothesis testing was employed. The main finding of this paper indicates that while there are differences in the quality of reporting between sectors, the gradation from the best to the worst reporter is rather smooth. Besides industry affiliation, company size also affects the quality of reporting, according to this study.

Quick and Knocinski conducted a national study to identify factors that cause differences in the quality of CS reports in Germany. For the purpose of this study, only reports that equally consider social, environmental and economic aspects were analysed. This mainly includes separate CS reports, however, other reports that refer to different sustainability aspects were also included. A brief review of the development of CS and the GRI framework served as a basis for this study. In order to assess the quality of reporting, a special reporting catalogue, which was based on the GRI reporting guidelines, was used. The authors identified more than 100 criteria for the three dimensions of CS. The quality of reporting was then analysed according to these criteria. Based on the qualitative and quantitative portrayal of an indicator, the reporting quality was weighed from zero to four points. To finally assess the relationship between the quality and certain factors and, therefore, to discover determinants for the quality of reporting, the authors used simple statistical methods, such as a correlation. The study shows that, overall, the quality of CS reporting in Germany is still relatively low. On average the companies investigated achieved only a quality level of about 40 percent. The findings suggest the existence of a strong relationship between the length and quality of CS reports as well as a weak but positive relationship between the financial strength of a company and the quality of reporting.

Another study, conducted by Vormedal and Ruud, focuses on the impact of societal, political and regulatory factors on the quality of CS reporting. For the purpose of this study, 100 Norwegian firms with legal CS reporting requirements as well as voluntarily reporting firms were assessed. Different theories were briefly mentioned, however, no comprehensive theoretical framework...
was developed to deduce specific hypothesis for the investigation. Finally, the content of paper-based annual reports, board of directors’ reports as well as separate environmental, social, or comprehensive CS reports was assessed. The authors used a special scoring system that was divided into four different categories to evaluate the quality of the content of various reports. However, no elaborate statistical testing methods were used to assess the relationship between different factors. The main finding of this study suggest that the quality of voluntary reporting is rather low and that only a few firms comply with legal reporting requirements in Norway. According to the authors, this may be caused by a lack of social and political drivers for CS reporting in Norway as well as a lack of sufficient monitoring and enforcement of CS reporting legislature. The reporting quality of the economic dimension is particularly poor.

At regular intervals, KPMG conducts a survey to reveal global trends in CS reporting and to assess the quality of reporting among the world’s largest companies. In addition to separate CS reports, financial reports and company websites are assessed by this study. The sample investigated by the 2013 survey consists of the world’s largest 250 global companies, operating across 14 different industries and 30 different countries. It can, therefore, be considered one of the most diverse samples from all studies included in this MA. The quality of CS reporting is assessed against seven key criteria, similar to the principles provided by the GRI. Those criteria include stakeholder engagement, transparency and balance, materiality, strategy, targets and indicators, the value chain and governance of CS. Based on a detailed analysis, scores were attributed to every company to reflect how well they reported about each of these key criteria. The results of the survey show that the quality of CS reporting is especially dependent on sectorial and geographical factors. However, it has to be mentioned that only large companies were investigated and no scientific theoretical framework was used for the investigation.

In a study published by the Institute for ecological economic research (IÖW), Gebauer, J. examined the quality of comprehensive CS reports in 150 large German companies from a range of different sectors. Based on a set of ecological-, managerial- and communication-based criteria, different CS reports were quantitatively assessed and ranked according to their respective quality. As solely large companies from one country were included in the sample, the impact of size and geographical location could not be examined within this study. However, the

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study allowed for a detailed examination of the impact that industry affiliation has on the quality of reporting. The investigation was only based on a ranking of reports; a theoretical foundation was not used.\textsuperscript{325} The results of the study show that, due to the increasing demand for information by different stakeholder groups, CS reporting in Germany has qualitatively improved during recent years.\textsuperscript{326}

To investigate the influence of industry affiliation on the quality of reporting, Clausen et al. ranked the CS reports of 150 large companies in the industrial, service, retail, banking and insurance sectors. The ranking criteria reflected the suggestions of the GRI but were also based on the authors’ own research.\textsuperscript{327} The evaluation was made by different criteria that were weighted according to their importance for the quality of reporting. The study shows that still only a minority of companies publish separate CS reports in Germany. Nearly half of the companies do not provide CS information in any format.\textsuperscript{328} Furthermore, the study shows significant differences in the quality of reporting between different industries.\textsuperscript{329} Due to the lack of theoretical foundation in this study and the exclusion of small German companies, the results of this study need to be considered with caution.

Brammer and Pavelin examined patterns in the quality of sustainability disclosure from British firms operating across different sectors. However, in their investigation, the authors focused solely on the environmental dimension of CS. The analysis distinguishes between different facets of quality, including the disclosure of environmental policies, environmental impact targets and environmental audit.\textsuperscript{330} Based on a brief literature review, different hypotheses were used to test the impact of several factors on the quality of environmental disclosure. These factors included industry membership, environmental performance, company size, media presence, financial characteristics and companies’ ownership structures. To describe the quality of CS reporting of the firms in the sample, data revealed by a survey from PRIC, an independent research agency in the UK, was used. As in the PRIC survey, different sustainability aspects were ranked with respect to the precision and extent of quantification as well as to the degree of commitment to future actions and environmental performance.\textsuperscript{331} Even though the authors limited their analysis on determinants for the quality of environmental disclosure, valuable

\textsuperscript{325} Cf. Gebauer, J. (2012), pp. 1ff.
\textsuperscript{327} Cf. Clausen, J./Loew, T./Westermann, U. (2005), p. 3
\textsuperscript{331} Cf. Brammer, S./Pavelin, S. (2008), pp. 120ff.
conclusions can be drawn for determinants for the quality of a more comprehensive CS reporting.

*Jahnke et al.* conducted a similar study in Germany. The study investigated determinants for the quality of environmental reporting in annual reports. Other sustainability dimensions were not considered in this study.\(^{332}\) A content analysis and multivariate regression analysis were used to assess the impact of certain factors on the quality of environmental reporting in Germany. The results of this study show a rather heterogeneous reporting quality between different industries and companies of different sizes. However, the overall reporting quality from the companies investigated seems to be relatively low.\(^{333}\) Similarly to *Brammer and Pavelin’s* study, even though the social and economic dimensions of CS were neglected, a general tendency of CS reporting can be derived from this study.

