

Master's Thesis

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**INTEGRATED REPORTING: CURRENT DISCLOSURE PRACTICES OF
INTELLECTUAL, HUMAN, SOCIAL AND RELATIONSHIP AND NATURAL
CAPITALS**

Master's Thesis, 2019

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ABSTRACT:

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The objective of this master's thesis is to gain deeper understanding of Integrated Reporting which has received growing interest in recent years. The objective is to analyse, how Intellectual, Human, Social and Relationship and Natural Capitals are disclosed in integrated reports. The thesis aims to recognize trends and discover best practices, as well as mirror the results to the recommendations of the International Integrated Reporting Council (IIRC). The study is based on previous academic research on corporate reporting and benefits from Institutional Theory. The applied research method is content analysis, which allows the researcher to examine 21 integrated reports and code capital disclosures in an Excel spreadsheet using 36 coding items. Data is evaluated based on three attributes: evidence, time orientation and tone. The results indicate that there are differences between capitals in terms of whether they are reported in narrative discourse or benefit also from quantitative measures. There is also slight variation in the time orientation of reported capitals. The analysis shows that all four capitals are mostly reported in a positive tone, but if a company discloses negative information, it is in most cases supported by positive discourse. The integrated reports are evaluated also in terms of what roles the capitals play in the company's value creation process. It is indicated that companies regard different issues as inputs and outputs of the value creation process, and that a certain issue may be considered as both.

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Tämän Pro Gradu -tutkielman tavoitteena on perehtyä integroituun raportointiin, joka on viime vuosina saanut osakseen kasvavaa kiinnostusta. Tavoitteena on selvittää, kuinka aineetonta, inhimillistä, sosiaalista sekä luonnonpääomaa käsitellään integroiduissa raporteissa. Tutkielma pyrkii tunnistamaan yleisiä raportointitapoja ja havaitsemaan parhaita käytäntöjä sekä peilaamaan niitä kansainvälisen viitekehyksen julkaisseen International Integrated Reporting Council:in suosituksiin. Tutkimus pohjautuu aiempaan yritysraportointia koskevaan kirjallisuuteen ja hyödyntää teoreettisena perustana institutionaalista teoriaa (Institutional Theory). Tutkimusmenetelmänä käytetään sisällön analyysiä, jonka avulla tarkastellaan 21 integroitua raporttia. Raporteissa julkaistu pääomiin liittyvä tieto luokitellaan laskentataulukkoon käyttäen 36 koodausalkiota. Dataa koodataan kolmen ominaisuuden avulla: julkaisun tyyppi, aikajänne sekä sävy. Tulokset osoittavat, että pääomien välillä on eroja siinä, raportoidaanko niitä puhtaasti kerronnallisilla keinoilla, vai hyödynnetäänkö tekstin lisäksi myös numeerisia mittareita. Eroja pääomien välillä ilmenee myös koskien raportoinnin aikajännettä. Lisäksi jokaisen neljän pääoman osalta tietoa raportoidaan pääasiassa positiiviseen sävyyn, mutta mikäli raportti julkistaa negatiivista tietoa, sitä kompensoidaan myönteisellä kerronnalla. Raporteista tarkastellaan lisäksi sitä, kuinka yritys kuvaa pääomien roolia arvonluonnissa. Tutkielmassa havaitaan, että yritykset pitävät eri tekijöitä arvonluontiprosessinsa panoksina ja tuotoksina, ja että yksi tekijä voi toimia molempina.

FOREWORDS

I had considered various themes for my thesis before encountering Integrated Reporting for the first time. It proved to be an interesting and contemporary topic that I was glad to familiarize myself with, and thus I want to thank Professor Laura Albareda for encouraging me to take this path and for providing valuable insights throughout the process. Furthermore, I thank Postdoctoral Researcher Laura Olkkonen for offering additional support and useful feedback on which I could build my thesis. In addition, I want to use this opportunity to thank the professionals at my case company, who do not appear in this report, but to whom I produced a separate summary of practical implications. Thank you for donating your time and sharing your thoughts – it taught me a lot. I also want to thank Doctor Mika Kuisma for discussing the development of corporate reporting in Finland with me.

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Helsinki, 1.5.2019

Aino Laineenoja

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LIST OF ABBREVIATIONS

IR = Integrated Reporting

IRF = International Integrated Reporting Framework, also known as the <IR> Framework

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1. INTRODUCTION

Integrated Reporting (IR) has lately received growing attention from both academia and corporate world. This master's thesis aims to study the current state of IR practices of 21 companies through a content analysis. The study concentrates on capitals, which is a key component of the International Integrated Reporting Framework (IRF). The purpose of the introduction is to present the background for the study and specify the reasons, why the study is current and important. Consequently, the research objectives are presented, and the research questions are formed. Certain limitations for the topic are considered and finally, the structure of the study is presented.

1.1. *Background of the study*

In the past few decades, corporate reporting has experienced a main paradigm shift, enhanced by the rise of environmental and social matters. The fall of Enron in 2001 and the following collapses of financial institutions due to sub-prime mortgages showed the importance of transparent reporting and of disclosing sustainability-related-information (Cunningham, Fagerström and Hassel 2011). Multiple initiatives around the world for voluntary as well as regulatory non-financial disclosures signify that the demand for such information has experienced strong growth in the 21st century. On the other hand, this might have led to an 'information overload', when the stakeholders are provided with too much information for their decision making (Eppler and Mengis 2004).

This master's thesis studies IR as the current shift towards an advanced approach to corporate reporting. IR – the coherent combination of financial and non-financial information has been developing since the early 2000's to better serve the stakeholders of companies, especially the investors, because its goal is to report only the information that is material for the stakeholders (IIRC 2013). Materiality, a key concept for IR means the relevance or importance of certain issues for the company or its stakeholders. Eccles and Youmans (2016, 39, emphasis in original)

define materiality as: “- - *information about those stakeholder issues that, when managed effectively, represent a significant contribution to company value or that, if **mismanaged**, could lead to a significant loss of value and opportunities to create or preserve future value.*”

When compared with separate stand-alone financial and sustainability reports, an integrated report enhances the connections between financial and non-financial issues, allows the company to tell their story behind the numbers and releases information about the future direction of the company (IIRC 2011). The central player of the IR movement is the International Integrated Reporting Council (IIRC) which produces information for the companies on how to implement IR, keeps a database of example reports and develops the IRF together with coalition parties.

What is IR? Stolowy and Paugam (2018) point out that there are various, and even conflicting definitions of IR in terms of what should be included in the report. Cunningham et al. (2011, 100) point out differences also in understanding the term ‘integrated’ – as either merely combining different types of information or making more profound changes to accounting practices. This thesis benefits from the definitions of the South African King Committee and its Chairman Mervyn King as well as the IIRC. Even though the definitions may have differences in nuances, key issues are regarded similarly. Next, these main dimensions are presented.

Firstly, the definitions incorporate the idea of ***combining financial and non-financial information and showing their interconnections***:

“A holistic and integrated representation of the company’s performance in terms of both its finance and its sustainability” (King III 2009, 5)

“Integrated Reporting combines the most material elements of information currently reported in separate reporting strands (financial, management commentary, governance and remuneration, and sustainability) in a coherent whole, and importantly: shows the connectivity between them - -” (IIRC 2011, 6)

Secondly, another key aspect is to report the **material issues for the company**:

“Integrated Reporting brings together material information about an organization’s strategy, governance, performance and prospects - -“ (IIRC 2011, 6)

“An integrated report should provide stakeholders with a concise overview of an organisation, integrating and connecting important information about strategy, risks and opportunities and relating them to social, environmental, economic and financial issues - -“ (Mervyn King’s Foreword, IRCSA 2011, 1)

Thirdly, definitions also consider that the report should **inform stakeholders about the company’s value creation process as well as prospects for the future**:

“- - to enable stakeholders to evaluate the organisation’s performance and to make an informed assessment about its ability to create and sustain value. (Mervyn King’s Foreword, IRCSA 2011, 1).

“It provides a clear and concise representation of how an organization demonstrates stewardship and how it creates value, now and in the future.; and explains how they affect the ability of an organization to create and sustain value in the short, medium and long term.” (IIRC 2011, 6)

Fourthly, the definition of the IIRC (2013, 8) does not include financial statements, but for example Deloitte (2015) and Mervyn King’s Foreword (IRCSA 2011, 1-2) suggest that an integrated report **combines the financial statements and sustainability report into one report**.

All in all, the reporting direction seems quite clear: there is a growing trend that government, citizens and company stakeholders want to know about the environmental, social and governmental impacts of companies. In 2017, around 1600 companies worldwide used IRF, and Integrated Reporting was regulated at some level in 16 countries (IIRC 2018a).

1.2. Research questions and objectives

The IIRC has developed, together with multiple partner organizations and academics, a framework for companies to adopt IR. At the very core of the framework are the fundamental concepts of IR: capitals and value creation (IIRC 2013). Capitals are stores of value that as resources provide inputs for the company's value creation process – and likewise, the outputs of the process are identified as different capitals (Figure 1). The framework includes six capitals: financial capital, manufactured capital, Intellectual Capital, Human Capital, Social and Relationship Capital, and Natural Capital (IIRC 2013; Ahmed Haji and Anifowose 2017). IIRC has decided to use the term “capitals”, but some parties prefer to use terms like “resources and relationships” (IIRC 2013).

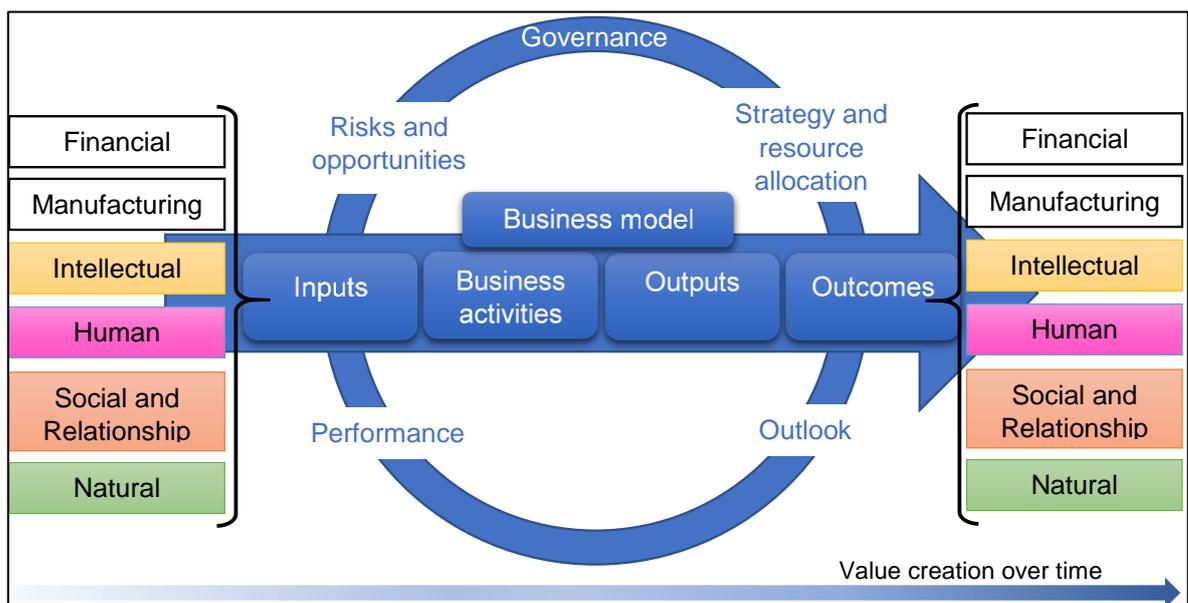


Figure 1: Value Creation Process (based on IIRC 2013)

The interest in corporate sustainability reporting practices has produced multiple papers that use content analysis (see e.g. Guthrie and Petty 2000, de Villiers and Van Staden 2006 and Liao et al. 2013). The existing papers have mainly focused on Intellectual, Human and Social and Relationship Capitals through intellectual capital research, or Natural Capital through environmental reporting research. These research directions have existed already before IR, and they will be

discussed more in the literature review. Integrated reports on the other hand, have been examined through content analysis mainly with a focus on companies' use of IRF content elements (Kilic and Kuzey 2018), stakeholder salience (Gianfelici et al. (2016), linkages between capitals (Adams, Potter and Singh 2016) and the reporting of capitals.

However, only two studies are found that include other capitals than only Intellectual, Human and Social and Relationship Capitals. Setia et al. (2015) focus on Natural Capital disclosures in addition to these three capitals. They code disclosures into 37 items and assess their evidence: whether the disclosure is narrative, numeric or monetary. Melloni (2015) on the other hand, studies all six capitals and adds a wider set of quality attributes into the assessment: time orientation, tone and topic (whether the information is an input or output in the value chain). She appears to be the only one, who studies IR capitals with a multi-attribute coding scheme. However, Melloni (2015) researches the capitals on a general level without the specific items of for example Setia et al. (2015).

This thesis fills the research gap by using Melloni's quality attributes in assessing the more specific items implemented from Setia et al. (2015) and the IIRC. The objective is to gain a deeper understanding about the concept of capitals in IR, because despite their central role in the framework, their research is still in its early stage. In addition, this study aims to provide a view on the current state of IR and benchmark "best practices" from sample companies. Therefore, the main research question is:

How do companies report on Intellectual, Human, Social and Relationship and Natural Capitals in an Integrated Report? (RQ)

To be able to answer the research question, four sub questions are formulated. Firstly, IIRC (2013) emphasizes that integrated reports should include a focus in the future. Kuisma (2019) states that this idea is one of the IRF's strengths and he stresses its importance for stakeholders – even though past figures can be used to draw predictions of the future, stakeholders are interested in the corporate

governance's plans and targets to be able to evaluate the company's future worth. Therefore, the first sub question is:

*In which ways do companies shift the time orientation of disclosures in the future?
(SQ1)*

A traditional way to describe reports has been analysing the type of disclosures based on their narrative or numeric nature. Even though IIRC states that not all information needs to be quantified – that the company can also describe their capitals otherwise – it is still interesting to know the ways in which companies measure their capitals. After all, numeric measurements can be used to set targets and compare own performance against other companies. The second sub question is:

What types of numeric or monetary measures do companies use in capital disclosures? (SQ2)

Another recommendation of IIRC is that companies should share their story in their integrated reports in a reliable and completed way. IIRC (2011) guides: “An integrated report should include all material matters, both positive and negative, in a balanced way and without material error”. Melloni (2015) concludes that 78% of the capital disclosures are positive, which is in line with public discussion about companies leaving out negative aspects, and therefore this thesis aims to know:

How do companies respond to IIRC's encouragement to disclose also negative information? (SQ3)

Lastly, a relevant aspect on the concept of capitals is that they are divided into inputs and outputs of the company's value chain, and IIRC (2013) recommends in their framework that this value creation model would be included in the integrated report. Because it would be negligent to inspect capital reporting without considering their role in value creation, the fourth sub question takes it into account:

How do companies address the role of capitals as inputs and outputs of the value creation process? (SQ4)

1.3. Exclusions and limitations

This master's thesis focuses on four of the six capitals of the IRF; Intellectual, Human, Social and Relationship and Natural Capital, because its aim is to expand the research of Setia et al. (2015). Thus, financial and manufacturing capitals are excluded from this research. Financial capital refers to the company's monetized assets, whereas manufacturing capital is "*human-created, production-oriented equipment and tools*" and it includes also infrastructure (IIRC 2013). Financial and manufacturing capitals are not included in the scope of the study, because they are highly regulated and standardized, and therefore do not include much voluntary reporting nor does their disclosed content differ largely between companies (Setia et al. 2015). From an academic point of view, financial and manufacturing capitals are included in the "traditional" corporate annual reports and financial reviews, and therefore they have been widely discussed in earlier accounting and financial studies (Kuisma 2019). By focusing the thesis on the other capitals, can however produce relevant information on a subject that still lacks understanding.

Certain limitations are made in terms of what information is included in the empirical research of integrated reports. This thesis remains focused on the *Fundamental Concepts* of the IRF – the value creation process and the capitals. Hence, the *Content Elements* (see Appendix 1) that for example Kilic and Kuzey (2018) analyse, are excluded in this study. Also, the financial review that is included in almost every integrated report, is for the most parts excluded from this study. After analysing five reports, it was clear that the only relevant things in the financial review for this thesis are employee costs, paid benefits and intellectual property. Otherwise the financial section is not noted, following Beck, Campbell and Shrives (2005).

1.4. Thesis structure

After the introduction, the thesis begins with a theoretical part and an introduction to institutional theory, which forms the basis of the theoretic framework. Similar studies that have benefitted from institutional theory will also be presented. Then, a historical review helps to comprehend, how corporate reporting has developed first from financial reporting to environmental, social and sustainability reporting, and finally to IR. The historical overview is followed by a literature analysis that presents the existing academic research on IR and recognizes the prevailing themes. This is followed by literature analysis on how the four capitals in the focus have been analysed in earlier report types, and finally in IR.

The third chapter shifts the focus from theory to empiric research and the research methodology. This thesis reviews 21 integrated reports from four industries in various countries through content analysis which benefits from a predefined coding scheme with quality indicators. This is followed by the analysis and its findings, where many concrete examples will be presented from the reports reviewed. Finally, the study outcomes are concluded, and the research questions are answered. In the discussion, the results of this study are mirrored to the academia and its implications on the institutional theory are explained.

2. THEORETICAL FRAMEWORK

In this thesis, the theoretical framework will be based on institutional theory, as it has been used in various sustainability reporting related studies before (e.g. de Villiers and van Staden 2006; Ahmed Haji and Anifowose 2017), which will be introduced at the end of the chapter. Mata, Fialho and Eugenio (2018) claim that, together with stakeholder theory, it is the most applied theory in environmental reporting. It benefits this thesis in terms of explaining differences and similarities of the sample. Next, institutional theory will be explained in more detail and thereafter papers that benefit from it in studying corporate reporting practices are presented.

2.1. *Introduction to institutional theory*

Institutional theory applied to organization and management studies is one of the main theoretical approaches. Institutional theory proposes that companies do not operate in a vacuum, but instead are influenced by institutions that surround them. Furthermore, organizations are capable of changing the institutions, and not only remain as the passive party. (Berthod 2016)

Greenwood, Oliver, Sahlin and Suddaby (2008) wrote a handbook about institutional theory, where they concentrate on *organizational institutionalism*, which is the direction this thesis is based on. Greenwood et al. (2008) claim institutional theory to be one of the most popular theories in organizational studies and that it has been used in a variety of subjects. Starting in the late 1970's, Greenwood et al. (2008) describe the historical development of the theory. In the beginning, the organizations were believed to accept their operating environment (*institutional context*) as such and adapt themselves to any changes rather rationally, and social understandings (*rationalized myths*) defined, what is regarded as rational behaviour (Greenwood et al. 2008, p. 3). The organization's adaptation to these external influences is called *isomorphism*, and it is caused by the organization's desire to be socially approved – in other words, to gain *legitimacy*. Figure 2 describes this process.

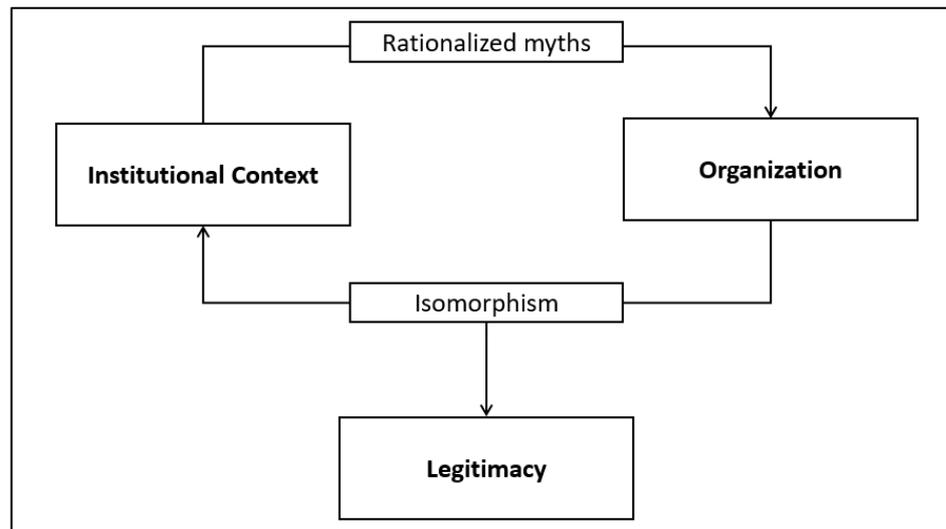


Figure 2: Organizations accept their institutional context to gain legitimacy (based on Greenwood et al. 2008)

Later, diffusion studies in 1990s stated that the organization's social position, internal factors and identity affect, how it interprets the rationalized myths – hence, organizations respond differently to their institutional contexts (Greenwood et al. 2008 p. 15-16). Beckert (1999) also reminds that since multiple, even contradicting, institutions exist, the organizations may act according to different institutions. Furthermore, Greenwood et al. (2008, p. 17) state that according to the Scandinavian approach, the organizations do not merely accept the external influences but that “*ideas and practices are interpreted and reformulated during the process of adoption*” called the concept of *translation*. This was followed by the concepts of *institutional entrepreneurship* and *institutional change*. Beckert (1999) refers to DiMaggio's 1988 article Interest and Agency in Institutional Theory, which presents institutional entrepreneurs as agencies that modify existing institutions or use their resources in creating new ones – in other words institutional entrepreneurship leads to institutional change. This is supported by Seo and Creed (2002, 222), who view institutional change as “*an outcome of the dynamic interactions between two institutional by-products: institutional contradictions and human praxis*” – praxis referring to the agency of organizations. Figure 3 in chapter 2.2. benefits from this expanded process that includes translation, diffusion and as a result, institutional change.

