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The Current Sustainability Reporting Practices in Finnish Real Estate Companies

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Abstract:

The aim of this research is to investigate the content and quality of the sustainability reports published by Finnish real estate companies. To achieve this aim, the researcher has developed an integrated multiple qualitative research method, including content analysis and semi-structured interviews. Content analysis applied to the 2013 annual reports, 2014 Q2 interim reports, website contents and building presentations of eight sampled companies from which three are investment and five are construction organisations.

The coding system of content analysis is defined based on CRESS GRI G4 guidelines in which each code is required to be reported in three types of information: 1. aims and values, 2. actions to achieve the defined aims, and 3. performance data. The results revealed that the level of content and quality of sustainability reports is relatively moderate. Key challenges for companies are as follows: providing quantitative performance data, engaging stakeholders in the reporting process and considering the impacts of a company during supply chain. This study suggests the series of actions to overcome some shortcoming of the reports. With regard to the problem engaging stakeholders in the process of reporting, the following initiatives help, including conducting pervasive surveys; providing updated sustainability information on the company's website; as well as creating forums to increase the interaction between the stakeholders. To overcome the lack of coverage of the supply chain process in sustainability reporting, companies should define the criteria for sustainable supply chain, communicate it with their partners, and monitor their actions to identify any failures and report the results publicly. To smooth the process, companies can benchmark the best practices from across the sector.

The semi-structured interviews have been conducted with four members from three investment companies in order to gain deep insight into the phenomenon. Interviews revealed the motivations that encourage the real estate companies to publish sustainability reports, such as an increased credibility and popularity, economic opportunities and competitive advantage. In addition, it enables companies to revise their performance annually and improve their strategy if needed.

The findings of this research complement those of prior studies, however, show further improvements in the quality of sustainability reporting by the Finnish real estate companies. The present research outcomes have several implications for further improvements in the quality and content of the sustainability reports. At minimum, it contributes to the ongoing dialogue regarding the systematic sustainability reports published by real estate companies in Finland.

Acknowledgement

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1 Introduction

1.1 Background

Finding holistic solutions to overcome the challenges of achieving sustainable development goals has become a serious concern for several international and intra-national organisations, such as the United Nations (UN), Global Real Estate Sustainability Benchmark (GRESB) and Global Reporting Initiatives (GRI), as well as majority of academic literature and organisatons active in the real estate field, including pension funds, rating agencies, and green building. Considering the significant impact of the built environment on the ever-worsening issue of the climate change, it highlights the importance of promoting responsible investment in sustainable properties. Sustainable properties use energy, water, and other natural resources efficiently, improve residents' health and increase the employees' productivity, reduce waste, environmental degradation, and cut emissions (US EPA, 2012).

An effective way to enhance the demand for sustainable properties is to communicate about the company's contribution to sustainable development. The Sustainability Report, also known as the Corporate Social Responsibility (CSR) report or the report on sustainable development, is a tool used by organisations to communicate non-financial information on their performance and impacts either positive or negative (GRI, 2014). According to GRI (2014) Sustainability report provides information on the aims, actions, and performance of the organisations in the following four areas of economic responsibility, environmental responsibility, social responsibility and corporate governance.

The sustainability report, initially has been proposed by social accounting scientists as a tool for informing a large number of stakeholders regarding the company's environmental and social performance (Adams, 2004; O'Dwyer, *et al.*, 2005). A systematic sustainability reporting, in which a company measures, analyses and communicates its sustainability performance on a regular basis, helps companies to modify their strategies for achieving improved performance in the future (GRI, 2014). Such a report provides balanced information that covers all aspects of sustainability as well as addressing the stakeholders' expectations for credible information(PwC, 2014). If a company reports its

sustainability information in such a way, it increases the reliability of the given data and helps stakeholders to have a clear understanding of sustainability strategy and performance of a company, which in turn demonstrates the accountability of the company (Adam, 2004).

Preparation of a sustainability report incorporates various kinds of activities. First, the boundary and material aspects should be defined and then they should be managed in order to address the pre-set sustainability objectives of the company. After undertaking the initial stages, the performance can be measured, externally audited and communicated to stakeholders and public audience (PwC, 2014.) To assist companies in moving on a right path, several credible international organisations, such as GRI, GRESB, and European Public Real Estate Association (EPRA) have already developed various indices and tools with the aim of facilitating the corporate sustainability reporting process for different industry sectors. The three above-mentioned frameworks are followed on the voluntary-basis.

Although reporting on sustainability information consumes time, human and financial resources, several studies confirmed the positive impacts of the sustainability reports on the company's economic performance (see Blacconiere & Patten, 1994; Deegan, *et al.*, 2000; Karpoff, *et al.*, 2005). In recent studies, such as Dhaliwal *et al.* (2011), it is claimed that sustainability reports benefit the companies' costs of capital and of loans. In addition, systematic corporate sustainability reporting helps investors and other stakeholders to identify the visions of the company and measure its progress. As a result, such communication attracts investments in sustainable properties and funding the sustainability initiatives that the market needs (UNCTAD, 2013.)

The increasing pressure of the investors and other stakeholders on corporations for improved sustainability reporting have already begun. Frequency of sustainability reporting has enormously increased among the largest companies in 22 countries worldwide. Japan and the UK are the countries with the highest number of sustainability reports published (KPMG International, 2008.) Besides the UK, Sweden, Netherlands, France and Denmark in which publishing sustainability reports is mandatory for listed companies, in other European states publishing sustainability reports is voluntary (Correia, 2011).

In addition to the stakeholders' demand, recently, policymakers and stock exchanges have also made major attempts to accelerate this trend. For example, the stock exchanges in Brazil and South Africa are currently leading markets for promoting sustainability reporting at corporate level. Furthermore, national legislation in most of the countries put more emphasis on sustainability reporting (UNCTAD, 2013.)

Sustainability reporting is not mandatory in Finland. However, the accounting legislation requires the firms to publish, for example, material environmental risks and labour practice issues (sick days and occupational education). In addition, listed companies have to follow the stock exchange (OMHEX) self-regulatory system requirements and disclose all material issues and risks (CSR Europe, 2010.) Recently, an increasing number of Finnish real estate companies publish sustainability reports as part of their target-setting, adopting international voluntary frameworks, such as UN Global Compact, Organisation for Economic Cooperation and Development (OECD) guidelines, ISO standards, GRI index, GRESB, and EPRA frameworks (PwC, 2014).

Along with the above-mentioned factors, the sensitivity of the media and Non-Governmental Organisations (NGOs) are another factor for promoting publicly published sustainability reports (Brown and Deegan, 1998; Buhr, 1998, 2001; O'Dwyer, *et al.*, 2005; Azlan, 2006; Spence, 2007; Azlan and Siti-Nabiha, 2009). Furthermore, sustainability reporting can benefit respective companies internally; for example, by improving the process, and externally through increasing the transparency of operations, improved reputation, satisfied stakeholders and therefore higher financial gains (Fifka, 2013).

Although all of the above-mentioned reasons have led more companies to publish sustainability reports (Adams, 2004; Archel, *et al.,* 2008), Hopwood (2009) believes that companies mainly focus on the aims and intentions rather than the taken actions and performance results when preparing sustainability reports. Sustainability reporting, in addition, faces the challenge of tackling stand-alone sustainability reports separated from financial statements. It seems that publishing stand-alone sustainability reports on an annual basis would not meet the increasing expectations of committed stakeholders (Milne and Gray, 2007.) This problem can be overcome if companies start publishing the integrated sustainability reports (IIRC, 2012). Integrated reporting is defined as a report

that "brings together material information about the strategy, governance, performance and prospects of an organisation, in a way that reflects the commercial, social and environmental context within which it operates" (IIRC, 2012).

Currently, Sustainability reporting has become an important topic to be discussed in academic research and in practice (Hahn & Kühnen, 2013). Although many attempts have been made by researchers in sustainability reporting (see Al-Tuwaijri, Christensen, *et al.,* 2004; Cormier and Magnan, 2005; Azlan, 2006; Janggu, *et al.,* 2007; Mustaruddin, *et al.,* 2008; Azlan and Siti-Nabiha, 2009; Fifka, 2013; Hahn & Kühnen, 2013), to the researcher's knowledge, few have investigated whether real estate companies systematically report on specific GRI index items in their sustainability reports. In order to reduce this gap, the present research is conducted to investigate the positioning and quality of sustainability information within real estate companies' sustainability reports in the Finnish market.

1.2 Aims and Research Questions

The aim of the present research is to investigate the content and quality of public sustainability information published by Finnish real estate companies. To achieve this aim, the following research questions will be addressed:

1. What is the state of art and the shortcomings of sustainability reporting?

Further Explanation for question 1: This question will be addressed by conducting content analysis on 34 documents belonging to eight Finnish real estate companies, assessing their sustainability goals, actions and performance data.

2. What are the voluntary rules or guidelines used by Finnish real estate companies for sustainability reporting?

Further explanation for question 2: This question identifies the most commonly applied sustainability reporting guidelines by Finnish real estate companies. To answer this question, the research will use case-study and semi-structured interviews.

3. What are the benefits for the real estate companies to publish sustainability information?

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Further explanation for question 3: The aim of this question is to detect the motivations that lead real estate companies to integrate sustainability into their business strategy and communicate the sustainability information. Semi-structured interviews will be used to address this question.