In contrast to the studies of Brammer and Pavelin and Jahnke et al., *Knauer* focused on determinants that only concern the human capital. In the first part of the investigation, annual reports were analysed regarding the inclusion of employee-related issues. In the second part, the quality of reporting was assessed by the use of a special scoring model. The development of indicators was based on previous studies as well as international reporting standards such as the GRI.\(^{334}\) Several hypotheses were developed based on a brief literature review and subsequently tested by a multiple regression analysis. The results show that, even though the human capital can be considered an important factor for the long-term success of companies, the reporting quality of employee related issues is rather low. Many relevant aspects are not even mentioned in annual reports. According to this study, the most important factor that influences the reporting quality of social issues in annual reports is information uncertainty, which is related to the risk of an industry.\(^{335}\)

In a study conducted for the Swedish University of Agricultural Sciences, *Petereit* investigated CS reporting in the forestry and paper sectors. For the purpose of this study, the quality of separate CS reports, published by large forestry and paper companies in North America, Europe and the Asia Pacific region was analysed. The study shows that the quality of CS reporting is generally relatively low in this sector, with disclosure on social issues being of the weakest

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quality and information about environmental impacts being of relatively good quality.\(^{336}\) The author defines high quality CR reports as those that include highly qualitative information in terms of detailed and explicit disclosure in all three dimensions of CS. In order to evaluate the detailedness and explicitness, the quality of reporting was assessed by a special scoring system, which was based on the GRI G3 framework. Depending on the quality of reporting, a different weighting factor was awarded for each indicator.\(^{337}\)

Adnan et al. conducted a study to assess the impact of culture and corporate governance structures on the quality of CS reporting. For the purpose of this study, CS reporting of 203 companies in socially and environmentally sensitive industries in China, India, Malaysia and the UK was examined.\(^{338}\) CS information provided in annual reports and separate CS reports as well as on corporate websites was investigated by a comprehensive content analysis. In order to evaluate the quality, each sentence in the report was rated from zero to four, according to the comprehensiveness of the information provided.\(^{339}\) The study was based on the institutional theory, which also served as a means to deduce certain hypotheses. The evaluation was based on the GRI guidelines and, therefore, equally considered all three dimensions of CS. The impact of independent and control variables on the quality of reporting was further assessed by a multiple regression analysis. The central finding of this study is that CS reporting is heavily influenced by the organizational settings and the institutional arrangement in a country. Nevertheless, the impact of those factors on the quality of reporting varies between countries.\(^{340}\)

In contrast to other studies, Hardeck focused particularly on the importance of tax issues on CS reporting.\(^{341}\) Her study shows that tax-related issues play a rather minor role in the context of CS reporting. Less than five percent of the companies examined in this study reported in detail about tax-related issues in their CS reports.\(^{342}\) Besides tax issues, different possible determinants for the quality of reporting were analysed with statistical methods. In order to assess the overall quality of CS reporting of German and American companies, a special scoring system that was based on the indicators of the GRI-reporting guidelines and two standards for voluntary tax reporting was developed. The statistical relationship between possible determinants and the quality of reporting was tested with a Chi-square test. In order to test the strengths of the

relationship, Cramer’s V was used. This methodology allowed the authors not only to assess the relevance of taxes in CS reporting but also to detect general determinants for the quality of CS reporting with a focus on taxes.\textsuperscript{343} The results of the study show that commodity firms with a high media presence demonstrate the highest CS reporting quality.\textsuperscript{344}

\textit{Daub} used an alternative methodological approach to assess the quality of CS reporting in his paper. The author mainly reflected on the methodology of another study and presented its results. In this paper, the evaluation of the quality of reporting is conducted with a special rating scale, based on the GRI-framework, whereby the factors have been weighted according to the quality of reporting. This study represents one of the first attempts to perform a qualitative and quantitative analysis of CS reporting in one country. \textit{Daub} did not test specific hypotheses to assess the impact of predetermined factors on reporting quality but rather focused on the measurement of the quality of CS reports. Nevertheless, the study revealed interesting aspects about the relationship between firm size, the internationality of firms and the quality of reporting.\textsuperscript{345}

\textit{Langer} compared the quality of CS reporting in Austria with the reporting quality of MNCs all around the world. Benchmarking approaches and rankings were used to compare the reporting quality between Austrian companies and large MNCs. To assess the quality of reporting in Austria, a qualitative content analysis was conducted. Subsequently an analytical framework that was based on different international standards was applied. The results of the study show a substantial heterogeneity amongst the Austrian reports from different industries. Furthermore the results reveal significant differences between Austrian reports and those of large MNCs.\textsuperscript{346}

\textit{Michelon et al.} investigated the use of different reporting practices, such as the use of separate CS reports, assurance methods and reporting guidelines, on the quality of reporting. The quality of reporting was evaluated along the three dimensions of content, information type and managerial orientation.\textsuperscript{347} The investigation was based on a conceptual framework that included the legitimacy theory and a brief literature review from which the hypotheses were derived.\textsuperscript{348} A content analysis served as a tool to analyse sustainability disclosure in separate CS reports. Only

if such reports were not available CS information that was provided in annual reports was considered. \(^{349}\) A multivariate regression analysis was used to test certain hypotheses. The findings of the study suggest that most reporting practices do not affect the reporting quality of companies. Nevertheless, CS information provided by companies that follow the GRI guidelines tends to be most balanced, comparable and precise. \(^{350}\)

A KPI based study, conducted by Greiwe and Schönbohm, focused on the relationship between the scope and the quality of reporting in CS reports published by German companies. \(^{351}\) The authors used the amount of words and pages, text ratios and category ratios to analyse the scope of reports. The reporting quality was then assessed by the GRI application level, which was indicated in CS reports. Both variables were subsequently set in relation to each other and a correlation test was performed to test certain hypotheses. The empirical analysis suggests that, while German companies have generally recognized the importance of CS reporting in their communication with different stakeholders, there remain significant differences in reporting quality between companies. \(^{352}\)

In contrast to CI studies, which consider company-specific characteristics as the most important determinants for CS reporting, the majority of CII studies suggest that the influence of industry characteristics is the decisive factor for CS reporting. Also, non-financial firm characteristics, geographical characteristics and factors related to reports and reporting activities seem to determine the quality of reporting. Table 3 summarizes the results of all CII studies.

<table>
<thead>
<tr>
<th>Determining factors</th>
<th>Category</th>
<th>Amount of indicators found</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-specific characteristics</td>
<td>A</td>
<td>11</td>
<td>28.20%</td>
</tr>
<tr>
<td>Non-financial characteristics</td>
<td>A.1</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Financial characteristics</td>
<td>A.2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Geographical characteristics</td>
<td>B</td>
<td>9</td>
<td>23.08%</td>
</tr>
<tr>
<td>Sectorial characteristics</td>
<td>C</td>
<td>12</td>
<td>30.77%</td>
</tr>
<tr>
<td>Reporting related characteristics</td>
<td>D</td>
<td>7</td>
<td>17.95%</td>
</tr>
<tr>
<td>Total number of determinants found</td>
<td></td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3: Factors determining the quality of CS reporting

6.2.1 Company-specific characteristics (A)

6.2.1.1 Non-financial characteristics (A.1)

As for CII studies, non-financial company-specific characteristics will be divided into visibility factors, corporate governance factors as well as strategic factors.