2.2. Institutional theory in corporate reporting research

Institutional theory has also been applied to studies of corporate reporting, and Lopes and Coelho (2018) claim that IR research mainly applies the new institutional theory of DiMaggio and Powell in 1983. Adams et al. (2016) note that the concept of *isomorphism* as well as *isopraxism* can be benefitted from for example in analysing, why reporting practices change over time. In their research, it is revealed that companies participating in the IIRC Pilot Programme adopt IR principles to their reporting due to isomorphism, and non-participants copy them because of isopraxism. Lopes and Coelho (2018) state that through isomorphism the effect of regulatory (such as King III) and recommending institutions (such as IIRC) over organizations can be explained, as well as mimetic behaviour between companies.

Mata et al. (2018) discuss the use of institutional theory in their research on environmental accounting reporting literature and show that environmental reporting has been regarded as a tool for companies to gain legitimacy in multiple papers (see e.g. Alrazi, de Villiers and van Staden 2015). Ahmed Haji and Anifowose (2017) confirm in their research that South African companies adopt IR to respond to institutional pressure and gain legitimacy. De Villiers and van Staden (2006) on the other hand witness a decrease of environmental disclosures, because companies leave out unwanted information to keep their legitimacy.

Table 1 summarizes papers that benefit from institutional theory in corporate reporting research. They contribute to the concepts of legitimacy, isomorphism and isopraxism.

Table 1: Reporting research that applies Institutional Theory

| Author (year) | Sample | Contribution to the theory |
|---------------------------------|--|---|
| Lopes & Coelho (2018) | 79 integrated reports | Geographic dispersion of companies using IR indicates mimetic behaviour for legitimacy |
| Ahmed Haji & Anifowose (2017) | 246 South African integrated reports 2011-2013 | SA companies adjust to IR pressures to gain legitimacy |
| Adams et al. (2016) | 4 companies 2009-2013 | Isomorphism: Pilot Programme participants adjust their reports according to IRF over time. Isopraxis: Even companies not committing to IR copy the same practices from the others |
| de Villiers & Van Staden (2006) | 140 South African annual reports | Environmental disclosures have decreased to gain legitimacy |

Drawing from the institutional theory and studies presented above, in this thesis the similarities and differences between companies are interpreted through institutional theory. Companies that include both narrative and numerical or monetary disclosures follow the recommendations of IIRC. Furthermore, forward-looking disclosures as well as disclosing also negative information apply to IIRC's suggestions. These characteristics in integrated reports may signify isomorphism towards IRF as a recommending institution in order to gain legitimacy. On the other hand, differences between companies' reporting practices show diffusion as well as modifying the institutional influences to make new institutions or change the IRF in time. The concept of translation explains differences between reporting practices in a way that the companies might interpret IIRC guidelines in their own way and adjust the reporting according to their own business. The contribution of this study to the theory will be presented conclusions of the thesis.

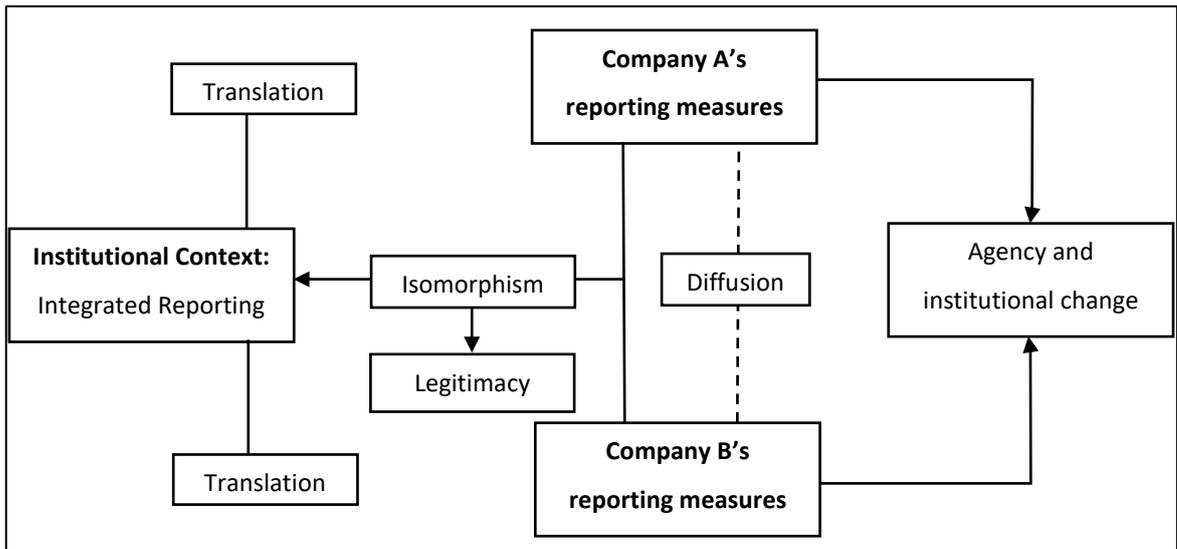


Figure 3: Theoretic Framework

3. LITERATURE REVIEW

The literature review consists of four parts. Firstly, the history of corporate reporting and the emergence of IR are discussed, and the IIRC is presented. Secondly, current literature on IR is viewed and four main topics are identified: explanatory factors, implications, the role of stakeholders and critique towards IRF. Then, the chapter focuses on the capitals that will later be researched in this thesis. The third part concentrates on Intellectual Capital literature, which covers also Human and Social and Relationship Capitals. Lastly, environmental reporting research is analysed to familiarize with Natural Capital.

3.1. Historical review on corporate reporting practices

The first part starts with the earliest forms of corporate reporting and continues with the emergence of non-financial reporting. Several reporting standards and guidelines are referred to, and governing bodies are presented. Consequently, a growing interest of combining non-financial information with financial reports is identified and finally the IR movement is analysed.

3.1.1. From financial reporting to sustainability reporting

Ong (2018) claims that the earliest evidences from financial reporting in the UK date back to the eighteenth century. Financial reporting has thus existed for a long time. International Accounting Standards Board was formed in 1973 (IFRS 2019), and their work lead to the later formation of The International Accounting Board in 2001 (IFRS 2019, Ong 2018). In 2003 the International Accounting Board introduced the first International Financial Reporting Standards (IFRS) for governments to adapt in the legislation, and their development and updating continues still today (IFRS 2019). IFRS (2019) states that the standards are applied in 166 jurisdictions globally, hence it can be withdrawn that corporate financial reporting is very strictly controlled.

Sustainability reporting on the other hand, has been developing since the 1970s (Solomon and Maroun 2012; Fifka 2013). Fifka (2013) studies existing empirical literature on corporate responsibility reporting by conducting a meta-analysis from 186 articles and categorizing them by country. He discovers that in the 1970s the non-financial reporting emerged on the side of financial reporting, and they were published separately. Responsibility meant mainly dealing with social issues, until two decades later, the companies realized also the importance and potential of environmental issues, and the reporting focus shifted. Social and environmental issues were often reported separately until the end of the century, when the Brundtland Report that presented the Triple Bottom Line was published in 1997. After this, both organizations and academia began to handle sustainability or corporate responsibility, where social and environmental issues were tied together (Fifka 2013). This was enforced in year 2000, when Global Reporting Initiative (GRI) introduced its first set of guidelines – G1 Standards and their later generations G4 and GRI Standards are today widely used (Kuisma 2019).

In Finland, the development has proceeded in a different order. According to Kuisma (2019), the first steps towards non-financial reporting were taken in the 1990s especially by industrial companies, when the focus was heavily on environmental issues. Niskala and Pretes (1995) discover that in 1992 almost nearly half of the 75 Finnish companies in the most environmentally sensitive industries included environmental issues in their annual reports, mostly in qualitative form. Kuisma (2019) claims that environmental reporting emerged in Finland mostly because of authorities' and civil organizations' push – the investors were at that time not interested in non-financial issues. The first Finnish responsibility reporting contest was held in 1996 by Deloitte's initiative, taking a stand in the quality of the reports. Similarly, than described before, after the millennium the Triple Bottom Line started to receive attention and social aspects came into picture even as much as dominating the reports, Kuisma (2019) explains. The shift could also be noted in the names of the reports – while they were mostly *Environmental Reports* in the 1990's, at this time *Corporate Social Responsibility Reports* claimed stake (Kuisma 2019).

Kuisma (2019) supposes that around the mid 2000's, a balance was achieved through an ongoing discussion on climate change, which brought attention back to environmental impacts of companies. Around the same time, investors became more aware of non-financial issues and the *ESG*-thinking (Environmental, Social, Governance) was initiated – the target being the monetization of non-financial issues. Hence, the first Finnish responsible investment funds were created.

During the four decades starting in 1970s, corporate responsibility reporting emerged first in Europe and North America, after which it spread to other continents and finally at the end of 2000s also to developing markets (Fifka 2013). The names of the reports have changed as the reporting focus has shifted, but today *Sustainability Report* has taken its spot beside *Corporate Social Responsibility Report*, and they are still usually published separately from the financial review (Fifka 2013; Kuisma 2019). In 2002 however, the first companies in Europe published stand-alone annual reports that included both financial and non-financial information, and those can be seen as the first integrated reports (Bobitan and Stefea 2015; Jensen and Berg 2012). Next, this integrated approach will be discovered on a more profound level.

3.1.2. Non-financial information starts to emerge in financial reports

Solomon and Maroun (2012) state that the pioneer government in sustainability reporting and IR has been South Africa, since the King Reports have encouraged companies to report on non-financial issues for a long time. The term “Integrated Reporting” has been on the surface since the King Report on Governance (King III Report) was published in 2009. Consequently, all Johannesburg Stock Exchange companies are obligated to publish an integrated report or explain why they do not (Bernardi and Stark 2018). The King III Report recommends IR, since investors want to know the total economic values of companies, which includes besides the financial information, also non-financial details such as brand, strategy and sustainability aspects (IoDSA 2009, 13). In addition, the report serves also other stakeholders, like citizens, who want to know about the impacts of the company to their environment and community (IoDSA 2009, 13).

IR has been on the surface also in other parts of the world. In the United States of America (USA), it is the Sustainability Accounting Standards Board that leads the local IR movement (Bassi, Creelman and Lambert 2015). According to the research of Stolowy and Paugam (2018), when comparing companies of USA S&P 500 and Eurostoxx 600 indices between 2002 and 2015, the European organizations are more likely to publish corporate social responsibility (CSR) or sustainability information compared with their American counterparts.

This is probably achieved through multiple European initiatives that have encouraged companies to report on non-financial issues. The President of France ordered French companies with over 300 employees to report on the social issues already in the 1970s (Wensen, Broer, Klein and Knopf 2011). In 2001, the mandated non-financial reporting was widened to almost 60 sustainability indicators (Baboukardos 2018) and in 2013, the Grenelle Acts (I and II) came into effect with obligating all French companies with over 500 employees to report a wide array of topics on commitment to social and environmental sustainability on a comply or explain basis, requiring the information also to be verified by a third party (Doucin 2013).

In the United Kingdom (UK), the UK Company Act 2006 requires the companies to report on environmental and social matters, including the employees and the community (Ong 2018) and Accounting for Sustainability (A4S) encouraged some UK companies voluntarily to conduct integrated reports based on the Connected Reporting Framework that A4S released in 2007 (Solomon and Maroun 2012). In 2013, the government's Strategic Report required public listed companies to release non-financial information regarding various aspects, among which the environment, employees, social and community (Ahmed Haji and Anifowose 2017). Also the European Union (EU) released its Non-Financial Reporting Directive 2014/95/EU which since 2017 has required large companies in the EU to report extensively on their "*development, performance, position and impact of their activity*" (Baboukardos 2018, 33) relating to environmental and social issues, human rights, anti-corruption and diversity (EUR-Lex 2015).

3.1.3. *The International Integrated Reporting Council and Framework*

The King III Report in South Africa influenced the formation of the International Integrated Reporting Council (IIRC) (Solomon and Maroun 2012), which was initiated by the earlier mentioned A4S and GRI in 2010 (Wensen et al. 2011). The mission of the IIRC is *“to establish Integrated Reporting and thinking within mainstream business practice as the norm in the public and private sectors”* (IIRC 2018d). IIRC consists of *“- regulators, investors, companies, standard setters, the accounting profession and NGOs”* from around the globe (IIRC 2018d).

The IIRC is organized in a way, where the board of directors, the CEO and the IIRC team form the operating company, and external coalition parties build the IIRC council, which points the board of directors through the governance and nominations committee. Furthermore, advisory bodies and task forces support the operating company in creating activities. (IIRC 2018c) The IIRC is a non-profit organisation, of which nearly all funding comes from different kind of contributions (IIRC 2019). IIRC recognizes the vital support from its international partners, who are: Association of Chartered Certified Accountants (ACCA), Chartered Institute of Management Accountants (CIMA), International Federation of Accountants (IFAC), CDP, GRI, IFRS Foundation, Sustainability Accounting Standards Board and World Business Council for Sustainable Development (WBCSD) (IIRC 2018b).

A year after its formation, the IIRC started a Pilot Programme, where voluntary companies could test the IRF. The same year, a discussion paper was released so that for example the academia could leave their comments on the framework for further development. (IIRC 2012) Consequently, the IRF was published in 2013 (IIRC 2013). Soyka (2013) states that the framework answers four problems that academia has discussed: short-terminism, financial compensation of short-term goals, the lack of accountability and transparency regarding governance structures, and finally the lack of disclosures on environmental and social impacts. Soyka continues by stating that the framework enhances integrated thinking, including stewardship and recognition of the interdependencies among the capitals.

Today in most countries, IR is still not mandated. Companies more likely publish voluntarily sustainability issues, if they materially affect the company's long-term performance, if various stakeholders demand it, or if they need to respond to issues of sustainable development (Shoaf, Jermakowicz and Epstein 2018). However, as earlier mentioned, the IIRC (2018) states that the IRF has been regulated in 16 countries in addition to voluntary adoption, endorsed by many respected bodies and used by 1600 organizations in more than 60 countries. IR has also claimed stake in the eyes of stakeholders. According to a survey for institutional investors by Ernst & Young (2018), 88% of respondents regard IR as beneficial. Integrated and annual reports were the most useful sources of non-financial information, whereas CSR or sustainability reports were significantly less valued.

Stolowy and Paugam (2018) study South African stock companies nominated in EY's Excellence in Integrated Reporting Awards in 2016 and analysed their reports of 2006, 2011 and 2016. They discovered that in 2006 the companies released mainly one report, called "Annual Report", whereas in 2016 most of them published three reports: "Annual Report", "Integrated Report" and "Sustainability Report". At the same time, the share of reported financial information decreased while information on human resources, performance, strategy and value creation increased in the examination period.

Due to the voluntary nature and flexibility of the IRF, the companies use a diverse set of titles for non-financial reports. Stolowy and Paugam (2018) mention titles, such as: annual report, annual consolidated and separate financial statements, financial statements, annual financial statements, integrated report, integrated annual report, stakeholder report, corporate responsibility report, corporate governance report, sustainability report, social, ethics, and sustainability report, social and environmental report, social and ethics committee report, risk and capital management report. They analyse the titles published in 2014 of DJSI World Index companies and state that 85,9% of the companies release an annual and/or financial report, 38,8% release a sustainability report, and 32,6% release a CSR report – but no company releases both a sustainability and CSR report. In addition, 6,5% of the companies have published information with the title "Integrated Report".

To conclude, it seems that corporate reporting has gone a long way from disclosing merely financial accounts. Non-financial, sustainability and social responsibility reporting have become increasingly interesting for governing and academic communities and initiated several frameworks, standards and changes to legislation. The current trend seems to be noticing the links between financial and non-financial issues and wanting to report them in a balanced and coherent way. Below the development of IR is illustrated.

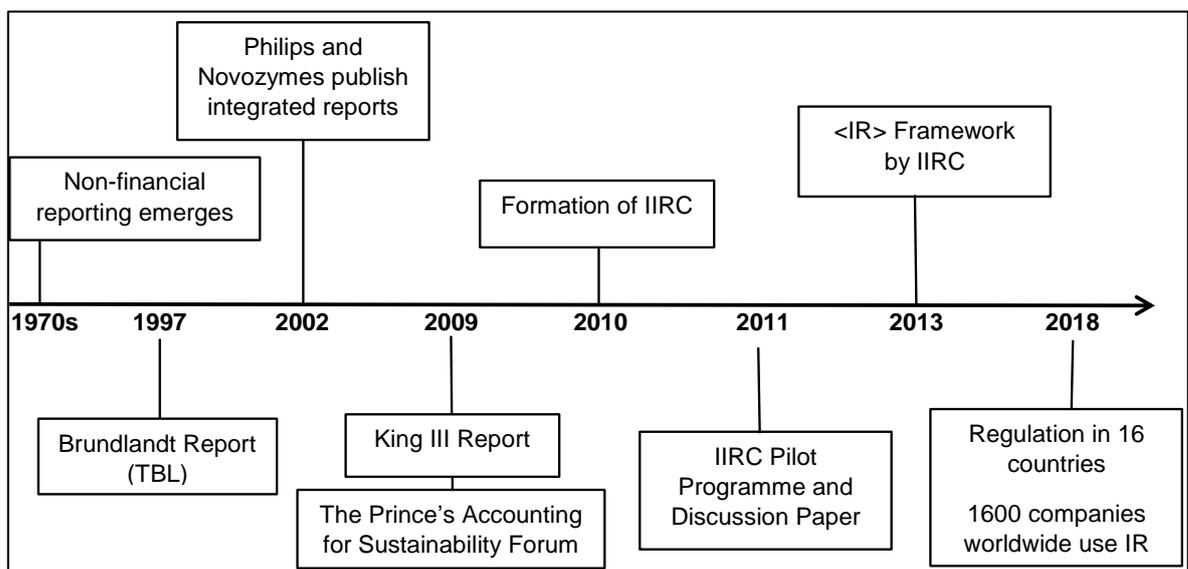


Figure 4: Summary of the historical review

3.2. *Integrated Reporting literature: main topics*

Since the IRF was released only six years ago, the literature is relatively new, and the amount of it is still growing. When analysing literature that studies IR, it is discovered that academics are firstly interested in the influencing factors that encourage companies to take on the integrated approach on reporting. The second focus is, once having implemented IR, what implications does it have for the company. In addition, the academia presents critics towards the framework, assesses the stakeholders' views and stresses the challenges of non-financial assurance by third parties.

3.2.1. Explanatory factors of committing to Integrated Reporting

When it comes to influencing factors, according to Jensen and Berg (2012), companies that benefit from IR are more likely to originate from countries with higher investor protection, countries where private expenditures for tertiary education are higher, countries with a higher trade union density and countries with a higher national corporate responsibility. García-Sánchez, Rodríguez-Ariza and Frias-Aceituno (2013) study the effects of cultural context, and claim that based on Hofstede's cultural dimensions, collectivistic and feministic cultures have a positive correlation with release of integrated report, as well as the company size and profitability. They also find that some sectors tend to release more reports than others.

Frias-Aceituno, Rodríguez-Ariza and García-Sánchez (2013) study also the effects of the Board to whether companies decide on IR. They find out that the size of the board positively correlates with integration of reports, as well as number of women in the board. In addition, companies using IR are more likely large and enjoy growth opportunities. In another study, Frias-Aceituno, Rodríguez-Ariza and García-Sánchez (2014) conclude that monopolies are less likely to publish integrated reports, while the size and profitability have a positive effect on the release. Contrary to their earlier findings, growth opportunities and business sector are not significant.

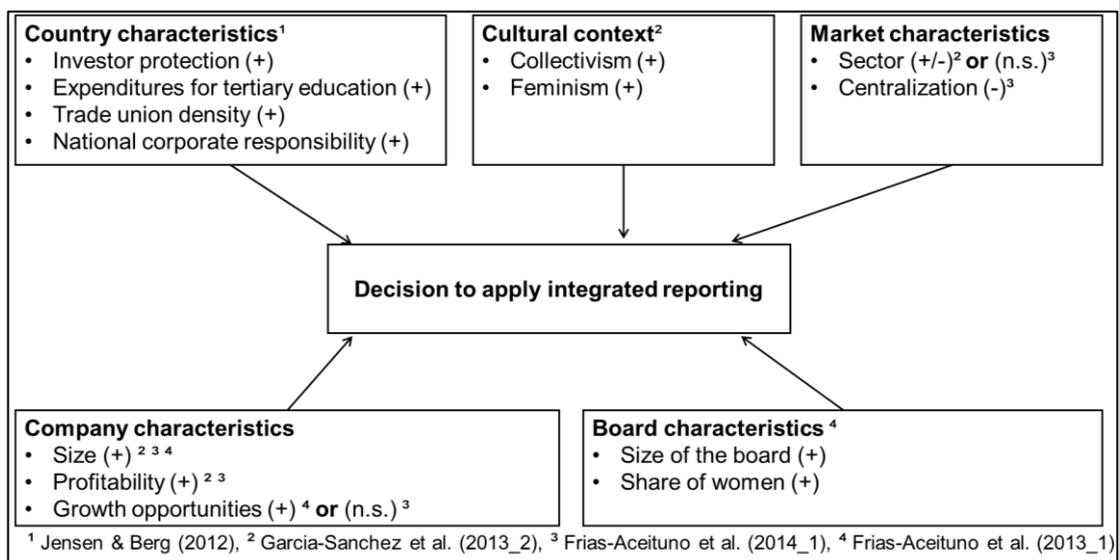


Figure 5: Explanatory factors of IR

3.2.2. Implications of Integrated Reporting

The second stream of research are the implications of IR. Solomon and Maroun (2012) analyse the impacts of IR in South Africa by researching reports released in 2009-2011 from ten stock listed companies. They find that IR has helped new reporting items and whole sections to appear in the reports, as well as placed increased emphasis on risk management and materiality. On the other hand, Solomon and Maroun point out that companies do not clarify, how the separation between non-material and material things is made and how they perceive materiality in that specific context. Another feature of integrated reports is a tendency to quantify sustainability in terms of self-developed key performance indicators (KPIs), even though this trend concentrates more on the social aspects, and could benefit more about the existing ecological indicators, such as greenhouse gas accounting (Solomon and Maroun 2012).

