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A touch of Integrated Reporting

An exploration of large Swedish companies' compliance with the IIRC's six capitals

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PREFACE

I would like to express my deepest gratitude to my supervisor Peter Beusch for all of his support during the course of the thesis work. Without his suggestions, comments and critique, this thesis would not exist. I would also like to take the opportunity to thank the seminar group for the thoughtful ideas and inputs that were offered. Finally, I would like to thank all of my friends and family for their invaluable support and encouragement during the years of my education. Without you, there wouldn't have been any.

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ABSTRACT

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Title A touch of Integrated Reporting – An exploration of large Swedish companies' compliance with the IIRC's six capitals.

Background and problem: In 2013, the IIRC issued a new framework on integrated reporting. Through the framework, the IIRC hopes to accelerate the adoption of integrated reporting around the world. Potential benefits of integrated reporting include greater efficiency, a more integrated focus on sustainability and better information. The six capitals concept is a central element to the IIRC's understanding of value creation. Prior studies of Swedish companies and integrated reporting have not focused specifically on the capitals concept, wherefore this study will be exploring this gap in the literature.

Purpose: The main purpose of this study is to explore the reporting among large Swedish companies in relation to the IIRC's six capitals concept. In order to gain a further understanding of the IIRC's potential impact, two years, 2011 and 2015, will be studied. The study will focus on large companies as prior research has shown that larger companies disclose more and have more incentives to do so. Therefore, only Swedish companies listed on the OMXS30 will be included. Furthermore, only annual reports will be part of the study, as it is these that integrated reports might come to replace.

Method: This study uses content analysis, in the form of a scoring system derived from the IR framework and previous studies, to analyse annual reports in order to explore the reporting of capitals among Swedish companies. A list of 25 items under study was derived from previous research and the IR framework and subsequently scored. 20 annual reports from large Swedish companies for each year, 2011 and 2015, were part of the study, resulting in 40 annual reports in total.

Results and conclusions: The results show that financial capital scored the highest, followed by human, intellectual, social & relationship, natural and, finally, manufactured capital. Three capitals: human, intellectual and social & relationship, showed increases in their scores between the years. Natural capital showed a decrease while the remaining two were more or less stable. Most companies included in the study (14/20) and a majority of the items (14/25) scored higher during 2015. The total score increased by 11 % from 2011 to 2015, which is considered a relatively small increase. While this study does not answer the questions of why the reporting looks this way, links to previous studies are made in an attempt to provide information that can be of use for both researchers and practitioners.

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1. INTRODUCTION

This chapter will introduce the topic under study as well as the purpose, research question and outline of this thesis.

1.1 BACKGROUND

Various forms of non-financial reporting have increased among companies over the past 30 years (Eccles & Krzus, 2010). The two authors believe that this has been the result of an increased need among managers and investors for additional information to complement the traditional financial information. Regulation in this area is also changing with the EU recently adopting a new directive on non-financial reporting that will force all large public-interest entities to provide information on non-financial matters (European Commission, 2016). According to EY (2015), this disclosure should cover policies, main risks and outcomes relating to environmental matters, social aspects and human rights, anti-corruption and bribery issues and diversity in the board of directors. In Sweden, all large companies and companies of public interest will be affected by the law which is expected to come into effect on 1st July 2016. The companies affected will have to either report on the matters or explain why reporting would not be relevant. (EY, 2015)

Over the years, there have also been several attempts at combining financial and non-financial performance management and reporting. De Villiers, Rinaldi and Unerman (2014) list four of the most important ones, including the Balanced Scorecard, the Triple Bottom Line, various forms of sustainability reporting and, finally, Integrated Reporting. Regarding external reporting, de Villiers et al. (2014) state that until the latter stages of the last century, most social and environmental reporting took place in the annual reports, where relatively small sections would be devoted to these issues. Since then, companies have started to detach the social and environmental parts from the annual reports and instead produce separate sustainability or corporate social responsibility (CSR) reports. Over time, there has been a high growth of these stand-alone reports (Eccles & Krzus, 2010 and Hahn & Kühnen, 2013). A reason for changing from presenting sustainability information in the annual report to issuing separate reports could be that companies have recognized the importance of providing a wider range of stakeholders with information, as information in the annual report would be tailored mostly for shareholders and creditors (Eccles & Krzus, 2010 and de Villiers et al. 2014).

Separate sustainability reports can be based on common frameworks and guidelines such as those issued by the Institute for Social and Ethical Accountability and the Global Reporting Initiative (GRI) (de Villiers et al. 2014). The goal with the GRI framework and guidelines was to provide stakeholders with information on economic, social and environmental performance (Eccles & Krzus, 2010) and to enhance the credibility and comparability of the reports (de Villiers et al. 2014).

However, Eccles and Krzus (2010) note that the links between and usefulness of separate reports have been questioned. The authors claim that most of them display very little linkage or integration between each other, especially between financial reports and CSR reports. At the same time, the amount of information has increased when companies disclose additional information. Thus, there is a risk of information overload as a result of the increased amount of reporting, which would contribute to more difficulties for readers when trying to understand the important linkages between the different parts of the reports (de Villiers et al 2014). It has been

argued that for these reports to be truly meaningful in aiding in a larger change of business practice, they must integrate better with each other (Eccles & Krzus, 2010). This would allow companies to focus on combining and integrating a sustainability focus with the overall business strategy, according to the authors.

This development has led to initiatives to try to connect the reporting, or make it more holistic. The Prince's Accounting for Sustainability Project (A4S) was set up in 2004 and it started to develop guidelines for "connected reporting", i.e. focusing on the linkages between economic, social and environmental actions and outcomes. The A4S and GRI later joined forces to form the International Integrated Reporting Council (IIRC) in 2010.

In 2011, the IIRC issued a discussion paper regarding its proposal on a new way of reporting: integrated reporting (IR) (IIRC, 2011). Two years later, in the end of 2013, a first version of the IR framework was published. The IIRC is a global coalition consisting of regulators, standard setters, accounting firms, companies, investors and non-governmental organizations. IIRC's vision is to use integrated reporting to bring capital allocation and corporate behaviour together with the overall goals of financial stability and sustainable development. Its mission is to bring integrated reporting and thinking into mainstream business practice as the norm in both private and public sectors. (IIRC, 2016a) Originally, the idea was that IR could come to replace the annual reports of today (IIRC, 2011 and de Villiers et al. 2014). However, it has been stated that this idea has been dropped (Flower, 2015).

The IR framework is a tool with which the IIRC intends to spread and accelerate the adoption of IR around the world. It is meant to bring more efficiency and coherence to reporting and to help develop integrated thinking within organizations. This is a way to reduce silo reporting and to reduce duplication. An explicit aim of the IR framework is to improve the quality of information to capital providers with the intention of bringing about a more efficient and productive capital allocation. (IIRC, 2016b) Other potential benefits of IR include a longer-term focus than financial reporting, increased understanding of the importance of sustainability information and better integration within organizations (Roth, 2014).

The IIRC is neither a standard setter nor a regulator in Sweden which means that adopting integrated reporting is not a requirement in Sweden (PwC, 2013a). However, companies can still choose to voluntarily report on basis of the framework for various reasons, such as a desire to be at the forefront of reporting practices or as a way to provide stakeholders with better information. If the effect are those desired by the IIRC, companies that produce integrated reports might well face lower cost of capital or reduced information asymmetry (EY, 2015). Alternatively, even though IR is relatively new, companies might choose to adopt it because of reasons of legitimacy or institutionalization.

1.2 PROBLEM DISCUSSION

There are previous studies that have researched Swedish companies' compliance with the IR framework's content elements (PwC, 2013b and Larsson & Ringholm, 2014). The content elements are a set of requirements that should be included in an integrated report. Larsson and Ringholm (2014) focused specifically on one of the content elements, namely *governance*.

The IR framework contains much more than the content elements, which will be covered in greater detail in the next section. However, for the sake of understanding the problem discussion, one has to be aware of one of the most fundamental concepts used in IR, namely the concept of the six capitals. The IIRC has identified six forms of capital that are used to shape the discussion of value creation. These are: financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital (IIRC, 2013). Companies issuing integrated reports do not have to adopt these particular capitals or explicitly report on them. Their main purpose is to serve in the value creation discussion, as well as acting as guidelines to help companies think about what kinds of capital that they use or affect. (See the next chapter for definitions of the capitals.)

There are international studies that have considered the capitals (Setia, Abhayawansa, Joshi & Huynh, 2015 and Eccles & Serafeim, 2014) but none have focused on Swedish companies. Previous studies have also shown that the amount of disclosure tends to increase with company size (Hahn & Kühnen, 2013, Frias-Aceituno et al. 2014 and Larsson & Ringholm, 2014). An explanatory factor is that larger firms tend to have larger needs of external financing and increased disclosure can be used as a way to enhance the relationships between companies and capital markets (Frias-Aceituno et al. 2014). Hahn & Kühnen (2013) also point to disclosures as a way for companies to legitimize themselves to their stakeholder, which larger companies tend to have more of.

Based on this discussion, there seem to be reasons for why companies' would adapt integrated reporting. Even though one does not have to use or report using the same capitals as described by the IIRC, the capitals concept is still a central to the understanding of organizations' value creation. An understanding of the capitals will therefore be an important step in developing integrated reports and integrated thinking. (IIRC, 2013)

Compared with other parts of the IR framework, the six capitals concept is not explored among Swedish companies at the moment. The two studies mentioned were focused on the content elements and not the capitals. Therefore, there is room for a study that aims to explore the reporting of Swedish companies with regards to the capitals concept. Furthermore, the IR framework was released recently, by the end of 2013, which means that best practice in terms of integrated reporting has not yet developed. Studies of the subject are also relatively few. In light of this, it is interesting to research if Swedish companies report elements that correspond to definitions of the capitals and if there are any signs of early adoption of IR principles.

1.3 PURPOSE AND RESEARCH QUESTION

The main purpose of this study is to explore the reporting among large Swedish companies in relation to the IIRC's six capitals concept. In order to gain a further understanding of the IIRC's potential impact, two years, 2011 and 2015, will be studied. The study will focus on large companies as prior research has shown that larger companies disclose more and have more incentives to do so. Therefore, only Swedish companies listed on the OMXS30 will be included. Furthermore, only annual reports will be part of the study, as it is these that integrated reports might come to replace. Findings from the study will be related to earlier studies as well as to explanatory theories in order an attempt to provide theoretical information. Still, the main purpose will be to uncover what is, rather than explaining why.

Based on the above discussion, the research question is stated like this:

- What do Swedish companies report on in their annual reports in terms of the IIRC's six capitals concept?

1.4 OUTLINE

This paper consists of five main chapters. Chapter one covers the background, problem discussion and the purpose of the study. Chapter two presents a literature overview on integrated reporting and studies that relate to it. It also presents various theories that can help explain why reporting practices spread. Chapter three is devoted to the methodology used in this study and a discussion of it. Chapter four presents the empirical findings as well as an analysis where connections to prior studies are made. Finally, chapter five summarizes the main findings and discusses the overall contribution of this study. It also includes suggestions for further research.

2. LITERATURE REVIEW

This chapter will present the literature review made during the course of this study. This includes the IR framework, a discussion on benefits and criticism and previous studies and theories that can help explain the spreading of reporting practices.