Visibility factors

As for the extent of reporting, many studies also revealed an impact of visibility factors on the quality of CS reporting. From a total number of 39 indicators that could be identified in the 18 studies assessing determinants for the quality of reporting, eight were related to visibility factors. Nevertheless, the findings are mixed and the impact of firm size on the quality of reporting seems to be considerably lower, compared to its impact on the extent of reporting.

Five studies suggest a relationship between firm size (A.1.1) and the quality of reporting. According to Brammer and Pavelin, larger companies are not only more likely to fulfill the requirements of low quality environmental disclosure but also much more likely to provide better quality reports. Jahnke et al. also determined that firm size has a significant effect on the quality of environmental reporting. Petereit found similar results for more comprehensive CS reporting. The results of his study about reporting in the forestry and paper industry suggest that reports of large companies are generally more up to date, more comprehensive and also of higher quality than those of smaller ones. According to his investigation, the quality of information provided by small companies is 40 percent lower than that provided by the largest companies. The largest difference in reporting quality between large and small companies can be linked to the social dimension of CS. Also, Quick and Knocinski found that the size of a company affects the quality of CS reporting to some extent. However, even though they revealed a positive relationship, the impact of size on reporting quality was relatively low according to their study. Morhardt only found a small increase in the quality of reporting in proportion to an increase in size, and this effect disappears completely after a certain size.

In contrast to studies that found a positive relationship between firm size and the quality of reporting, Daub could not find evidence of this relation. The findings of his study suggest that

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the quality of reporting in large multinational Swiss companies does not differ considerably from the reporting quality of smaller, national companies. The author further points out that the majority of large Swiss companies still have a long way to go to meet the demand of a high-qualitative CS reporting.\textsuperscript{360} \textit{Vormedal and Ruud} could also not find a clear link between size and reporting quality. Many of the smallest companies in their sample showed a reporting quality as comparable to that of the largest firms.\textsuperscript{361}

Some authors also found support for the impact of \textbf{media presence} (A.1.2) on the quality of CS reporting. The findings of \textit{Vormedal and Ruud} suggest that companies with a public profile, thus, a higher presence in the media, report at a higher quality than less visible firms.\textsuperscript{362} \textit{Blaesing} also determined that a clear relationship exists between the media presence of a company and its reporting quality. The higher quality of CS reporting in companies with high media presence can be explained by a strong need to legitimize actions for such companies.\textsuperscript{363} Furthermore, according to \textit{Hardeck}, companies that have been reported negatively about in media tend to subsequently increase their quality of reporting.\textsuperscript{364}

A relationship between reputation and the quality of CS reporting could not be identified in the CII studies. However, it can be assumed that the visibility of a company, which is influenced by its size and presence in media, can determine the quality of CS reporting.

\textbf{Corporate Governance factors}

Only one study revealed a relationship between corporate governance aspects and the quality of CS reporting. \textit{Adnan et al.} discovered that in Malaysia, the CS reporting quality of government-owned companies is higher than that of privately owned companies.\textsuperscript{365} Even though they found a relationship between \textit{ownership structure} (A.1.4) and the quality of CS reporting, the impact of corporate governance in general seems to be low.

\textbf{Strategic factors}

Strategic factors also seem to play a rather minor role in the quality of CS reporting. Only \textit{Blaesing} found that the \textbf{stakeholder orientation} (A.1.7) impacts the reporting quality.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{363} Cf. Blaesing, D. (2013), pp. 229f.
\item \textsuperscript{364} Cf. Hardeck, I. (2012), p. 121.
\end{itemize}
\end{footnotesize}
According to his study, there is a positive relationship between companies’ stakeholder orientation and their quality of reporting.366

6.2.1.2 Financial characteristics (A.2)
Out of 18 studies investigated, only one study revealed an impact of financial firm characteristics on the quality of CS reporting. In a national study, Quick and Knocinski found that the financial strength of a company positively affects the quality of reporting. The authors used the size and market capitalization of a company, which is a proxy for the financial strength of a company. However, they did not use financial ratios such as profitability, liquidity or leverage. The results of the study suggest a weak but positive relationship between financial factors and the quality of CS reporting.367 It can thus be assumed that the impact of financial characteristics on the quality of reporting may exist, but that it is rather low.

6.2.2 Geographical characteristics (B)
According to the studies investigated, geographical characteristics can be considered important determinants for the quality of CS reporting. In total, nine indicators were identified in this category.

Three studies revealed the impact of the mere geographical location (B.1) of a company on the quality of CS reporting. Blaesing discovered that the quality of CS reporting is significantly higher in German companies, compared to American companies of a similar size.368 A study conducted by KPMG further revealed that the average reporting quality of large European companies is better than that comparable companies in any other part of the world. Italy, Spain and the UK are leading this ranking. According to KPMG, the lowest reporting quality is to be found in the Asia Pacific region.369 Petereit also discovered the impact of location on the reporting quality. The findings of his study suggest that, while the reporting quality of European companies is highest for the social and environmental dimensions of CS, North American companies show a better reporting quality for the economic dimension. In comparison to these two regions, the reporting quality of Asian companies can be considered inferior. Furthermore, European companies rely more on the GRI framework for CS reporting than do companies in other regions.370 Considering the result of these studies, it can be

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assumed that the geographical location of a company determines its reporting quality to a certain extent.

Furthermore, Adnan et al. revealed the impact of culture on the quality of CS reporting. The results of their study suggest that the national cultures (B.2) of China, India, Malaysia and the UK influence the quality of CS reporting and in doing so, is a determinant for the reporting quality.\(^{371}\) Langer also suggests that the national culture is relevant for explaining differences in CS reporting quality.\(^{372}\)

Adnan et al. showed that the institutional arrangements (B.4) in a country affect determinants the quality of CS reporting. The existence of CS board committees in different countries, therefore, explains differences in reporting quality.\(^{373}\) Additionally, according to Langer, the level of standardization as well as legal requirements in a country can determine reporting quality.\(^{374}\)

In addition to the geographical characteristics mentioned earlier, two studies suggest that the level of internationalization (B.5) affects the quality of CS reporting. According to Vormedal and Ruud, companies with international profiles and global activities have a higher level of reporting quality than companies operating on just a national level.\(^{375}\) Langer also found support for the impact of internationalization on the quality of CS reporting. His study revealed substantial differences in the quality of CS reporting between local Austrian companies and large MNCs.\(^{376}\)

**6.2.3 Sectorial characteristics (C)**
Sectorial characteristics seem to have the greatest impact on the quality of CS reporting, compared to other factors. According to 12 of the 18 studies that assessed determinants for the quality of reporting, industry factors can explain differences in reporting quality.