4. Do types of real estate companies in Finland differ with respect to disclosing sustainability information?

Further explanation for question 4: this question is going to investigate whether there is a connection between the types of real estate companies (here investment and construction companies) and the extent to which they market their assets as sustainable. The same as question 1, the answer of this question can be revealed by using content analysis on the provided sustainability information. Later, the level of the companies' sustainability performance will be compared between the two types of the case organisations in order to find which type of the real estate companies pursue an integrative sustainability approach.

1.3 Research methods and data sources

This research engaged in a qualitative approach. Within a holistic manner, an integrated multiple qualitative method, including content analysis and semi-structured interviews, have been developed. The content analysis investigates the publicly published sustainability information of Finnish listed real estate companies at two levels: 1. Content and 2. Quality. The proposed content analysis structure is one of the first to analyse the contextualization of the real estate companies' sustainability reports in Finland.

The analysis has been conducted using MAXQDA 11 qualitative analysis software. In order to test the feasibility of the chosen method, eight Finnish listed real estate companies, which act globally, are selected to be investigated. The analytical part of this research reviews the following collected materials: the 2013 annual reports, 2014 second quarter interim reports, website contents and random sampled building presentations published for marketing purpose of a commercial individual.

Out of eight companies, three are investment companies and five are construction companies. Under ASU 2013, an investment company is an entity that obtains funds from one or more investors and provides the investor(s) with investment management services.

An investment company has ownership interests in the form of equity or partnership interests (PwC, 2013.) Construction company is defined as a company that its work covers on new or existing commercial, industrial or domestic buildings or structures and has no interests in the ownership and management of assets (CBS, 2014).

In addition to the analytical research, semi-structured interviews were made, as an empirical part of the research, with the case companies' specialists in the field of sustainability. Findings from interviews will be used in order to address the third and fourth research questions. Interviews will help to yield a higher understanding with respect to the importance of sustainability performance for the real estate sector, the possible benefits to their business and their future plans for improving their sustainability information communication strategies.

However, for further exploration of the research questions, other qualitative research methods, such as a narrative review of literature as well as case studies for reviewing the companies' documents have been conducted. The combination of various methodologies helps this study to achieve deeper understanding of what sustainability related actions have been carried out by companies and how the stakeholder perception of business can be improved by reading publicly available information.

1.4 The scope of study

The present research is carried out in the summer 2014 in Finland. The duration of conducting the research is supposed to be four months. This research investigates the most recent published data and does not consider the types of sustainability materials, such as the green books, other than pre-defined types for the purpose of homogenization. The reason for selecting such materials is that: 1. these are the main public channels of information communication to stakeholders, 2. the data are the most recently available information that could be accessed publicly, and 3. according to Tilt (2004) stakeholders prefer annual reports, the most, among the information sources.

This research considers only the English publications. The research was delimited to the preparation of a content analysis framework in order to evaluate the content and quality of published sustainability information by the real estate companies in Finland.

Furthermore, the study was confined of interviewing the members of case companies and did not include the feedback from stakeholders.

1.5 Study Structure

The present research is structured as follows: as an introduction, chapter one provides the background information on the research field. Later, aims and research questions of this research are described. Furthermore, the applied methods and collected materials are reviewed. Finally, the scope of the present research is explained. The second chapter of this research presents a review of real estate sector sustainability performance, challenges to integrate sustainability into business strategy and possible solutions to overcome those difficulties. This is followed by an overview of the developed content analysis framework and semi-structured interviews as well as the detailed description of the collected materials in the chapter three-the procedure of conducting the research-. During chapter four, the results of the research have been provided at two levels: analytical and empirical. In analytical part, the findings from using the developed content analysis framework on the corporate sustainability materials are given. In the empirical section, data obtained from conducting the semi-structured interviews with the case organisations members are presented. The discussion and conclusion chapter (chapter five) addresses the research questions. Then, some recommendations are provided by the researcher in order to overcome the shortcomings of sustainability reports. Afterward, the reliability and validity of the findings are examined. Furthermore, the results of this research are compared with the previous studies in the same field, in order to evaluate the chosen research method. This chapter, in addition, offers further implications of the study as well as explaining the limitations of the research. Finally, few topics are suggested for the further research in Finland.

2 Building Sustainability:

A review of real estate sector performance

The aim of this chapter is to present an in-depth review of the evolution and trends of communicating corporate sustainability information in the world and in Finland. To reach this aim, first, this review looks at a broader concept of sustainability and its various definitions, followed by the impact of the real estate sector on environmental sustainability. Then, the link between sustainability and economics of the built environment is assessed. Moreover, investment trends in the sustainable properties in the world and in Finland are considered. Later, the current challenges of the business sector to integrate sustainability into the decision-making process will be distinguished. Finally, the effective communication platforms as a way forward to overcome those challenges, and the role of sustainability reporting in this context is assessed. Overall, this chapter is proposed to identify what has been done and what needs to be done in the context of sustainability reporting, in order to show how this research could advance the research theme.

2.1 What is Sustainability?

Recently, the real estate sector has shown wide interest in adapting to climate change in the context of sustainable development. However, the definitions assigned to environment, society and human activities could make difficulties in a transition towards sustainable economic practices (Hudson, 2005.) Another difficulty in setting and achieving sustainability goals is the vast number of definitions for terms such as 'sustainability' (about 70 different definitions) (Lozano, 2008), or 'sustainable development' (over 100 definitions) (Dale, 2001). This might be due to the fact that the meaning of these terms is inherently context- and audience-dependent (Kirsch, 2009). The lack of clarity surrounding these definitions has been mentioned and criticised previously (Hopwood *et al.*, 2005).

The most frequently referred definition derives from the UN World Commission on Environment and Development's 1987 Brundtland Report in which sustainability is defined as follows:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (World Commission on Environment and Development, 1987).

Brundtland describes sustainability as a process of learning, as an ethical relationship between the past and future (justice among intra-generational and inter-generational), as well as the maintenance of a system within functions and limits (World Commission on Environment and Development, 1987). In a relatively similar definition, Semantic Community (2012) defines sustainability as a vital element "to survive – for human beings – in the long run". Another widely used approach to sustainability is known as 'triple bottom line' approach, in which, society depends on the economy, and the economy depends on the global ecosystem (Elkington, 1997).

According to Brundtland Report, sustainability has two components, including temporal and spatial dimensions (University of Arizona College of agriculture and life sciences, n.d.). The temporal scale includes concepts, such as intergenerational quality (as mentioned in Brundtland Report) or the precautionary principles that prevent industries from applying new practices or products leaving devastating environmental or health impacts (WHO, 2004). With respect to the spatial scale, Brundtland (1987) seeks practices that address the needs of a generation without threatening the capacity of the current/future generation living in other location (legal or geographical) to meet their needs.

In addition, several research had studied the subjects relating to sustainability within the real estate sector. One study by Pivo and McNamara (2005) has linked sustainability with the concept of responsible property investment and defines responsible property investment as follows:

"Maximising the positive effects and minimizing the negative effects of property ownership, management and development on society and the natural environment in a way that is consistent with investor goals and fiduciary responsibilities" (Pivo and McNamara, 2005).

As Pivo and McNamara (2005) described, responsible investment considers the prosperity of economics, the betterment of society, and conservation of ecosystems as integral components. Simultaneously, it tries to modify the behaviour of real estate

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stakeholders to become more aware of daily sustainable lifestyle (Francesco and Levy, 2008).

Taking the above definition, and others mentioned in the literature, sustainability can be applied as a basis that provides guidelines for adopting investment practices that consider the profit, planet and people in the same manner (Francesco and Levy, 2008). In other word, unlike the traditional viewpoints that see success for a development project higher profits for investors, success in the context of sustainable development is defined as reducing the negative environmental and societal impacts of a property along with building a sustainable legacy (Wedding, 2008).

2.2 Impacts of built environment on environmental Sustainability

Real estate plays an important role in society, economy and environment (EPRA, 2012). The real estate sector substantially influences the landscape and urban space, the supply and design of domestic spaces, and people's life. Property, furthermore, plays an important role in terms of social justice (Hoesli and Gibb, 2003.) However, society and economy work hand in hand and benefit from the services provided by the real estate sector. This sector, also, contributes to economic growth and increases the rent of employment (EPRA, 2012.) In addition, the real estate sector is closely connected to the environment. The built environment has enormous impacts on climate change. Energy consumption, air pollution, greenhouse gases (GHGs) emissions and ozone-depleting substances, waste use, wastes disposal and impacts on biological diversity are all challenges for the built environment to address (Rashidfarokhi, 2010.)