2.1 THE INTEGRATED REPORTING FRAMEWORK

According to the IIRC (2013), its vision is a world where integrated thinking is a part of contemporary business practice in both the public and private sectors. Integrated thinking is defined by the IIRC “as *the active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses of affects*” (IIRC 2013, p.2). This way, integrated thinking considers all factors that affect the ability to create value, and the connections between them. The IIRC claims that these factors include, among others, inputs in terms of capitals, a company's business model and how it fits with the environment, activities, performance and outcomes in terms of the capitals.

Integrated reporting (IR) is a tool that IIRC hopes will be used to foster integrated thinking within organizations (IIRC, 2013). The overall aim of IR is to enhance financial stability and sustainability, achieved through efficient and productive capital allocation. This is possible since the IIRC believes that IR can improve the information quality to creditors and investors, that it can promote a more coherent approach to reporting that accounts for a range of capitals and because IR would support integrated thinking and decision making that focuses on value creation over the short, medium and long term. The IR framework states that the primary recipients of integrated reports are creditors and lenders, or “*providers of financial capital*” (IIRC, 2013, p.4) as the IIRC puts it. However, an integrated report will benefit all stakeholders that have an interest in the value creation capabilities of an organization. The IIRC takes this definition to include a range of stakeholders such as employees, customers, suppliers, policy-makers, regulators and local communities. (IIRC, 2013)

The IR framework is described as a principles-based framework by the IIRC (2013) who states that this approach was chosen to achieve a balance between flexibility, prescription and comparability. In-line with this aim, the framework does not prescribe any specific performance indicators or measurement methods. It is up to the preparer to decide what is material to include, how to measure it and how to disclose it. However, the IIRC (2013) believes that a combination of quantitative and qualitative information is required to best report on the value creation capabilities of an organization. Furthermore, it is also stated clearly in the framework that it is not the purpose of an integrated report to monetize the value of an organization at a certain point in time, the value of what is created or the effects on the capitals (IIRC, 2013).

2.1.1 THE CAPITALS

Chapter 2 in the IR framework describes the fundamental concepts that form the basis for the requirements and guidance found in the rest of the framework. It is explained that value is not created by an organization alone. It is influenced by the external environment, created through relationships with stakeholder and dependent on various resources. An integrated report should aim to provide insights on these factors of the value creation process. It is also pointed out that IIRC's concept of value encompasses both value for the organization and value for others (stakeholders and the society at large). Interactions, activities and relationships that are

material for an organization's value creation capabilities should be included in an integrated report. An important point is that this includes factors that are externalized, i.e. when value has been created or destroyed outside of the reporting organization because of actions that the reporting organization took. (IIRC, 2013)

The resources and relationships that are used or affected by an organization are referred to by the IIRC (2013) as capitals. Six different capitals have been identified in the IR framework: financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital. The capitals can also be considered as stocks of value that an organization uses, creates or affects when undertaking business. The overall value of the capitals is not fixed over time, in other words the IIRC does not see the capitals as a zero-sum game. The capitals are affected through business activities and there are activities that cause decreases to some capitals and increases to others. The IIRC (2013) states that there might well be net decreases to the overall stock of capital, even though the intention is thought to be overall value creation. IIRC's value creation model as adopted from the IR framework is presented in figure 1. It shows the role that the capitals play in the value creation process.

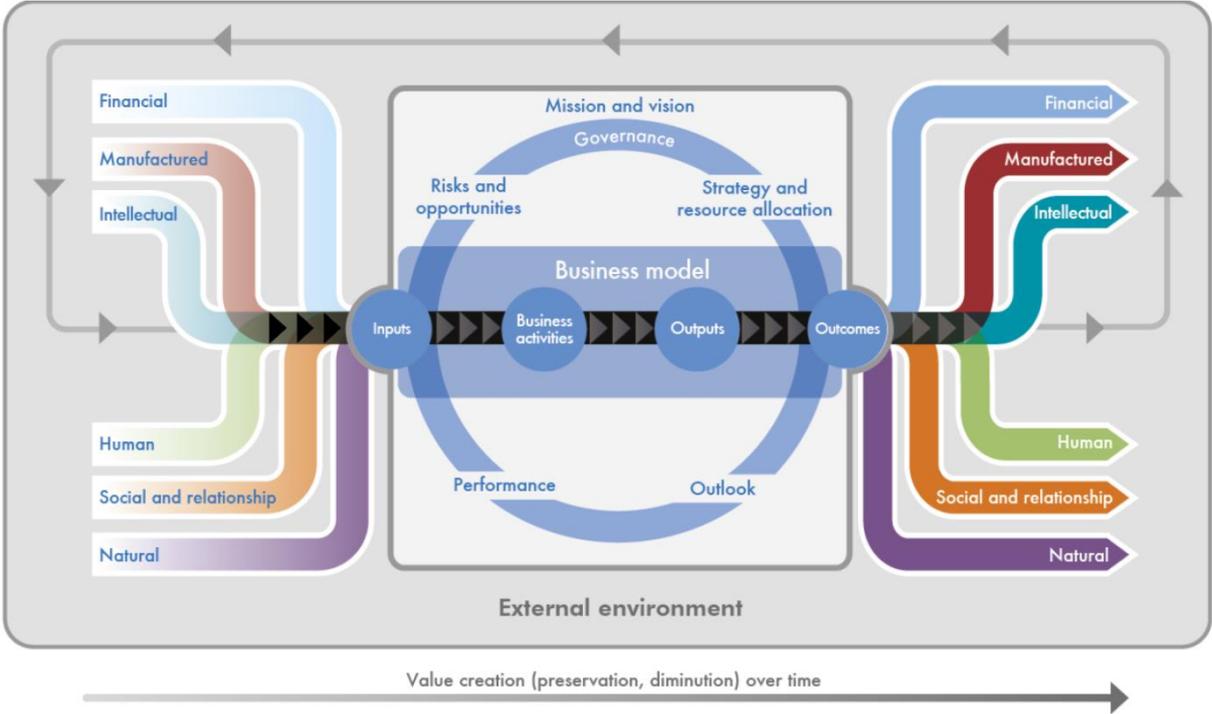


FIGURE 1: IIRC'S VALUE CREATION MODEL (IIRC, 2013, P.13)

The IR framework stresses that it is not mandatory for companies to adopt its classification of the capitals when preparing an integrated report. The primary purposes of the capitals in the framework are to serve as a theoretical base for the discussion on value creation, and as guidelines that ensures that companies do not overlook any form of capital that they use or affect. The IR framework includes definitions and descriptions of the capitals as presented in table 1.

Capital	Description in the IR framework
Financial capital	The pool of funds that is: <ul style="list-style-type: none"> - available to an organization for use in the production of goods or the provision of services - obtained through financing, such as debt, equity or grants, or generated through operations or investments
Manufactured capital	Manufactured physical objects (as distinct from natural physical objects) that are available to an organization for use in the production of goods or the provision of services, including: <ul style="list-style-type: none"> - buildings - equipment - infrastructure (such as roads, ports, bridges, and waste and water treatment plants) Manufactured capital is often created by other organizations, but includes assets manufactured by the reporting organization for sale or when they are retained for its own use.
Intellectual capital	Organizational, knowledge-based intangibles, including: <ul style="list-style-type: none"> - intellectual property, such as patents, copyrights, software, rights and licences - “organizational capital” such as tacit knowledge, systems, procedures and protocols
Human capital	People’s competencies, capabilities and experience, and their motivations to innovate, including their: <ul style="list-style-type: none"> - alignment with and support for an organization’s governance framework, risk management approach, and ethical values - ability to understand, develop and implement an organization’s strategy - loyalties and motivations for improving processes, goods and services, including their ability to lead, manage and collaborate
Social & relationship capital	The institutions and the relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to enhance individual and collective well-being. Social and relationship capital includes: <ul style="list-style-type: none"> - shared norms, and common values and behaviours - key stakeholder relationships, and the trust and willingness to engage that an organization has developed and strives to build and protect with external stakeholders - intangibles associated with the brand and reputation that an organization has developed - an organization’s social licence to operate
Natural capital	Natural capital – All renewable and nonrenewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization. It includes: <ul style="list-style-type: none"> - air, water, land, minerals and forests - biodiversity and eco-system health.

TABLE 1: CLASSIFICATION AND DESCRIPTION OF THE CAPITALS AS PRESENTED IN THE IR FRAMEWORK (IIRC, 2013).

2.2 THE BENEFITS OF INTEGRATED REPORTING

Using inputs from several studies and publications (Kanzer, 2010; IIRC, 2011; Eccles & Krzus, 2010 and Deloitte, 2011), Roth (2014) compiles a list of potential advantages of using integrated reporting. The main benefit is taken to be the integrated thinking, should it be achieved. Roth (2014) argues that integrated thinking will become valuable in evaluating the long-term sustainability of a firm. Eccles and Serafeim (2014) states that the full value of integrated reporting can only be reached once it has succeeded in articulating the links that exist between financial and non-financial performance and outcomes. The integration of various sources of data will make companies adopt a more long-term view of the impacts of their decisions to the various capitals (Roth, 2014).

This positive effect is shared by Tweedie (2014), who argues that IR has a progressive side to it since it promotes a longer-term focus than what is currently present within our capitalism. Tweedie (2014) states that short-term investors are the one group with least incentive to consider the effects of their companies' actions on other stakeholders. Therefore, IR is least likely to be of interest to short-term investors. At the same time, he acknowledges that many of the environmental challenges are long-term, meaning that a shift from a short to a long-term focus would be desirable and that IR could have a role to play here. However, IR might be used to justify short-term actions by legitimizing them as being part of a longer-term agenda. Therefore Tweedie (2014) calls for regulatory incentives to promote long-term investments, thus concluding that IR might not be able to bring about a change on its own.

Roth (2014) continues by stating that integrated reports would put corporate sustainability information in front of analysts and highlight its importance for financial decisions. He argues that many analysts simply ignore separate corporate sustainability reports. This is supported by Ferns, Emelianova and Sethi (2008) who evaluated the ability of sustainability reports to reach and persuade their audience. They found that it seemed as few people actually refer to the sustainability reports for meaningful information. Low credibility is stated as a possible reason for the meagre outcome. The authors also claim that companies might have lost sight of the positive sides of the sustainability disclosures. Instead of using them as way to build trust, they are issued as responses to the corporate pressures of not being worse than rivals.

In addition, switching from separate reporting to integrated reporting could also help advance the understanding among senior management on the issue of sustainability performance (Roth, 2014). It would no longer be handled separately in some CSR department. The engagement between different business functions that would be the result of companies trying to figure out how to integrate a range of information would also be beneficial for the overall organization (Eccles & Serafeim, 2014).

However, Flower (2015) states that the idea of IR replacing other forms of reporting has been dropped for the 2013 framework, although it is not explicit. Thus, IR risks becoming just another reporting requirement that would add instead of replace. An interesting point is that Flower (2015) argues that in accepting that firms will issue specialized reports on social and environmental accounting, the need for an integrated report to cover those areas is greatly reduced.

Nevertheless, Roth (2014) lists several communication benefits of integrated reporting. For instance, integrated reporting could bring a better alignment between the reported information and the investor need. Eccles and Serafeim (2014) argues that investors will require a better understanding of how financial and non-financial performance is managed by companies, something which separate reporting fails to provide. Integrated reporting, on the other hand, can fill a vital role in providing the desired information. Furthermore, Roth (2014) mentions that integrated reporting could become a catalyst in developing a common language for reporting. Overall, Roth (2014) also points to the benefits of increased disclosures, which he takes to include better relations with stakeholders and, possibly, lower cost of capital. The extent of these benefits would be contingent on what information that the stakeholders want and what the company delivers. Finally, Roth (2014) mentions improved risk management as a result of integrated reporting. This would be brought about because of the assessments of the connections between the capitals that companies would have to undertake. Risk management under integrated thinking would thus incorporate factors that might not have been thought of earlier.