Solomon and Maroun (2012) examine internal implications that affect the company's report, but other academics study also external impacts of shifting to IR. Barth, Cahan, Chen and Venter (2017) find that IR quality has a positive correlation with the company's liquidity and investment efficiency, which supports the IIRC's intentions of IR improving both organisational decision making and external communications. Bernardi and Stark (2018) on the other hand, report on changes in South Africa and state that the higher the level of ESG disclosures is, the better perceptions of Integrated Reporting effectiveness and forecast accuracy can be formed by external stakeholders.

3.2.3. The role of stakeholders in Integrated Reporting

Another important aspect is the role of stakeholders and their gains from IR. Melloni (2015) states that the IRF is the only initiative including Intellectual, Human and Social and Relationship Capital that takes the stakeholders' views into account. Stubbs and Higgins (2018) study, whether stakeholders support voluntary or regulatory IR and receive mixed feedback. On one hand, voluntary reporting might be more unreliable, since the reports are not assured, and it is tempting for

companies to report only the positive things. On the other hand, regulatory reporting sets the minimum requirements, and companies may not be motivated in exceeding them, and there is still lack of enforcement mechanisms and credible assurance, even though the reports may be more comparable due to a defined framework. Overall, the comments of the interviewees give more support for voluntary reporting, since IR is believed to become a new norm. Atkins and Maroun (2015) interview institutional investors' opinions on IR in South Africa, and state that integrated reports are being well received due to their holistic nature and improved quality, even though the reports have a negative tendency to be exhaustive, repetitive and *"a check box approach"* of disclosures.

Gianfelici, Casadei and Cembali (2018) divide stakeholders in ten groups: customers, consumers and consumer associations, investors and financial analysts, employees and trade unions, authorities, community, suppliers, media, natural environment, and other stakeholders. Based on benchmarking integrated reports they claim that customers and investors are the most important stakeholder groups for all organizations. In addition, the company's industry defines, how important consumers are for the company, and it has an affect also on how important the natural environment is. The company's nationality, however, does not have an impact on stakeholder salience.

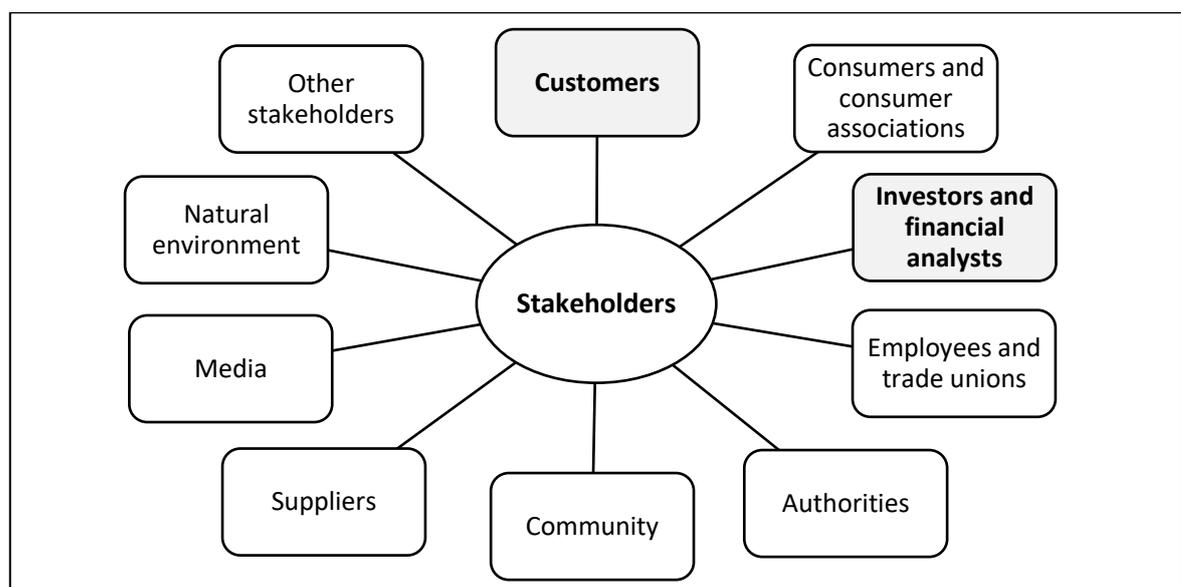


Figure 6: Stakeholder groups according to Gianfelici et al. (2018), the most important for integrated reports emphasized

Cohen, Holder-Web and Zamora (2015) examine the interests of professional investors to a further extent. They claim that professional investors prefer that the non-financial information is reported concisely, comprehensively, it is comparable with other companies and it is credible. They prefer it to be streamlined, but wide in scope and content, consistent from one company to the next, and assured by neutral third parties. For professional investors, financial information is the most important, followed by governmental and then social information. The investors that have more demand for non-financial economic and governance information are younger, more likely to be female and more highly educated. Same applies for non-financial social information, except in this case the age does not matter. (Cohen, Holder-Web and Zamora 2015)

3.2.4. Critique towards the framework and challenges of its appliance and assurance

The IRF and its use have faced also criticism. Solomon and Maroun (2012) claim that integrated reports tend to contain lots of repetition and excessive details on the positive aspects. The disclosures are generic and do not improve the substance of traditional reports (Ahmed Haji and Hossain 2016). Flower (2015) on the other hand aims strong critique towards the IIRC, stating that the council has abandoned its first purpose – to promote sustainability accounting. Flower criticizes also that the concept of value is framed as the value produced for the investors, and not for the society. In addition, he claims that the IIRC is forceless and there are no obligations to report negative issues – such as harm inflicted outside the firm.

Thomson (2015) supports the opinions of Flower in a commentary and adds that IR has similarities with multiple other failed initiatives that have tried to bring sustainability to accounting. Thomson agrees with the lack of force of the IIRC and states that IR cannot realistically be expected to be implemented on a voluntary basis or because “*powerful citizens*” are demanding for it, but instead needs to be mandated. According to Thomson (2015), IR should include more sustainability programming and meet the current challenges of the world such as the climate change. It should “*integrate the voices and values of different communities*” and be

truthful, reliable and understandable (Thomson 2015, 21). When the IRF allows so many liberties for companies, they will use the guidelines only as they see fit (Beck, Dumay and Frost 2017).

The academia has also identified barriers for the implementation of the IRF in practice. The diversity of the organizations' reporting practices can bring challenges for example, if the company identifies more groups of stakeholders than the IIRC framework does, since this brings the question of whether one report is enough to serve all of them. Beck et al. (2017) raise the question of how the report preparers can be convinced about that the adoption of IR will positively affect the capital flows. Furthermore, Dumay (2016) diminishes overall the purpose for IR and doubts the IIRC's arguments of companies' and stakeholders', especially investors', calls and needs for IR.

Another area of concern which applies also to other forms of non-financial reporting is assurance. How can an auditor validate information that is subjective, mostly qualitative and forward-looking, without the auditor independence being compromised? Who is responsible for the correctness of information and to which extent, because the auditor cannot state for example, whether the company strategy is appropriate, or whether all risks are considered? These questions arise in expert interviews by Maroun (2017).

3.3. Intellectual, Human and Social and Relationship Capital – definition, measuring and reporting

In the third part of the chapter, literature is reviewed on Intellectual, Human and Social and Relationship Capitals, since they have traditionally been mostly researched together. Hence, Intellectual Capital in the following chapters 3.3.1-3.3.3. refers to all three aspects. The review includes research on various report types, such as CSR and sustainability reports – because the concept of capitals has existed already before the IIRC's multi-capital approach. The papers that benefit from content analysis are specifically noted.

Before viewing research on Intellectual Capital, it needs to be defined as well as its relationship with Human and Social and Relationship Capitals. For example, Gowthorpe (2009, 823) defines it as: *“the intangible benefits accessible by a firm from its workforce, and more broadly, from its established relationships with groups such as customers, suppliers and competitors”*. There is no single accepted definition on Intellectual Capital, but a widely accepted approach is to divide it into components. Sveiby (1997) names the components as external structure (customers), internal structure (organization) and competence (people) in his intangible assets monitor (Sveiby 1997; IIRC 2013; Guthrie and Petty 2000; Wang, Sharma and Davey 2016). Edvinsson and Malone’s (1997) Skandia Model presents financial, customer, process, renewal and development, and human focus (Gogan 2014; Sydler, Haeflinger and Pruksa 2014). In time, one widely applied definition has been established, dividing Intellectual Capital in *human capital*, *organizational capital* and *relational capital* (see e.g. Petty and Guthrie 2000; Garanina 2011; Guthrie, Ricceri and Dumay 2012; Beattie and Smith 2013)

The IIRC too, uses this divide in its framework, but separates structural, human and relational aspects into their own capitals despite acknowledging their interrelations, to enhance the importance of each of those aspects (IIRC 2013). Thus, in this thesis those capitals are handled independently as Intellectual Capital, Human Capital and Social and Relationship Capital in line with the IRF (IIRC 2013). However, the IIRC does not require companies to separate these capitals in their integrated reports but accepts that for some companies it is more accurate to combine them, as in the traditional concept of Intellectual Capital. According to IIRC (2013), **Intellectual Capital** includes all intellectual property that the company owns and protects, like patents, systems and protocols, but also intangibles that is associated with the company but cannot be protected by owning them. It combines material, financial and human resources, and supports communicating the future direction for the investors. IIRC (2013, 12) defines **Human Capital** as *“people’s competencies, capabilities, and experience, and their motivations to innovate”*. It includes the employees’ support, understanding and loyalty for the organization, its processes and strategy. **Social and Relationship Capital** on the other hand, consists of *“The institutions and relationships established within and between each community,*

group of stakeholders and other networks (and an ability to share information) to enhance individual and collective well-being.” (IIRC 2013, 12) As stakeholders, IIRC mentions suppliers, communities, governments, competitors and customers. Below, Table 2 concludes what IIRC means by Intellectual, Human and Social and Relationship Capitals:

Table 2: IIRC’s principles for dividing Intellectual, Human and Social and Relationship Capitals

| Established components of Intellectual Capital | | |
|--|---|---|
| Intellectual Capital (Structural) | Human Capital | Social and Relationship Capital |
| Organizational, knowledge-based intangibles <ul style="list-style-type: none"> - intellectual property <ul style="list-style-type: none"> - patents - copyrights - software rights - licenses - organizational capital <ul style="list-style-type: none"> - tacit knowledge - systems - procedures - protocols | People’s <ul style="list-style-type: none"> - competencies - capabilities - experience - motivations - loyalties - support to and understanding of the organization | Institutions and relationships with communities, stakeholders and networks <ul style="list-style-type: none"> - shared norms, values and behaviours - key stakeholder relations - trust - brand and reputation - social license to operate |

3.3.1. Intellectual Capital Accounting Research

Intellectual Capital has, according to Bontis (1999), been researched in multiple fields, including information technology, sociology, psychology, human resource management and accounting. For this thesis, the field of intellectual capital accounting presents the most valid results regarding IR. Guthrie et al. (2012, 68) define intellectual capital accounting as: *“...an accounting, reporting and management technology of relevance to organisations to understand and manage knowledge resources.”* They stress that it needs to be separated from intangible accounting which concentrates merely on those intangible elements that appear in the traditional financial statements – such as brands, patents and copyrights.

Intellectual Capital is a very important capital for the companies, since numerous papers prove that a gap in market value and net book value can be explained with Intellectual Capital (Gowthorpe 2009). In addition, it helps in determining the organization's business model, value chain positioning and the organization's competitive advantage, and it is important especially for companies involved in R&D, innovation and future prospects (IIRC 2013). Sydler, Haeflinger and Pruksa (2014) prove that investments in Intellectual Capital increase the amount of it, which in turn associates with a higher return on assets over time.

Intellectual Capital has in some form been acknowledged and measured since the 1980s, increasing its popularity in the late 1990s (Petty and Guthrie 2000), when also intellectual capital accounting started to emerge (Gowthorpe 2009). In a meta-analysis on intellectual capital accounting research in years 2000-2009, Guthrie et al. (2012) concluded that the research had fulfilled its first stage of arguing, *why* intellectual capital accounting research is important, the second stage of *how* it should be implemented and was proceeding into the third stage of the critical analysis of it in practice. In addition, the writers note that a clear majority of the literature was published in specialist journals on Intellectual Capital and that the studies concentrated on examining developed countries, public listed companies and viewing intellectual capital accounting as an issue for management control and strategy. Dumay and Garanina (2013) claim that the fourth stage of intellectual capital accounting research is to expand the view from the role of Intellectual Capital inside the company to how it can be used to impact external stakeholders and respond to their needs (Secundo, Massaro, Dumay and Bagnoli 2018).

3.3.2. Measuring Intellectual Capital

Gogan (2014) states that instead of one accepted measurement model for Intellectual Capital, there is a large variety of them. Sveiby (2010) proposes that the measuring approaches for intangibles can be categorized in four, based on the monetary or non-monetary nature of the model, and application on either organizational or components level (Figure 7). Direct Intellectual Capital methods base on dividing the capital into components for evaluation. Market capitalization

methods “calculate the difference between a company’s market capitalization and its stockholders’ equity as the value of its Intellectual Capital or intangible assets” (Sveiby 2010, 3) Return on assets methods applies calculation with earnings and tangible assets. One example is the Value Added Intellectual Capital Coefficient (VAIC-model) by Pulic (2004) which has been widely used in academia and practice, compared with other published models, and which Nadeem, Dumay and Massaro (2018) extend as an adjusted model. The fourth method according to Sveiby (2010) is scorecards, such as The Balanced Scorecard Kaplan and Norton (1992), Sveiby’s Intangible Assets Monitor (1997) and The Skandia Navigator by Edvinsson and Malone (1997), which Gogan (2014) claims to be the three most popular models. A great number of models apply the structure of human, structural and relational capital as the components of Intellectual Capital (e.g. Gogan 2014; Sydler, Haeflinger and Pruksa 2014).

| | Non-monetary | Monetary |
|----------------------|-------------------------|--|
| Organizational level | | Market Capitalisation Method ROA Method |
| Component level | Scorecard Method | Direct Intellectual Capital |

Figure 7: Four methods of measuring IC, modified from Sveiby (2010)

3.3.3. Reporting practices in different report types

Despite its importance and popularity in academic literature, Intellectual Capital is for the most parts ignored in the traditional corporate reports (IIRC 2013; Beattie and Smith 2013). The financial statements only accept intangible assets that can be reliably measured, separable and “arise from a contractual or legal right” (Beattie

and Smith 2013). Thus, in the second half of 1990s, many European companies started to report on their Intellectual Capital in the discussion part of the annual report or in a separate report (IIRC 2013). Dumay (2016) still finds that the reporting has in time faded away from corporate reports, past the positive increase in late 1990s, because of the dominating CSR and sustainability reporting with UN Global Compact and GRI.

Beattie and Smith (2013) claim that the early Intellectual Capital frameworks have not been widely implied, because they mostly concentrate on Intellectual Capital solely, instead of combining it with the management of the company in whole. Therefore, the authors support the IRF which combines all the levels of a company. Schaper, Nielsen and Roslender (2017) find evidence in company interviews that many find it better to integrate intellectual information with the CSR or annual report, because either Intellectual Capital information is not relevant enough to form an own report, or because it is not separated in the business either. Melloni (2015) claims that numerous earlier attempts to improve Intellectual Capital reporting lack integration with financial information, and she praises the IIRC's efforts in making corporate reporting all about the holistic value creation process, where Intellectual Capital plays a central role in telling the company's story and future outlooks. Dumay (2016) is however sceptical towards the success of the IRF in saving intellectual reporting, since many organizations may be reluctant to release information on Intellectual Capital in fear of competitors, if it is key to their success (Dumay 2016; Schaper et al. 2017).

Bassi et al. (2015) concentrate on Human Capital in their study of 62 integrated reports from various industries and countries and discover that 80% of those reports include a Human Capital section, even though the content and length vary from in depth data to vague narrative. Melloni's results (2015) on Intellectual, Human and Social and Relationship Capital disclosures in integrated reports show that there is room for improvement. Despite Intellectual Capital being at the core of the IRF, over half of the disclosures on Intellectual Capital in integrated reports concentrate on relational capital, leaving the other two aspects with less attention. Furthermore, the disclosures on the three aspects are mainly narrative, non-forward looking and

informed in a positive tone which leaves suspicions on the reliability of the capital's overall impacts.

Ahmed Haji and Anifowose (2017) conduct an analysis of integrated reports of eighty South African stock companies in 2011-2013 and state that the "overall amount of corporate disclosures has increased over time". Of Social and Relationship, Human and Intellectual Capital, the first dominates in the disclosures during the examination period. One possible explanation for the dominance of relational capital disclosures is that companies use corporate reports to enhance organisational legitimacy and reputation (Williams and Adams 2013; Setia et al. 2015). In addition, Ahmed Haji and Anifowose (2017) see that the number of pages has decreased in the examination period from the average of 200 pages to 176. The number of companies that report the interdependencies between the capitals has increased by 20% and reports that include materiality determination process by 25%. Still, both issues are handled on a general and not substantial basis, thus the reporting of intertwined multiple capitals has, in fact, not been improved by adopting IR.

Table 3 summarizes papers that implement content analysis on Intellectual Capital reporting. It indicates that the sample sizes vary greatly and that two studies analyse the change of reports in a multi-year window. The number of items varies as well from 12 through 44, where "*traditional IC*" means that the paper applies the divide into three components of human, organizational and relational capital. Three of the studies check only if the item has been included in the report, while the others apply a multi-point scheme in terms of whether the item is disclosed in a qualitative or quantitative way.

Table 3: Content analyses on Intellectual Capital reporting

| Author / Title | Sample | Items | Scheme | Conclusion |
|-------------------------------|--|--------------------------|--------|--|
| Gianfelici et al. (2016) | 64 integrated reports | | 0-1 | Industry may have an impact on stakeholder salience > content of IR |
| Ahmed Haji & Anifowose (2017) | 246 South African integrated reports 2011-2013 | 40 items, IC, HC, SRC | 0-3 | HC and IC have increased, SRC decreased, interdependencies not analysed enough |
| Guthrie Petty (2000) | 20 Australian annual reports | 24 items, traditional IC | 0-1 | No consistency in reporting Intellectual Capital |
| Wang et al. (2016) | 20 Chinese or Indian annual reports | 21 items, traditional IC | 0-4 | External (SRC) the most reported part of IC |
| April et al. (2003) | 20 South African annual reports | 24 items, traditional IC | 0-1 | Mining companies disclose less Intellectual Capital and focus more on external dimension |
| Ahmed Haji & Ghazali (2013) | 153 Malaysian annual reports 2008-2010 | 44 items, traditional IC | 0-3 | Corporate governance attributes affect IC reporting |
| Liao et al. (2013) | 50 Chinese annual reports in Chinese and English | 12 items, traditional IC | 0-4 | Chinese includes more internal capital, whereas English external |
| Yi & Davey (2010) | 49 Chinese annual reports | 16 items, traditional IC | 0-5 | IC disclosure in China is still in its infancy, but showing signs of awareness |

3.4. *Natural Capital in environmental research*

In the fourth part of the literature review, the focus is on Natural Capital, which is the last of the capitals included in the thesis. According to IIRC (2013) it consists of: *“All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization, including air, water, land, minerals and forests, as well as biodiversity and ecosystem health.”* Natural Capital is often categorized as renewable and non-renewable items, but since some things may fall into both categories depending on the perspective, IIRC recommends rather to divide them as biotic (living) and abiotic (non-living) capitals (IIRC 2013).

Natural Capital has been researched before IRF in terms of environmental and sustainability reporting. Buhr and Freeman (2001) compare companies' practices on environmental disclosures during 1988 and 1994 in USA and Canada. They notice that while USA companies disclose more environmental information in the first examination year, there is a significantly bigger increase in disclosures of Canadian companies for the latter time period. They claim that the collectivistic nature of Canadian culture encourages more voluntary disclosure, whereas USA companies fulfil mandatory disclosure requirements.

de Villiers and Van Staden (2006) analyse the South African context with special focus on mining industry, and come into conclusion that the disclosure amounts had, in fact, reduced during the research period. These results differ from studies conducted in developed countries, and the authors suggest that especially companies in environmentally sensitive industries are reluctant to disclose specific environmental information due to potentially damaging their image. Thus, disclosures are decreased to gain legitimacy.