The environmental impacts of built environment
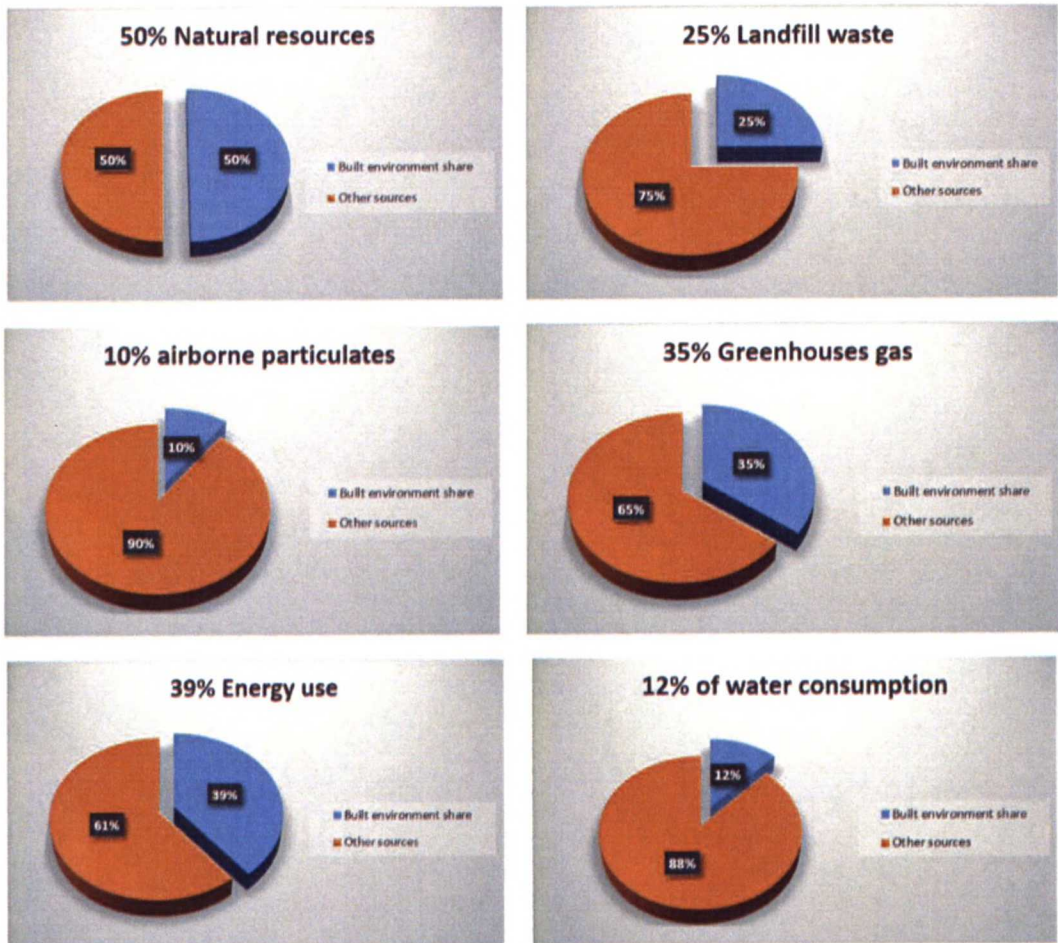
Figure 1 The environmental impacts of the built environment (data retrieved from Green Building Canada, 2012)

As it is shown in Figure 1, in general, the built environment is believed to be responsible for more than 39% of the global energy use and more than one third of global emitted GHGs, both in developed and developing countries. Energy consumption is considered as the main source of GHG emissions from buildings (UNEP, 2009.)

Buildings are also major producers of other non-CO_2 GHG emissions, such as halocarbons (UNEP, 2009). In addition, the real estate sector has other significant environmental impacts, such as deterioration of air quality, disruption to existing ecosystems and production of waste (ODA, 2007). On the other hand, it is equally evident that the real estate sector is not insulated from the disastrous consequences caused by climate change, such as weather catastrophes and erosion (Sullivan *et al.*, 2008).

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United Nations Environment Program (UNEP) (2006) predicted that the climate change induced disasters could exceed over US$ 1 trillion losses annually by the year 2040 (UNEP FI, 2006, quoted in Sullivan *et al.,* 2008).

The threat of climate change highlights the necessity of designing holistic strategies for resisting the climate change disasters, and to achieve sustainable development goals in order to meet the needs of current and future generations. During recent years, the topic of sustainability has received extraordinary attention. This might be due to the growing global concern about climate change impacts on economics and society, which was highlighted with the release of the Stern Review on the economics of climate change in 2007 (Rashidfarokhi, 2010.) In the same year as Stern Review published, Intergovernmental Panel on Climate Change (IPCC) has offered two paths that help civilization to overcome the challenges of tackling climate change: adaptation and mitigation (IPCC, 2007). UNDP (2014) defines adaptation as a set of strategies that "can reduce vulnerability, especially when it is embedded within broader sector initiatives". Mitigation involves strategies that slow the intensity of climate change itself (Mann and Alley, 2014).

Generally, mitigation practices are among the greatest challenges of sustainable development. With regard to the real estate sector, as it has been mentioned before, built environment stands for more than 35% of emissions and 39% of energy consumption globally. Adding transport emissions even increases the proportion furthermore. Therefore, focusing on environmental sustainability, especially on energy efficiency of the built environment contributes significantly in climate change mitigation (Green Building Canada, 2012.) According to the Business Council for Sustainable Development (1993) industries are required to reduce their materials and energy consumption beyond 90 percent in order to meet the needs of future generations.

Recently, mitigation strategies, mainly clean energy schemes, have boosted investment of about $145bn annually in one of the fastest global emerging markets during 2009 (Bloomberg energy finance, 2010). Mckinsey and Company (2009) claim that within the mitigation initiatives market, the real estate sector provides the greatest profit for reduction of environmental impacts. This opportunity encourages companies to create

profitable, sustainable solutions to bridge the gap between environmental and economic values.

The concept of sustainability is not unknown for the real estate investors, with the presence of several leading stakeholders, such as developers and fund managers, that smooth the path to integrate sustainability into the decision-making process (de Francesco and Levy, 2008). It is predicted that, in the near future, the responsible investment will demand the real estate sector to place a high level of importance on social and environmental sustainability issues (McNamara, 2000). In addition, several researchers have predicted a rise in amount of responsible investing within the real estate sector (Sayce et al., 2007).

2.3 Sustainability and economics of built environment

Although several studies highlighted the significant role of real estate industry in climate change mitigation. It seems that sustainability was perceived as a minor issue across the industry, mostly at the periods when rents and yields were under severe pressure (Dair and Williams, 2006.) In other word, sustainability was not seen as a driver in real estate investment decision-makings until recent years (Townshend and Alderson, 2005). Even currently, some real estate stakeholders are willing to undervalue the significance of the built environment's contribution to climate change mitigation. Furthermore, the sustainable initiatives are avoided and the costs of green buildings are miscalculated, which sharply contrasts with the reality as well as the industry's responsibility for sustainable development (IIGCC, 2012.)

In reality, higher sustainability performance of a company creates economic, social and environmental values for that company (IIGCC, 2012). Heerwagen (2000) divides the benefits of sustainable assets to the company into four different categories of performance (see Figure 2). These categories are as follows: 1 Financial outcomes, such as reduced maintenance and operating costs, increased overall productivity and increased resale value of the property; 2 Business process outcomes, which include increased efficiency of work process and process innovation; 3 Stakeholder relations, for example, the improved public image, community outreach and education; and 4 Human resource developments, consists of improved quality of work life, reduced turnover and increased ability to attract high-quality employees.
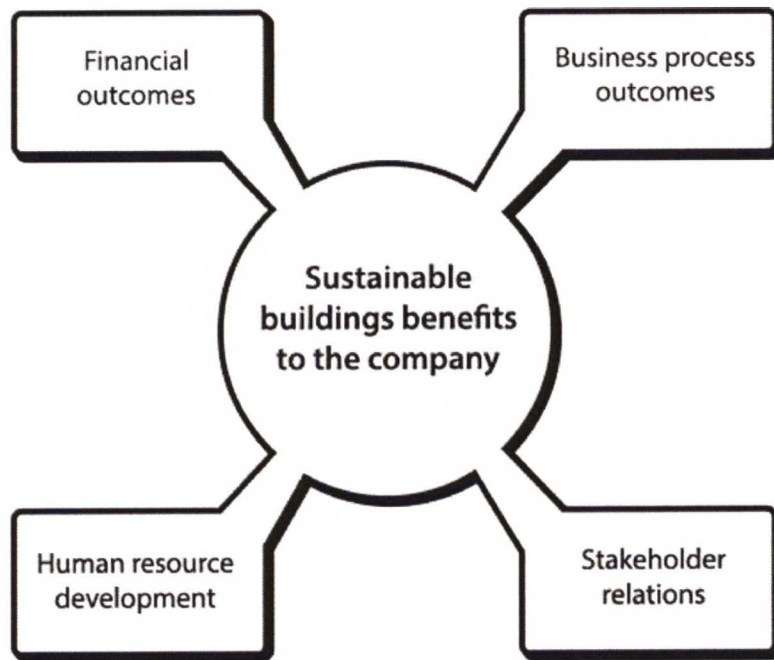
Figure 2 Benefits of sustainable assets to the business sector (data retrieved from Heerwagen, 2000)

According to Francesco and Levy (2008), considering sustainability initiatives in external costs, including environmental and social costs that are not normally taken into account in traditional market price mechanisms. The external costs could have either a negative or positive impact. If the external costs produce negative effects, they are defined as "negative externalities". In such cases, the marginal social cost is more significant than the marginal private cost. It is noteworthy that the presence of external costs will cause the difference between social and private costs. Thus, sustainability-related actions are able to alter economic or opportunity costs by including external costs within the market price mechanism. Integrating such negative externalities into the market price should reasonably accelerate the market price growth and reduce the output as a result. Based on this theorem it can be concluded that:

'Integrating sustainability measures will provide greater social satisfaction due to a more efficient market pricing' (Francesco and Levy, 2008).