**Industry membership** (C.1) or industry affiliation can be regarded as the most important single determinant for the quality of CS reporting. In total, 11 studies suggest that the belongingness to

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a certain sector determines the quality of reporting. KPMG discovered that large companies in the mining and pharmaceutical sectors produce the best CS reports. On the other hand, companies in construction, manufacturing and retail have the lowest reporting quality. Blaesing was also able to show that industry affiliation determines the quality of CS reporting to a certain extent. The results of his study suggest that the quality of CS reports published by companies in the materials and utilities sector is of significantly higher quality than those published by companies in other sectors. According to Blaesing, the impact of industry membership on reporting quality can be explained by the higher pressure to legitimize actions of companies in politically or ecologically sensitive industries. This indication finds support from the result of the studies by Morhardt and Jahnke et al. who found that the reporting quality of companies in rather environmentally sensitive industries tends to be higher than in other industries. Hardeck also found a positive relationship between industry membership and the quality of reporting. According to his study, firms in the commodity sector show a higher reporting quality than firms operating in other industries. According to Gebauer, CS reports from automotive companies show the highest reporting quality, followed by reports from chemical companies. This finding is also confirmed by the study of Clausen et al. Brammer and Pavelin found that the utility sector and to a lesser degree the chemicals and retail sectors are associated with high quality environmental reporting. Vormedal and Ruud also found a higher reporting quality in the utility sector. Additional studies that discovered a relationship between industry affiliation and the quality of CS reporting include Abd-Mutalib and Langer. Even though the results of different studies differ significantly in regard to the sectors identified, there seems to be a common relationship between the reporting quality of companies in environmentally and socially sensitive industries and the quality of CS reporting. As a consequence, industry membership can be considered a strong determinant for the quality of CS reporting.

In addition to industry affiliation per se, Knauer discovered the impact of information uncertainty and industry risk (C.2.) on the quality of reporting. The findings of his study suggest that the reporting quality regarding human capital is determined by personnel

expenditures, which is measured as a percentage of total revenues.\textsuperscript{386} As the importance of labor influences the information uncertainty in a company, the rising importance of the human factor increases the uncertainty within a company and in doing so, affects the risk involved.\textsuperscript{387} Furthermore, the importance of employee know-how in an industry also influences the industry risk and, therefore, indirectly determines the reporting quality of social issues.\textsuperscript{388} Due to the fact that employee intensity and the importance of employee know-how vary considerably between different industries, it can be assumed that the industry risk also has an impact on the quality of reporting.

\textbf{6.2.4 Report and reporting related characteristics (D)}

In addition to firm-, geographical- and sectorial factors, report and reporting related characteristics have a significant impact on the quality of CS reporting.

\textbf{Report factors}

Factors related to CS reports that may determine the quality of reporting include the reporting format (D.1), report length (D.2) and reporting framework (D3.).

Two studies determined the impact of the \textbf{CS reporting format} (D.1) on the quality of reporting. \textit{Vormedal and Ruud} discovered that the percentage of good quality reporting in separate CS reports is significantly higher than in annual reports.\textsuperscript{389} \textit{Adnan et al.} also revealed a difference in reporting quality between different reporting formats. While the quality of disclosure in annual reports is often low, disclosures provided on corporate websites are of higher quality.\textsuperscript{390} This may be explained by the fact that annual reports are mostly intended to serve shareholders who are mainly interested in financial information. As a consequence, the producers of annual reports might perceive the quality of CS information as less important compared to financial information. In contrast to those studies, \textit{Michelon et al.} could not find a significant relationship between the format of reporting and the reporting quality. While companies with separate CS reports provide more information, the information provided is often diluted within other irrelevant information.\textsuperscript{391}

\begin{footnotesize}
\begin{enumerate}
  \item \textsuperscript{386} Cf. Knauer, T. (2010), p. 23.
  \item \textsuperscript{387} Cf. Knauer, T. (2010), p. 11.
\end{enumerate}
\end{footnotesize}
In addition to the reporting format, the length of CS reports (D.2) is also related to the reporting quality. Quick and Knocinski found a possible relationship between the report length and reporting quality in Germany. Their findings suggest that the quality of the reports that are longer than an average of 86 pages exceed the quality of shorter reports. Greiwe and Schönbohm also found a positive correlation between the lengths of reports and the reporting quality. They point out that even though the lengths of reports should not be seen as an indicator of higher reporting quality per se, it can at least give first indications that point towards a high qualitative CS report. However in contrast to these studies, other studies find completely contradicting results, which disprove a relationship between the length and quality of reporting.

The third report factor investigated is the reporting framework (D.3) employed. The findings of Michelon et al. suggest a weak but significantly positive relationship between the use of a particular reporting framework and the quality of CS reporting. CS reports created according to the GRI reporting framework tend to be better balanced, more precise and are better comparable than other reports than reports created with other frameworks. It can, therefore, be assumed that the reporting framework used has some influence on the quality of CS reporting.

Reporting factors
While the intended audience (D.4) of reports seems to have no influence on the quality of reporting, two studies revealed a relationship between report auditing (D.5) and the quality of reporting. According to Blaesing, reports of companies that are certified by external firms are of significantly higher quality than those of companies that do not certify their reports. Adnan et al made a similar finding. The results of their study suggest that voluntary external auditing (D.5) enhances the quality of reporting, regardless of the geographical location or the industry in which a company operates.
6.3 CIII - Studies that do not distinguish between extent and quality of CS reporting or combine both factors

Category CIII studies include papers, which could not be clearly assigned to category CI or CII. The authors of the studies either do not differentiate between determinants for the extent and quality of CS reporting or combine both factors within their investigation. Out of the 40 studies investigated, six studies have been classified as CIII studies.

Van der Laan Smith et al. conducted a multinational study to explore international differences in CS reporting. The authors used a stakeholder perspective to show the manner in which the role of a company is defined in the society and affects the extent, level and quality of CS reporting. The words extent, level and quality are used interchangeably within this study, thus, a classification as CI or CII study was not possible. The authors focused on sustainability disclosures related to the environment, community, customers and shareholders and in doing so, considered all three dimensions of CS. Taking the stakeholder theory as a point of reference, the authors deduced several hypotheses, which are based on the assumption that firms from countries with a stronger stakeholder orientation might have higher levels and a better quality of CS reporting than firms from countries with a strong shareholder orientation. The findings of the study, which are based on a content analysis of annual reports, suggest that companies face different CS reporting pressures in different countries and, therefore, have to adjust their disclosure strategy accordingly.

The effect of internationalization on voluntary reporting was also investigated by a study from Webb et al. Drawing on literature related to country level, legal institutions and MNCs, the relationship between globalization and voluntary disclosure was getting assessed. The study is limited to the investigation of voluntary disclosure rather than CS discourse in particular. However, due to the nature of the investigation, it can be assumed that voluntary disclosure includes many CS aspects, which justifies the inclusion of the study. Nevertheless, the authors did not distinguish between the extent and quality or reporting but rather considered CS reporting in general. The results of the study suggest that internationalization is an important determinant for CS reporting, which has often been neglected in other studies.