Table 4: Content analyses on Natural Capital reporting

| Author / Title | Sample | Items | Scheme | Conclusion |
|---------------------------------|--|--------------|---------------|---|
| Buhr & Freedman (2001) | 10 pairs of US and Canadian companies | 18 items, NC | 0-1 | Canadian provide more voluntary environmental reporting and US more regulated |
| de Villiers & Van Staden (2006) | 140 South African annual reports 1994-2002 | 18 items, NC | Checklist | Environmental disclosures have decreased to gain legitimacy |

4. RESEARCH METHODOLOGY

The main goal of this empirical research is to get a coherent view of in which ways companies can disclose Intellectual, Human, Social and Relationship and Natural Capitals in their integrated reports. Hence, trends and best practices are benchmarked from companies that are recognized for good integrated reports. The method in which the publications are reviewed is content analysis, because it is one of the most applied research methodologies (Krippendorff 2004) and widely used also in research on annual reports (Ahmed Haji and Ghazali 2012; Ahmed Haji and Ghazali 2013; Buhr and Freeman 2001), social and environmental reports (Fifka 2012) and Intellectual Capital reporting (Guthrie, Petty, Yongvanich, Ricceri 2004). It is also perceived as empirically valid in studies on corporate social, environmental and ethical reporting in accounting (Guthrie and Petty 2000, Yi and Davey 2010)

4.1. *Content analysis*

“Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use.” (Krippendorff 2004, 18). Krippendorff highlights that the analysis does not necessarily limit to text but can include also images and sound (2004, 345) – and some even study video content (2013, 67). Content analysis includes categorizing quantitative and qualitative data into predefined categories by using a coding system (Guthrie and Petty 2000; Yi and Davey 2010; Beck et al. 2005).

The literature divides content analysis in mechanistic and interpretative approaches, of which the mechanistic approach is significantly more applied in environmental research (Beck et al. 2005). In mechanistic approaches, the focus is on volumes and frequencies of for example word or sentence counts, page proportions, disclosure or disclosure ratings (Beck et al. 2005). A bigger number of references to a specific item is regarded as importance (Krippendorff 2004). According to Beck et al. (2005), the interpretative approach on the other hand focuses on the communication style and communicated content by using text and narrative

interpretation techniques, which place more importance on the quality of the reporting rather than the volume of disclosures. In this thesis, the research question is answered with a qualitative approach that benefits from a predefined disclosure index that will be explained in chapter 5.3.

4.2. Unitizing the data

Next, the recommendations of Krippendorff (2004) are followed in determining the components of the analysis. The process is started by unitizing the data – selecting what to include and how to record it.

4.2.1. Sample selection and description

A sampling unit is a unit that has been chosen to be analysed – in most cases it is a take from a bigger population that the researcher tries to explain (Krippendorff 2004, 98-99). In this case the population is all companies that apply the IRF, which the IIRC claims to have been 1600 in 2017 (IIRC 2018). IR can be carried out by many means, including releasing content continuously in, for example, the company's website and social media. However, for this study, it is chosen only to review published annual reports that have been conducted according to the IR principles. The IIRC (2011) highlights that "*An integrated report should be an organization's primary reporting vehicle.*" Ahmed Haji and Anifowose (2017) state that the annual integrated reports provide more profound and detailed information on financial and non-financial issues than other means of reporting. Annual reports portray, what is considered important by the managers of the company (Guthrie and Petty 2000; April et al. 2003). In addition, conducting all information from all companies and all channels of communication, would be challenging and prone to leave something out. However, excluding all other corporate communication may provide a limited picture, since according to Dumay (2016) the most price sensitive information is released by real-time means.

Fifka (2012) claims that in the research on corporate reports, the samples tend to be rather large, when only one quarter of the limit the sample to specific industries or geographic areas. In this thesis, the most important criteria for selecting integrated reports is that they should be of high quality. Therefore, a decision is made to benefit the IR Example Database by the IIRC which presents companies with leading practices. Secondly, the industries are limited to industrials, technology, real estate and consumer services. With these limitations, the database contains reports of 23 companies, the years varying from 2016 to 2018. However, in this analysis the most recent reports are downloaded from the company websites, since the quality of the report should improve in time because of increased experience (Gianfelici et al. 2018). Two of the companies are excluded due to the unavailability of the latest report. Hence, the final sample consists of 21 integrated reports published in 2018 – while the publishing date varies depending on the fiscal year.

Table 5: Sample in detail

| Company | Sector | Country | Report | FY |
|------------------------------|-------------------|----------------|---------------------------------------|-----------|
| Adapt IT | Technology | South Africa | Integrated Annual Report | 2017/18 |
| BAE Systems | Industrials | UK | Annual Report | 2017 |
| British American Tobacco | Consumer Services | UK | Annual Report and Form 20-F | 2017 |
| Cemex | Industrials | Mexico | Integrated Report | 2017 |
| Crest Nicholson | Real Estate | UK | Annual Integrated Report | 2017 |
| Dellas | Industrials | Italy | Integrated Annual Report | 2017 |
| Dentsu | Consumer Services | Japan | Integrated Report | 2017 |
| DIMO | Industrials | Sri Lanka | Annual Report | 2017/18 |
| Duchy of Cornwall | Real Estate | UK | Integrated Annual Report | 2017/18 |
| EOH International | Technology | South Africa | Annual Integrated Report | 2017/18 |
| Go-Ahead | Consumer Services | UK | Annual Report and Accounts | 2017/18 |
| Halfords | Consumer Services | UK | Annual Report and Accounts | 2017/18 |
| Hulamin | Industrials | South Africa | Integrated Annual Report | 2017 |
| Intercontinental Hotel Group | Consumer Services | UK | Annual Report and Form 20-F | 2017 |
| Lendlease | Real Estate | Australia | Annual Report | 2017/18 |
| Marui Group | Consumer Services | Japan | Co-Creation Management Report | 2017/18 |
| Redefine Properties | Real Estate | South Africa | Integrated Report | 2017/18 |
| Sage | Technology | UK | Annual Report & Accounts | 2017/18 |
| Tata Steel | Industrials | India | Integrated Report & Annual Accounts | 2017/18 |
| The Crown Estate | Real Estate | UK | Integrated Annual Report and Accounts | 2017/18 |
| Transnet | Consumer Services | South Africa | Integrated Report | 2017/18 |

4.2.2. Coding units and context units

“Recording/coding units are units that are distinguished for separate description, transcription, recording, or coding.” (Krippendorff 2004, 99, emphasis in original). Guthrie et al. (2004) note that in the research of social and environmental responsibility, sentence count is the most typical coding basis, although for example Buhr and Freeman (2001) state that one sentence may include more than one disclosure, hence they code pieces of information instead. The limitations of coding sentences are notified in this thesis, and a *disclosure* is chosen as the coding unit. Sometimes the coding unit needs to be looked at from a wider perspective, to understand its meaning. *“Context units are units of textual matter that set the limits on the information to be considered in the description of recording units.”* (Krippendorff 2004, 101, emphasis in original). When analysing a disclosure, the paragraph is observed as context in this study.

4.3. Coding categories and items

When determining the categories and items for content analysis, this research benefits from the work of Setia et al. (2015), who analyse initial evidence from South Africa after the adaption of the King III and mandatory IR. They are the first, and to this date evidently the only, authors who apply content analysis with a disclosure index to investigate the multiple capital framework in IR.

Setia et al. (2015) apply the IIRC Framework and earlier literature as a basis for their coding items, and this thesis copies their items in Intellectual, Human and Social and Relationship Capitals to our initial list of items as such. However, Setia et al. (2015) decide to include only three items on Natural Capital (Air, Water and Land), whereas this thesis aims to apply the IIRC Framework to more detail and adds four more items (Minerals, Forests, Biodiversity and Eco-system Health). All in all, the initial list comprises 42 items in four categories: Intellectual Capital (9), Human Capital (8), Social and Relationship Capital (17) and Natural Capital (8).

Ahmed Haji and Anifowose (2017) check their initial items against five quality reports to confirm their applicability and to increase validity, and consequently make some changes. In this study, the initial list of items is viewed against the reports, and the following adjustments for Human and Social and Relationship Capitals are made. Intellectual and Natural Capital remain unmodified.

Human Capital:

- Deleting “Human Resource Management”, which would include basic processes and policies of the human resource department, since it was not reported by the companies
- Deleting “Employee Morale”, since it is unclear, whether Setia et al. (2015) mean the employees’ drive for the job (which would be categorized under loyalty and motivation), or work ethics such as following of Code of Conduct
- Adding “Health and Safety”, since it was clear that most of the companies reported this, and it did not belong to any other item
- Changing the name of “Human Resource Development” to “Employee Development” to clarify that it refers to the individuals’ training and skill management

Social and Relationship Capital:

- Combining “Customer Health and Safety” and “Customer Satisfaction” under a new item “Relations with Customers”. During initial coding it was noted that many of the customer relation disclosures did not fit either of the initial items, and the new name is unified with other items.
- Combining “Involvement in Social Action”, “Social Investment”, “Donations and Charitable Work” and “Involvement in Cultural Projects”, since it appeared that the items overlapped. This item is named “Social Projects and Charity” to enhance the short-term-nature of the initiatives and output of donations and charitable work.
- Adding “Relations with Communities”, since it appeared that many companies report on it. When compared to “Social Projects and Charity” it includes long-term relations with communities through social schemes, employment and collaboration with universities and local organizations, and

includes also inputs that the communities provide for the reporting organization.

These decisions lead to a **final** list that includes 36 items in four categories: Intellectual Capital (9), Human Capital (7), Social and Relationship Capital (14) and Natural Capital (7). The final list of items is presented in table 6 below:

Table 6: Final items for the content analysis

| Intellectual Capital (Setia et al. 2015) | Human Capital (Setia et al. 2015) | Social and Relationship Capital (Setia et al. 2015) | Natural Capital (IIRC 2013) |
|---|--|--|---|
| <ol style="list-style-type: none"> 1. Corporate Governance 2. Intellectual Property 3. Information Technology and Information Systems 4. Research and Development 5. Processes, Policies and Procedures 6. Organisational Structure 7. Brands 8. Corporate Image 9. Market Share | <ol style="list-style-type: none"> 1. Employee Competence and Capabilities 2. Employee Experience 3. Employee Loyalty and Motivation 4. Employee Diversity 5. Employee Health and Safety 6. Employee Benefits 7. Employee Development | <ol style="list-style-type: none"> 1. Relations with Customers 2. Relations with Competitors 3. Relations with Suppliers 4. Relations with Lenders 5. Relations with Shareholders 6. Human Rights 7. Indigenous Rights 8. Social Projects and Charity 9. Relations with Communities 10. Relations with Legislators, Regulators and Policy Makers 11. Relations with Business Partners 12. Corporate Culture 13. Claims and Lawsuits 14. Relations with Employees | <ol style="list-style-type: none"> 1. Air 2. Water 3. Land 4. Minerals 5. Forests 6. Eco-System Health 7. Biodiversity |

4.4. Coding scheme

A coding scheme determines, how the list of items that was presented above will be analysed. Next, four attributes that describe the disclosure are presented. Then rules are made in terms of how the disclosure is assessed by these attributes.

4.4.1. Setting a coding scale to assess disclosure quality

As stated earlier, counting frequencies of units is a popular method when analysing corporate reports, but in addition many studies use pre-defined items and evaluate their presence or quality in the text by assessing the item with a certain value of a scale. The simplest scales do not take a stand on the quality of the disclosure and therefore only check, whether an item is disclosed or not – giving the item a value of either 0 or 1 (see e.g. April et al. 2003; de Villiers and van Staden 2006; Setia et al. 2015; Lopes and Coelho 2018; Kilic and Kuzey 2018). Garanina and Dumay (2017) decide to use such a scale, because the discussion about what is regarded as quality disclosure has not produced unified recommendations. However, many studies on non-financial information benefit from a multiple-point-scale (see e.g. Guthrie and Petty 2000; Yi and Davey 2010; Ahmed Haji and Ghazali 2012; Aggarwal and Singh 2018) which places attention also on the fullness of the disclosure (Beck et al. 2005) by assessing, whether the disclosure is qualitative, quantitative or both.

This study aims to achieve a deeper picture on the disclosures and adapts a similar scheme to that of Melloni (2015), who develops a multidimensional framework to analyse the quality of capital disclosures in integrated reports. Like the studies mentioned above, this scheme assesses the quantitative or qualitative nature of the disclosure (“evidence”) but includes also other attributes. Based on earlier literature, Melloni adds “time orientation”, “tone” and “topic” in the coding scheme as measures of quality. Following Liao et al. (2013) and Wang, Sharma and Davey (2016), the “evidence” item is in this study slightly modified by separating monetary and numerical into their own attributes and adding a combination of quantitative and qualitative disclosure as an option. Time orientation includes Melloni’s (2015) two

options: the disclosure is either forward-looking or non-forward-looking. Finally, the “tone” attribute which includes positive, neutral or negative is expanded with an additional option of “positive and negative” after analysing a few reports, because it is relevant to know, whether negative information is reported solely, or supported by positive information.

The attribute “topic” in the scheme of Melloni (2015) analyses, whether the capital is an input or an output for the company. However, during the coding process some challenges were discovered and therefore it was left out from the Excel analysis. Inputs and outputs will be separately analysed in the next chapter, and the challenges will be more profoundly explained.

All in all, the disclosures are coded considering the three dimensions below, because they provide necessary information to answer the research questions of this thesis. It is regarded that these quality measures represent IIRC recommendations – that the company should note the capital inputs and outputs, disclose even non-positive information, be transparent about future outlooks and that both quantitative and narrative discourse should be used in reporting. In addition, this scheme allows this study to be the first that implements a multidimensional framework to study the quality of IR capital disclosures, using a detailed list of items.

Table 7: Coding scheme with three dimensions

| Evidence (type of measure) | Time orientation | Tone |
|---|--|--|
| <ul style="list-style-type: none"> - Numeric - Monetary - Narrative - Combination | <ul style="list-style-type: none"> - Forward-looking - Non-forward-looking | <ul style="list-style-type: none"> - Positive - Neutral - Negative - Positive and negative |

4.4.2. Determining rules for coding

Before beginning the coding process, some general rules are defined regarding which item the disclosure correlates to, and how it is assessed with the coding scheme presented above. Attachment 2 describes, what type of disclosures each item includes. For example, if the disclosure informs about waste, it belongs to the item Air in category Natural Capital, whereas a disclosure on the number of owned patents belongs to the item Intellectual Property in category Intellectual Capital.

Then the rules for the dimensions of the coding scheme are set. When it comes to evidence (numeric, monetary, narrative or combination), the disclosure is numeric, if it consists of numbers in a table, or a sentence does not include any other information than numeric. For example, Dellas (page 45) tells that *“13% of the employees have degrees and 28% have a high school diploma”* and introduces more specific numbers in a table. This information would be coded as numeric. A disclosure is monetary, when the numbers are about a currency: Dentsu (page 100) informs that *“salaries, bonuses and allowances”* were 151 million dollars in 2017. A disclosure is narrative, when it does not include any numbers – as opposed to Dentsu, Redefine Properties (page 22) tells about their benefits: *“We have introduced a long-term staff incentive scheme.”* And *“We have a rewards and recognition programme, incentivizing our employees to be the best at what they do”*. The item is marked as combination, when it includes both numeric or monetary and narrative disclosures.

Regarding time orientation, a disclosure is non-forward-looking, when it informs about historic events or past year’s results. Also, disclosures that talk about current practices are non-forward-looking. A disclosure is forward-looking, when it portrays a clear target or includes phrases like *“we aim to”, “we will”, “we want to become”, “in the future”* or *“in the coming years”*. Crest Nicholson (page 8) claims: *“– – Crest Nicholson will always seek to be at the forefront in safe construction, working in close partnership with the National House Building Council (NHBC)”* (forward-looking), whereas The Crown Estate (page 32) tells that *“Earlier this year, we also hosted a placement from the Industry and Parliament Trust to help build*

relationships between Government and business – –“ (non-forward-looking). The item is marked forward-looking, when it includes at least one forward-looking reference, even if most of the disclosures of that item would be non-forward-looking.

When it comes to tone, a disclosure is considered neutral, when it expresses no tone at all, such as tables or organizational charts. This analysis does not take a stand on whether certain numbers are negative or positive, but codes them as neutral, if their context does not include words like “unfortunately”, “improved”, “sad to report”, “proud of” that would signify their meaning. Thus, a disclosure is negative, when numbers have deprived from last year or something clearly unfortunate is reported. Otherwise, narrative disclosures are positive. An item is coded neutral, if it includes only neutral disclosures, but if in addition there are positive or negative disclosures, those tones prevail. If the item includes both positive and negative disclosures, it is coded as “positive and negative” (pos. & neg.).

Keeping these coding rules in mind, each report is analysed, and disclosures are assessed with corresponding characteristics in an Excel spreadsheet. If the item is empty after finishing with the report, the search tool is used to look for keywords to make sure that nothing is missed while reading the report. Below a coding example is presented to clarify the decisions made in this content analysis.

Disclosure 1 (Redefine Properties, page 108) presents priorities for the next year: “*Improve waste management efforts to reduce waste-to-landfill from buildings*”, and it is coded followingly as item Air in category Natural Capital.

Table 8: Coding example 1

| NATURAL CAPITAL | Evidence | | | | Time orientation | | Tone | | | |
|--------------------|-----------|----------|-----------|-------------|------------------|-------------|----------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Air (Disclosure 1) | | | 1 | | 1 | | 1 | | | |

Disclosure 2 (Redefine Properties, page 109) is the number of total CO2 emission tonnes presented in a table, and thus would be coded as followed:

Table 9: Coding example 2

| NATURAL CAPITAL | Evidence | | | | Time orientation | | Tone | | | |
|--------------------|-----------|----------|-----------|-------------|------------------|-------------|----------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Air (Disclosure 2) | 1 | | | | | 1 | | 1 | | |

The difference of the two disclosures that both refer to Air, leads to a question of, how the item is finally assessed. Based on the coding rules, if the item includes at least one forward-looking reference it determines the item characteristic. If neutral information is accompanied with a negative or positive disclosure, this tone prevails. Therefore, based on these two example disclosures above, the final item would be:

Table 10: Coding example 3

| NATURAL CAPITAL | Evidence | | | | Time orientation | | Tone | | | |
|-----------------|-----------|----------|-----------|-------------|------------------|-------------|----------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Air | | | | 1 | 1 | | 1 | | | |

4.5. Reliability and validity

The subjective nature of content analysis (Guthrie et al. 2004) is an issue that needs to be taken into consideration in this thesis. Many content analyses use two or more coders to increase the reliability of the coding – both code the material and discuss the decisions, when their opinions differ. In this study it is not possible, but reliability is induced with a systematic process, where each report is viewed separately, one capital at a time. Ultimately, the items are checked a second time to spot mistakes and possibly locate missing information. In addition, the coding process and its

results are presented in a transparent way so that the coder's logic and justifications can be followed. However, it is still a subjective evaluation from one coder, and thus the results of another coder with the same material could be somewhat different.

De Villiers and van Staden (2006) decide not to use statistical analyses for their data but argue that the general trends they want to evaluate can be spotted through simple graphical inspection. In this thesis, coded data is analysed by comparing percentages and drawing graphics to see the dominating characteristics of the data. Also, it is supposed that a study of twenty-one companies in a population of 1600 would in any case not be statistically valid.

5. RESEARCH FINDINGS

Next, the findings of the content analysis will be discussed. Regarding each of the capitals, the items are first analysed in terms of how many times they appear in the sample and trends as well as common topics are highlighted. This is followed by analysing the nature of the disclosures: evidence, time orientation and tone. The analysis is summarized in a table that shows how each item is assessed through the quality attributes in percentages. Percentages are selected to allow later comparing between capitals. Finally, even though common topics and trends are relevant for understanding the overall state of IR disclosure, it is also interesting to benchmark unique practices. Thus, the analysis identifies items that are referred to by only a few companies, and disclosures that deviate from the majority based on evidence, time orientation or tone. After the capital analyses, the value creation process will be discussed separately, explaining how capitals are portrayed as inputs and outputs in the reports.

5.1. *Intellectual Capital*

Intellectual Capital includes nine items that are all referred to by at least nine companies. The overall style to report Intellectual Capital is with narrative, non-forward-looking and positive measures.

5.1.1. *Frequently addressed items*

Seven of the nine items of Intellectual Capital are discussed in 12-16 integrated reports, and only Corporate Governance is included in all 21 reports. Companies include a separate corporate governance section in their reports, where they describe the governance structure, board members, committees and the activities of the board and committees. Since the item is so broad that it comprises a whole section of the report, it is challenging to code. If – in addition to the narrative discourse that all involve – the section contains numerical information on for example board composition, diversity or number of meetings, the item is coded as

combination. The section concentrates often on the past year's events and includes little information on future directions, but in these cases time orientation is coded as forward-looking. The tone of Corporate Governance is in all reports positive.

16 companies report on the item Market Share and same number include Processes, Policies and Procedures in their reports. Only 38% disclose numeric information on their market share, and few disclose the exact figures. For example, Go-Ahead (page 7) reports that it owns 23% market share of London bus, and 11% of regional bus. Most of the 38% have general statistics or proportional disclosures. British American Tobacco informs (page 10) that the "*Group market share of key markets*" has grown by 40 basis points. Dellas discloses (page 35) that together with other four industry leaders they own a market share of 15% of the estimated 700 million Euros. Most of the disclosures, however, are optimistic narrative targets to grow the share in the future. When it comes to Processes, Policies and Procedures, safety, diversity, recruiting, remuneration and service policies dominate. Processes are described mainly by manufacturing companies.

The fourth most common item is information Technology and Information Systems with 15 report appearances. It refers mostly to systems that the company uses, such as HR systems and virtual communication channels, but includes also software and applications that the company sells to their customers.