In addition, according to an analysis of the data contained in the EU Directive on Energy Efficiency (2011), implementation of the existing sustainability measures, such as better insulation, efficient lighting, and heat recovery, will reduce the level of properties energy consumption by approximately 30 percent in the European Union (EU) by 2020.

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Besides the positive impacts on the environment, energy efficiency schemes affect society and economy by generating two million new jobs, saving a potential €200 billion, and fostering competitiveness (EU Directive on Energy Efficiency, 2011).

2.3.1 The impact of sustainability on property investment

Recently, in the view of growing legislation and public awareness, attitudes are about to change. Nowadays, several investors have begun to emphasise how their buildings ensure sustainability (Pivo and UNEP FI Property Working Group, 2008.) This shift towards sustainable properties development has also influenced investment strategies and the decision-makings process (Kriese, 2009). Although the concept of sustainability has recently received significant attention with regard to construction and operation aspects, few efforts have been made to fully understand the effects of sustainability on the property investment outlook. It is necessary for investors and fund managers to recognize and quantify how sustainability influences their investment (Francesco and Levy, 2008.)

In addition to the effects of sustainability on the market price that has been mentioned in the previous section, it also modifies the methods whereby investment companies appraise the nature of their future investment products. This, in turn, leads real estate companies to develop or adjust their existing portfolio in line with the responsible investment criteria. When a real estate company defines its investment strategies, considers various aspects, such as to build a profitable portfolio construction, asset allocation planning, and requirements of investment management. In furtherance of making efficient, sustainable decisions for future, strategies should be defined for both existing and new asset portfolios (Francesco and Levy, 2008.)

On the other hand, the offered sustainable properties should address the sustainability requirements either passive or active. Passive properties have the potential to mitigate the risks associated with climate change, whilst active properties, in addition to reducing those risks, will contribute in increasing the market competitiveness (Francesco and Levy, 2008.)

2.3.2 Responsible investment trends in Europe

According to a survey carried out by PwC (2013) sustainability and/or sustainable development goals had been disregarded as an effective factor influencing the decision-making process of the European investors until 2010. In 2014, when PwC has re-interviewed real estate stakeholders in the theme of sustainability, the responses were promising. 75% of the interviewees have claimed that their respective company has integrated sustainability into their business strategy. The results have been illustrated in Figure 3.

75 percent of interviewees have claimed that their respective company has integrated sustainability into their business strategy.

75%
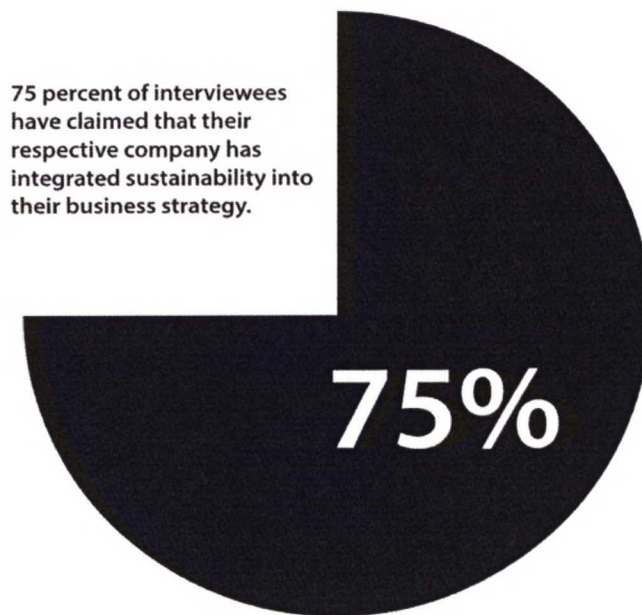
Figure 3 Trends of sustainability integration to business strategy in Europe (data retrieved from PwC, 2014)

This survey shows that real estate sector does not dismiss the economic function of sustainability anymore. Instead, they consider sustainability as a profitable factor, which makes business sense. In addition, it can mitigate the pressure of the legal requirements as well as empowering the company for international competition. Moreover, it attracts capital and prevents high operational costs and brown discounts. In the view of the pioneer sustainable companies, success will not be achieved only through the investment and management of the worthy assets, but it also needs to acknowledge the market drivers including demographics, legislation, innovative technology and changing lifestyle (PwC, 2014.)

As it has been mentioned above, six years after the financial crisis in Europe, the business functions for sustainable real estate, gradually, are recognized across the sector. This can be confirmed by assessing the answer of 50% of the interviewees attended in PwC survey, who believe integrating sustainability into their business strategy has contributed to achieving higher rents for their green buildings (PwC, 2014.) The illustrated explanation of the results can be found in Figure 4.

50 percent of the interviewees who believe integrating sustainability to their business decisions, have contributed to achieving higher rents for their green buildings.

50%

Figure 4 Higher financial returns on green buildings for real estate companies (data retrieved from PwC, 2014)

Compared with the past few years, it seems that obtaining such results is neither possible nor predictable. It seems that, currently, in search for value, sustainability provides an increasing business opportunity for the real estate sector. Sustainability not only represents a better economic function, but also helps the real estate companies to meet the international and national climate change legislation. In addition, it provides low-risk assets for concerned organisations and attracts customers with sustainability demands (PwC, 2014.)

European investors, who act globally, do not consider unsustainable properties as valuable assets anymore. In other words, companies with weak sustainability performance are seen as a high risk investment choice. Disclosure on sustainability

strategy is becoming a common demand by investors. Having a sustainable strategy will prove that a company has a resilient business with futuristic perspective. In the present climate, investors are setting minimum criteria for allocation of their investment, especially due to the binding of strict energy-efficiency legislation and growing public awareness. These data show that investors are interested in the assets that address the minimum environmental, social and corporate governance criteria. One interviewee investor confirms this conclusion, saying 'if a property does not meet the minimum sustainability standards, we refuse to buy it' (PwC, 2014.)

2.3.3 Sustainability and trends of the built environment in Finland

2.3.3.1 Characteristics of the built environment in Finland

Geographically, Finland is located in the Northern hemisphere. Finland's latitude and longitude are 64° 00' N and 26° 00' E. The climate is temperate and the average temperature is 6°C. Helsinki is the capital of Finland, placed on the southern coast of the country. The average temperature in Helsinki in July is +17°C and in February -5.7°C, from hot summers to extremely cold and snowy winters. Compared with the global scale, Finland has rather small inhabited areas that are positioned far from each other. This remoteness causes higher GHG emissions due to longer trips to work and business trips. In addition, the costs for construction and maintenance of infrastructure are increased, which itself is in contrast with efficiency and competence in the market (TEKES, 2011.)

On the other hand, the harsh climate caused that extra and special attention to be paid to the built environment and the energy efficiency innovations. Finnish built environment, compared with other developed countries, is rather "young, well-maintained and energy efficient". It is due to the long and harsh cold winters that Finnish real estate companies develop energy-efficient buildings for some decades (TEKES, 2011.) In addition, entrance of new international investors into the Finnish real estate market since 2002, has contributed to the major developments in the market and caused the emergence of new practices in real estate investment decision-making processes (KTI, 2013).

2.3.3.2 Sustainability trends in Finnish real estate market

With regard to Finland, there is no doubt that Finnish real estate companies have considerable economic, social and environmental impacts. As OECD Environmental

Performance Review - Finland (2009) reports, although Finland is a pioneer country in following the sustainable development goals in the EU and the world, the Finnish economy puts great pressure on its environment, including the air, soil, water, and other natural resources. Such relatively high negative impact is caused by intense energy and material use. However, the environmental impact of the Finnish industries has declined over recent years due to the enhanced environmental legislation and public awareness (OECD, 2009.)

In the context of social responsibility, Finnish companies tend to disclose, mostly, their labour practice and decent work information, especially under the 'training and staff development theme' (Vuontisjärvi, 2006). However, surveys show that companies often underestimate the importance of responsible supply chain, human rights issues and their related risks (PwC, 2014). It is noteworthy that sustainability cannot be achieved until all aspects of sustainability in the triple bottom-line model reaches the sustainable level (Semantic Community, 2012). This goal is reachable although it is not an easy equation.

Finland is not apart from sustainability trends in Europe and even attempts to become a forefront of green building movement in Europe by the end of 2020, the position Finland has experienced about 30 years ago after the worldwide energy crisis (European Commission, 2013). To reach this ambitious goal, academia and industry have been challenged by research and development (R&D) organisations, such as TEKES, SITRA and VTT, in order to develop solutions for sustainable, energy-efficient built-environment. Currently, the practical knowledge of Finns has reached an outstanding level and various high-quality sustainability models are proposed for real estate sector, which are simultaneously profitable and environmentally and socially-responsible (TEKES, 2011.)

From the policy-makers' viewpoint, recently, the action plan ERA17 for an Energy-Smart Built Environment 2017 has set energy-efficiency requirements. These criteria help Finland regain its first place in an energy efficient built environment already in 2017, and in the long-term -by 2050- to become the world best built-environment (ERA 17, n.d.).