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Another study conducted by Boesso and Kumar focused solely on determinants for voluntary disclosure in annual reports. Even though the study does not assess determinants for sustainability reporting in particular, the authors often refer to sustainability aspects and the GRI guidelines when talking about voluntary disclosure. Furthermore, the perspectives included in the study framework consider stakeholder groups from all three CS dimensions. The stakeholder theory served as the main basis for this investigation, however, the agency theory, the signaling theory, the political cost theory and the proprietary theory were also briefly mentioned. Three hypotheses were developed based on the findings of previous studies as well as the theories discussed. A content analysis was subsequently used as a research tool for the purpose of the investigation. The results of the study suggest that some factors can only provide explanations for either the extent or the quality of reporting while others can explain both ends. Due to the fact that the study is only based on voluntary reporting, the generalizability of the findings is rather limited.

Cormier and Magnan investigated determinants for corporate environmental reporting of French companies based on annual and environmental reports. Besides three main variables, several control variables that were expected to affect environmental reporting were tested in this study. A cost-benefit framework was used to adequately take into account France’s unique legal context. However, the authors did not develop a theoretical framework for the purpose of their study. The results of this study suggest that company size, media presence and financial characteristics determine environmental reporting.

Fifka conducted a study to discover global determinants for CS reporting and regional differences of determinants between different geographic regions. For the purpose of this MA, only the results that the author considered to be globally valid were used. Fifka investigated the results of 186 international empirical studies, which dealt with the analysis of factors influencing CS reporting. However, in his analysis, the author did not differentiate between determinants for the extent and quality of reporting. Rather, the extent and the quality were considered as being affected equally by the determinants discovered in the studies. Therefore, this study cannot be classified as a CI or CII study. Additionally, the author analysed whether researchers have taken different approaches for the empirical examination of CS reporting in different

geographical regions. The results of his study show that on a global level, content analyses are the preliminary research tool to examine determinants for CS reporting. Furthermore, company-specific characteristics are the determinants most frequently investigated.\textsuperscript{406}

\textit{García-Sánchez} used a somewhat different approach than most other authors. Rather than measuring the amount and quality of disclosure in CS reports directly, the author grouped information according to certain criteria to obtain segment groups. This approach allowed determining similarities in the content and characteristics of the CS information reported. Due to the different research focus, the study can neither be classified as a study investigating determinants for the extent nor as a study investigating determinants for the quality of CS reporting. For the purpose of this investigation, a combination of a content analysis and a cluster analysis was used to develop a similarities-mix.\textsuperscript{407} In contrast to most other studies, only a brief review of prior studies was used as a theoretical foundation, however, no extensive theoretical framework or hypothesis testing was employed. The results of the study show that there are similarities regarding the context and the characteristics of CS reports of large companies from certain industries.\textsuperscript{408} However, due to the different nature of this study, distinct determinants for the extent or quality of reporting could not be identified.

A summarized depiction of the indicators found in the six CII studies can be seen in table 4. The studies include both, determinants for the extent as well as the quality of CS reporting.

<table>
<thead>
<tr>
<th>Determining factors</th>
<th>Category</th>
<th>Amount of indicators found</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-specific characteristics</td>
<td>A</td>
<td>10</td>
<td>58.82%</td>
</tr>
<tr>
<td>Non-financial characteristics</td>
<td>A.1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Financial characteristics</td>
<td>A.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Geographical characteristics</td>
<td>B</td>
<td>3</td>
<td>17.65%</td>
</tr>
<tr>
<td>Sectorial characteristics</td>
<td>C</td>
<td>4</td>
<td>23.53%</td>
</tr>
<tr>
<td>Reporting related characteristics</td>
<td>D</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total number of determinants found</td>
<td></td>
<td>17</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4: Factors determining the extent and quality of CS reporting

6.3.1 Company-specific characteristics (A)

6.3.1.1 Non-financial characteristics (A.1)

Non-financial firm characteristics were most often identified as determinants for CS reporting in the six CIII studies investigated. Out of all factors, visibility factors can be considered the most important indicators.

Visibility factors

In his meta-analytical study, Fifka concluded that company size (A.1.1.) was a determinant for CS reporting in general. In more than 85% of all cases, size impacts reporting. The studies of Boesso and Kumar and Cormier and Magnan also confirmed that size influences CS reporting. Furthermore, Garcia-Sánchez further found that larger companies show similarities in the content and characteristics of reporting. It can thus be concluded that company size determines CS reporting in general.

Cormier and Magnan attributed the impact of size on CS reporting to the greater media presence (A.1.2) of larger firms compared to smaller firms. According to their study, a company’s environmental media visibility enhances its environmental reporting. Consequently, both, size and media presence can be considered determinants for CS reporting, according to the studies investigated.

Corporate Governance factors

The only corporate governance factors revealed in CIII studies was identified in a study conducted by Fifka who found that management factors (A.1.6), especially the attitude of managers towards CS, determine CS reporting almost everywhere.

Strategic factors

Two of the CIII studies suggest a relationship between strategic factors and determinants for CS reporting. Van der Laan Smith et al. found a relationship between the stakeholder orientation (A.1.7) and the extent and quality of CS reporting. The authors used corporate governance systems, ownership structures and cultural factors as indicators for high or low stakeholder

orientation in a country. The results of their study show that the extent and quality of reporting in countries with a strong stakeholder orientation, such as Norway and Denmark, is significantly higher than in countries with a rather low stakeholder orientation.\footnote{Cf. Van der Laan Smith, J./Abhikari, A./Tondkar, R. H. (2005), pp. 129ff.} Similarly, Boesso and Kumar detected a positive relationship between the corporate emphasis on stakeholder engagement and the volume and quality of CS reporting.\footnote{Cf. Boesso, G./Kumar, K. (2007), p. 290.}

### 6.3.1.2 Financial characteristics (A.2)

Similarly to previous studies, Cormier Magnan discovered that financial characteristics such as \textit{profitability} (A.1) and the level of \textit{leverage} (A.3), determine environmental reporting strategies. In addition, they found that information costs impact environmental reporting.\footnote{Cf. Cormier, D./Magnan, M. (2003), p. 58.} It can, therefore, be assumed that financial characteristics can affect both, the extent and quality of reporting.

### 6.3.2 Geographical characteristics (B)

Three out of the six CIII studies suggest a relation between geographical characteristics and CS reporting. According to Fifka, the \textit{geographical location} (B.1) that a company is operating in determines CS reporting. In particular, the political and socio-economic environment has a strong impact on reporting practices.\footnote{Cf. Fifka, M. S. (2013), p. 26.} A similar result was found by Van der Laan Smith \textit{et al.} Findings from their content analysis indicated that CS reports of large companies in Norway and Denmark have a greater extent and quality than those of companies in the US. However, the authors related this finding to differences in stockholder orientation between those countries.\footnote{Cf. Van der Laan Smith, J./Abhikari, A./Tondkar, R. H. (2005), p. 147.}

Webb \textit{et al.} found a positive impact of the level of \textit{international diversification} (B.5) on CS reporting. However, their results also suggest a link to the legal environments in different countries. For the same level of internationalization firms in weak legal environments showed higher levels of voluntary reporting than others. This might be explained by the fact that globally acting firms from countries with weak legal environments need extra disclosure to enhance their reputation and to build trust.\footnote{Cf. Webb, K./Cahan, S. F./Sun, J. (2008), p. 219.} The results of these studies show that, geographical characteristics influence CS reporting in various ways.