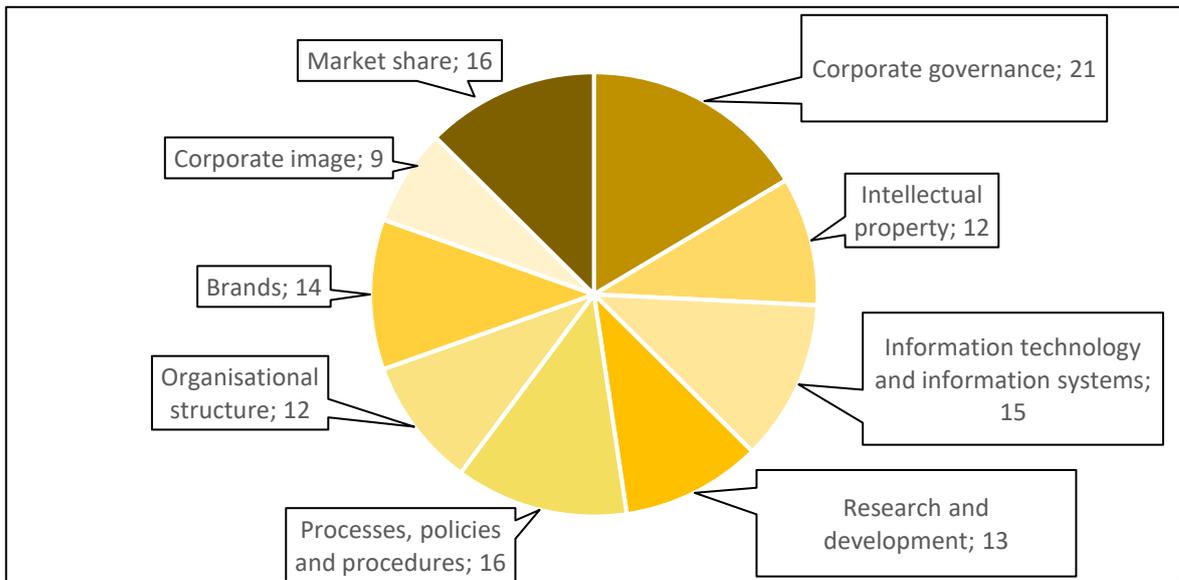


Figure 8: Number of reports disclosing each IC item, maximum being 21

5.1.2. Evidence, time orientation and tone

When it comes to evidence, Intellectual Capital disclosures are all in all more narrative with 54%, while combination is the second most used way of disclosing information with 40%. When examining the list of items, all nine reports on Corporate Image are narrative, which signifies that it is challenging to measure, or the companies are reluctant to release such information. Processes, Policies and Procedures as well as Organisational Structure also reach over 80% in narrative disclosure. British American Tobacco (page 13) informs about the importance of *“the right organisational structure”* and about the changes made during the fiscal year: *“The creation of these three new regions has simplified the existing structure by rationalizing the complexity and scale of existing direct reporting business units – –”*. Alternatively, many large corporations disclose their group structure at the end of the report with a list of group companies, undertakings and joint ventures.

The item with clearly the most combined information is – for the reasons stated before – Corporate Governance, followed by Information Technology and Information Systems. Research and Development discourse is evenly distributed in narrative and combined categories, the latter filling narrative descriptions most often with monetary investments. BAE Systems (page 26) states: *“Our R&D programmes*

are designed to improve the capability and performance of our products and services, reduce the cost of production, and provide customers with efficiency savings and lower through-life costs” in addition to revealing the exact research and development expenditures. Monetary disclosures on Intellectual Property or Information Technology and Information Systems are typically disclosures on intangible assets in the balance sheet of the financial section.

Time orientation of Intellectual Capital is more non-forward-looking, as the proportion of forward-looking disclosures is 14% smaller. Intellectual Property and Organisational Structure are almost always non-forward-looking, since they tend to focus on the existing assets. Information Technology and Systems as well as Research and Development inform often about investments made and hence are forward-looking. The items Processes, Policies and Procedures as well as Brands are distributed evenly regarding time orientation. Adapt IT (page 38) informs to the coming changes: *“The organisation’s Paternity Leave policy will be aligned to the pending changes in the labour legislation, in due course”*, while Hulamin (page 74) describes the past and present: *“Hulamin has established a whistle-blowing policy and has an anonymous reporting facility (the Hulamin Vuvuzela Fraud and Ethics Line) – –”*.

Intellectual Capital is reported strongly in positive manner with 87%. Organisational Structure includes two thirds neutral discourse, since presenting the organisational structure without any other information cannot be interpreted as neither positive nor negative. Intellectual Property also includes a lot of neutral reporting for the same reason – tables with monetary information on intangible assets are regarded as neutral. There is only one item with negative disclosure on Intellectual Capital by Transnet on their Corporate Image (page 50): *“Results from the 2017 Multi-stakeholder Perception Survey indicated that Transnet’s brand and reputation had been severely compromised during the reporting year due to a lack of proactive stakeholder engagement and a perceived lack of transparency and accountability relating to material stakeholder issues. Allegations of corruption, together with community demonstrations, fatalities and customer concerns around capacity and delivery, have contributed to negative perceptions with some stakeholders.”*

Table 11: Distribution of quality attributes in Intellectual Capital, interesting details highlighted

| INTELLECTUAL | Evidence | | | | Time orientation | | Tone | | | |
|---|-----------|-------------|--------------|-------------|------------------|--------------|----------|-------------|-------------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Corporate Governance (21) | 0 % | 0 % | 19 % | 81 % | 48 % | 52 % | 100 % | 0 % | 0 % | 0 % |
| Intellectual Property (12) | 8 % | 42 % | 17 % | 33 % | 0 % | 100 % | 58 % | 42 % | 0 % | 0 % |
| Information Technology and Information Systems (15) | 0 % | 7 % | 40 % | 53 % | 67 % | 33 % | 93 % | 7 % | 0 % | 0 % |
| Research and Development (13) | 0 % | 8 % | 46 % | 46 % | 77 % | 23 % | 85 % | 15 % | 0 % | 0 % |
| Processes, Policies and Procedures (16) | 0 % | 0 % | 81 % | 19 % | 50 % | 50 % | 100 % | 0 % | 0 % | 0 % |
| Organisational Structure (12) | 0 % | 0 % | 83 % | 17 % | 8 % | 92 % | 33 % | 67 % | 0 % | 0 % |
| Brands (14) | 0 % | 0 % | 64 % | 36 % | 50 % | 50 % | 100 % | 0 % | 0 % | 0 % |
| Corporate Image (9) | 0 % | 0 % | 100 % | 0 % | 22 % | 78 % | 89 % | 0 % | 11 % | 0 % |
| Market Share (16) | 0 % | 0 % | 63 % | 38 % | 44 % | 56 % | 100 % | 0 % | 0 % | 0 % |
| Total (%) | 1 % | 5 % | 54 % | 40 % | 43 % | 57 % | 87 % | 13 % | 1 % | 0 % |
| Total no. items | 1 | 7 | 69 | 51 | 55 | 73 | 111 | 16 | 1 | 0 |

5.1.3. Seldomly addressed items and disclosure styles

The least discussed item is Corporate Image with only nine reports out of 21. This is surprising, because disclosures on corporate image like that of DIMO (page 30): “DIMO is undoubtedly one of Sri Lanka’s most respected and leading brands” (Ashish Mishra, Managing Director Interbrand India) could be considered to have positive effects on the reader of the report. It seems like companies focus more on

individual product brands than the overall company reputation. For example, Intercontinental Hotel Group lists its hotel brands in the first pages of the report (page 2) and tells: *“Our portfolio of differentiated brands are well-known and loved by millions of people – –”*. Even if the reporting company did not have as strong a reference as DIMO, they could include Corporate Image in their integrated report in the following ways. Firstly, explaining how the image is intended to be developed in the coming years and what are the key focus areas in order to achieve that. Secondly, referring to stakeholder groups and clarifying what kind of reputation the company has in their eyes. For example, Crest Nicholson (page 3) reports: *“We are proud of the reputation we have built for developing imaginative solutions for creating homes and communities that improve the quality of life for people, both now and in the future”*.

5.2. Human Capital

Human Capital involves seven items, of which almost all are addressed in a clear majority of the reports. Combining narrative and qualitative information is typical for the items, and they are mostly reported in a positive tone.

5.2.1. Frequently addressed items

Firstly, the appearances of the items in the sample are analysed. All companies report on Loyalty and Motivation, Employee Development and Employee Benefits. Loyalty and Motivation is a wide item including aspects that affect the employees' loyalty and motivation, as well as measurements like job satisfaction, employee turnover, retention and employee engagement. Companies rarely specifically refer to Employee Loyalty and Motivation as such but talk rather about one or more of these key aspects. When it comes to Employee Development, the most used disclosures report on training or personal guidance of a foreman. Employee Benefits on the other hand, are often disclosed as wages, salaries and share schemes in staff costs in the financial section, but some report them also in the people section including also health benefits, family leaves and other natural benefits.

All except Duchy of Cornwall report on Diversity – many disclose their diversity profile in terms of gender, age and nationality and go more detailed into the share of women in different organizational levels. In addition, if companies have implemented diversity policies or programs, they tend to report on them quite extensively. BAE Systems (page 24) explains: *“We have employee-led networks supporting Lesbian, Gay, Bisexual, Transgender and Allies called OutLink in the UK and US. In the UK, this has resulted in a jointly developed Transgender Policy – –”*. Go-Ahead (page 5) on the other hand justifies their 14% share of women in the company by operating on a traditionally male-dominated-field and pledges that by 2021, as a result of their efforts at least 40 % of their train driver applicants will be female.

Employee Competences and Capabilities and Employee Health and Safety are also frequently addressed with 16 and 17 companies including them in their reports. Competences and Capabilities includes references to both the existing skillset of the workforce as well as to which competences will be important for the company to acquire in the future. Employee Health and Safety consists of disclosures on work-related injuries and the company’s actions pro safety and health, such as safety walks, audits, policies and wellbeing week. As stated earlier, health benefits have been analysed in the item Employee Benefits.

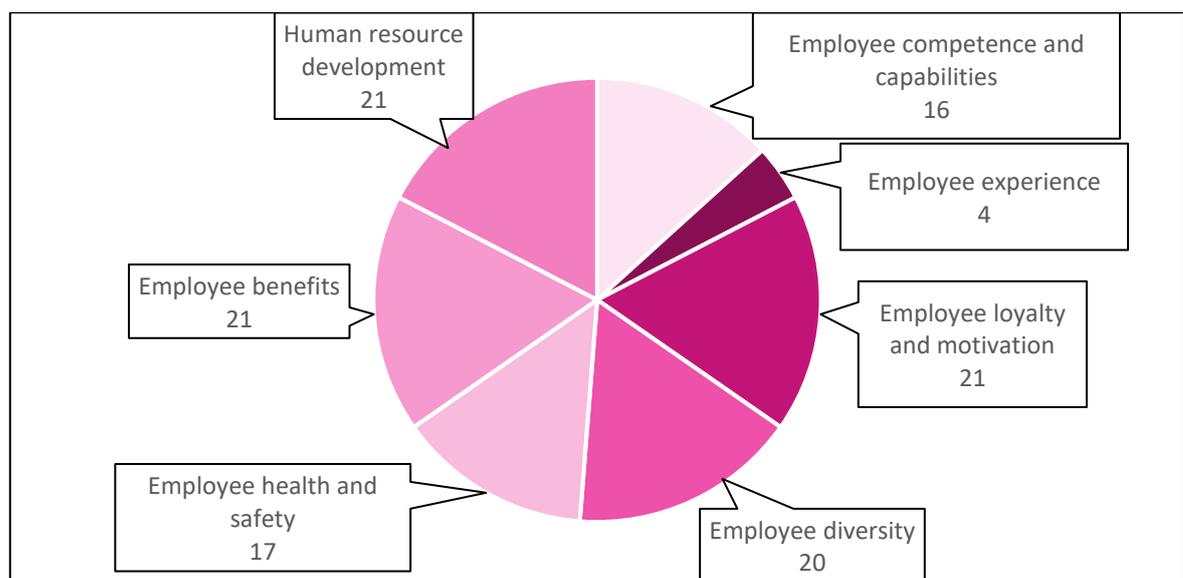


Figure 9: Number of reports disclosing each HC item, maximum being 21

5.2.2. Evidence, time orientation and tone

Regarding evidence, two thirds of the disclosures are mostly a combination of narrative and numeric or monetary information, and nearly one third is purely narrative. Almost all items express strongly combined discourse, except Competences and Capabilities as well as Employee Experience which are both narrative. Issues that these two items contain, an individual's skillset and experiences in the company, can easier be explained in words than measured, hence the strong narrative orientation. Crest Nicholson (page 29) however, applies a proportional measure on Competences and Capabilities: *"100% of all Academy trainees passed a new test on industry standards and building regulations as stipulated by the NHBC"*.

Time orientation is evenly divided in forward-looking and non-forward-looking information. Items that are more loaded with forward-looking-information are Competences and Capabilities, since companies often tell which skills they intend to develop or recruit for future needs. Secondly, Diversity as well as Employee Health and Safety, since they both tend to include targets and development of policies. Finally, Employee Development due to its linkage with Competences and Capabilities. Non-forward-looking items on the other hand include Loyalty and Motivation which explains the current status, and Employee Benefits which focuses on current practices and previous year's costs.

When it comes to the tone of disclosures, in Human Capital most of the disclosures are positive, and even when there is negative information, it is supported with positive. As many as 71% of the companies release negative information on Employee Health and Safety – consisting of injury rates and fatalities. Cemex reports (page 17): *"We are deeply saddened to report 20 fatalities in 2017 – –"*. However, negative disclosures are often supported with positive *"We are constantly working towards our ultimate target of zero injuries worldwide – –"* (Cemex, page 17).

Seven reports also contain negative disclosures on Diversity, most of which are UK companies disclosing their existing gender pay gap. BAE Systems reports (page 25): *“For 2017, the average gender pay gap for our UK workforce was 11.2% – because we employ around four times more men than women and a greater proportion of our senior leadership team is male.”* Transnet informs about ethnicity: *“While we continue with efforts to ensure we reach racial balance in our workforce, our performance in respect of employing black employees in 2018 (73.9%) was poor compared to the prior year (2017:83.1%).”* Without taking a statement on the numbers, Transnet self describes the percentual change of -10.8% as poor, and therefore it is categorized as a negative disclosure.

Table 12: Distribution of quality attributes in Human Capital, interesting details highlighted

| HUMAN | Evidence | | | | Time orientation | | Tone | | | |
|---|-----------|----------|--------------|-------------|------------------|-------------|----------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Employee Competence and Capabilities (16) | 0 % | 0 % | 75 % | 25 % | 75 % | 25 % | 94 % | 0 % | 0 % | 6 % |
| Employee Experience (4) | 0 % | 0 % | 100 % | 0 % | 50 % | 50 % | 100 % | 0 % | 0 % | 0 % |
| Employee Loyalty and Motivation (21) | 10 % | 5 % | 19 % | 67 % | 38 % | 62 % | 70 % | 17 % | 0 % | 13 % |
| Employee Diversity (20) | 5 % | 0 % | 0 % | 95 % | 62 % | 38 % | 55 % | 14 % | 0 % | 32 % |
| Employee Health and Safety (17) | 0 % | 0 % | 18 % | 82 % | 65 % | 35 % | 29 % | 0 % | 0 % | 71 % |
| Employee Benefits (21) | 0 % | 5 % | 24 % | 71 % | 10 % | 90 % | 73 % | 27 % | 0 % | 0 % |
| Employee Development (21) | 0 % | 0 % | 29 % | 71 % | 68 % | 32 % | 95 % | 0 % | 0 % | 5 % |
| Total | 3 % | 2 % | 28 % | 68 % | 52 % | 48 % | 70 % | 10 % | 0 % | 19 % |
| Disclosure count | 3 | 2 | 34 | 81 | 63 | 59 | 88 | 13 | 0 | 24 |

5.2.3. Seldomly addressed items and disclosure styles

An item that stands out regarding the number of references is Employee Experience which includes the experience that the organization aims to provide for its people for example in terms of working environment. All four reports include only narrative discourse, but their time orientation varies. Cemex expresses that it is committed to providing the best professional experience for its employees, whereas DIMO reports on actions taken during the financial year, such as a Christmas party and Night of the Incredibles, where they reward great colleagues. Sage (page 41) reports the item quite extensively by explaining what employee experience means to Sage and how they are committed to developing it, for example: “ - *simplify our processes, target our communications more thoughtfully and enable our colleagues to engage with each other and our senior leaders on a more regular basis*”.

As stated earlier, very few companies report on Competences and Capabilities with quantitative measures, probably because they are difficult to measure. Quantitative measures that the few do use are explaining which skills are expected from the employees or what are the focus competences in employee training and disclosing how many people express these. For example, Halfords (page 29) presents their qualification programme 3-Gears, informs what competences each gear develops and discloses: “*At the end of FY18, over 70% of our colleagues had qualified for Gear 2 and we had over 700 Gear 3 level colleagues*”.

Only two reports contain forward-looking information on Employee Benefits, which might be because either the companies are careful to make promises for their employees on future benefits, or they are reluctant to release such information to competitors. Reports that however do inform this keep the disclosure on a very general level, with Go-Ahead and Sage explaining in narrative form that they will continue their efforts in providing competitive and rewarding benefits and remuneration.

5.3. Social and Relationship Capital

Even though there are as much as 14 items in Social and Relationship Capital, nine of them have been referred to by at least 76% of the companies. Social and Relationship Capital is reported mainly with narrative discourse and time orientation distributes quite evenly.

5.3.1. Frequently addressed items

One item that all 21 companies talk about is Relations with Customers which consists of customer service, satisfaction, engagement and retention. All except one discuss their Relations with Communities, which the companies keep up with long-term social projects with local societies and other parties, such as funding schools, educating locals or providing health services. Another community enhancing issue is naturally also the employment and economic effect that the company provides. The item Social Projects and Charity with 19 references differs from Relations with Communities with a short-term focus on projects and charitable donations that despite improving the corporate's social responsibility may not straight affect the local community or improve the relations. For example, Halfords (page 28) organizes bike workshops in UK schools, "*Helping to keep families safer on their journeys and encouraging an active lifestyle*", which would belong to Relations with Communities. Instead, their fundraising campaign, where colleagues climbed Everest Base Camp, would be included in Social Projects and Charity.

Other common topics are Relations with Supplier, Shareholders, Business Partners and Employees, as well as Relations with Legislators, Regulators and Policy Makers including the government and industry bodies. Many reports include a full-page table with different stakeholder groups, means of engaging with them and key aspects. However, there is little specific information on the strength and advantages of the relationship and the reader is left to read between the lines. Likewise, Corporate Culture is another item that appears in 17 reports, however the disclosures are found to be very vague, only mentioning the aim to foster a culture of customer service, effectiveness, diversity, safety or digitalization, instead of describing in

depth the culture that defines the company today. In fact, three quarters of the reports disclose forward-looking-information which in this case often leads to general aims without real justification or means to achieve them.

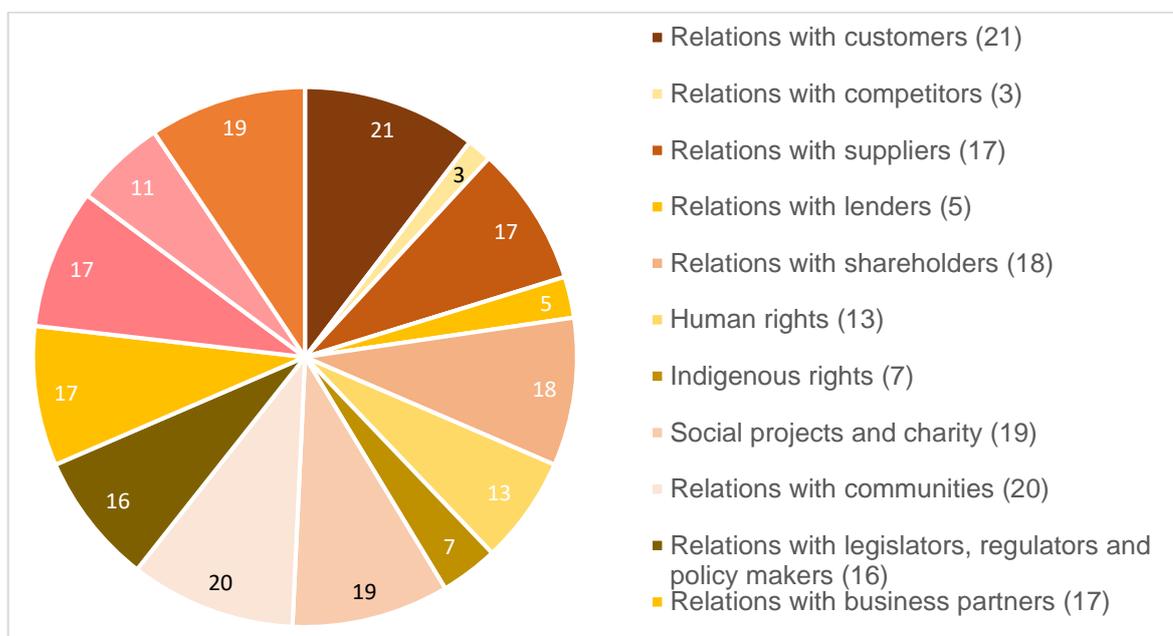


Figure 10: Social and Relationship items

5.3.2. Evidence, time orientation and tone

When it comes to evidence, 57% of Social and Relationship Capital discourse is narrative, but 40% of the sample reports also include combined discourse. Relations with Shareholders; Legislators, Regulators and Policy Makers; Business Partners and Employees as well as Human rights and Corporate culture are often narrative.

Relations with Customers, Indigenous Rights, Social Projects and Charity and Relations with Communities are of combined nature. As opposed to the other relationships, customer relations are somehow numerically or monetarily measured in every company. EOH International (page 26): *“EOH seeks to meet and exceed customer expectations by providing innovative solutions and properly implementing such solutions.”* and like many others, disclose the monetary worth of their customer relationships with intangible assets in the financial information (page 93). The reason behind the two other items that exhibit mainly combined discourse probably

is that companies are willing to disclose investments, voluntary hours and other measures about their corporate social responsibility to improve their image and community relations.