In the meanwhile, the national building codes also accelerate this transition by steering sustainability measures in properties (TEKES, 2011). From 2012, all the new built

properties in Finland must meet the stricter sustainability standards for energy-efficiency measures and construction procedures (European Commission, 2013). Existing buildings are not exempt from this movement. It is expected that renovation operations increase in the coming years with over €10 billion dedicated to repairs and eco-upgrades annually (Invest in Finland, 2013).

In addition to stricter GHG mitigation legislation and emergence of sustainability policies, increased public awareness, including real estate stakeholders is, also, a major motivation for changing the attitudes towards sustainable development goals in the real estate market (PwC, 2014). In an interview with Philip La Pierre, Head of Investment Europe at Union Investment Real Estate GmbH, published by Nordicum (2014), he claimed that sustainability issues go along the same line with the economic added value and the resilience of the properties in the long-term. He added, gradually, sustainability is perceived as a key to success for business (TEKES, 2011).

Between the years 2005 and 2010, over 1500 properties have received green building certificates in Finland, owned by Senaatti, SOK, Tapiola, Kesko, VVO and ATT. Since November 2010, 12 buildings have received LEED (Leadership in Energy and Environmental Design) certification, including KOy Lintulahdenvuori (platinum certificate), as well as six properties and one premises of Nordea, Sello shopping center, Trio, and Skanssi and Moveres Business Garden. Until November 2010, another 14 building projects have registered for being LEED certified. The following four projects: KOy Vantaan Honkatalos, Spondan Unionin ja Fabianinkadun kiinteistö refurbishment, Business Park Polaris (Castor), and Lahden Duo 2 (API) also applied to become BREEAM certified in Finland (Green Building Council Finland, 2010.)

2.4 Current challenges against integrating sustainability

Although the current trends to avoid business-as-usual practices is a step forward, but what makes the effective change is how far and how fast the real estate sector involves in the climate change mitigation movement (Wedding, 2008). However, there are various challenges for the companies against integrating sustainability into their business strategy. These challenges may be a result of the multiple definitions of the sustainability (Stenberg, 2007.) For instance, the multiplicity of sustainability definitions attracts

hypocrites (Robinson, 2004). Imagine a jobber real estate company that has targeted to achieve the easiest, but not significant criteria in a green building scheme, even though those criteria might not contribute in reaching significant sustainability goals.

Other factors creating difficulties for real estate companies are as follows, contradictory and disagreeing sustainability information (Crabtree and Hes, 2009); as well as excessive concentration on specific issues, such as energy efficiency; and the media's "opportunistic attitude" towards sustainability in the real estate sector (Gluch and Stenberg, 2006). Another challenge is the short-term appointed time for implementing of the sustainable innovations, such as construction of zero energy buildings within seven years – the year 2021- (Robinson, 2004). In addition, the various rating tools are designed for various types of stakeholders and the heterogeneity of property assets have caused real estate companies to be frustrated and confused (Francesco and Levy, 2008).

Kajander *et al.* (2011) claim that the level of the sustainable actions in real estate companies compared with the opportunities offered by the mitigation initiatives is extremely low. In addition, the few effective sustainability strategies that are already established face risks of not being recognised by investors or other stakeholders (Rennings *et al.*, 2010). In order to achieve a systematic shift towards sustainable development goals;

> *"There is a need for new strategies to promote sustainable buildings, in which an incorporation of social, economic and environmental sustainability is equally reinforced."* (Brown and Bhatti, 2010).

2.5 Effective communication platforms as a way forward

According to Adair *et al.* (1998), one of the key factors that contributes to the development of real estate markets is the availability of up-to-date and accurate market data and the possibility to access and understand them. Therefore, as D'Arcy and Keogh (1998) suggest, the presence and transparency of sustainability performance data, along with provision of qualitative real estate services, property transactions, and the presence of international investors and foreign capitals are the features of the mature market.

With regard to sustainability in the real estate sector, the aim is to communicate the company's sustainability performance data, advantages of integrating sustainability into

the business strategy, and involving in sustainable assets. This will lead the demand for sustainable properties to be increased as well as the investors' economic profits (Eerikäinen and Sarasoja, 2013). In brief, the communication of sustainability information is identified as a key factor in promoting sustainability within the real estate sector (Yudelson, 2007). Yet, the vital question here is how innovative communication strategies for sustainability will lead a real estate company to be successful in comparison with other competitors. Currently, communicating sustainability performance information is a tool used by real estate companies to share their knowledge and services with their stakeholders (Eerikäinen and Sarasoja, 2013). However, the concept of communication on sustainable properties, still, receives little attention from real estate engineers. Engineers perceive communicating strategies and marketing as an unimportant issue, believing that success in a project advertises itself. The reality is much more complex, if the achievements are not efficiently communicated to the stakeholders, they could be forgotten and lose their significance (Yudelson, 2007.)

In line with the above-mentioned theme, Nielsen (2001) has defined a project with the aim of exploring how effective communication on the properties' environmental performance could be in order to attract customers. Observing the performance of green buildings, itself, did not attract potential buyers, in fact, the transparency and accessibility of data have caused customers to be attracted to the project (First and Khetriwal, 2008). In another study by O'Dwyer *et al.,* (2005) it was found that although stakeholders seek companies to provide information on their sustainability strategy, but the majority of participants demand companies to supply sustainability performance indicators in order to evaluate the reliability of the company.

From the outcome of the above-mentioned studies, it be concluded that:

'Communication on sustainable performance plays a major role in increasing the demand for sustainable properties. Effective communication platforms have a positive influence on the product differentiation, pricing strategies and green branding' (Francesco and Levy, 2008.)

However, the existing approaches in which the real estate companies communicate their sustainability performance are controversial. In a way that the current positioning of sustainability in debates does not adequately help to boost the investment in sustainable

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properties, in the sense that it is not neither comparable nor consistent (Francesco and Levy, 2008.) In order to promote sustainability in the real estate sector and to take economic advantages of integrating sustainability into business decision-makings, the current communication strategies have to be transformed as soon as possible.

> '*Effective communication strategies on company's sustainability*
> *performance are one of the approaches that provides companies with*
> *a competitive position in the international property market'*
> (Eerikäinen and Sarasoja, 2013.)

According to Eerikäinen and Sarasoja (2013), sustainable property market is an emerging market that each day becomes more acknowledged globally and, therefore, more investors are attracted to it. Presence in the international markets, although having its own advantages, such as accessing a large number of investors, but also requires higher levels of readiness for competing in the market. Effective communication strategies are one of the approaches that provide companies with a competitive position in the international property market (Eerikäinen and Sarasoja, 2013.) However, all these communication initiatives require effective communication platforms, including effective media campaigns (Francesco and Levy, 2008).

2.5.1 Corporate sustainability reporting

If an organisation develops and implements a systematic sustainability program, it could achieve higher productivity, sales and profits (Francesco and Levy, 2008). Once the strategy is implemented, several benefits can be achieved by communicating its information to stakeholders. An effective way to communicate sustainability information is "sustainability reporting". A good sustainability report improves the competition, efficiency and customers' protection. In addition, it lowers the risks and enhances the corporate branding (Deloitte, 2014.)

Several research provides evidence that an increasing number of the real estate stakeholders give attention to sustainability and make their business decisions based on sustainability performance of a target company (see Deegan and Rankin, 1997; Adams, 2004; O'Dwyer, *et al.,* 2005; Vuontisjärvi, 2006; De Villiers and van Staden, 2010). Tilt (1994, 2004) explains that sustainability reports increase the accountability of a target

company and ensure the investors that it is a low-risk investment. According to a survey conducted by GRESB in 2012, around 88 percent of the real estate companies and pension funds have allocated financial and human resources to enhance the sustainability performance of their portfolio (Kok, 2012). As it is seen in Figure 5, this survey included 450 real estate funds and companies around the world.
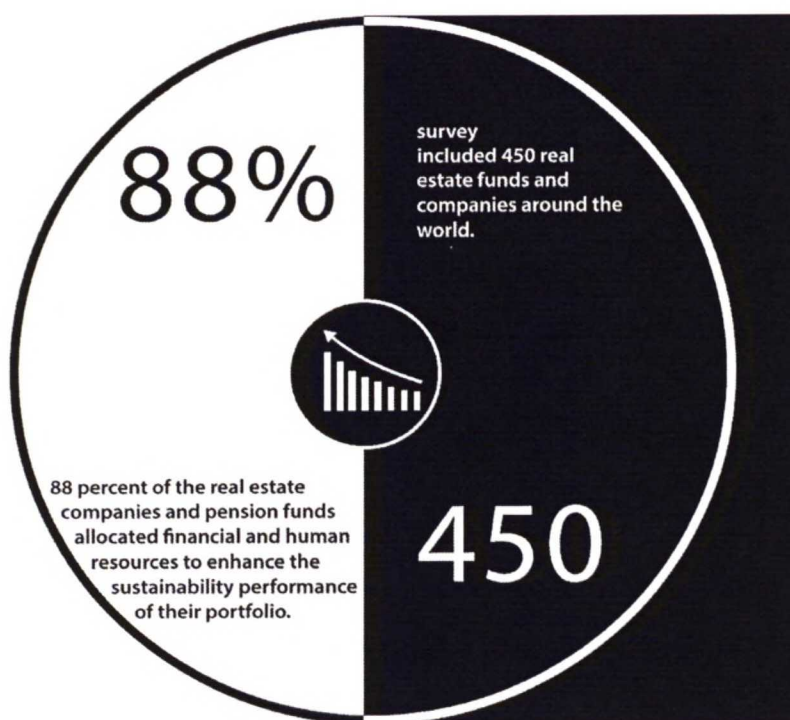
Figure 5   Increased number of real estate companies to improve their sustainability performance (Kok, 2012)

Communication on sustainability performance helps the stakeholders to achieve a clear picture of the position of sustainability within a target organisation (PwC, 2014). Whether the current communication strategies reflect the reliable picture of social and environmental performance of the companies, is questionable. One problem, as it has been mentioned before, is *the multiplicity of perspectives on sustainability* among real estate companies. This causes heterogeneity in the choice between methods and frameworks for sustainability reporting (Brennan *et al.,* 2011.) The unsystematic and inconsistent sustainability communication frameworks make stakeholders confused and unable them to evaluate the sustainability performance of a target organisation (Delmas and Burbano, 2011).