2.3 CRITICISM AND DISCUSSION OF SUSTAINABILITY REPORTING AND INTEGRATED REPORTING

Two main themes of criticism and discussion were encountered during the literature review. They will be presented in the following two sections.

2.3.1 DISCUSSION OF THE BUSINESS PERSPECTIVE OF IR

Brown and Dillard (2014) present a critical discussion on integrated reporting and its ability to drive change and foster sustainable business practices. They do so by reviewing current debates on IR and prior research on other forms of social and environmental reporting. There is no doubt that today's society faces great challenges, including the threat of climate change. There is pressure on businesses, including their accounting function, to undergo fundamental changes to help addressing the issues. Yet, sustainability issues are complex, filled with uncertainty and contested. The same goes for accounting and businesses and the changes that are required of them. There are different and contesting perspectives, interests and values. In the case of integrated reporting, there are similar concerns and discussions. The authors state that the views on IR are mixed. Some see it as a useful tool to introduce sustainability thinking into organizations, while other think that it will prevent such a development. (Brown & Dillard, 2014)

Cheng et al. (2014) first explain the concept of integrated reporting and continue to outline key issues and future research opportunities concerning integrated reporting. The article was written as a response to the consultation draft that IIRC published in March 2013, but as explained by de Villiers et al. (2014), the issues are still valid, even after the IIRC published its framework in late 2013. Three main issues were identified, one of which concerns the primary users of integrated reports. The primary users of an integrated report in the IR framework are taken to be providers of financial capital, i.e. lenders and investors. However, this led to criticism stating that other stakeholders might be just as important as shareholders and lenders. Therefore, a clarification was made that an integrated report would be of benefit to all stakeholders that are interested in the value creation capabilities of a firm. However, the authors

note that there is still concern that the focus on investors and creditors might be to the detriment of the demands by other stakeholders. (Cheng et al. 2014)

Brown and Dillard (2014) argue that it is a mistake of the IIRC to push for the business case understanding of sustainability. It has been common in the past for sustainability reporting initiatives using a business rationale to appeal to and get traction with powerful business people. Essentially it is highlighting win-win situations or promoting sustainability as necessary to achieve financial success. This approach has been somewhat successful in reaching incremental changes but it has failed to achieve more fundamental changes to established assumptions, processes and techniques. One example is the dominance of the capital market perspective in accounting standard setting. The authors believe that the fundamental changes need to be accomplished if we are to transit to a more sustainable society. IIRC takes a business perspective since the purpose of IR is to explain the true value creation to providers of financial capital (although that information would be useful to other stakeholders as well) (IIRC, 2013). In doing so, Brown and Dillard (2014) argue that the IIRC blocks out other solutions and perspectives. This causes IR to reinforce the business logic rather than opening up for other views and leads to a situation where IR does little to help accountants think critically about the theories, techniques and reporting practices that are used. The authors also state that some of these practices have played a large part in the current, unsustainable, situation that society is facing. (Brown & Dillard, 2014)

Flower (2015) criticizes the lack of coverage of stakeholders, arguing that the IIRC allows for too much of a business perspective in integrated reporting. He argues that it is evident from the framework that the interests of other stakeholders are only interesting for a company insofar as they are useful for ensuring the prosperity of the company. Flower (2015) also stresses that while the IIRC recognizes both private costs and social costs and externalities, firms will only have to report on them if they have an impact on the value creating capabilities of the firms themselves. Thus, the IR framework takes a business case perspective, leaving the interests of other stakeholders secondary (Flower, 2015). Another area that Flower (2015) criticizes is the lack of obligations in the framework. When comparing the framework to the press release and the discussion paper, he notices that the IIRC has retreated from imposing obligations on the firms reporting under IR. Therefore he questions the ability of IR to have much of an impact on the financial reporting of companies today.

Flower (2015) argues that the shortcomings of the IR framework are caused by the composition of the IIRC's governing council, which is dominated by the accountancy profession and by multinational enterprises. Those whom he considers to be the advocates of social and environmental accounting, such as representatives from the GRI, are in minority in the council. There are political powers in play that want to keep the current ways of doing business, so as to keep power and authority with corporate managers and the accounting profession (Flower, 2015). The author concludes the article by expressing his disappointment with the IIRC and by stating that "*it would not be an exaggeration to claim that the IIRC has been 'captured' by the preparers and the accountancy profession*" (Flower, 2015, p. 17).

2.3.2 CONTRIBUTION TO SUSTAINABILITY

Through a study of the history of the IIRC, Flower (2015), questions the abilities of IR to promote sustainability accounting and business practice. He calculated that the terms "sustainability", "sustainable" or "sustain" were included on average 4.3 times in the press release of 2010, while they are only mentioned once in total in the 27-page IR framework. He argues that it is possible for sustainability to be reported through the capitals, but only if three prerequisites are met. First, a firm will have to employ a wide definition of value, that is to say, as "value to society". However, the framework is more concerned with explaining value creation to providers of financial capital (IIRC, 2013) and hence, value should be interpreted according to their views (Flower, 2015). The author acknowledges that the framework includes "value to others" but only to the extent that this value is important for the value creating capabilities for the organization itself.

A second prerequisite according to Flower (2015) is that a firm will have to report thoroughly on the capitals listed in the framework. However, a company is not obliged to adopt the same classification as IIRC and, as he points out, the definitions of some of the capitals exclude certain components of the total capital base. For instance, regarding manufactured capital and natural capital, Flower (2015) argues that only objects that are important for the firm's production process would be included, potentially excluding the negative effects on a range of objects otherwise included in the total capital.

The third and final prerequisite for achieving sustainability is that the overall stock of capital should not decrease as a result of business activities (Flower, 2015). It is stated in the framework that while companies aim to create value overall, there might be cases where the value creation in one area causes value destruction in another and whether the total effect on the overall stock of capital will be positive or negative depends on the perspective taken by the preparer (IIRC, 2013). The IIRC (2013) accepts trade-offs between the capitals but Flower (2015) argues that trade-offs are problematic because of the measurement of the capitals. He also believes that trade-offs involving a decrease of natural capital will almost never be in the interest of the society as a whole. Based on the violation of the three prerequisites for sustainability reporting through the capitals, Flower (2015) concludes that the IIRC has abandoned sustainability and that the capitals enables firms to justify damage to the environment, rather than protecting it.

Cheng et al. (2014) also discuss the trade-offs between the capitals. The authors conclude that there is a risk of great subjectivity when assessing the overall impact of a company's actions on the capitals. They also believe that it might be difficult for organizations to explain some of their capitals in ways other than through "*insubstantial narratives*" (Cheng et al. 2014, p.98). Furthermore, there is a question of how to assess the trade-offs that can happen between the capitals and how to explain the choices made without "turning the disclosure into thinly veiled, self-promoting justification?" (Cheng et al. 2014, p.98). A final point of concern in Cheng et al.'s (2014) article is that natural capital need not necessarily belong to a company, which means that decreases to natural capital does not have to be borne by the owners. Rather, it is going to be other stakeholders who will bear the costs of decreases of natural capital. The authors therefore question the relevance of this information to the primary users: investors and creditors, if they are not affected by decreases in natural capital. (Cheng et al. 2014) On the same topic, Flower's (2015) points to cost-benefit assessments as evidence for the abandonment of sustainability.

Sustainability reporting places an additional burden on companies; it would be costly for them to acquire information on the impacts of their activities on society and the environment. However, the value of such reporting would accrue to society, rather than the individual company, her argues.

In an article from 2013, Milne and Grey review and critique some sustainability reporting initiatives including the triple bottom line (TBL), the GRI and briefly integrated reporting as based on the discussion paper that was available at the time. The authors have identified the TBL concept to be underpinning a range of forms of sustainability reporting. The authors point to a disconnect between sustainability reporting and the highly important issue of sustaining the ecological systems. They also state that the TBL concept has "*become dangerously confused with advancing a just and sustainable world*" (Milne & Grey, 2013, p. 24). The authors argue that reporting in accordance with the TBL or GRI could be described as un-sustainability reporting. At best, these are accounts of firms' impacts on society and the environment and while firms may disclose their efforts to become more sustainable, the reports do not inform the reader about how much more that needs to be done in order to act truly sustainable. Milne and Grey (2013) believe that many organizations confuse this sustainability reporting with actually being sustainable or moving towards sustainability. This kind of confusion risks masking the changes that need to take place within our society because it reinforces "business as usual" which brings us more un-sustainability, the authors argue. In particular, the result is an inability to appreciate that fact that profits, growth and financial viability might come at the expense of society or the environment. This is problematic because it means that the TBL, GRI and other concepts of sustainability reporting does little to promote a reconfiguration of the way business is done or to foster the ecological thinking that is necessary (Milne & Grey, 2013).

Regarding integrated reporting, Milne and Grey (2013) state that the discussion paper is a "*masterpiece of obfuscation and avoidance of any recognition of the prior 40 years of research and experimentation*" (Milne & Grey, 2013, p. 20). The authors believe that adopting IR instead of GRI or TBL would mean taking a step back as far as sustainability is concerned, the reason being IIRC's strong investor focus and that IR does not push for accountability or sustainability. Like GRI or TBL, IR will not be able to bring about change, "*except in being remarkably regressive*" (Milne & Grey, 2013, p.25)

2.4 A DISCUSSION ON CAPITALS

Through a literature review, Coulson, Adams, Nugent and Haynes (2015) explore the capital metaphor and the development and potential of IIRC's six capitals concept. The authors conclude that the IIRC's agenda involves aiding a shift from financial capital markets to inclusive capital markets. The word "inclusive" should be taken to signal that resources other than those covered by traditional accounting are instrumental to long-term financial performance. In addition, it is explained in the article that the IIRC is an advocate for a shift from short-termism to long-term thinking and from silo reporting to integrated reporting. To encourage companies to consider all forms of capitals that they use and the interconnectedness between is one way in which the IIRC helps this development. (Coulson et al. 2015) Even though companies are not required to adopt same definitions of the capital as the one presented in the IR framework, the IIRC hopes that the definitions will help companies think about what capitals they use (IIRC,

2013). It is also not the intention of the IIRC to push for a monetization of all of the capitals. Coulson et al. (2015) believe that monetization could be a useful tool, and that quantitative measures will be necessary alongside qualitative information to gain an understanding of the capitals. However, being too focused on assigning the capitals a monetary value means that there is a risk of cementing the economic understanding of capitals, which might contradict a broader understanding of what value is and the purpose of integrated thinking (Coulson et al. 2015).

Despite the lack of obligations in the IR framework, Coulson et al. (2015) found evidence to suggest that the usage of the term capital is increasing, possibly reflecting a change in terminology. Given the discussion in the previous section, the authors argue that one should be careful about how to use the capital metaphor. Another finding in the article was that it seems as most companies do not report fully on the trade-offs between capitals, at least not according to the IIRC. An explanation could be the difficulties in measuring some of the capitals, meaning that trade-offs are difficult to assess. Coulson et al. (2015) also stress that firms need to develop their internal reporting systems for management to be able to assess trade-offs. In addition, transparency is seen as important in addressing the challenges and opportunities of the connectivity of the capitals (Coulson et al. 2015).