Time orientation is divided quite evenly in Social and Relationship Capital. Items with biggest percentages of forward-looking reports are Relations with Customers, Indigenous Rights, Corporate Culture and Claims and Lawsuits. Instead, Relations with Competitors and Lenders, Human Rights as well as Social Projects and Charity are quite strongly non-forward-looking. The former two items are addressed rarely, hence one report has a big percentual effect. Human Rights disclosures often are like the statement of Sage (page 50): *“Sage expects all colleagues, partners and suppliers to adhere to International standards on human rights, including with respect to child and forced labour, land rights and freedom of association among other elements.”* Social Projects and Charity mostly tell about actions taken during the fiscal year – while the longer-term community relations involve more looking in the future.

When it comes to the tone, as much as 86% of the items are positive, and when there are negative disclosures, they are almost always combined with positive. For example, Duchy of Cornwall (pages 25 and 29) presents employee and customer survey results and highlights both positive and negative feedback. Regarding Human Rights, British American Tobacco explains (page 28): *“Agricultural supply chains are particularly susceptible to the risks of child labour – – we became a founding board member of the Eliminating Child Labour in Tobacco Growing (ECLT) Foundation.”* Half of the companies disclose Claims and Lawsuits – quite understandably the only strongly negative item in this capital, without much positive information combined.

Table 13: Distribution of quality attributes in Social and Relationship Capital, interesting details highlighted

| SOCIAL AND RELATIONSHIP IP | Evidence | | | | Time orientation | | Tone | | | |
|---|-----------|----------|-------------|-------------|------------------|-------------|----------|---------|-------------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Relations with Customers (21) | 0 % | 0 % | 38 % | 62 % | 81 % | 19 % | 81 % | 0 % | 0 % | 19 % |
| Relations with Competitors (3) | 0 % | 0 % | 100 % | 0 % | 0 % | 100 % | 67 % | 0 % | 33 % | 0 % |
| Relations with Suppliers (17) | 0 % | 0 % | 47 % | 53 % | 53 % | 47 % | 94 % | 6 % | 0 % | 0 % |
| Relations with Lenders (5) | 0 % | 40 % | 40 % | 20 % | 25 % | 75 % | 75 % | 25 % | 0 % | 0 % |
| Relations with Shareholders (18) | 0 % | 0 % | 78 % | 22 % | 39 % | 61 % | 95 % | 5 % | 0 % | 0 % |
| Human Rights (13) | 0 % | 0 % | 77 % | 23 % | 23 % | 77 % | 77 % | 0 % | 0 % | 23 % |
| Indigenous Rights (7) | 0 % | 0 % | 29 % | 71 % | 86 % | 14 % | 100 % | 0 % | 0 % | 0 % |
| Social Projects and Charity (19) | 0 % | 11 % | 21 % | 68 % | 11 % | 89 % | 100 % | 0 % | 0 % | 0 % |
| Relations with Communities (20) | 0 % | 0 % | 10 % | 90 % | 65 % | 35 % | 95 % | 5 % | 0 % | 0 % |
| Relations with Legislators, Regulators and Policy Makers (16) | 0 % | 0 % | 81 % | 19 % | 50 % | 50 % | 88 % | 6 % | 0 % | 6 % |
| Relations with Business Partners (17) | 0 % | 0 % | 82 % | 18 % | 65 % | 35 % | 94 % | 6 % | 0 % | 0 % |
| Corporate Culture (17) | 0 % | 0 % | 88 % | 12 % | 76 % | 24 % | 94 % | 0 % | 0 % | 6 % |

| | | | | | | | | | | |
|-------------------------------|-----|-----|------|------|------|------|------|-----|------|------|
| Claims and Lawsuits (11) | 0 % | 9 % | 55 % | 36 % | 91 % | 9 % | 0 % | 0 % | 91 % | 9 % |
| Relations with Employees (19) | 5 % | 0 % | 79 % | 16 % | 42 % | 58 % | 84 % | 5 % | 0 % | 11 % |
| Total | 0 % | 2 % | 57 % | 40 % | 53 % | 47 % | 85 % | 3 % | 5 % | 6 % |
| Disclosure count | 1 | 5 | 116 | 81 | 108 | 94 | 175 | 7 | 11 | 12 |

5.3.3. Seldomly addressed items and disclosure styles

Items that receive only little attention are Relations with Competitors and Relations with Lenders, which might signify that they are not seen as the most important stakeholder groups in the company's value creation. Two disclosures on competitor relations in fact discuss industry-wide collaboration for United Nations Sustainable Development Goals or ethics instead of straight competitor collaboration in terms of for example co-opetition. Adapt IT informs (page 39) that *"There have been no incidents or legal actions for anti-competitive behavior, antitrust and monopolistic practices in the history of the company."* Dellas (page 39) explains their relationship with lenders followingly: *"The Parent company - - has dealings with 7 credit institutions, 5 of which carry out around 85% of the commercial and financial operations"* and continues that the five institutions have evaluated the company with an "A-" rating which proves Dellas' capabilities of keeping its commitments and good relations to the lenders.

Only seven reports discuss Indigenous Rights, since all five South African companies include it and disclose their Broad-Based Black Economic Empowerment (B-BBEE) scores and targets, following the national requirements. In addition, Lendlease and Tata Steel describe their efforts in supporting Australian and Indian indigenous cultures. It would perhaps be relevant for other companies as well to evaluate their impact on local indigenous cultures and find ways to improve their lives or come up with how to make the relationship mutually beneficial. Multinational corporations especially have a great responsibility in honouring local

traditions and minorities, and they could implement case examples from certain areas in their integrated reports like Tata Steel (page 62).

When considering the evidence of disclosures, not many discuss Human Rights with monetary or numeric measures. In addition to disclosing how many on-site audits they have completed, British American Tobacco (page 28) expresses that they commit to human rights also by having educated over 67,000 farmers and rural community members. Also, many items that are related to stakeholders mainly involve narrative discourse. Here companies could implement similar engagement and satisfaction scores that are used with customers, employees and suppliers also for shareholders and business partners.

5.4. Natural Capital

Natural Capital consists of six items, of which the number of references in integrated reports varies strongly from three to maximum of 21. Overall Natural Capital involves mainly combined discourse on the items, due to a tendency to quantify environmental impacts. In addition, the items appear to include both forward-looking and non-forward-looking information, and the prevailing tone is yet again positive.

5.4.1. Frequently addressed items

All companies report on Air, probably because it is the widest item – including air emissions like CO₂ and greenhouse gas, as well as waste and energy consumption. These issues on the other hand receive attention because initiatives like GRI and CDP require for it. Water-related disclosures can be found in 15 reports and they mostly concern the withdrawal, use and discharge of water as well as wastewater effluents.

Around half of the companies report on Forest, Eco-system Health and Biodiversity. Forest disclosures involve different aspects depending on the business model. Lendlease (page 53) reports on the use of timber as building material: *“Timber Naturally stores carbon, and the timber Lendlease uses comes from responsibly*

sourced certified plantations and uses less water during manufacture and installation than traditional construction”. Duchy of Cornwall (page 6) regards forests as an important part of their estate portfolio: “2,225 hectares of woodland and 16 heritage sites”. Cemex (page 53) on the other hand has wide environmental initiatives to protect forests and compensate their logistics: “– – this forestry project will not only capture around 120,000 tons of CO₂, but also protect the region’s native forests”.

Eco-system Health on the other hand concentrates on climate change issues and is therefore strongly linked to the other items like Biodiversity. Regarding Biodiversity, some disclosures overlap with Land, Forest or Water-related disclosures, depending on the species’ living habitats. Cemex (page 58) restores its quarries for example as heathlands: “This 1,000 hectares of priority UK habitat provide homes for 46 threatened birds – –, plus many species of wildlife – – and an extensive range of plant life – –”, whereas DIMO (page 125) dedicates on ocean biodiversity: “Protecting and enhancing the biodiversity of Rumassala ecosystem by restoring the destroyed Bonavista coral reef”.

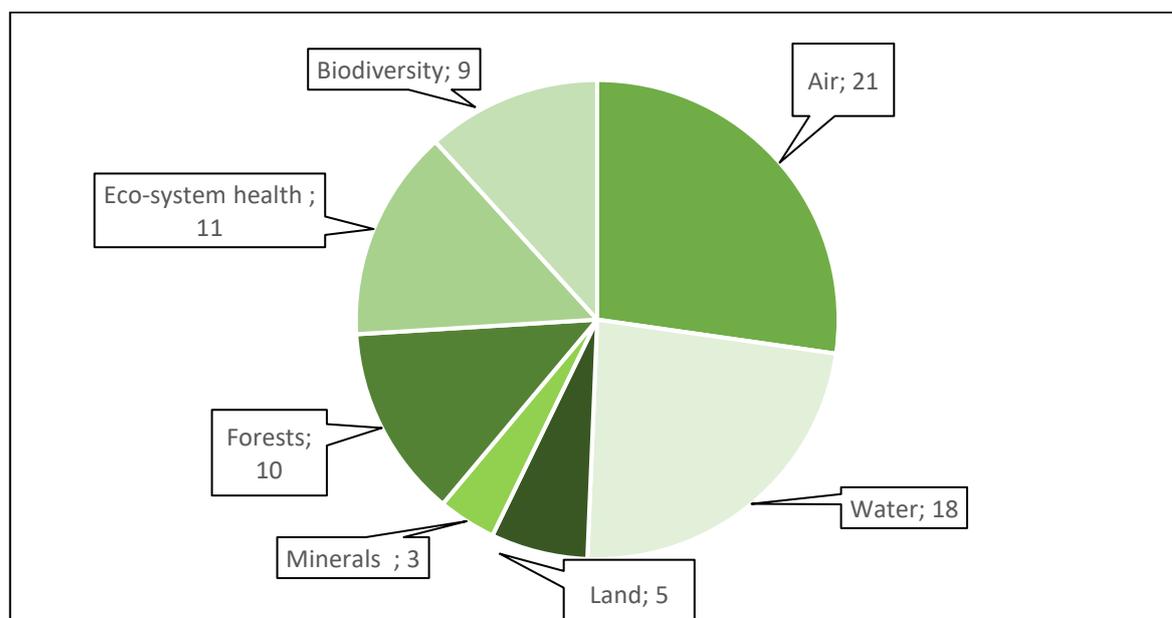


Figure 11: Items of Natural Capital

5.4.2. Evidence, time orientation and tone

When it comes to evidence, most of Natural Capital items are strongly a combination of narrative and numeric or monetary information. Air and Land related disclosures often involve a table with exact numbers, further explained in narrative form. Forest item divides quite evenly on monetary, narrative and combination, with weight on combination – examples on these were given earlier. Eco-system Health is the only item that is on the most parts narrative, because companies have not yet started to measure their climate change impacts. The only viable measures have been CO₂ and greenhouse gas emissions, which have been included in the item Air. However, they are coded in Eco-system Health as well, if they are specifically mentioned with climate change. Biodiversity includes a relevantly large amount of purely narrative information, but many reports disclose investments in restoration and animal protection, or the number of protected species, which places the item evaluation as combination.

When it comes to the time orientation of Natural Capital disclosures, there is both forward-looking (55%) and non-forward-looking (45%) information quite evenly. The items with the most forward-looking statements are Air and Eco-system health. As mentioned earlier, these items are linked because air emissions are regarded as a measure of climate change impact, and many companies that include climate change in their reports, talk specifically about the future challenges that it poses as well as place targets to reduce their own emissions. Dentsu (page 46) states: *“To realize a decarbonized society, the Dentsu Group aims to achieve the 2C target* stipulated in the Paris Agreement – – with the goal of reducing greenhouse gas emissions based on scientific evidence – –. We plan to continue tackling climate change issues by making further efforts to reduce CO₂ emissions.”* On the other hand, reporting on forests concentrates almost solely on non-forward-looking disclosures, even though forest restoration and planting trees could be a way to compensate emissions regarding climate change, like the cite of Cemex’ report showed earlier.

The information on Natural Capital involves often numeric measures – litres of water, tonnes of waste, kWh of energy and tonnes of air emissions. It is decided not to take a statement on how much is regarded as positive and how much is negative for a certain company, but rather to look for the trends. For example, if the company reports inferior numbers than last year, it is coded as negative. Very few reports include negative information: three on Air, one on Water and one on Eco-system Health, and they are always combined with positive disclosures.

Table 14: Distribution of quality attributes in Natural Capital, interesting details highlighted

| NATURAL | Evidence | | | | Time orientation | | Tone | | | |
|------------------------|-----------|----------|-------------|-------------|------------------|-------------|----------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Air (21) | 0 % | 0 % | 5 % | 95 % | 81 % | 19 % | 85 % | 0 % | 0 % | 15 % |
| Water (15) | 7 % | 0 % | 27 % | 67 % | 40 % | 60 % | 87 % | 7 % | 0 % | 7 % |
| Land (5) | 0 % | 0 % | 20 % | 80 % | 60 % | 40 % | 100 % | 0 % | 0 % | 0 % |
| Minerals (3) | 0 % | 33 % | 0 % | 67 % | 33 % | 67 % | 33 % | 67 % | 0 % | 0 % |
| Forests (10) | 0 % | 30 % | 30 % | 40 % | 10 % | 90 % | 80 % | 20 % | 0 % | 0 % |
| Eco-system health (11) | 0 % | 0 % | 64 % | 36 % | 82 % | 18 % | 82 % | 9 % | 0 % | 9 % |
| Biodiversity (9) | 0 % | 0 % | 44 % | 56 % | 44 % | 56 % | 100 % | 0 % | 0 % | 0 % |
| Total | 1 % | 5 % | 27 % | 66 % | 55 % | 45 % | 85 % | 8 % | 0 % | 7 % |
| Disclosure count | 1 | 4 | 20 | 49 | 41 | 33 | 62 | 6 | 0 | 5 |

5.4.3. Seldomly addressed items and disclosure styles

The least referred items are Land and Minerals, most likely since they are material for a limited amount of companies, or their use goes to the beginning of the value chain and are therefore harder to track, measure and report. How they are reported depends on the capital's relevance for their business. For example, British American Tobacco reports on the use of land for tobacco farming, Cemex tells about how they have transformed quarries to homes for plants and wildlife and Crest Nicholson reports land acquired for future housing projects. Tata Steel and Hulamin are mining

companies and therefore disclosing the extraction of minerals is material for them and easier to manage than for companies that are positioned further in the value chain, whereas Duchy of Cornwall informs (page 31) to own “32,000 hectares of mineral rights (in addition to surface ownership)”.

5.5. Value creation through inputs and outputs of capitals

Now the reporting style of all four capitals has been analysed in terms of evidence, time orientation and tone. The fourth sub question of this thesis was formed to evaluate the role of capitals in companies’ value creation process. As stated earlier, the IIRC proposes that capitals act as inputs and outputs in the value creation process and therefore they should be reported as assets for the company as well as impacts from the organization to its external environment. Next it will be evaluated, how companies address the concept of inputs and outputs in their integrated report.

The content analysis indicates that 11 sample companies present a value creation model in the beginning of the integrated report, where they present their inputs and outputs, described in more or less detail. A typical example of inputs disclosed on a general level is The Crown Estate (page 11) which refers for example to: “*The skills and experience of our employees*” and “*The Natural resources that we manage and use*”. On the other hand, the outputs of for example Redefine Properties (page 14) go in specifics, such as: “*Staff turnover down to 10.5%*” and “*2305 tonnes of waste diverted from landfill*”.

Otherwise than in the value creation model, most of the companies do not mention, what they see as inputs and what as outputs – meaning that when information that does not appear in the value creation model is represented somewhere else in the report, it is difficult for the reader to determine, which role it plays. Only DIMO makes the divide clear in their report structure: capital management and impact management. Capital management contains the capitals as inputs and how they are managed in the value creation process. Impact management on the other hand,

describes the economic, ecologic and social impacts of the business. In other reports, such visible structure does not exist.

Two other aspects also make the determination of inputs and outputs challenging. Firstly, what is input for one company can be an output for another. For example, Go-Ahead and Redefine Properties present corporate culture as their input, when Transnet mentions it as their output. Secondly, a certain element can simultaneously be an input as well as an output for the company. For example, employee engagement and satisfaction are resources for the company, since they most likely motivate the employee to work harder. However, they are also outputs from the company's operation, since they have been enhanced for example through a sense of purpose, good leadership, personal development and fair remuneration. Another example is stakeholder relationships, which can both provide assets for the company and be impacted by the business processes.

To conclude, it is sometimes challenging to recognize inputs and outputs. Due to the challenges presented, the analysis was excluded from the other three attributes in this thesis. Based on presentations of the value creation processes in the 11 sample reports, types of inputs and outputs that the companies consider are collected in Table 15 and Table 16 below. The tables indicate that Natural Capital disclosures can clearly be divided in inputs and outputs based on, whether a natural resource is consumed for business or released into the nature as emissions, effluents or waste. Minerals are disclosed mainly as inputs (material for production), whereas Eco-system Health as output (emissions causing climate change). Other generalizations can be made of Social Projects and Charity in Social and Relationship Capital, since it presents almost always outputs. In Human Capital, Employee Competence and Capabilities is a resource that the company uses, whereas Employee Development adds on those skills – and as an output the employee is equipped with more knowledge when she or he one day decides to leave the company.

Table 15: Inputs disclosed by sample companies

| | |
|---|--|
| <p>INTELLECTUAL CAPITAL:</p> <ul style="list-style-type: none"> • Research and development (propensity) • Worldwide presence (market share) • Brand reputation • Systems, processes and procedures • Technology investments • Innovations of people • Intellectual property | <p>SOCIAL AND RELATIONSHIP CAPITAL:</p> <ul style="list-style-type: none"> • Stakeholder relationships and partnerships • Customer composition • Business partner composition, expertise • Community relationships • Organisational culture • Government relations • Supplier relations • Investor confidence |
| <p>HUMAN CAPITAL:</p> <ul style="list-style-type: none"> • Competences and capabilities • Employee experience • Health and safety • Employee diversity • Employee engagement and satisfaction (loyalty and motivation) • Training programs | <p>NATURAL CAPITAL:</p> <ul style="list-style-type: none"> • Land • Timber • Minerals • Water use • Energy consumption • Natural resources • Energy sources • Water resources |

Table 16: Outputs disclosed by sample companies

| | |
|--|---|
| <p>INTELLECTUAL CAPITAL:</p> <ul style="list-style-type: none"> • Costs and hours to R&D • Growth in market share • Improved efficiency through systems and processes • Brand awareness • Governance structures • Technologies, innovations and R&D initiatives • Recognitions | <p>SOCIAL AND RELATIONSHIP CAPITAL:</p> <ul style="list-style-type: none"> • Customer satisfaction (purchases and complaints) • B-BBEE rating • Government relations (tax payments, shaping policies) • Supplier relations • Employee engagement, satisfaction and turnover • Stakeholder engagement • Community relations (support, employment and economic growth) • Social projects and charity (CSI) • Organisational culture • Business partner relations |
| <p>HUMAN CAPITAL:</p> <ul style="list-style-type: none"> • Employee development (skills for the sector, training statistics) • Employee engagement, satisfaction and turnover • Health and safety (number of accidents) • Promotions • Benefits and remuneration | <p>NATURAL CAPITAL:</p> <ul style="list-style-type: none"> • Low impact green products • CO2 emissions, amount saved • Energy consumptions, amount saved • Natural resource consumption (to generate turnover) • Carbon emissions • Waste created, recycled, diverted from landfill • Spills and pollution |

6. DISCUSSION AND CONCLUSIONS

The aim of this study has been to discover reporting practices of 21 companies involved in IR according to IIRC guidelines. Firstly, in the theoretical part a historic review was presented to understand the roots of IR. Secondly, existing literature regarding IR, Intellectual Capital and environmental research was analysed to create context for this study and understand research gaps, where the thesis could contribute. Thirdly, the empirical study has concentrated on how companies engage in capital reporting from three angles: evidence, time orientation and tone of discourse, which has provided findings of the current state of reporting. This chapter returns to the research questions and provides both theoretical and practical implications on IR.

6.1. *How companies report on Intellectual, Human, Social and Relationship and Natural Capitals in an Integrated Report*

Chapter five examined the content analysis results one capital in time, analysing the specific items through evidence, time orientation and tone. Next, an overall picture is formed by studying the total summaries of each capital. Similarly, as in the previous chapter, percentages are used to allow a comparison between different capitals that is not affected by how many items a capital includes. These comparisons reveal certain similarities and differences between capitals.

6.1.1. *Evidence is dominated by narrative or combined discourse*

Firstly, when it comes to evidence, all capitals are dominated either by narrative or combined discourse, as can be seen in Figure 12. Almost 70% of reports use combined discourse with Human and Natural Capital – when with Intellectual and Social and Relationship it is 40%. These latter two on the other hand benefit from purely narrative disclosures with 54% in Intellectual and 57% in Social and Relationship Capital. Purely numerical and monetary discourse form only 0%-6% of

the items in each of the capitals. This is not surprising, since corporate reports do not consist of bare numbers.