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Another challenge is *the lack of a timeline for publishing the sustainability reports*. There are, still, companies that publish their sustainability reports occasionally and lack a regular reporting period (GRI, 2011.) However, in order to evaluate a company's sustainability performance, operations should be monitored, measured, and data should be communicated regularly (GRI, 2014). Regular assessment helps a company to meet its stakeholders' expectations. In addition, defining reporting period will perform as a foundation for company to make possible improvements in their sustainability strategy in the future (PwC, 2014.)

The other difficulty is the fact that:

> *'Some companies only disclose narrative sustainability information in order to nourish the public opinion and improve their reputation.'*
> (see Neu et al., 1998; Hopwood, 2009 and Beck, et al., 2010).

A study by Adams and Harte (2000) shows that most of the companies are satisfied with just reporting their commitments to economic, social and environmental responsibility criteria, rather than disclosing how these issues are being addressed through their business operations and the achieved outcomes. In addition, studies of Tilt (2004) and De Villiers and Van Staden (2010) reveal that the great number of stakeholders expect companies to include both qualitative and quantitative information on their measurable sustainability targets as well as their actual performance in the sustainability reports.

Therefore, for further conformance of the corporate sustainability reporting, several scholars suggested that companies make uniform sustainability reports that include the following three categories of information: 1.information which indicate intentions and values, 2. measures and practices performed for achieving those targets, and 3. qualitative and quantitative sustainability performance data (see Robertson and Nicholson, 1996; Vuontisjärvi, 2006).

According to Adams (2004), and Hooks and Van Staden (2007), a systematic sustainability report should communicate the company's environmental and social impacts as well as its sustainability performance by disclosing information about the aim and values, strategies, and the progress that has been made within the reporting period to achieve those goals. This report not only covers sustainability elements, but also gives

attention to corporate governance, including reporting and transparency (Francesco and Levy, 2008).

Due to an increasing significance of corporate sustainability reporting, many researchers have developed diverse content analysis frameworks to evaluate the content of the published corporate sustainability disclosures. Mathews (1993) considers these studies "valuable as a record of the current state of organisational disclosures, and therefore, of the distance that remains to travelled along the path of full accountability by economic actors". Most of the above-mentioned research have conducted content analysis of the sustainability reports, either for exploring the sustainability-related codes or calculating the frequency of specific words, phrases or pages (see Campbell, 2000; Gray et al., 2001; Jose and Lee, 2007 and Branco and Rodrigues, 2008).

Although these studies are valuable, but assessing the frequency of sustainability codes on its own is not only sufficient, even could sometimes be misleading (Toms, 2002). Therefore, the need for developing a content analysis framework that considers the information types within the sustainability report is felt. In the following paragraphs, some case-studies are provided to show how feasible the content analysis method could be for conducting such a research. For instance, De Villiers and Van Staden (2006) developed a framework in which information is classified into two categories: general and specific disclosures. In another study by Cormier et al., 2005, codes have been assigned weights based on their respective information type. The highest-weight category (+3) included quantitative or general disclosure, the middleweight category (+2) is assigned to information that is covered by non-quantitative but specific disclosures, and the lowest weight (+1) is dedicated to general qualitative disclosures.

Vuontisjärvi (2006), in other study, performed a research on the content of the human resource information in Finnish corporate sustainability reports. She has used the content analysis method for conducting her investigation. The aim of the study was to assess the content of the Finnish corporation disclosures in a general way. She has defined a set of sub-codes for each theme and divided these codes into three classes: 1. Principal indicators, 2. Process indicators, and 3. Performance indicators. The present research, also, adopted the above-mentioned categories for identifying different information types.

In addition, a recent study by Bouten *et al.,* 2011 has also taken advantage of using content analysis to assess the comprehensiveness of the corporate social responsibility reports in Belgian companies. The developed content analysis framework is able to evaluate the comprehensiveness of corporate sustainability reports. Disclosed sustainability codes are first identified, and then divided into three information types: 1.Vision and goals, 2. Management approach and 3. Performance indicators.

However, to the researcher's knowledge, there has not been any study that assesses the content and quality of Finnish real estate companies' sustainability reports. The need for this investigation is tangible, as PwC (2014) confirms, more Finnish companies are now pursuing actions that facilitate integration of sustainability issue to their business strategy. It seems that progress of sustainability reporting has been steadier in comparison with previous surveys and companies tend to include both qualitative and quantitative sustainability performance indicators in their reports. In addition, an increasing number of companies adopt voluntary sustainability reporting frameworks, such as GRESB and GRI guidelines, every year (PwC, 2014.) The brief explanations of these two guidelines are provided in below.

GRESB or The Global Real Estate Sustainability Benchmark is "an industry-driven organisation committed to assessing the sustainability performance of real estate portfolios around the globe". GRESB survey is used by more than 35 institutional investors, the majority of real estate industry associations, and a large number of consulting agencies, who require developers and construction companies to be more transparent by participating in the GRESB survey (GRESB, 2014.)

GRI develops a "comprehensive Sustainability Reporting Framework that is widely used around the world, to enable greater organisational transparency." The framework consists of specific guidelines for each business sector. The framework enables companies to report on their economic, social and environmental responsibility through the sets of Principles and Standard Disclosures. In May 2013, GRI has published the new G4 guidelines for sustainability reporting, emphasising the concept of materiality. The G4 framework promotes the engagement of stakeholders during the preparation phase and asks companies to communicate only the information that are material to their business. Following G4 guidelines leads companies to evaluate their performance throughout their

supply chain instead of considering the impacts of their own operations. These modifications increase the importance of reporting non-financial company information in the near future (FS Insight, 2014.)

3 The procedure of conducting the research

The aim of this chapter is to increase the transparency and reliability of the used methods for conducting this research, in a way that other researchers can easily understand and follow it. To achieve this goal, this chapter reviews the literature on the chosen methods, including content analysis and interviews, based on theoretical knowledge. Then, it describes the theoretical framework and research design of the study. Afterward, a list of collected materials is given. Under the content analysis framework section, defined codes and sub codes are explained. Following this, applied qualitative data analysis software-MAXQDA 11- is introduced and finally, ethics of this research is assessed.

To address the questions of this research, the researcher developed an integrated multiple qualitative research method that supports the exploratory and descriptive nature of the research. As it has been mentioned before, a content analysis approach will be applied as an overall method of the study. Along with the content analysis, semi-structured interviews will be conducted to achieve richer data, and to gain insight into the companies' perception and values with regard to sustainability and sustainability reporting. Literature review method with the aim of critical look at the existing research that is significant to the present research as well as case-study method for exloring the features of the Finnish real estate companies are used as subsidiary methods for this research. The outline of the integrated multiple qualitative method developed for this research can be found in Figure 6. This approach enables the researcher to describe how a company discusses, advertises and negotiates its sustainability information during attempts to introduce them to stakeholders.
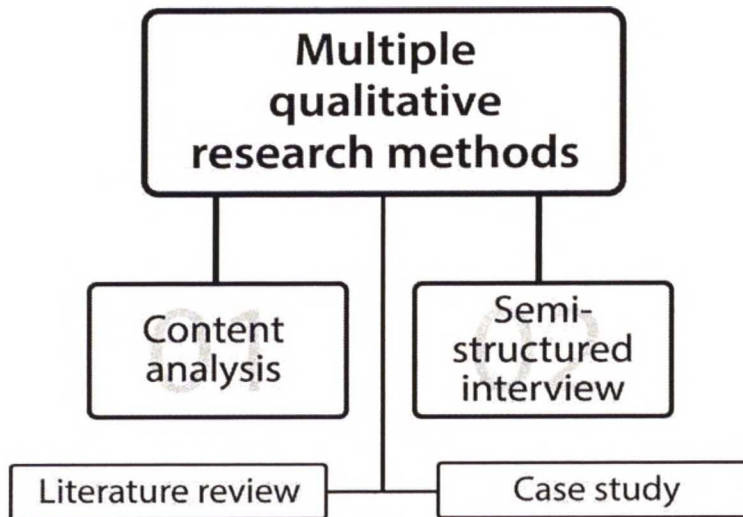
Figure 6 The outline of the integrated multiple qualitative method developed for this research

3.1 Review of literature on the qualitative approach

Various numbers of approaches are available for conducting qualitative analysis on the collected data. Data can be examined either inductively or deductively (Elo and kyngäs, 2007.) For exploring data inductively, content analysis is a systematic and objective method (Cole, 1998). This method can be applied for analysing written, verbal or visual materials, generating codes and categories, as well as explain and quantifying a phenomenon (Cole, 1998; Pope *et al.,* 2000; and Elo and kyngäs, 2007). In such a method, data can be analysed at the same time as the data collection process, enabling pre-defined questions to be refined or new research questions to be developed (Pope, *et al.,* 2000).