\footnotesize
\begin{itemize}
\end{itemize}
6.3.3 Sectorial characteristics (C)

Many CIII studies found similar results regarding the impact of sectorial characteristics on CS reporting as CI and CII studies. The findings of Fifka and Cormier and Magnan suggest that industry membership (C.1) determines CS reporting in general.\footnote{Cf. Fifka, M. S. (2013), p. 26 and Cormier, D./Magnan, M. (2003), p. 58.} Also the studies of García-Sánchez and Boesso and Kumar reveal a positive relationship between industry affiliation and the extent and quality of CS reporting, however, the established relation is rather minor.\footnote{Cf. Boesso, G./Kumar, K. (2007), p.290 and García-Sánchez, I.M. (2008), p. 195.}

6.3.4 Report and reporting related characteristics (D)

Report or reporting related determinants for either the extent or quality of CS reporting could not be identified within the six CIII studies investigated.

7 Discussion of the results

A variety of different national and international studies have been qualitatively analysed in the previous chapter. The descriptive analysis showed that the results of most of the studies investigated are consistent with the theories discussed earlier. A lot of studies used the stakeholder theory or the legitimacy theory as a theoretical point of reference on which they based their investigation. The legitimacy theory was primarily used to explain determinants for the extent of CS reporting, while differences in the quality of CS reporting seemed to be better backed up by the stakeholder theory in many of the studies investigated. However, both theories can provide explanations for both factors and in many cases. Consequently, only a mixture of theories allows for a comprehensive analysis of determinants for the extent and quality of reporting. Furthermore, some authors also referred to other theories, including the agency theory, political economy theory, or positive accounting theory, within their papers. The MA also showed that many investigations are not based on a theoretical foundation at all.

7.1 Determinants for the extent of CS reporting

The first research question, which was developed for the purpose of this thesis, concerned determinants for the extent of CS reporting. After analyzing 18 studies that assessed determinants for the extent of reporting, company-specific characteristics turned out to have the strongest impact on the extent of CS reporting. The MA has shown that the size of a company, as part of non-financial firm characteristics, is the most important determinant for the extent of reporting. Almost every study investigated suggested a positive relationship between firm size
and the level of CS disclosure. Generally large companies can be expected to report more about sustainability issues than smaller companies. On the one hand, this relationship might be caused by the fact that larger companies can involve more employees in the collection and compilation of CS information. On the other hand, large companies also tend to have more stakeholders that demand CS information and therefore try to influence them in a certain way.\(^\text{423}\)

As large corporations have to consider a wide range of different stakeholder interests when deciding on economic, environmental and social goals, the stakeholder theory can serve as a theoretical point of reference to explain size as a determinant for the extent of CS reporting.\(^\text{424}\) Due to the fact that larger companies are accountable to more stakeholders than smaller companies, they are also often required to disclose more CS information.\(^\text{425}\) Additionally, large companies are more easily recognizable than smaller companies, which result in a higher visibility and leads to a greater attention from stakeholders and the media.\(^\text{426}\) In increasing the extent of CS reporting, large companies try to take into account the diverging information needs and demands of these different stakeholder groups.

However, the results of these studies concerning the impact of company size on the extent of reporting also support the legitimacy theory. Due to the fact that large companies are normally more visible and accountable to the public, they are also more subject to political pressure than smaller companies. By reporting about the three dimensions of CS, companies attempt to avoid external pressure and justify their existence in the society.\(^\text{427}\) Furthermore, to avoid government interventions and to minimize possible litigation costs, larger firms have stronger incentives to increase the extent of CS reporting than smaller ones.\(^\text{428}\) Therefore, in order to reduce the potential impact of legal regulations, taxes or other factors that could affect a company’s strategic perspective negatively, they increase their level of CS reporting.\(^\text{429}\)

An alternative explanation for the positive relationship between company size and the extent of CS reporting can be found in the agency theory. However, as the agency theory was not part of the theoretical framework provided in this thesis, this finding will only be shortly summarized. Due to the high information asymmetries that exist between shareholders and managers in large

companies, larger firms are more likely to have higher agency costs than smaller firms. As CS reporting can serve as a means to reduce information gaps, larger companies have therefore more incentives to increase the level of reporting than smaller ones.  

The fact that larger companies report more about CS aspects can be explained by their higher visibility and media presence relative to smaller companies. Rising visibility often increases political and regulatory pressure, which in turn reinforces the importance for large companies to increase the extent of reporting. In many studies, the size of companies is used as a proxy for their visibility. It is therefore difficult to clearly distinguish between these factors. Evidence suggests that firms with higher visibility demonstrate greater concerns in improving their image by the help of CS reporting and, thus, increase the extent CS disclosure. Consequently, as the visibility of a company is closely linked to its size, the extent of CS reporting tends to be higher in large companies. Referring back to the legitimacy theory, CS reporting can therefore be used as a tool to communicate a tailored message to an intended audience and in doing so, to reduce societal pressure. However, a mixture between the legitimacy and the stakeholder theory seems appropriate to explain the complex interrelationship between company size and the extent of CS reporting in companies.

In addition to visibility aspects, corporate governance and strategic aspects also seem to have an impact on the extent of CS reporting. In particular, ownership- and governance structures influence the level of reporting. Due to the fact that companies with high ownership concentrations have fewer incentives to disclose information, the extent of disclosure increases if ownership structures are dispersed. Also, foreign ownership structures turned out to have a positive impact on the level of disclosure. Moreover, board composition and board independence, as part of a company’s corporate governance structures affect the extent of CS reporting. These findings can again be attributed to the legitimacy and stakeholder theory. By providing more information to different stakeholders, companies try to ensure legitimacy.

While some studies identified a relationship between strategic factors and the extent of CS reporting, the strength of the relationship seemed to be relatively low. Selected studies suggested
that companies that perform well in regard to sustainability aspects report more about CS than inferior performers. However, this finding is in contradiction with the theories discussed earlier. As the legitimacy and the stakeholder theory consider CS reporting as a corporate function of social and political pressure they would rather predict a negative relationship between sustainability performance and CS reporting. Therefore, they would suggest that poor performers attempt to increase the extent of CS reporting to change the perception of their stakeholders. According to the legitimacy and the stakeholder theory, companies would in doing so try to increase their level of legitimacy.\textsuperscript{437} Other studies showed different results concerning the relationship between sustainability performance and the extent of CS reporting. Due to the mixed results of the different studies, the direction and strength of the impact on the extent of CS reporting remains rather unclear.