Moreover, with reference to Barter (2015), Coulson et al. (2015) point to the risk of commodification of resources. When assigned a monetary value, there is a risk of placing resources into the economic system that is partially responsible for destroying them. On this topic, Barter (2015) discusses the relative roles of the capitals and the risks of bringing natural capital into the boardrooms. First off, Barter (2015) argues that natural capital is not to be seen as just one of the six capitals, rather it should be seen as a master set of which the other capitals are subsets. The reasoning behind this argument is that there is not a perfect substitutability between natural capital and the other, human-made, capitals. Barter (2015) argues that in the case of manufactured capital, there are instances where one will require more natural capital in the production than what is ultimately being produced, hence natural capital is only partially substitutable. And even though natural capital might not be a direct input in creating human capital, for instance, Barter (2015) argues that none of the capitals are independent of natural capital. In addition, once natural capital has been transformed into other forms, it might be very hard to get it back, because it is not human-made.

Barter (2015) states that the notion of natural capital fits in with the language of business and while it facilitates an entry into the boardrooms, there is a risk of the concept hindering more radical solutions to the environmental challenges. The author fears that traditional economic rationale will be applied to natural capital and that managers will try to manage it in the same way as other economic assets are managed. Barter (2015) points out that the risk of this management taking place increases if natural capital is successfully monetized and marketized. If one applies the logic from the above section, then managing natural capital means managing nature which we all depend on. It therefore means managing ourselves. When applying economic logic to nature, Barter (2015) sees a risk of realizing consequences for the evolution of systems and life forms. He wonders whether life forms that are deemed to have a low economic value might be lost. Assigning value to complex ecosystems is not an easy task, however, and Barter (2015) states that anyone attempting to do so must have extensive knowledge of the development, complexities and interactions of the ecosystems. Another warning from Barter's (2015) text is that scarce assets are valued higher. For instance, if there is a decrease in natural

pollination, then there is a business opportunity to offer privatized pollination. From an economic standpoint, the decrease of natural pollination by bees and insects would be a source of profit, if society values those services (Barter, 2015).

To conclude his article, Barter (2015) discusses the impact that managing nature might have on our self-understanding. Do we have an intrinsic value or should we regard ourselves with an economic rationale? Barter (2015) believes that the notion of natural capital might cause us to take greater responsibility for the nature, but that we are likely to trade "sense for cents". He finishes with stating that "*what makes economic sense is not always right and what is right is not always economic*" (Barter, 2015, p.372).

2.5 THEORIES THAT EXPLAIN THE SPREADING OF REPORTING

2.5.1 INSTITUTIONAL THEORY

Institutional theory is useful to explain why there seem to be a convergence of forms, characteristics and practices among firms in the same organizational field. This includes trying to explain how a practice becomes an institution within a field. (Deegan & Unerman, 2011) An institution can be defined as "a set of rules that governs human behaviour and shapes social relations" (Lichtenstein, 1996, p.224). These rules need not be laws or regulation, they might well be unwritten rules, rules of a social construct that are institutionalized over time. DiMaggio and Powell (1983) claim that there are powerful forces that govern the process of institutionalization and they describe three mechanisms of isomorphism through which the convergence occurs.

Coercive isomorphism is the result of pressures from society or from other organizations or regulatory bodies that the organization in question is dependent on. For instance, complying with laws or mandatory financial reporting standards usually belongs with this category, as this is a requirement to conduct business. (DiMaggio & Powell, 1983)

Mimetic isomorphism is, as the name suggests, when companies imitate the practices, forms or products offered by their competitors or other companies in general. This is done to maintain a competitive advantage or bridge the gap of an existing competitive disadvantage. In other words, mimetic isomorphism can be thought of as competitive pressures that can cause convergence as companies seek to become more successful and legitimate by adopting best practice, even if that brings similarity. DiMaggio and Powell (1983) point out that uncertainty is a fundamental driver for convergence. If a company is uncertain of its own methods and a competitor is doing great, it makes sense to at least try to understand the basis for the competitor's success, even in the case when a cause-and-effect chain has not been identified. (DiMaggio & Powell, 1983)

Finally, there is *normative isomorphism*, which can be thought of as professional pressure. This is a result of formal education and networking among professionals. Education tends to be fairly normative and as a result, people from a similar educational background tend to think alike and tackle problem in similar ways. Networking between professionals with the same, normative educational background, will also increase the normative pressure for convergence. (DiMaggio & Powell, 1983)

2.5.2 DIFFUSION OF INNOVATIONS THEORY

The diffusion of innovations (DOI) theory can be used to study the adoption or likely adoption of integrated reporting, as done by Robertson and Samy (2015) for UK companies. Rogers (2003) explains that diffusion is the process where innovations are communicated through certain channels over time among members of a social system. He identifies five characteristics that determine the rate of adoption which were also described by Robertson and Samy (2015). (1) *Relative advantage* is explained as the degree to which an innovation is considered to be better than the idea it could replace. (2) *Comparability* is defined as the degree to which an innovation is considered to match the existing values and the experiences and needs of the potential adopters. (3) *Complexity* is the degree to which the innovation is considered as difficult to understand and use. (4) *Trialability* is the degree to which an innovation may be tested. (5) *Observability* is the degree to which the results of the innovation are visible to others. (Rogers, 2003) Robertson and Samy (2015) used two more determinants, inspired by Moore and Benbasat (1991). (6) *Image* is defined as the degree to which the innovation is believed to enhance one's image or social status. (7) *Voluntariness of use* is defined as the degree to which the innovation is considered to be voluntary. (Moore & Benbasat, 1991)

Robertson and Samy (2015) use a combination of content analysis of 22 annual and sustainability reports from UK companies and semi-structured interviews with senior managers to investigate the potential adoption of IR in the UK. The authors found that there is a lack of linkage between financial and non-financial reports. This hampers the usefulness of them as they fail to provide clear connection between the two types of information, which is demanded by stakeholders who wish to assess the organization's performance, strategy and prospects. This suggested to the authors that IR might have a relative advantage over the existing reporting practices, which would be beneficial for the diffusion of IR. Robertson and Samy's (2015) investigations also revealed that many leading companies are positive on IR and that they are starting to integrate their reporting along the IR framework. They also point to a UK specific legislation requiring companies to produce strategic reports, which supposedly have some similarities with integrated reporting. Legislation, therefore, might benefit the diffusion of IR, at least in the UK.

Furthermore, Robertson and Samy (2015) stressed the need of establishing how IR fit in with the international and national standards and standard setters. Knowledge of this area will help in understanding the diffusion of IR. The authors also believe that mandating IR would increase the diffusion of the concept, especially in relation to reputation. They also found that the interviewed companies tended to work in silos rather than integrated. A change in this area would help the diffusion of IR, they argue. Finally, Robertson and Samy (2015) point to the complexity in IR regarding the measurement of the capitals. There is a lack of guidance from the IIRC and there is a lack of studies of the area value creation under a multiple capital model.

2.6 PREVIOUS STUDIES ON INTEGRATED REPORTING

A study that investigated capitals disclosure in South Africa was made by Setia, Abhayawansa, Joshi and Huynh (2015). Their study compared the annual reports of 2009/2010 with the integrated reports of 2011/2012 for 25 companies listed on the Johannesburg stock exchange (JSE). In 2010, a regulation change which included integrated reporting as a listing requirement on the JSE came into effect, forcing listed companies to present integrated reports on a comply or explain basis. Setia et al. (2015) use the timing of this regulation change to compare capital reporting in annual reports with that of integrated reports. Capitals included in the study were: human capital, natural capital, intellectual capital and social and relationship capital. The study found a significant increase in the disclosures of information on social and relationship capital in integrated reports compared with annual reports (Setia et al. 2015). For the rest of the capitals, however, there were no statistically significant increases. Setia et al. (2015) believe that this could indicate that companies employ symbolic management in search of legitimacy. The authors question whether corporate behaviour has improved because of integrated reporting or whether it is empty rhetoric.

Setia et al.'s (2015) study also found that companies that had disclosed relatively less information prior to the regulation were those that had improved the most. To the authors, this indicated that the regulation had lowered the dispersion of the extent of disclosures. The results of the study also suggested that the regulation had been successful in causing companies to disclose more non-financial information which should be of interest for policymakers who are considering mandating integrated reporting (Setia et al. 2015).

Another early study of capital reporting under IR was made by Eccles and Serafeim (2014). In their working paper, they use a sample of 124 integrated report produced by companies that took part in the IIRC's pilot programme or that are listed on the JSE to provide an overview of the disclosure of information related to the capitals. Given that this is a working paper, the details surrounding the methodology used are not fully clear, however, a content analysis using a four point scoring system seem to have been used. Eccles and Serafeim (2014) observed that manufactured and intellectual capital were the two capitals for which the least amount of information was disclosed. However, roughly 70 % of the reports were given a score of 2 or 3 for those capitals, meaning that the information was considered moderately detailed or detailed. The best reported capital was financial capital, where roughly 85 % scored a 2 or a 3, followed by natural capital. The authors thought that the relatively weak results for manufactured capital could be attributed to the relative decline in the importance of manufactured assets in the modern, knowledge-based economy (Eccles & Serafeim, 2014). However, they did not present an explanation for the results regarding intellectual capital. The strong reporting of financial capital is attributed to the longstanding regulation and emphasis on it, while the state of natural capital reporting could be explained by the rising pressure on companies to disclose environmental performance. The authors finish by stating that "*a significant number of companies are still providing little capital-specific information even though these companies are considered leaders in integrated reporting.*" (Eccles & Serafeim, 2014, p.11)

Studies that have investigated Swedish companies' compliance with the IR framework include PwC (2013b) and Larsson and Ringholm (2014). However, neither study focused on the capitals.

PwC (2013b) made a study how on large Swedish companies' current reporting compared to the IIRC's draft IR framework. PwC assessed the compliance for nine different areas which were derived from the content elements of the framework. The content elements are a set of requirements that should be included in an integrated report. They include elements such as *business model, strategy, risks and opportunities* and an *outlook*. The purpose of PwC's study was to increase the knowledge of what Swedish companies are doing and to increase the awareness of issues if today's reporting would be based on the IR framework. The results for the areas were mixed. For instance, most companies reported well on *strategy* and (financial) *performance*, while for the area *governance*, the results were generally poor.

In a similar study, Larsson and Ringholm (2014) investigated the compliance of Swedish listed firms with the IR framework. Specifically, they focused on the content element *governance* and sought to find out the extent to which the reporting complied with IR. The study found evidence to support that of PwC (2013), namely that there is still a long way to go with regards to governance disclosures. The authors found that most aspects of *governance* were mentioned by a majority of the companies, but the descriptions were too short and too generic to meet the information needs. Another interesting feature of Larsson and Ringholm's (2014) study was that they found a positive relationship between size and level of compliance, at a high significance level. In other words, larger companies tended to comply more with the IR framework than did smaller companies. Previous studies have also shown that the amount of disclosure tends to increase with company size (Hahn & Kühnen, 2013 and Frias-Aceituno et al. 2014). An explanatory factor is that larger firms tend to have larger needs of external financial and increased disclosure can be used as a way to enhance the relationships between companies and capital markets (Frias-Aceituno et al. 2014). Hahn & Kühnen (2013) also point to disclosures as a way for companies to legitimize themselves to their stakeholder, which larger companies tend to have more of.