Weber (1990) defines content analysis as a method codifying text into different categories depending on the defining characteristics. Content analysis enables the researcher to test aspects of theory to achieve a better understanding of a dataset (Cavanagh, 1997). This method has a long history of application in qualitative research and is widely used to understand and describe the content of sustainability disclosures (Elo and Kyngäs, 2007; and Guthrie and Abeysekera, 2006). However, there is not enough information on how the content analysis has been applied in various studies

(Unerman, *et. al.*, 2008). Performing a content analysis involves working with large amounts of textual data (Guthrie and Abeysekera, 2006). Collection and analysis of such data in a systematic and accurate manner are time and human resource-consuming processes. To facilitate the data analysis, computer-assisted qualitative data analysis software can be used, such as MAXQDA, ATLAS.ti and NVivo. However, applying such software does not necessarily guarantee the quality of analysis. Other factors such as analyst's skill, vision and integrity are involved (Pope, *et al.*, 2000.)

With regard to semi-structured interviews, it is defined as a form of interview that is mostly used in qualitative research. The defining characteristic of semistructured interviews is that it has a flexible and fluid structure (Lewis-Beck, *et al.,* 2004). However, the interviewer develops a guideline, including a list of topics, themes, or questions that need to be covered during the interview (RWJF, 2008). Semi-structured interviews become commonly applied method among researchers, because this method provides interpretive data. In addition, the general framework for questions can be determined ahead of an interview event and this allows the researcher to be prepared and competent during the interview (RWJF, 2008). However, semi-structured interview, on itself, is not able to produce a holistic understanding of the phenomenon, therefore, can be used as a supplementary method (Lewis-Beck, *et al.,* 2004).

3.2 Research design and the choice of the materials

The present research involves the assessment of the sustainability performance of the Finnish real estate companies. For this reason, 19 real estate companies have been nominated to be investigated during this research. The criteria for selecting the companies are as follows, first, this research focuses on the public listed real estate companies, because they are more likely to publish sustainability information due to stock exchange (OMHEX) self-regulatory system requirements (CSR Europe, 2010). Second, companies have to be a member of Green Building Council Finland, because they can make a contribution within their sphere of influence and advance the movement for a more sustainable built environment (USGBC, 2014). Finally, the companies should be active in commercial sector and publish their sustainability materials in English too. Therefore, emails have been sent to the potential companies' investors' relations managers, communication managers or sustainability analysts. Within a week, eight companies

replied positively and agreed to be the case organisations. The list of the companies can be found in Figure 7. All the engaged companies are active in investment in and construction of commercial properties. The case companies are medium in size and have an average of 2,143 personnel, their average revenue is around 1,639 million euro in Finland.

Figure 7 The list of the case companies in an alphabetical order

As it has been mentioned before, this research employs a qualitative research methodology that consists of two parts: 1. Analytical research and 2. Empirical Research. In the following paragraphs, the detailed information on the research framework, chosen materials and procedure of conducting analytical and empirical methods are described in details.

3.2.1 Analytical Research: content analysis

For the analytical part of the research, the researcher has developed a content analysis framework to explore detailed data from the collected materials. One of the aims of content analysis is to become immersed in the data, which requires the researcher to read through materials several times (Polit and Beck, 2004). Therefore, data analysis started with reading the collected materials first as one would read a novel (Hsieh and Shannon, 2005). Later, each document is re-read in order to explore the content and quality of the given data. The analysis process includes three stages, at first the respective theme (code)

of the content is identified, then the appropriate sub code is chosen, and finally, it is classified into one of the three defined information types. The researcher decided to code every reference made in the themes even if it presents negative impacts. This technique enables the researcher to find out the frequency and coverage percentage of each code.

3.2.1.1 The choice of the materials

This section describes the list of materials that have been analysed within the developed qualitative research framework. The choice of the research materials depends on several aspects: the research questions, the researcher's knowledge to the relevant material provided by the case organisations, and whether, and how, one can gain access to it (Jørgensen and Phillips, 2002).

In order to choose the relevant data, at first, the selected companies have been contacted for the list of the communication channels through which the company informs its stakeholders about their sustainability performance. As it has been mentioned before, the channels of communications are as follows, annual and interim reports, companies' website and building presentation materials. All sections of the annual reports and Interim reports prior to financial statements were analysed. Website contents exploration was limited to the materials that are published on the sustainability pages of the websites. However, the content of the commercial building presentations was fully assessed during the analysis.

3.2.1.2 The coding system

Once the relevant materials have been collected and read through, each document is coded individually. The structure of the coding system consists of two aspects: 1. content and 2. information types. The detailed description of the coding system is visualised in Figure 8. The codes related to the content aspect of the collected materials are derived from the GRI G4 Construction and Real Estate Sector Supplement (CRESS) index. As it is seen in Figure 8, the content aspect consists of two areas: General standard disclosures and Specific standard disclosures. General standard disclosures cover information related to the corporate governance theme and include seven codes. The specific standard

disclosures cover economic responsibility, environmental responsibility and social sustainability themes in line with the triple-bottom line of sustainable development. Each theme includes several codes, similarly, each code locates several sub codes. The structure of the coding system is in a hierarchical form. The hierarchical or tree form has various advantages, for example, it is less confusing and prevents from overlapping in meanings (Krippendorff, 2004).

At the beginning of the research, the researcher had decided to define the codes on the basis of "Ten strategies for responsible investing" mentioned in the report-Responsible property investing: What leaders are doing?" published by UNEP FI property working group (PWG) in 2006. However, Kondracki and Wellman (2002) suggest that within the content analysis process, the researcher should be flexible with the defined coding systems and let the codes flow from the data.

On the basis of their suggestion, within the process of coding, it was noticed that the defined codes do not cover all aspects of sustainability in comparison to specific sustainability reporting guidelines designed for the real estate sector, such as GRI G4 CRESS index. In addition to the previously-mentioned challenge, in order to conduct a high-quality content analysis, it is necessary to define the codes based on common global standards (Beattie and Thomson, 2007). With regard to the present research, almost all the case companies applied voluntary the GRI framework for their sustainability reporting, which explains the use of the GRI CRESS index as the foundation for the coding system. Therefore, for the second round of analysis, the researcher re-structured the coding system and defined the new structure based on the GRI G4 CRESS index.

Afterward, all the collected materials have been re-coded with the new coding system and then, it was classified into one of the three defined information types. The defined information types consist of 3 categories based on Vuontisjärvi work (2006); 1. aims and values, 2. actions and practices in order to achieve the pre-set targets, and 3. performance data (qualitative and quantitative).

3.2.1.3 Computer-assisted qualitative data analysis software: "MAXQDA 11"

As it has been mentioned before, the computer-assisted qualitative data analysis software, MAXQDA11, has been employed by this research in order to smooth the process of the content analysis. MAXQDA 11 is the latest version released by MAXQDA Company and is compatible with Windows and Mac operating systems (MAXQDA, 2014).

Several features of this software encouraged the researcher to apply this software for conducting content analysis methodology. The interface is user-friendly. The website provides straightforward-structured online and video tutorials. It is possible for the user to design her/his own coding system and various types of data, including PDFs, interviews, website contents, images and video files can be imported and analysed. Analytical tools are easy to use, in addition, the software facilitates data sorting by offering the colors, symbols, comment and Post-it (memos) functions. Finally, extracting results from coded contents can be done fast and effectively (MAXQDA, 2014.)