The results of the MA also revealed a relationship between financial firm characteristics and the extent of CS reporting. While some studies suggested a positive impact of profitability on the extent of CS reporting, other studies strongly denied such a relationship. A positive relationship could be explained by the fact that profitable companies can simply afford to disclose more. However, authors who found a negative relationship between those factors argue that a high profitability is enough to prove to stakeholders that a company is operating effectively. Therefore, less CS reporting would be needed, according to such studies.\textsuperscript{438} A company’s level of liquidity and leverage as well as the average age of its assets also tend to have some influence on the extent of CS reporting. Overall, the majority of studies suggested that the existence of rich financial resources increases the extent of CS reporting. In general, financial firm characteristics seem to have a medium to strong effect on the extent of CS reporting.

Sectorial characteristics have also been found to determine the extent of CS reporting in many countries. In particular, industry affiliation but also the risks related to an industry, seems to affect the extent of CS disclosure. The strong impact of industry membership on the extent of CS reporting can be explained by the stakeholder theory. Due to the diverse interests of different stakeholder groups that are affected in different industries, the extent of CS reporting can vary significantly between industries. It seems, therefore, plausible that the extent of CS reporting in industries that are characterized by stakeholders with rather diverging interests is higher than in industries where stakeholders have rather homogenous needs.\textsuperscript{439}

\textsuperscript{437} Cf. Clarkson, P. M. et. al. (2008), p. 304.
In comparison to company-specific characteristics and sectorial characteristics, the impact of geographical characteristics on the extent of CS reporting seems relatively low. Nevertheless, some authors suggested that the geographical location as well as cultural factors have an impact on the extent of CS reporting. Additionally, the local government and institutional factors seem to have some effect on the level of CS disclosure. From all variables investigated, factors that are related to reports or reporting activities seem to have the weakest impact on the extent of CS reporting. The only factors that might be slightly related to the extent of CS reporting are the intended audience of reports and whether reports are externally certified.\textsuperscript{440}

To summarize the findings and to answer the first research question, it can be concluded that the extent of CS reporting is mainly determined by non-financial firm characteristics as well as sectorial characteristics. In addition, non-financial firm characteristics also seem to determine the extent of CS reporting to some extent. In contrast, the impact of geographical and especially, of report and reporting related factors on the extent of CS reporting is rather low.

\subsection*{7.2 Determinants for the quality of CS reporting}

The second research question aimed to discover determinants for the quality of CS reporting. The MA revealed that industry characteristics have the strongest impact on the quality of CS reporting. However, also non-financial firm characteristics, geographical characteristics and report- and reporting related factors were found to determine the quality of CS reporting.

According to the studies investigated, the affiliation to a particular industry has the strongest impact on the quality of CS reporting amongst all industry related factors. Generally, companies in rather environmentally sensitive industries tend to report at a higher quality than do companies in other industries.\textsuperscript{441} The materials and utility sector as well as the mining, automotive and chemical industries are generally associated with a high-quality level of CS reporting. Referring to the legitimacy theory, the impact of industry membership on the reporting quality can be explained by the strong pressure to legitimize actions from companies that are operating in politically or ecologically sensitive industries.\textsuperscript{442}

However, qualitative difference between industries can also be explained by the stakeholder
theory. The quality of the disclosed information is heavily influenced by the expectations and the
demand of different stakeholder groups. Therefore, the quality of CS reporting in industries with
diverging stakeholder needs is generally higher than in other industries.\(^\text{443}\) High-quality reporting
can especially be associated with companies that need to report to environmentally and socially
concerned stakeholders. In contrast to that, companies in industries that are subject to less
stakeholder pressure can be expected to report at a lower quality.\(^\text{444}\)

In addition to sectorial factors, geographical characteristics also seem to have a significant
impact on the quality of CS reporting. The highest quality CS reporting can be found in
European companies while the reporting quality of companies in the Asia Pacific region is rather
low.\(^\text{445}\) The reporting quality of European companies is also significantly higher than the
reporting quality of American companies.\(^\text{446}\) While North American companies perform well
with regard to the disclosure on financial issues and legal compliance factors, they tend to
neglect the social and environmental dimensions of CS reporting.\(^\text{447}\) The stakeholder theory can
provide possible explanations for the relationship between geographical factors and the quality
of reporting. According to the stakeholder theory, stakeholder information needs are an
important factor for the organization of companies’ CS reporting activities.\(^\text{448}\) The impact of
geographical characteristics on the quality of reporting can, therefore, be explained by
differences in stakeholder orientation between countries, which are mainly caused by different
national cultures. While the reporting quality is high in countries that consider stakeholders to be
important, the quality of reporting in countries that merely consider their shareholders is rather
low.\(^\text{449}\) As a consequence, the high reporting quality in Europe can be explained by the higher
stakeholder orientation in European cultures. In contrast, American companies focus mainly on
shareholder interests, which results in a lower quality of CS reporting. Due to the reason that the
stakeholder orientation differs between countries, the claims of stakeholders are also perceived
to hold varying importance by managers in different countries. Generally, the more critical the
claims of different stakeholder groups, the higher the probability that stakeholder demands will
be addressed, thus, the higher the reporting quality.\(^\text{450}\) In addition to the geographical location,
the underlying stakeholder orientation within a national culture can, therefore, also determine the quality of CS reporting. However, differences in the quality of CS reporting between countries could also be attributed differences in regulatory environments or other institutional factors. It is, therefore, difficult to draw a general conclusion about the impact of single factors within this category.\textsuperscript{451}

The MA further revealed a significant relationship between report and reporting related characteristics and the quality of CS reporting. It was shown that the reporting quality of separate CS reports is generally higher than the CS reporting quality in annual reports.\textsuperscript{452} Furthermore, longer reports seem to correlate with higher reporting quality. The reporting framework used also seems to have some influence on the CS reporting quality. In addition, voluntary auditing seems to determine the quality of reporting. Regardless of the geographical location or the industry that a company operates in, the quality of reports that are externally certified is significantly higher than the quality of non-audited reports.\textsuperscript{453} The impact of report auditing on the quality of reporting can be explained by the legitimacy theory. In certifying CS reports, companies try to establish trust and aim to close a potential legitimacy gap or to prevent a legitimacy loss.

The impact of firm characteristics on the quality of CS reporting differs markedly in regard to financial and non-financial factors. While the analysis revealed an almost non-existent relationship between financial firm characteristics and the quality of reporting, there is a strong relation between non-financial firm characteristics and the quality of CS reporting. In particular, factors related to the visibility of company, such as firm size and media presence, seem to affect the quality of CS reporting. However, the studies showed inconsistent results regarding the strength and direction of the relationship between company size and the quality of CS reporting. Even though size can affect the quality of CS reporting, the influence of size on the quality of CS reporting seems to disappear at a certain company size.\textsuperscript{454} Thus, the general impact of firm characteristics on the reporting quality can only be considered as medium to low.

In concluding the discussion about the second research question, it has to be emphasized that the quality of CS reporting is mainly determined by sectorial as well as geographical factors.

Interestingly enough, report and reporting related issues also seem to determine the quality of CS reporting to some extent. While a weak relationship exists between non-financial firm characteristics and the reporting quality, financial factors tend not to have a significant impact on the quality of reporting.