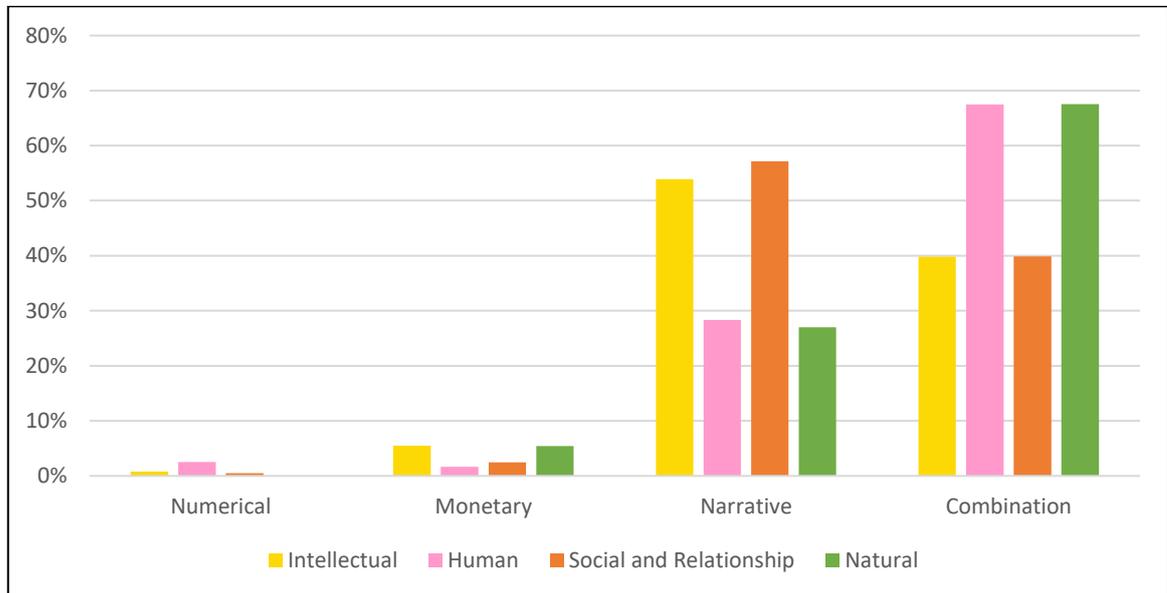


Figure 12: Evidence of disclosures by capitals

The first sub question is *What types of numeric or monetary measures do companies use in capital disclosures?* Based on the content analysis, Human and Natural Capital include the most numeric or monetary disclosure. In Human Capital, the disclosures consist generally of the profile of employees, years of their service, investments in Human Capital, benefits paid and injury rates. In addition, several companies have developed their own key performance indicators to measure employee engagement. Most of them do not disclose what is included in the index (see e.g. Cemex, 41; Go-Ahead, 30; Halfords, 24; Tata Steel, 21; The Crown Estate, 28) or they disclose only the response rate for the engagement survey (Intercontinental Hotel Group, 24) but some reveal what was surveyed and how the employees responded (see e.g. Dentsu, 48; DIMO, 81). Natural Capital on the other hand, holds multiple numeric measures including kilograms of emissions and waste, litres of water, kilowatt hours of energy, hectares of land and number of species regarding biodiversity.

Social and Relationship Capital and Intellectual Capital on the other hand, include more narrative discourse than the other two. In fact, the only items that do not have any quantitative measures (Relations with Competitors and Corporate Image) belong to these capitals. Nonetheless, these capitals too implement ways for numeric measurement. Social and Relationship Capital includes measurements such as customer engagement scores, volumes of different groups of stakeholders and investments in social projects. Intellectual Capital reporting benefits from for example board profile, the monetary worth of different intellectual properties and investments in systems and R&D.

6.1.2. All reports include some forward-looking disclosures

The second research question *in which ways do companies shift the time orientation of disclosures in the future?* was analysed through the attribute time orientation. It was found out that all companies use at least some forward-looking disclosures in their reports. Altogether, the divide between forward-looking and non-forward-looking is the biggest for Intellectual Capital (43%-57%), which means that each capital is reported with a forward-looking time orientation in around half of the reports. This is illustrated in Figure 13 below.

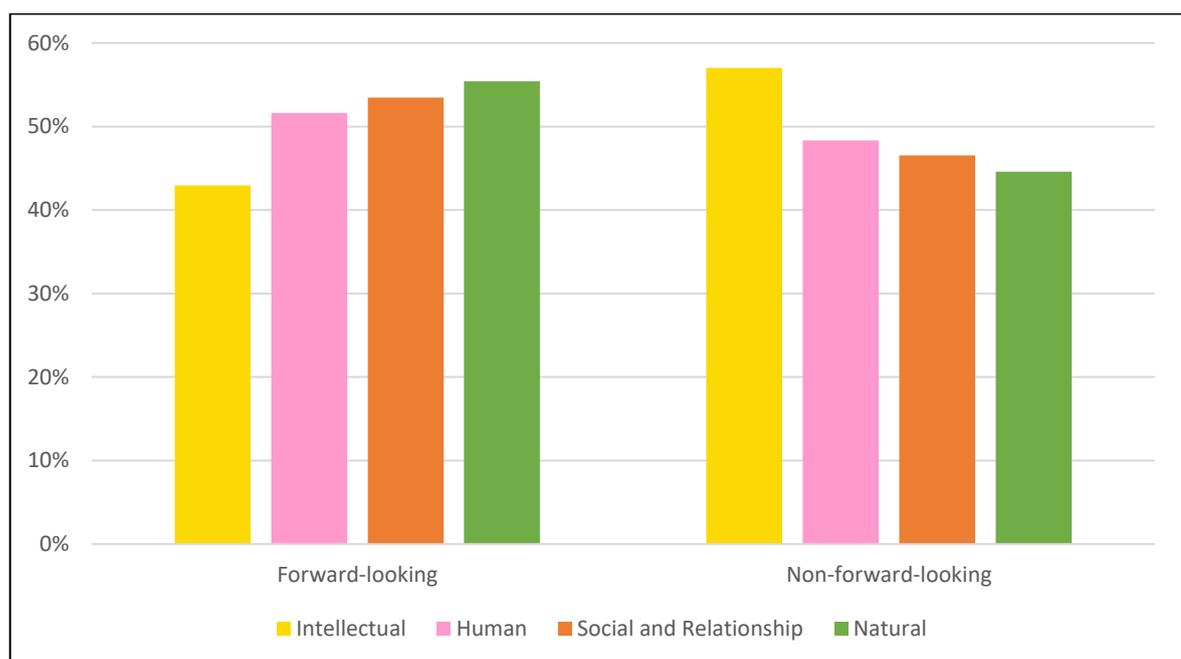


Figure 13: Time orientation of disclosures by capitals

The most forward-looking are disclosures on Natural Capital, since they often present future targets in addition to last year's results, especially concerning Air and Eco-system Health related disclosures. Forward-looking Eco-system Health disclosures are normally commitments to hinder climate change, such as Go-Ahead (page 27): *"We are committed to doing the appropriate assessments and are working on incorporating the financial implications of climate change in our reporting going forward in compliance with the Taskforce on Climate-Related Financial Disclosures"* and *" – – we are working with government institutions to tackle climate change – – "*. Air related disclosures are specific targets to reduce the impacts, such as Lendlease (page 27): *" We remain focused on a 20% reduction in the consumption of energy, emissions, water and waste by 2020"* – reduction being compared to 2014 numbers.

Intellectual Capital, on the other hand, has more non-forward-looking information, mostly caused by items Intellectual Property and Organisational Structure, which in almost all cases only disclose the current issues. An example of a forward-looking Intellectual Capital disclosure is British American Tobacco: *"...our R&D investment, led by hundreds of scientists across the world, is predominantly focused on developing our pipeline of potentially reduced-risk products"* telling in which way they intend to grow in the future through R&D.

Overall, it can be said that the companies shift the focus into the future by disclosing their plans, as long as they are not considered too risky in terms of competitor threats. Another common way is to set short- or long-term targets and follow up their progress in the yearly reports. A great way of doing this is through tables like those of Cemex, The Crown Estate, DIMO, Redefine Properties, IHG and Sage in Appendix 3. In addition, companies implement the forward-looking aspect in their integrated reports by assessing risks and opportunities as part of their materiality analysis.

6.1.3. Negative disclosures receive little attention and are mostly compensated with positive information

The tone of disclosures was assessed to answer the third research question *How do companies respond to IIRC's encouragement to disclose also negative information?* and it was concluded that the prevailing tone of the reports is positive. Human Capital includes the least purely positive disclosures with 69% and in the other capitals the number is as much as over 85% (Figure 14). Human Capital includes the most negative information mainly due to safety accidents or shortcomings regarding diversity.

Another finding was that if negative information is reported, it is in most items supported with positive information. As explained earlier, Intellectual Capital has the smallest rate of negative disclosures: only one considering Corporate Image. Purely negative information in Social and Relationship Capital consists mainly of Claims and Lawsuits. When negative information is combined with positive for example in terms of emissions, diversity, safety and human rights, it is done mostly by disclosing poor numbers from the past financial year and continuing by informing the company's targets and commitment to improve their performance. To conclude, companies respond to the encouragement to disclose negative information with a reserve.

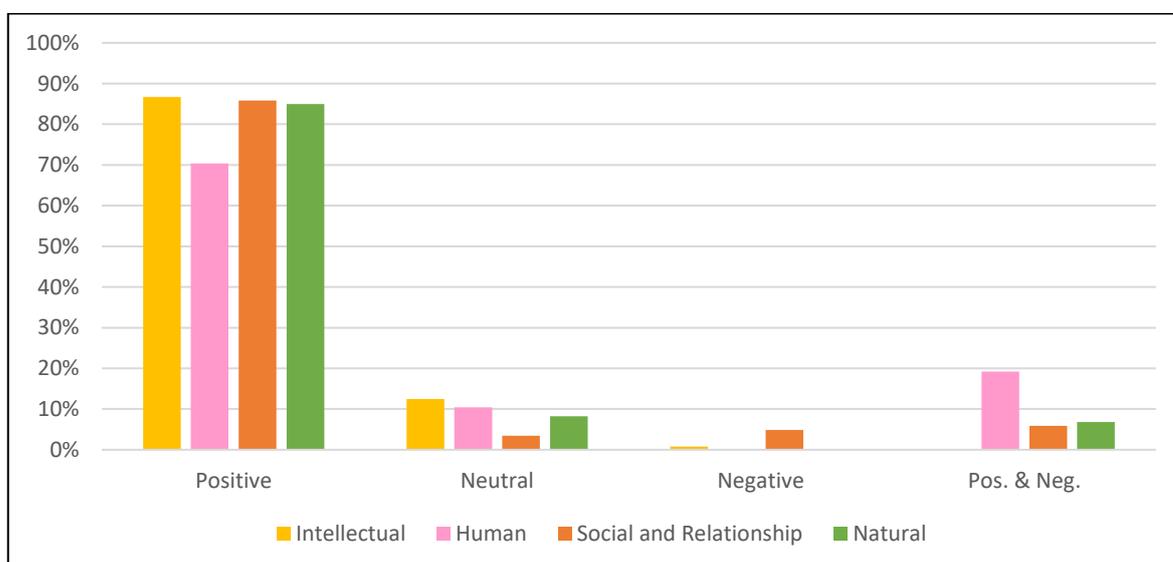


Figure 14: Tone of disclosures by capitals

6.1.4. *Half of the reports include inputs and outputs in an image of value creation process*

The fourth sub question *How do companies address the role of capitals as inputs and outputs of the value creation process?* was not analysed in a similar way than the other sub questions. It was examined separately, since the study showed that there are three challenges in the analysis of this question. Firstly, it is difficult to separate inputs and outputs, if the company has not described their value process and the capitals within. In this case the reader should know the company's business thoroughly. Therefore, it is good that 11 out of all 21 companies disclosed inputs and outputs in a picture of value creation. Secondly, it was discovered that an item can be regarded as one company's input and the other one's output. Thirdly, a company can regard the same item as an input and output. Thus, the reader cannot assume that a certain disclosed item is automatically an input or output for the company in question.

6.1.5. *Summary*

Finally, to answer the main research question *How do companies report on Intellectual, Human, Social and Relationship and Natural Capitals in an Integrated Report?* it can be stated that there are differences between capitals. Intellectual and Social and Relationship Capitals are mostly purely narrative discourse, whereas Human and Natural are mostly combined. In addition, Intellectual Capital is the least forward-looking and Natural the most. Regarding tone, all are mostly positive, but Human Capital has more negative information than the others. The percentual characteristics of each capital can be seen in the table below.

Table 17: Quality attributes of capitals

| | Evidence | | | | Time orientation | | Tone | | | |
|-------------------------|-----------|----------|-------------|-------------|------------------|-------------|-------------|---------|----------|-------------|
| | Numerical | Monetary | Narrative | Combination | Forward | Non-forward | Positive | Neutral | Negative | Pos. & Neg. |
| Intellectual | 1 % | 5 % | 54 % | 40 % | 43 % | 57 % | 87 % | 13 % | 1 % | 0 % |
| Human | 3 % | 2 % | 28 % | 68 % | 52 % | 48 % | 70 % | 10 % | 0 % | 19 % |
| Social and relationship | 0 % | 2 % | 57 % | 40 % | 53 % | 47 % | 85 % | 3 % | 5 % | 6 % |
| Natural | 1 % | 5 % | 27 % | 66 % | 55 % | 45 % | 85 % | 8 % | 0 % | 7 % |

In addition to variations between capitals, there are also differences between companies. Firstly, regarding evidence, no report is mostly numeric or monetary – they are all either narrative or combination – for example Transnet uses narrative discourse in 58% of its disclosures, while 68% of items in International Hotel Group’s report combine narrative and numerical or monetary measures. Secondly, companies differ a lot based on time orientation. As much as 74% of all items that Hulammin reports, include forward-looking information – whereas for Dellas it is only 14%.

The companies are placed in a matrix below (Figure 15) based on these two dimensions to give an overall picture of each report’s prevailing attributes. However, the matrix does not take into account, how many items the company reports, because the principal of materiality might limit the number of items depending on the company. Nonetheless, another graph is presented in Figure 16 to show the extensivity of the reports and to create context around the matrix. Furthermore, Figure 16 indicates that clear patterns of, for example compensating narrow disclosure on Intellectual Capital with extensive Human Capital, cannot be identified. For example, Duchy of Cornwall covers altogether the least items (15), mainly because of Intellectual Capital. On the other hand, the company reports Natural Capital quite extensively. Cemex on the other hand includes as much as 33 items – almost all in each capital.

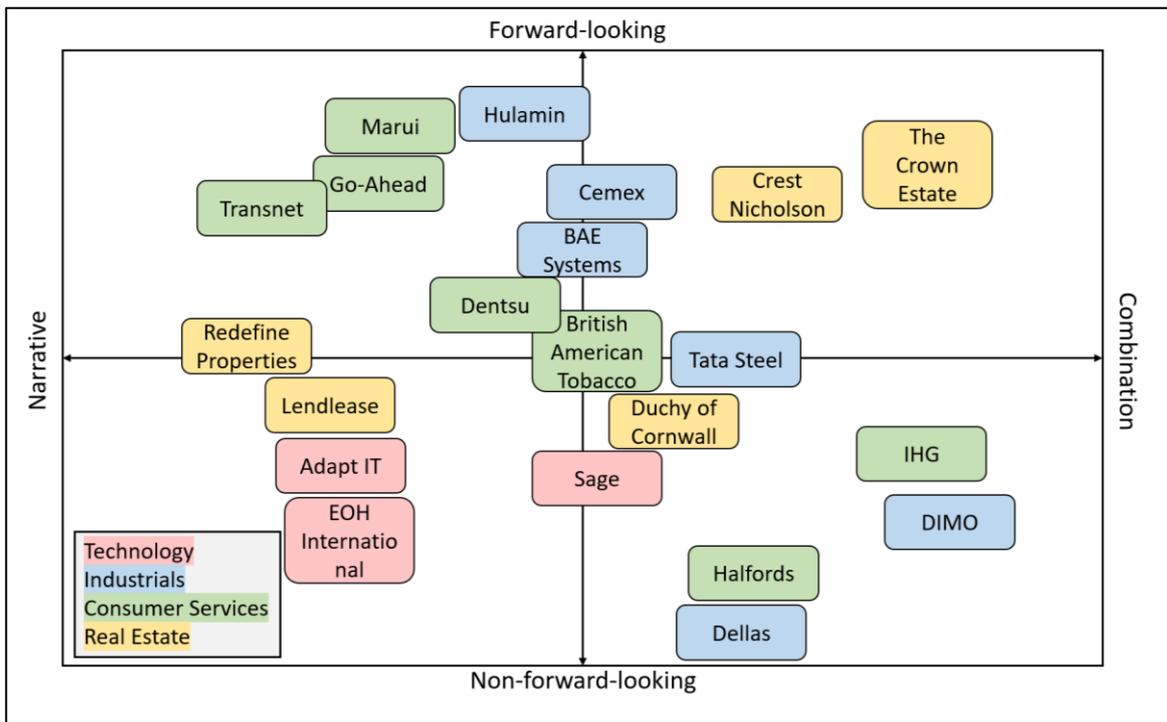


Figure 15: Companies' positioning in a matrix by evidence and time orientation



Figure 16: Number of items by capitals for each report, overall maximum being 37

Table 17 below helps to interpret Figure 16 by disclosing how many items reports tend to include. The first column shows the number of total items in parenthesis, while range presents the variation between companies. Average, median and mode scores give a view on how many items a report typically discloses.

Table 18: Statistics on how many items the companies include

| | Range | Average | Median | Mode |
|-------------------------------------|-------|---------|--------|------|
| Intellectual (9) | 1-9 | 6,1 | 6 | 5 |
| Social and Relationship (14) | 5-12 | 9,7 | 10 | 10 |
| Human (8) | 3-7 | 5,8 | 6 | 6 |
| Natural (7) | 1-6 | 3,5 | 3 | 5 |

When comparing Figures 15 and 16, it can be seen that the amount of items does not necessarily correlate with the position in the matrix – for example the three least disclosing companies (Duchy of Cornwall, Marui and Halfords) are all in different sections of the matrix and the same applies with the most disclosing ones (Cemex, Adapt IT and British American Tobacco). Industry does not either seem to have a clear impact on the position in the matrix. The colours of the matrix symbolize the four industries and, for example *Consumer Service* companies (green) find themselves in various positions according to the dimensions. However, it appears that *Technology* companies (red) tend to disclose more narrative information and include little forward-looking statements, while *Industry* companies (blue) report narrative and combinative information quite evenly, with a weight on combinative. When concentrating on Figure 16, industry does not either seem to have an impact on how many items a company has included in the integrated report. For example, *Real Estate* companies (yellow) The Crown Estate and Redefine Properties disclose few items compared with Crest Nicholson and Lendlease.

6.2. Mirroring the results to existing literature and theoretical implications

When mirroring the results of this thesis to the literature that was reviewed before, both similarities and differences can be found. Analysing the study of Melloni (2015), on which the evaluation scheme of this thesis was mainly based, the share of

forward-looking disclosure differentiates. Melloni concludes that almost 90% of the capital disclosures in her sample are non-forward looking. In this study on the other hand, as much as half of all reported items include forward-looking information. However, it must be noted that the research methods differ, since Melloni counts every disclosure, while this thesis evaluates the time orientation of the whole item including a non-specified-amount of disclosures.

In addition, Melloni (2015) assesses, whether the disclosure is quantitative or non-quantitative and concludes that the majority of disclosures are non-quantitative, in other words narrative. The results of this thesis show that 50% of all reported items were assessed as “combination”, which means that they include both quantitative and qualitative disclosures. Melloni’s study does not have this option. The second largest quality attribute in this study is narrative with 45% of all items. Even though many items include more combined discourse than purely narrative, on the most parts the reports are written in a narrative form, numeric and monetary information being integrated here and there. Solomon and Maroun (2012) claim in their study that companies could implement more quantitative key performance indicators relating to environmental information, but this thesis produces different results. The content analysis shows that integrated reports incorporate quantitative measures in 66% of Natural Capital items that appear in the sample.

Gianfelici et al. (2016) conclude that customers and investors seem to be the most important stakeholder groups for companies. This thesis supports the results of Gianfelici et al., because Relations with Customers were discussed in every report, and almost all companies report also on Relations with Shareholders. However, this research raises suppliers, communities, business partners as well as legislators, regulators and policy makers to the same importance, since their corresponding items are referred to in as many reports. All groups of stakeholders are mainly discussed in a one- or two-page-table which includes the key issues for that relationship and the used communication channels. Suppliers are in addition discussed more extensively depending on the reporting organization. For example, the companies inform about training provided for the supplier and means of supervising their operation. Relations with Communities are also widely discussed

in terms of the company's social responsibility through various community activities and their economic impact on the area.

Since it was found that almost all items include only positive disclosures, the thesis agrees with Solomon and Maroun's (2012) and Flower's (2015) critics on IR not being successful in calling out also negative aspects. Some companies have in a good manner brought out issues that need further attention and conclude the actions they are going to take for future development. Perhaps this way of balancing negative issues with a right amount of future optimism could be implemented by a larger share of companies?

When it comes to the study's theoretical contribution that is based on institutional theory, both diffusion and isomorphism can be noticed in the sample. The fact that the discourse is mainly positive in all reports signifies a tendency to follow the example of others (isomorphism) and suggests that companies are possibly afraid of losing legitimacy, if disclosing negative information. For that reason, negative disclosures are also almost always compensated with positive information on future actions. In addition, common practices are noted, such as disclosing Competences and Capabilities in a narrative way, including numbers in Natural Capital disclosures on Air and Water or not looking forward in terms of Organizational Structure. Also, practical similarities were noticed, such as conducting tables to present stakeholder relations or future targets.

However, companies do differ from each other in terms of how much they disclose forward-looking information and whether narrative or combined reporting methods dominate. Figure 15 shows that companies position themselves on different parts of the two dimensions, and Figure 16 further proves that the number of items included varies greatly. This might be explained by diffusion, where companies have translated IIRC instructions differently or have modified them according to their own business model. Not following IIRC guidelines on for example including forward-looking information and quantitative measures is perhaps also an effort to develop the IR practices which in long-term might lead to a change in the institutional settings – the IRF. In any case, the companies implement IR through translation, because

they interpret IIRC guidelines in their own way and adjust the reporting according to their own business. For example, materiality analysis produces different key issues for different companies, which impacts how thoroughly each capital is discussed.