3. METHODOLOGY

This chapter presents the methodology employed in the study. This includes the sample selection and a discussion of the drawbacks of the methodology

3.1 BACKGROUND AND DELIMITATIONS

The aim of this study is to investigate the capital reporting of Swedish companies. The approach that was chosen for this thesis was to conduct a study of annual reports. An advantage of this approach is the easy access to information seeing as all companies issue annual reports and given the fact that annual reports are issued annually, using them also facilitate a comparison over time (Bowen, 2009). Annual reports are also seen as the primary sources of information (Eccles & Krzus, 2010) and one of the IIRC's initial aims was that integrated reporting could come to replace annual reporting (IIRC, 2011). Another advantage of investigating annual reports is that it allows for a larger sample given the time constraint and is perceived as favourable for a comparison over time, given the availability of them. Compared with other methods of qualitative data collection, such as observations or interviews, documents are unaffected by the presence of a researcher (Bowen, 2009). Documents such as annual reports do not react if someone is researching them, that is. In addition, using annual reports mean that there is always a possibility to backtrack and verify the data, should uncertainties arise later in the process of quantification or analysis (Bowen, 2009).

This study focuses on integrated reporting, more specifically on the IIRC's concept of integrated reporting. There are other interpretations of what integrated reporting is, such as the King III report in South Africa (de Villiers et al. 2014), but should Swedish companies chose to produce integrated reports, for instance for reasons of legitimacy or through institutionalism, it is more likely that they would base them on the IIRC's version, seeing as that one aims to become an international framework (IIRC, 2016b). Therefore, the IIRC's concept of integrated reporting was chosen as the basis for this study.

A third delimitation has been made regarding the contents of the IIRC's take on integrated reporting. This study will only focus on the capitals concept of the IIRC's (2013) integrated reporting framework. With regards to the framework itself, there are other aspects that would be interesting to study. However, some prior research has already been carried out on some or all of the content elements of the framework in relation to Swedish companies (PwC, 2013b and Larsson & Ringholm, 2014) and a similar study has been carried out on the capitals, but that one used South African companies (Setia et al. 2015). Eccles and Serafeim (2014) also made a similar study, using integrated reports mostly from South Africa. The capitals aspect was chosen because of the role it plays as a foundation for integrated reporting (IIRC, 2013) and because it is a topic not previously studied for Swedish companies.

Furthermore, this study will only focus on large, listed Swedish companies since size has been found to be a factor that influences the likelihood of voluntary disclosures (Hahn & Kühnen, 2013, Frias-Aceituno et al. 2014 and Larsson & Ringholm, 2014).

3.2 THE SAMPLE

Since this study is delimited to large, listed Swedish companies, it was decided that only companies listed on the OMX Stockholm 30 index should be included. The OMXS 30 includes the 30 most traded shares on the Stockholm stock exchange, however, it was decided that financial institutions would be excluded from this study, seeing as their business models differ significantly from the rest of the companies. This meant that four banks and two investment companies were excluded.

Additionally, since this study aims to include the 2015 fiscal year, it was decided that a requirement to be included in the study was that the company would have to have published its 2015 annual report by the 7th of April 2016, when the data collection began. This resulted in three more excluded companies being excluded. Since Atlas Copco is listed twice, the exclusions results in a total of 20 companies that will be included in the study, as listed in the following table:

Companies included in the study		
ABB	Alfa Laval	Assa Abloy
AstraZeneca	Atlas Copco	Boliden
Electrolux	Ericsson	Getinge
H&M	Nokia	Sandvik
SCA	Skanska	SKF
SSAB	Swedish Match	Tele2
TeliaSonera	Volvo AB	

TABLE 2: A LIST OF COMPANIES INCLUDED IN THE STUDY

Given that annual reports for each company from the years 2011 and 2015 will be investigated, the total sample used in this study amounts to 40 annual reports.

3.3 RESEARCH METHOD

The methodology used in this study will follow the general procedure as described by Miles and Huberman (1994) and Collis and Hussey (2014). This involves data collection, data reduction and data analysis. In order to do so, this study will employ content analysis. In other words, the information disclosed in the annual reports will be classified according to pre-set categories of items that will be studied (Setia et al. 2015) and quantified ahead of the analysis. The next sections will describe the methods used in more detail.

3.3.1 DATA COLLECTION AND REDUCTION

First of all, the annual reports were collected from the eligible companies' websites. Then, in order to collect the data useful for this study, a document analysis were performed. Document analysis implies a systematic procedure for finding, selecting and evaluating the text found in documents, in this case annual reports (Bowen, 2009). The next step of the data collection process was to skim through the annual reports in order to find data that would be suitable for quantification. This data was then copied into a separate document and a reference to the page number in the annual report where it was found was made. This is a way of reducing the total amount of data and the references used allows for backtracking, in case something would

become unclear. The way that certain passages of text or numbers were elected during the superficial examination was based on the IR framework. In particular, it was the definitions of the capitals (see section 2.1.1) that formed the basis for the data selection. The text copied to the document was ordered after company, year, what capital it belonged to, and the page number where it was found in the annual report.

In order to illustrate, the following sentence is an example of text that was copied from Assa Abloy's 2015 annual report:

"Continuing professional development, skills and values are the basis for the Group's success." (Assa Abloy, 2015, p.9)

This piece of text was included because it reflects human development and competence and how that relates to success. Success is not defined but could mean financial success, viability or gaining some sort of award. In general, wordings like these were taken to mean financial success. In any case, the sentence was classified as part of the human capital, seeing as it reflects human competence.

After having skimmed through all of the material, the document with the copied information contained roughly 50 pages of text, although with a great amount of air between the sentences. When this first part was finished, the coding of the text extracts into numbers could begin.

3.3.3 DATA STRUCTURING

The next step of a content analysis was to determine how the data would be coded (Collis & Hussey, 2014). Normally, this would be based on themes, words, or items found in the data. However, since the aim of this study is to gain an understanding of what Swedish companies report in relation to the six capitals of IIRC, the six capitals and their definitions were used as the basis for the coding. The IR framework and insights from the methods employed by Setia et al. (2015) were used to construct a list of items that would cover elements that are included in the IIRC's definitions of the capitals. This resulted in 25 items to be studied. These were not distributed equally between the six capitals, for instance manufactured capital is only represented by two items while social and relationship capital is represented by six items. This is the result of the fact that the IR framework includes different amounts of examples for different capitals. The level of aggregation in the definitions differs between the capitals and as a result, there is not an even distribution of items across the capitals. A list of the items can be found in appendix 1.

During the classification, a scoring system was used to determine to what extent the items were reported. The scoring system was based on a review of previous studies that used content analysis in order to determine the appropriate number of points. Larsson and Ringholm (2014) and Eccles and Serafeim (2014) used four point systems while Wang, Song and Yao (2013) used a three point system. Boiral (2013) and Setia et al. (2015) both used two point systems. It was decided that a three point system would be used for this study, to allow for some differentiation between the companies while still being a time-effective method. The system and the criteria used are shown in table 3.

Scoring system

0 points	Item is not mentioned at all.
1 point	Item is mentioned but not explained, described or further elaborated on.
2 points	Item is described, explained or elaborated on. For instance, it is linked to other capitals, its role in the value creation or its use is explained.

TABLE 3: POINTS CRITERIA

The data collected was systematically classified as belonging to one or more items and was at the same time given a score. In the event that a company disclosed multiple pieces of information that related to the same item, the highest score was counted for that particular item. As an example to illustrate the coding, the above sentence from Assa Abloy (2015, p.9) will again be used. It is an interesting case, because it relates to two capitals and three different items: item 11: *employee competence and capabilities*, item 14: *human resource development* and item 21: *shared norms and common values*. Items 11 and 14 are classified as human capital, while item 21 is classified as social and relationship capital. It was decided that this short sentence would award Assa Abloy 2 points in each of the three items. The reason is because Assa Abloy explains that development, skills and values contribute to the success of the group. As success is interpreted as financial success, there is a link between financial capital on the one hand and human and social and relational capital on the other. This might seem like an easy way to get the maximum score, but it is the result of the criteria set out in table 3 and the interpretations made.

3.3.4 DATA ANALYSIS

After all of the data that was collected had been assessed and coded, the analysis could start. The data will be presented on an aggregate level. One part of the results and analysis discussion will focus on the scores divided per company and per capital. The second part will present the overall results per item studied and describe those. The aim for both of these parts is to (1) show what changes had occurred between the years of study, (2) relate the average scores per capital to each other, and (3) relate the scores for individual items to other items of the same category, i.e. per capital. There will also be a discussion relating the results of this study to those of previous studies and to the theoretical framework used in this study.

3.4 DRAWBACKS & METHODOLOGY DISCUSSION

There are some drawbacks of the methods employed in this study. First, there is a great deal of subjectivity involved during both the data collection and the coding stages of this study. The data was initially collected by means of skimming through large amounts of text. There are no guarantees that all vital information was collected and if not, then that could have affected the results and the analysis. In response, the researcher tried to devote roughly the same amount of time to each annual report, corrected for the lengths of them which in some cases differed greatly. During the coding process, there is a need of interpretation, as the example in section 3.3.3 shows. In response to these issues of reliability, this methodology section provides transparency in order for readers to understand the process of collecting, coding and analysing the data. However, complete transparency would require information on every item for every company, which is simply not possible to give. At the same time, this study should be viewed as a first step towards understanding what Swedish companies report based on the IIRC's

framework. This in itself indicates that further studies would be needed to confirm the findings, thus lending reliability to the results.

Regarding the validity of the results, i.e. to what extent the methods measures what it should, studies like this is considered to have a high validity (Collis & Hussey, 2014). However, the fact that the data collection was made only from annual reports means that some parts of the overall reporting is not considered. Given that the IIRC originally envisioned integrated reporting as a high level overview of the information contained in other forms of reporting (de Villiers et al. 2014), it would have been desirable to include other information from other reporting formats such as sustainability reports in the study, to fully reflect capital reporting. However, such a study would use a considerable amount more data and given the time constraints, that was not possible for this study.

4. RESULTS AND ANALYSIS

This section will present the empirical results found and the analysis made. It will be split into four parts: (1) the score listed per company and overall per capital, (2) the score listed per item, (3) comparison with similar studies and (4) comparison with other studies and theories.

4.1 SCORE PER COMPANY AND OVERALL PER CAPITAL

\Capital Company\	Financial (max 6)		Manufactured (max 4)		Intellectual (max 10)		Human (max 10)		Social/relationship (max 12)		Natural (max 8)		Total (max 50)		
	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	Δ %
ABB	6	6	2	2	2	6	1	2	4	4	0	1	15	21	40%
Alfa Laval	6	6	2	2	8	7	10	8	2	5	2	2	30	30	0%
Assa Abloy	6	6	2	2	8	9	8	10	8	8	6	8	38	43	13%
AstraZeneca	6	6	2	2	6	9	6	6	10	9	2	6	32	38	19%
Atlas Copco	6	6	2	2	4	8	6	9	8	8	6	6	32	39	22%
Boliden	6	6	2	3	5	4	3	10	4	8	8	8	28	39	39%
Electrolux	6	6	2	2	6	7	5	10	8	11	3	4	30	40	33%
Ericsson	6	6	2	2	7	3	5	9	7	6	4	0	31	26	-16%
Getinge	6	6	2	2	5	9	6	9	8	6	4	4	31	36	16%
H&M	6	6	2	2	2	4	5	7	7	6	7	4	29	29	0%
Nokia	6	6	2	2	7	10	3	10	4	6	2	3	24	37	54%
Sandvik	6	6	2	2	10	6	4	8	5	4	8	3	35	29	-17%
SCA	6	6	2	2	6	6	9	9	5	5	7	3	35	31	-11%
Skanska	6	6	2	2	4	8	10	10	6	6	6	5	34	37	9%
SKF	6	6	2	2	7	8	7	7	5	7	8	8	35	38	9%
SSAB	6	6	2	2	7	6	4	6	6	10	8	8	33	38	15%
Swedish Match	6	6	2	2	4	8	8	9	6	6	4	4	30	35	17%
Tele2	6	6	2	2	4	5	7	3	7	6	0	0	26	22	-15%
TeliaSonera	6	6	2	2	6	6	4	5	7	8	3	6	28	33	18%
Volvo	6	6	2	2	6	7	8	10	7	9	8	8	37	42	14%
Total	120	120	40	41	114	136	119	157	124	138	96	91	613	683	11%
Average	6	6	2	2,1	5,7	6,8	6,0	7,9	6,2	6,9	4,8	4,6	30,7	34,2	11%
% of max	100%	100%	50%	51%	57%	68%	60%	79%	52%	58%	60%	57%	61%	68%	11%

TABLE 4: SCORE PER COMPANY AND CAPITAL

Table 4 shows the scores for each company per capital for each year. The three columns furthest to the right also show the total scores across all capitals for each company, divided up on the two years. There is also a column which shows the changes between the years in percentages. The bottom three rows show the total scores per capital per year across all companies. Furthermore, since the capitals have different maximum scores, there is also a row that shows their total scores as percentages of the maximum scores.