### 7.3 Differences between determinants for the extent and quality of CS reporting

The third research question concerned differences and similarities between determinants for the extent and determinants for the quality of CS reporting. An interesting difference, which was observed during the analysis relates to the impact of non-financial and financial firm characteristics. While 66.7 percent of all determinants for the extent CS reporting were related to firm characteristics, only 28.2 percent of the determinants for the quality of reporting could be attributed to firm specific factors.

Concerning non-financial firm characteristics, differences between determinants for the extent and the quality of CS reporting could be found for all factors: visibility factors, corporate governance factors and strategic factors. All these factors seem to have a stronger impact on the extent of CS reporting than they have on the quality of reporting. While almost all studies considered the visibility factor size to be a determinant for the extent of CS reporting, only a few considered it to be an important determinant for the quality of reporting. Even though large companies are likely to publish more extensive CS reports than small companies, the quality of CS reporting is not necessarily higher.\(^{455}\) Furthermore, corporate governance factors and strategic factors seemed to have a considerable effect on the extent of CS reporting. A similar effect on the quality of CS reporting was not observed.

Differences regarding the influence of financial firm characteristics on the extent and the quality of CS reporting are even stronger. While only one study suggested the existence of a relationship between financial factors and the quality of CS reporting, seven studies found a relation between the extent of CS reporting and financial factors. Therefore, financial firm characteristics seem to determine the extent of CS reporting, but not necessarily the quality of CS reporting. However, it has to be mentioned that the analysis showed that studies that examined determinants for the quality of CS reporting focused less on financial characteristics in comparison to studies that investigated the quality of reporting.

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Moreover, the MA showed that the quality of CS is determined by report- and reporting related factors while the impact of such factors on the extent of CS reporting could not be confirmed. Geographical characteristics also seem to determine the quality of CS reporting more than they determine the extent of reporting. This difference seems to be mainly caused by underlying differences in the stakeholder orientation, which is rooted in the cultural norms and values of certain geographical regions.

Finally, the analysis showed that sectorial characteristics determine both, the extent and quality of CS reporting. Most studies revealed a positive relationship between industry affiliation and the extent and quality of CS reporting. While no clear explanations for the variations in the extent of CS reporting between industries could be revealed, differences regarding the quality of reporting seems to be determined by the sensitivity of an industry to environmental and social issues.\(^{456}\) Table 5 summarizes differences and similarities between determinants for the extent and quality of CS reporting and in doing so, answers the third research question.

<table>
<thead>
<tr>
<th></th>
<th>Effect on the extent of CS reporting</th>
<th>Effect on the quality of CS reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-specific characteristics</td>
<td>Strong</td>
<td>Medium/low</td>
</tr>
<tr>
<td>Non-financial characteristics</td>
<td>Strong</td>
<td>Medium</td>
</tr>
<tr>
<td>Financial characteristics</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Geographical characteristics</td>
<td>Low</td>
<td>Strong</td>
</tr>
<tr>
<td>Sectorial characteristics</td>
<td>Strong</td>
<td>Strong</td>
</tr>
<tr>
<td>Reporting related characteristics</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Table 5: Influence of determinants on the extent and quality of CS reporting

8 **Critical considerations and final remarks**

Using the stakeholder theory and the legitimacy theory as a theoretical framework, the objective of this master thesis was to identify international determinants for the extent and quality of CS reporting as well as to reveal differences between determinants for these two variables. As illustrated in table 5, the results of the Meta-analysis suggest that the extent of CS reporting is particularly determined by non-financial and financial firm characteristics but also by sectorial factors. In contrast, the quality of CS reporting depends primarily on geographical and sectorial characteristic as well as factors that are directly related to reports and reporting. Overall, the

chosen theoretical framework turned out to be appropriate for the explanation of determinants for the extent and quality of CS reporting. However, as suggested by selected studies, additional theories, such as the agency theory, the political cost theory or the positive accounting theory could allow for a more comprehensive understanding of interrelationships between certain factors, the extent and the quality of reporting.

However, it has to be mentioned that the results of our study are subject to several limitations. The majority of studies used was conducted in developed nations and differed significantly in regard to their research focus, their sample size and the methodology used. All these differences limit the comparability of the studies. Furthermore, almost all studies were limited to the investigation of CS reporting practices in large companies only.\(^{457}\) In contrast, CS reporting in small and medium sized companies has until now often been ignored in scientific studies.\(^{458}\) It is, therefore, difficult to adequately assess the overall impact of company size on the extent and quality of CS reporting. Moreover, the format of CS reporting and, therefore, the unit of analysis used differ significantly from study to study. Globally, only one out of ten companies that report about sustainability issues publishes separate and integrated CS reports.\(^{459}\) Consequently, the majority of studies that assess determinants for the extent and quality of CS reporting are based on an analysis of CS information in annual reports. Only a few studies analyse separate CS reports or combine an analysis of different reporting formats. Also, some investigations focus on the information provided on corporate websites, whereas others only analyse paper-based reports. Due to the variety of reporting types, the comparability of the results of different studies is also limited. Additionally, different sustainability dimensions were considered in different investigations. While some studies analysed determinants for integrated CS reporting, other studies only assessed determinants for environmental or social reporting.

Furthermore, the MA revealed differences in the scope of CI, CII and CIII studies. While CI studies tend to investigate the impact of a wide range of potential determinants on the extent of CS, CII studies have a rather narrow research focus and often investigate the influence of a few selected determinants on the quality of reporting. Very few CII studies assess the impact of financial firm characteristics on the quality of CS reporting, while a lot of CI studies analyse such a relationship. Moreover, while determinants for the extent of CS reporting have already been investigated on a global scale, studies that focus on determinants for the quality of CS

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reporting have until now primarily been published in Central and Western Europe. This may be caused by the novelty of this particular research field as well as a lacking recognition of high quality CS reporting in regions outside of Europe.

Despite the limitations of the MA, the findings of this thesis can give valuable indications about determinants for the extent and quality of CS reporting as well as differences between them. Research gaps in literature result from an insufficient investigation of separate CS reporting and a limitation to samples that consist mainly of large companies in developed economies. A further increase in separate CS reporting might in the future allow for a more precise analysis of determinants for the extent and quality of CS reporting. Furthermore, a future challenge for research about determinants for CS reporting will be to deal with the increasing importance of CS reporting in emerging economies. In recent years, there has been a significant increase in CS reporting rates in the Asia Pacific area as well as in other emerging regions. Due to different values, norms and governance structure in such regions, international determinants for the extent and quality of CS reporting might, therefore, change in the long-term.

\footnote{KPMG International (2013), p. 11.}
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Determinants for the Extent and Quality of Corporate Sustainability Reporting
Matthias Grillnberger

A Meta-Analysis of Empirical Studies


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Determinants for the Extent and Quality of Corporate Sustainability Reporting

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A Meta-Analysis of Empirical Studies


Online Source


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