6.3. *Limitations and suggestions for future research*

As stated at the beginning, IR research is still at its infancy and there is much more to study. This thesis produced a unique content analysis that evaluated capital disclosures in integrated reports in terms of three quality attributes and benefitted from 36 items. However, the subjective nature of content analysis especially when conducted by one coder presents opportunities for future research to confirm the results or produce new interesting proposals.

The sample of this thesis was formed from the IIRC Bank of Examples, which indicates that all sample reports were of high quality. In order to find out the “true” state of IR practices, a sample should be conducted by selecting random companies and thus more clear differences between companies could be discovered. The focus of future research could also be on the concept of capitals in the company’s value creation process to gain a deeper understanding of their role as inputs and outputs. In addition, the interrelations and trade-offs between capitals have yet not been extensively studied and thus future papers could concentrate on evaluating, how integrated reports shed light on these interdependencies.

To conclude, this thesis sheds light on which items appear in most of the reports, and which issues are referred to by only a few organisations. For future studies it is interesting to follow the development of IR practices and see, whether the least disclosed items of this study gain more attention in the coming years, or whether they disappear completely from the reports. On the other hand, the most addressed items may become reporting norms that all companies generally follow – or, on the contrary, their popularity can fade. This thesis provides a fruitful basis for academics that want to focus their future research for example on the content of integrated reports or evaluate what information is regarded material by companies.

LIST OF REFERENCES

Adams, C.A., Potter, B., Singh, P.J. & York, J. (2016). Exploring the implications of Integrated Reporting for social investment (disclosures). *The British Accounting Review*, 48, 3, 283-296.

Aggarwal, P. & Singh, A.K. (2018) CSR and sustainability reporting practices in India: an in-depth content analysis of top-listed companies. *Social Responsibility Journal*.

Ahmed Haji, A. & Anifowose, M. (2017) Initial Trends in Corporate Disclosures Following the Introduction of Integrated Reporting Practice in South Africa. *Journal of Intellectual Capital*, 18, 2, 373-399.

Ahmed Haji, A. & Hossain, D.M. (2016). Exploring the implications of Integrated Reporting on organisational reporting practice. *Qualitative Research in Accounting and Management*. 13, 4, 415-444.

Alrazi, B., de Villiers, C. & van Staden, C.J. (2015) A comprehensive literature review on, and the construction of a framework for, environmental legitimacy, accountability and proactivity. *Journal of Cleaner Production*, 102, 44-57.

April, K.A., Bosma, P. & Deglon, D.A. (2003) IC measurement and reporting: establishing a practice in SA mining. *Journal of Intellectual Capital*, 4, 2, 165-180.

Atkins, J. & Maroun, W. (2015) Integrated Reporting in South Africa in 2012: Perspectives from South African institutional investors. *Meditari Accountancy Research*, 23, 2, 197-221.

Baboukardos, D. (2018). The valuation relevance of environmental performance revisited: The moderating role of environmental provisions. *The British Accounting Review*, 50, 1, 32-47.

Bassi, L., Creelman, D. & Lambert, A. (2015) Advancing the HR Profession: Consistent Standards in Reporting Sustainable Human Capital Outcomes. *People & Strategy*, 38, 2, 71-75.

Beattie, V. & Smith, S.J. (2013) Value creation and business models: Refocusing the Intellectual Capital debate. *The British Accounting Review*, 45, 243-254.

Beck, A.C., Campbell, D. & Shrides, P.J. (2005) Content analysis in environmental reporting research: Enrichment and rehearsal of the method in a British-German context. *The British Accounting Review*, 42, 3, 201-222.

Beck, C., Dumay, J. & Frost, G. (2017). In Pursuit of a 'Single Source of Truth': from Threatened Legitimacy to Integrated Reporting. *Journal of Business Ethics*, 141, 1, 191-205.

Beckert, J. (1999) Agency, entrepreneurs, and institutional change. The role of strategic choice and institutionalized practices in organizations. *Organization Studies*, 20, 5, 777-799.

Bernardi, C. & Stark, A.W. (2018). Environmental, social and governance disclosure, Integrated Reporting, and the accuracy of analyst forecasts. *The British Accounting Review*, 50, 1, 16-31.

Berthod, O. (2016) Institutional theory of organizations. In: Farazmand, A. (ed.) *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Berlin, Springer.

Bobitan, R-I. & Stefea, P. (2015). Integrated Reporting - a more holistic picture for a company. *Annals of the University of Oradea*, 24, 2, 448-456.

Bontis, N. (1999) Managing organizational knowledge by diagnosing Intellectual Capital: framing and advancing the state of the field. *Int. J. Technology Management*, 18, 5/6/7/8, 433-462.

Buhr, N. & Freedman, M. (2001) Culture, institutional factors and differences in environmental disclosure between Canada and the United States. *Critical Perspectives on Accounting*, 12, 293-322.

Cohen, J.R., Holder-Webb, L. & Zamora, V.L. (2015). Nonfinancial information preferences of professional investors. *Behavioral research in accounting*. 27, 2, 127-153.

Cunningham, G.M., Fagerström, A. & Hassel, L.G. (2011) Accounting for sustainability: what next? A research agenda. *Annals of the University of Oradea*, 97-111.

de Villiers, C. & van Staden, C.J. (2006) Can Less Environmental Disclosure Have a Legitimising Effect? Evidence from Africa. *Accounting, Organizations and Society*, 31, 8, 763-781.

Deloitte (2015) Non-financial reporting. [web document]. [Accessed 20.3.2019]. Available: https://www2.deloitte.com/content/dam/Deloitte/lv/Documents/strategy/Non-financial_reporting_2015.pdf.

Doucin, M. (2013) The French legislation on extra-financial reporting: built on consensus [web document]. [Accessed 20.3.2019]. Available: <https://www.globalreporting.org/sitecollectiondocuments/gofpara47policiesinitiatives-france.pdf>

Dumay, J. (2016) A critical reflection on the future of Intellectual Capital: from reporting to disclosure. *Journal of Intellectual Capital*, 17, 1, 168-184.

Dumay, J. & Garanina, T. (2013) Intellectual Capital research: a critical examination of the third stage. *Journal of Intellectual Capital*, 14, 1, 10-25.

Eccles, R. & Youmans, T. (2016) Materiality in Corporate Governance: The Statement of Significant Audiences and Materiality. *Journal of Applied Corporate Finance*, 28, 2, 39-46.

Edvinsson, L. (1997) Developing Intellectual Capital at Skandia. *Long Range Planning*, 30, 3, 366-373.

Eppler, M. & Mengis, J. (2004) The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines. *The Information Society*, 20, 5, 325-344.

EUR-Lex (2015) Disclosure of non-financial and diversity information by large companies and groups. [web document]. [Accessed 17.4.2019]. Available: <https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32014L0095>

Ernst & Young (2018) Does Your Nonfinancial Reporting Tell Your Value Creation Story? [web document]. [Accessed 21.3.2019]. Available: https://www.ey.com/en_gl/assurance/does-nonfinancial-reporting-tell-value-creation-story?

Fifka, M.S. (2013). Corporate responsibility reporting and its determinants in comparative perspective - a review of the empirical literature and a meta-analysis. *Business Strategy and the Environment*, 22, 1, 1-35.

Fifka, M.S. (2012) The development and state of research on social and environmental reporting in global comparison. *Journal für Betriebswirtschaft*. 62, 1, 45-84.

Flower, J. (2015). The International Integrated Reporting Council: A story of failure. *Critical Perspectives on Accounting*, 27, 1-17.

Frias-Aceituno, J.V., Rodríguez-Ariza, L. & García-Sánchez, I.M. (2014) Explanatory Factors of Integrated Sustainability and Financial Reporting. *Business Strategy and the Environment*. 23, 1, 56-72.

Frias-Aceituno, J.V., Rodríguez-Ariza, L. & García-Sánchez, I.M. (2013). The Role of the Board in the Dissemination of Integrated Corporate Social Reporting. *Corporate Social Responsibility and Environmental Management*. 20, 4, 219-233.

Garanina, T. (2011) Intellectual Capital structure and value creation of a company: Evidence of Russian companies. *Open Journal of Economic Research*,

Garanina, T. & Dumay, T. (2017) Forward-looking Intellectual Capital disclosure in IPOs: implications for Intellectual Capital and Integrated Reporting. *Journal of Intellectual Capital*, 18, 1, 128-148.

García-Sánchez, I., Rodríguez-Ariza, L. & Frías-Aceituno, J. (2013) The cultural system and Integrated Reporting. *International Business Review*, 22, 5, 828-838.

Gianfelici, C., Casadei, A. & Cembali, F. (2018) The Relevance of Nationality and Industry for Stakeholder Salience: An Investigation Through Integrated Reports. *Journal of Business Ethics*, 150, 2, 541-558.

Gogan, M-L. (2014) An innovative model for measuring Intellectual Capital. *Procedia – Social and Behavioral Sciences*, 124, 194-199.

Gowthorpe, C. (2009) Wider still and wider? A critical discussion of Intellectual Capital recognition, measurement and control in a boundary theoretical context. *Critical Perspectives on Accounting*, 20, 7, 823-834.

Greenwood, R., Oliver, C., Sahlin, K., Suddaby, R. (2018) *The Sage Handbook of Organizational Institutionalism*. Sage Publishing, Thousand Oaks, California, United States

Guthrie, J. & Petty, R. (2000) Intellectual Capital: Australian Annual Reporting Practices. *Journal of Intellectual Capital*, 1, 3, 241-251.

Guthrie, J., Petty, R., Yongvanich, K. & Ricceri, F. (2004) Using content analysis as a research method to inquire into Intellectual Capital reporting. *Journal of Intellectual Capital*, 5, 2, 282-293.

Guthrie, J., Ricceri, F. & Dumay, J. (2012) Reflections and projections: A decade of Intellectual Capital accounting research. *The British Accounting Review*, 44, 68-82.

IFRS (2019) Who we are: History [web document]. [Accessed 15.3.2019]. Available: <https://www.ifrs.org/about-us/who-we-are/#history>

IIRC (2019) How is the IIRC funded? [web document]. [Accessed 17.4.2019]. Available: <http://integratedreporting.org/how-is-the-iirc-funded/>

IIRC (2018a) Breaking Through: IIRC Integrated Report 2017 [web document]. [Accessed 21.1.2019]. Available: https://integratedreporting.org/integratedreport2017/index_desktop.html

IIRC (2018b) IIRC Partners [web document]. [Accessed 25.10.2018]. Available: <http://integratedreporting.org/the-iirc-2/iirc-partners/>

IIRC (2018c) Structure of The IIRC [web document]. [Accessed 25.10.2018]. Available: <http://integratedreporting.org/the-iirc-2/structure-of-the-iirc/>

IIRC (2018d) The IIRC [web document]. [Accessed 25.10.2018]. Available: <http://integratedreporting.org/the-iirc-2/>

IIRC (2013) The International <IR> Framework [web document]. [Accessed 21.3.2019]. Available: <http://integratedreporting.org/resource/international-ir-framework/>

IIRC (2012) The Pilot Programme 2012 Yearbook: Capturing the experiences of global businesses and investors [web document]. [Accessed 21.3.2019]. Available: <http://integratedreporting.org/wp-content/uploads/2012/10/THE-PILOT-PROGRAMME-2012-YEARBOOK.pdf>

IIRC (2011) Towards Integrated Reporting: Communicating value in the 21st century [web document]. [Accessed 9.2.2019]. Available: http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf

IIRC, Association of Chartered Certified Accountants (ACCA) & Netherlands Institute of Chartered Accountants (NBA) (2013) Capitals: Background paper for <IR> [web document]. [Accessed 23.10.2018]. Available: <http://integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf>

IoDSA (2009) King report on governance for South Africa 2009 [web document]. [Accessed 23.10.2018]. Available: https://cdn.ymaws.com/www.iodsa.co.za/resource/resmgr/king_iii/King_Report_on_Governance_fo.pdf

Jensen, J.C. & Berg, N. (2012) Determinants of traditional sustainability reporting versus Integrated Reporting: an institutionalist approach. *Business Strategy and the Environment*, 21, 5, 299-316.

Kaplan, R.S. & Norton, D.P. (1992) The Balanced Scorecard – measures that drive performance. *Harvard Business Review*, 70, 7/8, 172-180.

Kilic, M. & Kuzey, C. (2018) Assessing Current Company Reports According to the IIRC Integrated Reporting Framework. *Meditari Accounting Research*, 26, 2, 305-333.

Krippendorff, K. (2004) Content analysis: an introduction to its methodology. Sage Publications, Thousand Oaks, California, United States. 2nd ed.

Kuisma, M. (2019) Personal communication. March 19, 2019

Liao, L., Low, M. & Davey, H. (2013) Chinese and English Language Versions: Intellectual Capital Disclosure. *Journal of Intellectual Capital*, 14, 4, 661-686.

Lopes, A.I. & Coelho, A.M. (2018) Engaged in Integrated Reporting? Evidence across multiple organizations. *European Business Review*, 30, 4, 398-426.

Maroun, W. (2017) Assuring the integrated report: Insights and recommendations from auditors and preparers. *The British Accounting Review*, 49, 3, 329-346.

Mata, C., Fialho, A. & Eugenio, T. (2018) A decade of environmental accounting reporting: What we know? *Journal of Cleaner Production*, 198, 1198-1209.

Melloni, G. (2015) Intellectual Capital Disclosure in Integrated Reporting: an impression management analysis. *Journal of Intellectual Capital*, 16, 3, 661-680.

Nadeem, M., Dumay, J. & Massaro, M. (2018) If you can measure it, you can manage it: a case of Intellectual Capital, *Australian Accounting Review*, 1-13.

Niskala, M. & Pretes, M. (1995) Environmental reporting in Finland: a note on the use of annual reports. *Accounting, Organization and Society*, 20, 6, 457-466.

Ong, A. (2018) Financial reporting and corporate governance: bridging the divide. *Journal of management accounting research*, 18, 1, 37-43.

Petty & Guthrie, J. (2000) Intellectual Capital literature review: Measurement, reporting and management. *Journal of Intellectual Capital*, 1, 2, 155-176.

Pulic, A. (2004) Intellectual Capital – does it create or destroy value? *Measuring Business Excellence*, 8, 1, 62-68.

Schaper, S., Nielsen, C., Roslender, R. (2017) Moving from irrelevant Intellectual Capital (IC) reporting to value-relevant IC disclosures: Key learning points from the Danish experience. *Journal of Intellectual Capital*, 18, 1, 81-101.

Secundo, G., Massaro, M., Dumay, J. & Bagnoli, C. (2018) Intellectual Capital management in the fourth stage of IC research: A critical case study in university settings. *Journal of Intellectual Capital*, 19, 1, 157-177.

Seo, M-G. & Creed, W.E.D. (2002) Institutional contradictions, praxis, and institutional change: a dialectical perspective. *Academy of Management Review*, 27, 2, 222-247.

Setia, N., Abhayawansa, S., Joshi, M. & Huynh A.V. (2015) Integrated Reporting in South Africa: Some Initial Evidence. *Sustainability Accounting, Management and Policy Journal*, 6, 3, 397-424.

Shoaf, V., Jermakowicz, E.K. & Epstein, B.J. (2018) Toward Sustainability and Integrated Reporting. *Review of Business*, 38, 1, 1-15.

Solomon, J. & Maroun, W. (2012) Integrated Reporting: the influence of King III on social, ethical and environmental reporting [web document]. [Accessed 18.12.2018]. Available: <https://www.accaglobal.com/content/dam/acca/global/PDF-technical/integrated-reporting/tech-tp-iirsa.pdf>

Soyka, P.A. (2013) The International Integrated Reporting Council (IIRC) Integrated Reporting Framework: Toward Better Sustainability Reporting and (Way) Beyond. *Environmental Quality Management*, 23, 2, 1-14.

Stolowy, H. & Paugam, L. (2018) The expansion of non-financial reporting: an exploratory study. *Accounting and Business Research*, 48, 5, 525-548.

Stubbs, W. & Higgins, C. (2018) Stakeholders' Perspectives on the Role of Regulatory Reform in Integrated Reporting. *Journal of Business Ethics*, 147, 3, 489-508.

Sveiby, K.E. (2010) Methods for measuring intangible assets. [web document] [accessed 5.1.2019] Available: <https://www.sveiby.com/files/pdf/intangiblemethods.pdf>

Sveiby, K.E. (1997) The Intangible Assets Monitor. *Journal of Human Resource Costing and Accounting*, 2, 1, 73-97.

Sydler, Haeflinger & Prukša (2014) Measuring Intellectual Capital with financial figures: Can we predict firm profitability? *European Management Journal*, 32, 244-259.

Thomson, I. (2015). 'But does sustainability need capitalism or an integrated report' a commentary on 'The International Integrated Reporting Council: A story of failure' by Flower, J. *Critical Perspectives on Accounting*, 27, 18-22.

van Wensen, K., Broer, W., Klein, J. & Knopf, J. (2011) The state of play in sustainability reporting in the European Union [web document] [accessed 1.4.2019] Available: https://www.labourline.org/GED_CUY/114489193266/D10844.PDF

Wang, Q., Sharma, U. & Davey, H. (2016) Intellectual Capital disclosure by Chinese and Indian information technology companies: A comparative analysis. *Journal of Intellectual Capital*, 17, 3, 507-529.

Williams, S.J. & Adams, C.A. (2013) Moral accounting? Employee disclosures from a stakeholder accountability perspective. *Accounting, Auditing & Accountability Journal*, 26, 3, 449-495.

Yi, A. & Davey, H. (2010) Intellectual Capital disclosure in Chinese (mainland) companies. *Journal of Intellectual Capital*, 11, 3, 326-347.

Appendix 1: Content Elements of the Integrated Reporting Framework (IIRC 2013)

- A. Organizational overview and external environment
- B. Governance
- C. Business model
- D. Risks and opportunities
- E. Strategy and resource allocation
- F. Performance
- G. Outlook
- H. Basis of preparation and presentation
- I. General reporting guidance

Appendix 2: Coding items

| Item | Explanation |
|---|--|
| Intellectual Capital | |
| 1. Corporate governance | Governance structure, board diversity, attendance, responsibilities and goals |
| 2. Intellectual property | Patents, trademarks, copyrights and developed software |
| 3. Information technology and information systems | Used and provided IT and IT systems and investments |
| 4. Research and development | R&D investments, work force, |
| 5. Processes, policies and procedures | ...related to safety, diversity, governance, remuneration etc. |
| 6. Organisational structure | Organisational chart, list of subsidiaries and joint ventures |
| 7. Brands | Corporate brand, product and service brands, brand awareness, strength and financial value |
| 8. Corporate image | Reputation and stakeholders' perception of the company |
| 9. Market share | Numerical share, description of market position |
| Human Capital | |
| 10. Employee competence and capabilities | Competencies and skills valued and needed |
| 11. Employee experience | Employers efforts to provide a positive professional experience |
| 12. Employee loyalty and motivation | Engagement, satisfaction, occupational health, top employer, work-life-balance |
| 13. Employee diversity | Promoting diversity and equality, profile (%), diversity networks, councils and policies, gender pay gap |
| 14. Employee Health and Safety | Injury rates, safety audits, observations and training |
| 15. Employee benefits | Salaries, wages, health benefits, holidays and family leaves, share schemes |
| 16. Employee Development | Skill development, personal development and guidance, training, performance discussions, job rotation |
| Social and Relationship Capital | |
| 17. Relations with customers | Customer health, safety, privacy, satisfaction, retention, engagement |
| 18. Relations with competitors | Industry-wide collaboration |

| | |
|--|---|
| 19. Relations with suppliers | Code of conduct, supplier engagement, communication, |
| 20. Relations with lenders | Communication with banks or other |
| 21. Relations with shareholders | Communication with investors |
| 22. Human rights | Commitment to human rights |
| 23. Indigenous rights | B-BBEE, projects for native cultures |
| 24. Social projects and charity | Shorter term initiatives and donations for social causes not necessarily on local scale |
| 25. Relations with communities | Long term relationships and contributions for local communities, employment and economic impact |
| 26. Relations with legislators, regulators and policy makers | Government, industry bodies, tax payments, |
| 27. Relations with business partners | Co-creation, logistics, distribution, |
| 28. Corporate culture | Characteristics of corporate culture |
| 29. Claims and lawsuits | Lawsuits and liabilities |
| 30. Relations with employees | Communication and engagement with employees |
| Natural Capital | |
| 31. Air | Carbon footprint (energy, electricity, logistics, fuels, waste, material use, facilities) CO ₂ , other air emissions |
| 32. Water | Withdrawal, consumption, use, discharge, wastewater effluents |
| 33. Land | Use and reuse of land areas |
| 34. Minerals | Sourced minerals and its effects |
| 35. Forests | Deforestation, use of timber |
| 36. Eco-system health | Climate change, CDP |
| 37. Biodiversity | Living species |

Appendix 3: Examples of forward-looking tables

| Company | Table Columns | Target | Status |
|------------------------------|---|--------------------------|--|
| Cemex | Challenge > Objective | Numeric | Numeric |
| DIMO | Objective > Achievement > Remarks | Narrative and numeric | Achieved / Not Achieved & Numeric |
| International Hotel Group | KPIs > 2017 status > 2018 specific priorities | Narrative | Numeric |
| Redefine Properties | This is how we did > Priorities for 2019 | Narrative | Colour code: Achieved / Still in progress / Did not achieve |
| Sage | What did we do during FY18? > What's next? | Narrative | Narrative |
| The Crown Estate | Strategic objective > What are we trying to achieve > How did we perform this year > Priorities for 2018/2019 | Numeric | Narrative |