As can be seen in the table 4, all companies scored the maximum 6 points for financial capital during both years. This is considered reasonable given the strong regulation of financial reporting and all companies are also reporting their financial performance in accordance with the standards of a major standard setter (the IASB or the FASB). A similar, stable state of reporting is also visible for manufactured capital, where 39 out of 40 annual reports received 2 points in total. Boliden's 2015 annual report was the only exception, meaning that there are virtually no changes between the years. Thus, no trends are visible for financial or manufactured capital.

Regarding intellectual capital, the results show that there are changes between the years. In 2011, the average score was 5.7 out of 10. Compared with the other capitals, this is slightly below average. However, in 2015 the average score had increased to 6.8 out of 10, which is an average score when compared with the rest of the capitals. A total of 13 companies received a better score in 2015 than they did in 2011. Five companies received a lower score in 2015 and two companies received the same score during both years. This is second best as far as the number of increases is concerned.

The capital that showed the highest number of increases between the years was human capital. No less than 14 companies received a higher score in 2015 than in 2011. Four companies received the same score and a mere two companies experienced a decrease. The same upward trend is visible by comparing the average scores of 6 points out of 10 during 2011 and 7.9 out of 10 in 2015. This increase of almost two points is the highest increase found in this study and the 2015 score of 7.9 is the second highest after financial capital.

The average score for social and relationship capital in 2011 was 6.2 out of 12, which is a below average score overall. However, in 2015 the average score had increased to 6.9 out of 12, but that is still somewhat below the average 2015 score across all capitals. When factoring in the number of increases and decreases, it is hard to discern a clear trend. Eight companies had increased their score from 2011 to 2015, but six companies had experienced a decrease. The remaining six companies received the same score in both years.

Finally, the average score for natural capital was 4.8 out of 8 in 2011 and 4.6 out of 8 in 2015. In 2011, this is considered an average score across all capitals but the decrease in 2015 results in a below average score. Natural capital is the only capital to show a decrease between the years, all others show increases or are stable. In terms of the number of increases and decreases, natural capital shows another pattern than the ones visible for the other capitals. Six companies received better scores in 2015, nine companies received the same score and five companies received a lower score during the second year included in the study.

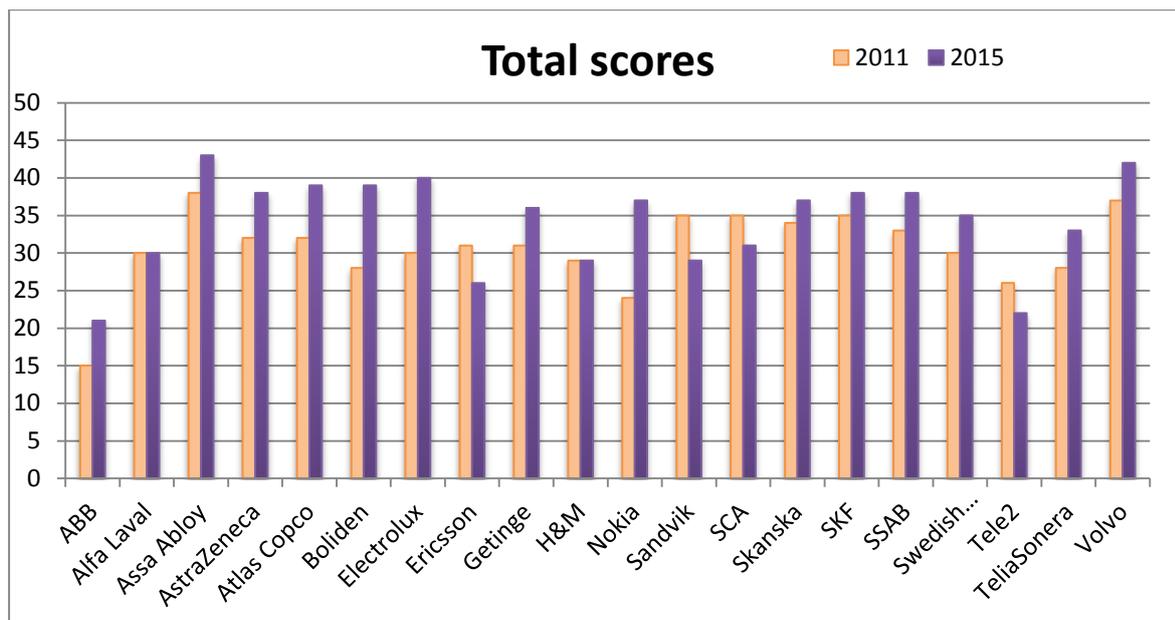


FIGURE 2: TOTAL SCORES

Table 4 also presents the total scores for all companies, as does figure 2. A total of 14 out of 20 companies received a higher score in 2015 than they did in 2011. Four companies received a lower total score in 2015 and two companies received the same total score during both years. Overall, the score increased by 11 % from 2011 to 2015, from 30.7 to 34.2, both out of 50. However, there are great differences between the companies. As can be seen in figure 2, the range in 2011 is between 15 and 38 points and during 2015 it is between 21 and 43 points. Figures illustrating the ranges can be found in appendix 2.

When discussing the overall results per company, it is worth noting that six companies, Boliden, SCA, SKF, SSAB, TeliaSonera and Volvo, reported on their value creation models using all or some of the capitals. However, the degree of specificity in the reporting differs between the six companies. For instance, SCA merely lists the capitals but does not define them or give examples of what is included in them. Boliden is on the other end of the spectrum, providing information on what they consider to be part of their capitals. For instance, Boliden's intellectual capital is comprised of patents, exploration rights, environmental permits, reclamation expertise, the new Boliden way philosophy and R&D partnerships with universities, colleges of further education, and suppliers (Boliden, 2015, p.6). For some of the capitals, such as financial and natural, Boliden also provides numbers such as 5.6 TWh of energy use. Boliden also provides a list of production outputs, economic and social effects and environmental impact, all which are in some cases described with numbers.

The rest of the companies are somewhere in-between SCA's and Boliden's reporting. SKF does not list all of the capitals and Volvo does not list them in the same way as the IR framework. Volvo splits its inputs and outcomes into economic, social and environmental ones, with the capitals mentioned in the descriptions of each category.

4.2 SCORE PER ITEM

	2011	Average per company	2015	Average per company	Δ %
Financial capital	120	6,0	120	6,0	0%
1 Equity	40	2,0	40	2,0	0%
2 Financial liabilities	40	2,0	40	2,0	0%
3 Earnings	40	2,0	40	2,0	0%
Manufactured capital	40	2,0	41	2,1	3%
4 Buildings, equipment and other tangible property	40	2,0	40	2,0	0%
5 Public infrastructure	0	0,0	1	0,1	-
Intellectual capital	114	5,7	136	6,8	19%
6 Intellectual property	40	2,0	40	2,0	0%
7 Technology and information systems	17	0,9	27	1,4	59%
8 Research and development	27	1,4	33	1,7	22%
9 Organizational structure	15	0,8	20	1,0	33%
10 Processes, policies and procedures	15	0,8	16	0,8	7%
Human capital	119	6,0	157	7,9	32%
11 Employee competence and capabilities	24	1,2	30	1,5	25%
12 Employee diversity, including gender equality	24	1,2	33	1,7	38%
13 Employee loyalty and motivation	18	0,9	25	1,3	39%
14 Human resource development	25	1,3	33	1,7	32%
15 Employee health and safety	28	1,4	36	1,8	29%
Social/relationship capital	124	6,2	138	6,9	11%
16 Corporate culture	16	0,8	25	1,3	56%
17 Relations with competitors	10	0,5	10	0,5	0%
18 Relations with suppliers or distributors	31	1,6	29	1,5	-6%
19 Relations with other stakeholders	13	0,7	22	1,1	69%
20 Brand and reputation	24	1,2	17	0,9	-29%
21 Shared norms and common values	30	1,5	35	1,8	17%
Natural capital	96	4,8	91	4,6	-5%
22 Use of and impact on land resources	23	1,2	19	1,0	-17%
23 Use of and impact on air resources	26	1,3	30	1,5	15%
24 Use of and impact on water resources	21	1,1	19	1,0	-10%
25 Use of energy	26	1,3	23	1,2	-12%
Total	613	30,7	683	34,2	11%

TABLE 5: SCORE PER ITEM AND PER CAPITAL

Table 5 shows the scores per year for each item, each capital and overall. The average scores per year for each item, each capital and overall are also provided. On the right-hand side, the changes between the years are expressed as percentages.

4.2.1 FINANCIAL CAPITAL

Regarding financial capital, there is not much to say except that all three items were well reported during both years. All companies scored the maximum two points for all three items. This was expected given the requirements to report in accordance with IFRS (or US GAAP which one company used) regarding financial reporting. The requirement for achieving two points in the scoring system is to describe, explain or elaborate on the items and it was decided that providing a financial statement with accompanying notes would be sufficient to fulfil the criteria for 2 points.

4.2.2 MANUFACTURED CAPITAL

There were very mixed results as far as the three items listed under manufactured capital are concerned. Following the same logic as for financial capital, item 4 is mostly covered by the financial statements which resulted in top marks for all companies during both years. The use of *public infrastructure* was much less well reported, in fact the item was only found once during the data collection phase, when Boliden mentioned it in their 2015 annual report. Public infrastructure does not meet the criteria of IFRS to be included in the financial statements, and only one company was found to have made a reference to it in another part of its annual report. Clearly, if any of the companies want to produce a complete integrated report, this is an area that it should consider improving.

In terms of relating the capitals to each other, this must be done with caution. Manufactured capital suffers from the fact that item 4 is fairly aggregated. Had buildings, equipment and other tangible property been three separate items, it is likely that all three would have scored the maximum points. In that case manufactured capital would also enjoy a higher total average score.

4.2.3 INTELLECTUAL CAPITAL

In contrast to financial and manufactured capital, one of the five items listed under intellectual capital was readily available in the financial statements, namely item 6: *intellectual property*. Regarding item 7: *technology and information systems*, it was reasonably reported on during 2011, with a score of 17/40. The reporting of item 7 increased a lot in 2015, scoring a total of 27 points. This was the highest increase for any single item included in the study. The same trends are visible for the rest of the items, although none of them increased as much as item 7. Item 8: *Research and development* was already well reported in 2011 but there was still an increase in 2015. In fact, excluding the items that were found in the financial statements, research and development was one of the best reported items during both 2011 and 2015.

Item 9: *organizational structure* and item 10: *processes, policies and procedures* were less well reported with scores that were among the bottom five during 2011. Some improvement can be seen for *organizational structure*, which in relative terms increased by one third until 2015. However, with a score of 20 out of 40, it still ranks as the seventh worst reported item in the list of items included in the study. The reporting of *processes, policies and procedures* showed almost

no improvement during 2015 and remained one of the worst reported items, in terms of the score.

4.2.4 HUMAN CAPITAL

The items listed under human capital were in general well reported, especially during 2015. Item 11: *employee competence and capabilities* scored 24 points in 2011 and a notable increase was visible during 2015. The same pattern is also visible for items 12, 14 and 15, which concerns *diversity, human resource development and health and safety*. They all score reasonably high during 2011 and exhibit a fairly substantial increase during 2015. All three are among the best reported items out of those that are not included in the financial statements. The fifth item: *loyalty and motivation*, is somewhat less reported during both years, but similarly to the other human capital items, it shows a fairly large increase between the years.

4.2.5 SOCIAL/RELATIONSHIP CAPITAL

There is more variety to the trend of the items listed under social and relationship capital. Items 16 and 19: *corporate culture* and *relations with other stakeholders*, such as customers, universities and governments, reported similar numbers with 16 and 13 respectively in 2011 and 25 and 22 in 2015. The increases of nine points that these item showed are two of the four highest increases when measured in both absolute and relative numbers. Item 21: *shared norms and common values*, was better reported during both years. With 30 points in 2011 and 35 points in 2015, *shared norms and common values* is one of the best reported items among those not included in the financial statements.

Item 17: *relations with competitors* was one of the least well reported items during both years. It was also the only item which showed no overall change between the years, barring the items with full scores. Among the companies that reported on the item, such as Nokia or Tele2, issues such as common infrastructure or licensing between competitors seemed to be common topics.

The remaining two items: item 18: *relations with suppliers or distributors* and item 20: *brand and reputation*, were reasonably well reported in 2011, but both experienced a drop in the score for 2015. The drop of 7 points for *brand and reputation* was the largest drop found in the study for any single item.

4.2.6 NATURAL CAPITAL

The final category of items, natural capital, experienced the most amounts of decreases between the two years. Items 22: *use of and impact on land resources*, 24: *water resources* and 25: *energy usage* were all fairly well reported in 2011, but all three decreased by 2-4 points in 2015, resulting in below average scores for that year. On the other hand item 23: *use of and impact on air resources*, showed a slight increase in 2015 and was fairly well reported during both years, usually in the form of reporting on emissions of CO₂. It is also worth noting that regardless of whether the companies disclosed this information in the annual reports, some of them made references to their sustainability reports where these items were disclosed or further elaborated on. This indicates that information for these items might be available, even if that was not reflected in this study.

4.3 COMPARISON WITH SIMILAR STUDIES OF CAPITAL REPORTING

While relating the findings to each other, it is important to understand the differences between the studies. First of all, Setia et al. (2015) did not investigate financial or manufactured capital in their study of integrated reporting in South Africa, meaning that a comparison cannot be made for those two capitals. PwC's (2013b) benchmark study of Swedish companies' compliance with the IR framework draft did not specifically investigate the capitals but it did, however, investigate the reporting of financial performance, earnings and the financial position. Eccles and Serafeim's (2014) working paper did investigate all capitals, but only during one year. They also used integrated reports, which likely are better aligned with the IR framework than the annual reports investigated in this study. Compared with Setia et al. (2015) and Eccles and Serafeim (2014), the countries studied are different.

Setia et al. (2015) studied two reporting years: 2009/10 and 2011/12. These years were chosen as a result of the regulation change that occurred in 2010, when the JSE made integrated reporting a listing requirement (Setia et al. 2015). This study uses the years 2011 and 2015, a time period during which the IIRC issued a discussion paper (IIRC, 2011) and subsequently the IR framework (IIRC, 2013). Given that Eccles and Serafeim's (2014) study is a working paper, it is unclear which year they used, or even if they focused on a specific year. There are also differences between integrated reporting as interpreted by the IIRC and as interpreted in the King III report, which is the basis for the integrated reports produced in South Africa (de Villiers et al. 2014 and Setia et al. 2015). There are also methodological differences regarding the scoring systems and the amount of items studied between this study and Setia et al.'s (2015) study. The methods used by Eccles and Serafeim (2014) are somewhat unclear.

PwC's (2013b) study found that the areas investigated were reasonably well reported and the results of this study do not contradict PwC's (2013b) findings. PwC (2013) stated that there was room for improvement in the reporting of financial performance and position, but this study cannot confirm or contradict that idea. All companies received the maximum points for their reporting on financial capital, but the criteria for receiving the maximum score does not correspond to perfection. Indeed, Eccles and Serafeim (2014) used a four point system and only 35 % of the reports received the maximum score, 3 points, in their study. One possible explanation is that the methodology used in this study does not differentiate enough between what Eccles and Serafeim (2014) would call moderate and detailed reporting. Another explanation is that Swedish annual reports are better aligned with the capitals concept of the IR framework than integrated reports, but that is seen as unlikely.

Regarding the other capitals, the results of this study showed some similarities and some differences with the results of Setia et al.'s (2015) study. That study found that the average disclosure of capital items had increased and this study shows a similar pattern. However, Setia et al. (2015) found increases for all capitals that they tested, while this study found a decrease, albeit a small one, for natural capital. Another minor difference found was how the capital disclosures ranked compared to each other. This is shown in table 6.

Rank	This study (year 2015)	Setia et al. (2015)	Eccles & Serafeim (2014)
1 st	Financial capital	Intellectual capital	Financial capital
2 nd	Human capital	Human capital	Natural capital
3 rd	Intellectual capital	Natural capital	Human capital
4 th	Social/relationship capital	Social/relationship capital	Social/relationship capital
5 th	Natural capital	-	Intellectual capital
6 th	Manufactured capital	-	Manufactured capital

TABLE 6: A RANKING COMPARISON

As can be seen in table 6, the capitals that were best disclosed in Setia et al. (2015) were intellectual and human capital, followed by natural capital and social and relationship capital. When not counting financial or manufactured capital, the 2015 rankings as found in this study is similar: human capital ahead of intellectual capital, social and relationship capital and, finally, natural capital. A difference between the results of this study and those of Eccles and Serafeim's (2014) study is the relative score for natural capital, which occupies the number 5 position in this study while being the second best capital in terms of information disclosed in Eccles and Serafeim (2014). As those authors point out, there has been a rising pressure on companies to disclose environmental data. However, this study only includes annual reports and the environmental data might have been better disclosed elsewhere, in-line with the research of Roth (2014) and Ferns et al. (2008).

4.4 COMPARISON WITH OTHER STUDIES

There are mixed views regarding IR's capabilities to introduce sustainability thinking into organizations (Brown and Dillard, 2014) and the results of this study do not affirm either view, as the overall score increased but natural capital experienced a decrease.

Brown and Dillard (2014) also argued that due to the business approach that underpins IR, it will not be able to bring about the fundamental changes that the authors believe are needed. Even though IR is still at a very early stage, and that annual reports are used in this study, no evidence of fundamental changes were found, indicating that IR has not yet had a major impact in Sweden. This is also in accordance with Milne and Grey's (2013) thoughts on IR.

Flower (2015) highlights the fact that the IIRC does not require companies to adopt its definitions of the capitals. Indeed, among the six companies that were apparently influenced by the IIRC's framework and used some or all of the capitals, there were deviations from the framework's capitals. One should remember that annual reports are studied here, which means that firms are under no obligation at all to use the capitals. Still, there is no evidence that contradicts Flower (2015) seeing as the companies have not adopted the six capitals categorically.

Flower (2015) was critical of the lack of obligations in the framework, which risks making it difficult to compare companies once they start to issue integrated reports. As far as the capitals are concerned, SSAB listed its capitals as *financial, people, natural, infrastructure, expertise and reputation* and *social/relationship*. While the IR framework (IIRC, 2013) does state that

companies should use the capitals that they see fit, deviations like this example could make comparisons more difficult, providing some evidence to Flower's (2015) concern.

Another one of his concerns is that externalities would not be sufficiently reported, unless they affect the future value creation capabilities. Out of the six companies that used one or more of the capital terms, only one (Boliden) lists negative external outcomes (to natural capital). Most of the others report some external outcomes, but only positive ones. However, item 23 consists almost solely of emissions, such as CO₂. They are by-products, but the level of importance in the production process is questionable. Then, if one believes Flower's (2015) reasoning, emissions would not have to be included. Still, at least for natural capital, they are. This area is likely influenced by the other reporting frameworks, such as the GRI, which requires disclosure of emissions. References to the GRI are made in 26 annual reports and 7 of them contain GRI indicators.

Flower (2015) also listed a number of prerequisites that must be met for a company to report on sustainability through integrated reports. One of them is to report extensively on the capitals and it is questionable whether the six companies that used some or all of the capitals would qualify. Another prerequisite of Flower's (2015) is to make sure that the overall stock of capital does not decrease as a result of actions taken by the company. However, no references to the overall stock of capital was encountered during this study.

Cheng et al. (2014) highlighted the difficulties with making trade-offs between the capitals and once again, nothing was found in this study to suggest that Swedish companies have an answer to how to make trade-offs. On a similar theme, Robertson and Samy (2015) pointed to the lack of guidance in the IR framework on how to measure the capitals. While the results of this study do not concern that point, more guidance would have been beneficial when designing the scoring system and the items under study.

Milne and Grey (2013) questioned if sustainability accounting really is reflecting true sustainability. They argued that companies will have to report on what needs to be done to become sustainable and that companies are not doing so right now. When companies reported on their natural capital, it tended to be in the form of disclosures on emissions and usage. While this yields the maximum score, it is not a measure of sustainability. No definitions of what would be sustainable levels of water or electricity usage or carbon emission were found during the study. This indicates that Milne and Grey (2013) have a point in their criticism of the lack of focus on what is sustainable.

Despite the lack of obligations in the IR framework, Coulson et al. (2015) found some evidence that the usage of the term "capital" had increased. Seeing as six companies used some of the six capitals in the 2015 annual report compared with none during 2011, this study supports Coulson et al.'s (2015) findings. The authors also expressed concerns about the cementing of the economic understanding of firms when using the term "capital", but this study neither contradicts nor supports such a claim.

Barter (2015) was concerned with the monetization of capital, especially natural capital. However, then natural capital was expressed by numbers in this study, it was in the form of quantity or weight, and not expressed in monetary terms. Barter (2015) also argued that natural

capital should be seen as superior to the other capitals. The overall impression from this study is that large Swedish companies do not view natural capital as superior to the other capitals.

4.5 COMPARISON WITH EXPLANATORY THEORIES

A theory that could explain the spreading of integrated reporting is the institutional theory. However, there is little evidence that there is a convergence of forms, characteristic and practices among firms with regards to the capitals concept. Six out of 20 companies have made use of the capitals, but whether that is a significant trend is questionable at this point in time. Coercive isomorphism is presented as one mechanism that accelerates the process of institutionalization. Financial capital scores the highest, most likely as a result of the regulation of financial reporting. This indicates that regulation would be useful to spread the reporting of the other capitals, something which Robertson and Samy (2015) also suggested.

It is hard to believe that mimetic isomorphism can explain the reporting practices shown in this study, as the six companies operate in different industries. Normative isomorphism, or professional pressures is probably a better way to explain the early signs of usage of the capitals in Sweden, seeing as it is the only alternative left. Competitors do not use the capitals, and there is no regulation, but there is an organization, the IIRC, which consists of professionals (IIRC, 2016a) Still, it is hard to say anything given the young age of integrated reporting.

Regarding the diffusion of innovations theory, the results of this study indicate that the six capitals are not too diffused at the moment. Still, there are some indications of elements of the six capitals that would facilitate or hinder a widespread diffusion. Most companies have been found to report parts of what could be included in the capitals in an integrated report, which suggests that there is reasonable comparability between current reporting and integrated reporting, something that would benefit the diffusion (Rogers, 2003). The element of trialability is also high for the six capitals, seeing as companies can try them out in their current annual reports without being obliged or hindered to do so. IR is also voluntary, which benefits the diffusion according to Moore and Benbasat (1991). Regarding the other factors that were covered by Rogers (2003) and Moore and Benbasat (1991), this study does not provide any evidence as to the potential of a widespread diffusion of IR and the capitals.

5. CONCLUSIONS

This chapter presents the main finding from this study, along with the contributions and the suggestions for further research.

5.1 MAIN FINDINGS

The main goal of this thesis was to gain an understanding of what Swedish companies report in relation to the six capitals concept as interpreted by the IIRC. This is an attempt at an exploratory study, wherefore the main contribution of this study is to show what is, rather than explain why.

The results of this study show that the average score for all capital disclosures combined increased. The average score did also increase for intellectual, human and social and relationship capital. It decreased for natural capital and was stable for financial and manufactured capital. Furthermore, 14 out of 20 companies received a higher total score in 2015 compared with 2011 and so did 14 out of the 25 items that were studied. In total, the score increased by 11 % between the years, but it is questionable if this rather moderate increase would have been significant had a statistical test been carried out. In addition, while the previous chapter used words such as *well*, *better* and *worst* when describing the results, these wordings do not mean that a high score automatically indicates good reporting. They should be thought of as tools to compare the scores and not as assessment of the quality of reporting. Companies that received 0 points for their 2011 reporting and subsequently received 1 or 2 points in 2015 will have, partially, done so because they are reporting on more items. In addition, whether more is better is not defined in this study, nor was it the purpose.

This study does not prove that integrated reporting or the IIRC are in any way to thank for the slight increase in the score in 2015 compared to 2011 since this study does not explore the potential causality between the IR framework and the disclosures, as measured by the scoring system. However, six companies more or less described their value creation models using (some of) the capitals in a manner that resembles the value creation model of the IR framework. It is seen as unlikely that this would have been the case had integrated reporting not existed. Therefore, it would seem as though the IIRC has had some impact on the reporting in large Swedish companies. Whether or not this has fostered integrated thinking, which is a goal of the IIRC's, is impossible to say using this study. Having said that, the score indicate that more companies than not are reporting on the items included in this study, which should be beneficial for them in the future, should they make attempts at producing integrated reports.

Most of the studies covered in the literature review were concerned integrated reporting or integrated reports. However, this study focuses on elements of integrated reporting within annual reports, and it should be seen as a first step to understanding what large Swedish companies report. Therefore, the links made to earlier studies in the final two sections of chapter four should be viewed as indications rather than conclusive evidence that supports or contradicts the studies.

5.2 CONTRIBUTIONS

The theoretical contribution that this study has produced is an initial knowledge of what large Swedish companies report in relation to IIRC's capitals concept. It has also shown indications of trends in relation to previous studies and explanatory theories. This knowledge will be of interest for anyone who is researching general reporting trends or integrated reporting in particular. It will be of interest for researchers who study Swedish reporting or who aims to compare different or similar countries or setting or research of the theories of how reporting innovations spread.

This study should have practical implications for companies in Sweden that consider trying integrated reporting. It should also be of some relevance for regulators or for the profession, who would like to know how practice is developing. Only one study is not enough to be conclusive about practice development, but this study is a step on the way.

In terms of the methodological contribution, this study has employed a methodology that had not been used before to research capital reporting in Sweden. While the methods used have been successful in generating a result, it became clear over the course of this study that the scoring system would have been enhanced had a fourth level been added. That would, possibly, also have altered the results.

5.3 SUGGESTIONS FOR FURTHER RESEARCH

As has been stressed a number of times in this study, the main aim has been to show trends and patterns of capital reporting to gain an understanding of what Swedish companies report. That is also the main limitation of this study: it does not explain why, even though attempts have been made to connect these results with earlier studies and theories. The logical next step is to investigate why. Such a study would have to take into account all factors that influence reporting, for instance regulation changes, new frameworks for voluntary reporting such as the latest GRI guidelines, the general trends in reporting and societal pressure. Whether or not it is possible to isolate the influence of the IIRC is debatable. Therefore, a study that interacts with the prepares of the reports could be best bet to understand if the IIRC has had an influence on the reporting among Swedish companies. A study using interviews, or possibly a questionnaire, would allow for this interaction and would target the people that make decisions on what to report. This is seen by the researcher as the best way to move forward.

During the course of this study, it has become clear that the scoring system could have been designed better. More specifically, the criteria for receiving 2 points turned out somewhat broad. Perhaps there should have been a fourth level (maximum 3 points) which would have required companies to relate several capitals to each other, to discuss inputs, activities and outcomes or to be more detailed in the description of what constitutes the capitals, or a combination of such requirements. Receiving the maximum score for any individual item or overall does not indicate that the reporting is perfect. In this regard, a four point system could be useful in a future study. However, what constitutes perfect or near perfect reporting is debatable, and it is beyond the scope of this study to suggest an example or such reporting.

A future study of reporting practices with regards to the six capitals could also focus on the distinction between capitals when used to describe inputs, when used to describe activities and when used to describe outcomes. This study has not made that distinction but it is clear that some companies have started to describe their capitals in such a way.

Furthermore, a similar study with another sample or, in the future, other years would be able to confirm or question the results found in this study. This can include taking other forms of reporting or other aspects of the IR framework into account. Another idea is to collect data using another methodology, which might result in different findings. A study that interacts directly with the object under study, such as an interview based case study, can provide insight into why companies report the way they do.

This study used content analysis, meaning that a quantification of text was made. However, no statistical tests were performed. For anyone attempting a statistical study, studies that consider external determinants of IR, such as Frias-Aceituno et al. (2014) and Jensen and Berg (2012), would be a place to start when identifying control variables.

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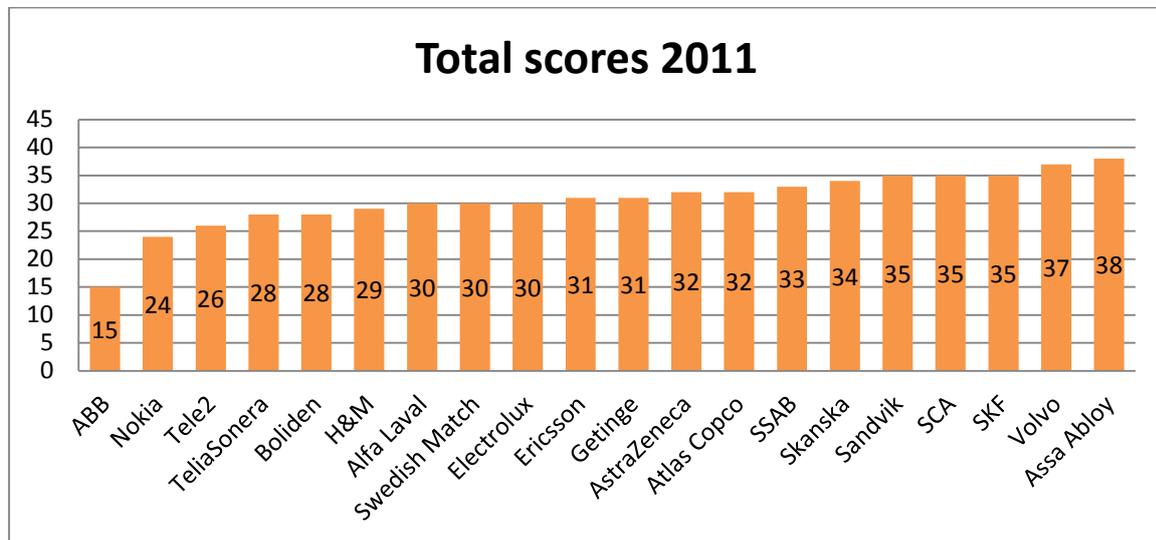
APPENDIX 1

This table shows the 25 items that were derived from the IR framework and previous studies. These items were used during the quantification and analysis of the data collected.

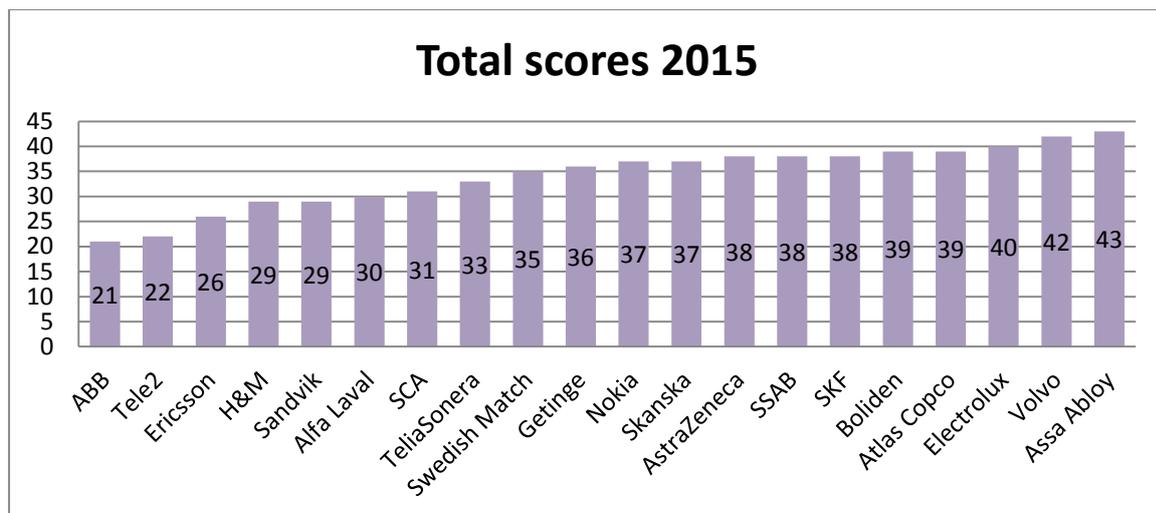
Financial capital	
1	Equity
2	Financial liabilities
3	Earnings
Manufactured capital	
4	Buildings, equipment and other tangible property
5	Public infrastructure
Intellectual capital	
6	Intellectual property
7	Technology and information systems
8	Research and development
9	Organizational structure
10	Processes, policies and procedures
Human capital	
11	Employee competence and capabilities
12	Employee diversity, including gender equality
13	Employee loyalty and motivation
14	Human resource development
15	Employee health and safety
Social/relationship capital	
16	Corporate culture
17	Relations with competitors
18	Relations with suppliers or distributors
19	Relations with other stakeholders
20	Brand and reputation
21	Shared norms and common values
Natural capital	
22	Use of and impact on land resources
23	Use of and impact on air resources
24	Use of and impact on water resources
25	Use of energy

APPENDIX 2

These tables show the total scores for all companies, in order of their scores.



The average score for 2011 was 30.7.



The average score for 2015 was 34.2.