CONTENTS

General Standard disclosures

Strategy and Analysis
Organisational Profile
Identified Material Aspects and Boundary
Report Profile
Governance, Commitments and Engagement
Stakeholder Engagement
Ethics and Integrity

Specific Standard Disclosures

Economic Responsibility
Economic Performance
Market Presence
Indirect Economic
Procurement Practices

Environmental Responsibility
Materials
Energy
Water
Biodiversity
Emissions
Effluents and Waste
Products and Services
Compliance
Transport
Overall
Supplier Environmental Assessment
Environmental Grievance Mechanisms
Land Degradation, Contamination and Remediation

Social Responsibility
Labour Practices and Deven Work
        Employment
        Labour/Management Relations
        Occupational Health and Safety
        Training and Education
        Diversity and Equal Opportunity
        Equal Remuneration for Women and Men
        Supplier Assessment for Labour Practices
        Labour Practices Grievance Mechanisms
Human Rights
        Investment
        Non-discrimination
        Freedom of Association and Collective Bargaining
        Child Labor
        Forced or Compulsory Labor
        Security Practices
        Indigenous Rights
        Assessment
        Supplier Human Rights Assessment
        Human Rights Grievance Mechanisms
Society
        Local Communities
        Anti-corruption
        Public Policy
        Anti-competitive Behavior
        Compliance
        Supplier Assessment for Impacts on Society
        Grievance Mechanisms for Impacts on Society
Product Responsibility
        Customer Health and Safety
        Product and Service Labeling
        Marketing Communications
        Customer Privacy
        Compliance

QUALITY

Information types

1. Aims and values
2. Actions
3. Performance data

1. Aims and values
2. Actions
3. Performance data

1. Aims and values
2. Actions
3. Performance data

1. Aims and values
2. Actions
3. Performance data

1. Aims and values
2. Actions
3. Performance data

1. Aims and values
2. Actions
3. Performance data

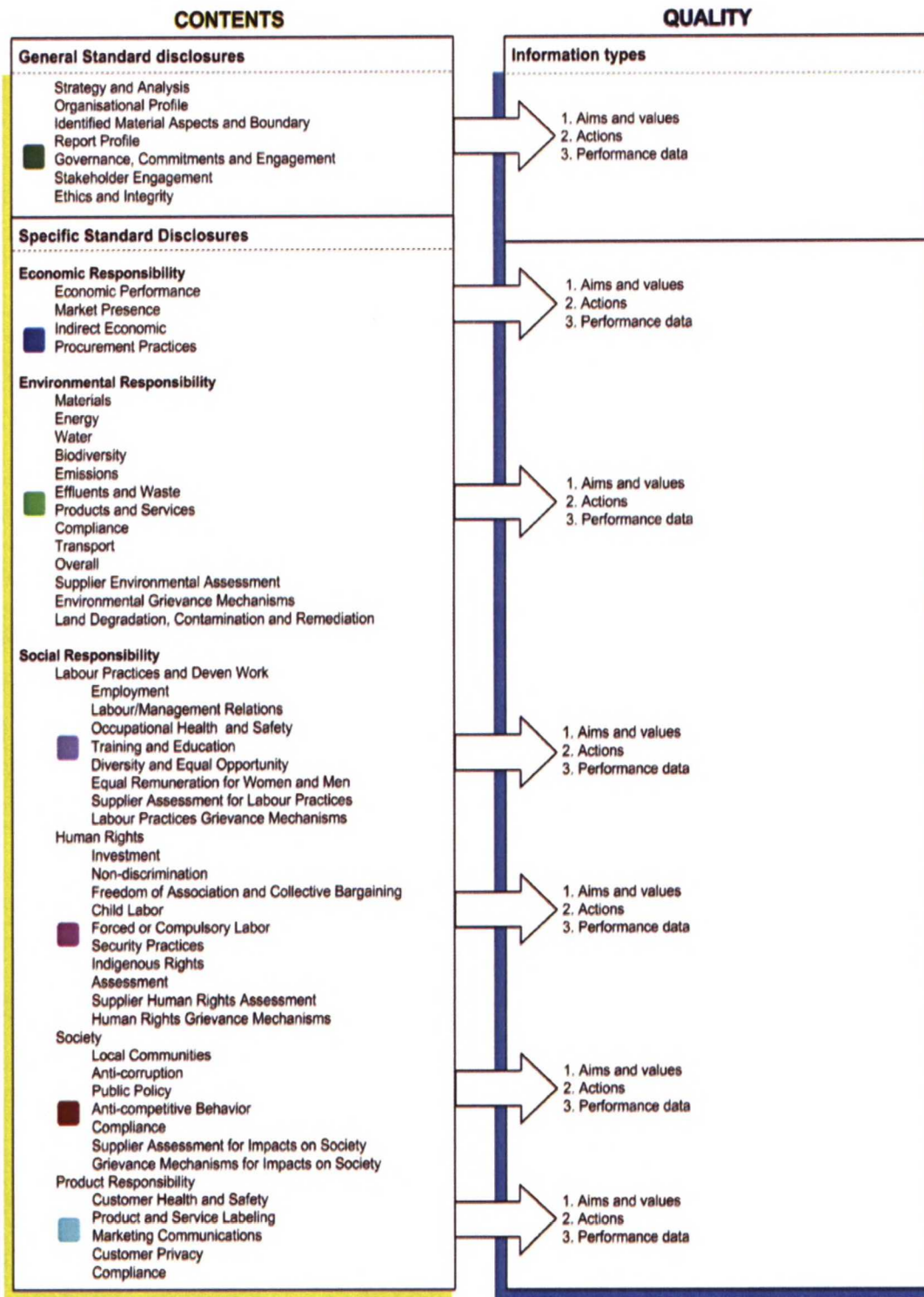1. Aims and values
2. Actions
3. Performance data

Figure 8 The coding system.

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3.2.2. Empirical Research: semi-structured interviews

For the empirical part of this research, semi-structured interviews conducted with the four employees from three case companies about the trends of sustainability information communication in the Finnish real estate market. Interviewees consisted of corporate members, who involved directly or indirectly in producing the sustainability reports, ranging from the investor relations managers, sustainability analysts and head of research teams.

As a base for the interviews, a framework of related questions was prepared beforehand to direct the interview to the main points that identified in the analytical part of the research. The interviews were conducted in a semi-formal manner with one or two interviewees at a time. The duration of interviews ranged from 40 minutes to an hour and interviews have been recorded during the interview sessions. Audio recording increases the reliability and accuracy of the collected information from interviews (Barriball and While, 1994). The recorded interviews, then, were transcribed and assessed later during the same day of the interview.

Interviews reveal updated and valuable qualitative data (Barriball and While, 1994). In addition, they provide insight into the extensive efforts need to be made for preparing a systematic sustainability report, the subsequent development plans for a company's sustainability program, and the limitations.

3.3. Ethic

All academic research must be carried out in an ethical manner, without exploiting others or breaking agreed ethical rules. Therefore, in the process of conducting this research appropriate ethical commitment is contained.

The study has been identified as low risk research, using content analysis and semi-structured interviews. The data have been collected using publicly published text or visual documents occasionally outside of the university buildings, and through interviews with expert human interviewees. During carrying out this research, sometimes it implies to think through the research, to ensure if the internal and external validity of the research questions is appropriate and collected data will fulfill the research objectives.

4 Findings and Results

This chapter reports the findings obtained from conducting content analysis, as well as semi-structured interviews in two separated chapters.

4.1 Findings obtained from content analysis

In total 3939 codes have been identified within the collected materials. For better understanding, the results are divided into the similar categories of the coding structure. The detailed information on the frequency of the codes and information types of each theme can be found below. The results mentioning the percentages have been rounded.

4.1.1 Specific Standard Disclosures

In line with the triple-bottom-line model of sustainable development, specific standard disclosure consists of three aspects, including economic responsibility, environmental responsibility and social responsibility. Explanations for each category and the results are coming in next paragraphs.

4.1.1.1 Economic responsibility

Economic responsibility has defined under specific standard disclosures area. It has four sub codes as follow: economic performance, market presence, indirect economic impacts and procurement practices (for further explanations of sub codes, please refer to GRI - G4 CRESS Index). The frequency[1] of economic responsibility code and sub codes is 838 times (21%). The detailed information on frequency, coverage percentage and information types can be found in the table 1 and table 2 respectively.

- Annual reports 2013

On average, the coverage[2] percent of economic responsibility codes is 13%. The sub code "economic performance" was the most frequent sub code with from which average of eight percent coverage. Seven out of the eight companies (87%) have reported on at least two sub codes (economic performance and indirect economic impacts), however, there was only one company that disclosed information belonging to "procurement practices"

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[1] Frequency here means the rate at which codes are repeated in a given sample.

[2] Coverage here means the extent/area to which has been devoted to a code.

sub code. From eight cases, seven companies (87%) had reported all three types of information for at least one sub code.

- Interim reports Q2 2014

Within Q2 2014 Interim reports, almost 48% of the materials have been covered with information related to the economic responsibility theme. Following the annual reports' trend, economic performance sub code with 46% has the highest coverage.

All the eight interim reports have mentioned at least one sub code and only 25% of the companies have mentioned two sub codes in the interim reports. From eight companies, five companies (62%) had reported all three types of information for one sub code.

- Website contents

Economic responsibility information has covered nine percent of content on the sustainability pages of the companies' websites. Following the pattern seen in annual and interim reports, six percent of the materials are related to economic performance sub code. All the companies have disclosed on minimum of one sub code on their website's sustainability pages. 44% of the companies reported on two sub codes. From eight companies, four companies (50%) had reported all three types of information for one sub code. The websites have been visited during a period 04.08.2014 to 12.08.2014.

- Building presentations

Coverage percentage of the economic responsibility code is about 13% of the building presentation's content. Economic performance with eight percent had the highest coverage. Seven out of eight building presentations (87%) have been coded at least with one sub code. There was only one building presentation that did not report any aspects of economic sustainability. From eight companies, only one company (12%) had reported all three types of information.

Specific Standard Disclosures	Frequency	Coverage (%)			
		1	2	3	4
• Economic Responsibility	838	13	48	9	13
Economic Performance	660				
Market Presence	51				
Indirect Economic impacts	92				
Procurement Practices	35				

Table 2 Economic responsibility Information types

	Economic Responsibility											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	✔	x	✔	✔	✔	x	✔	✔	✔	✔	✔
Company 2	✔	✔	✔	x	✔	✔	✔	x	✔	✔	✔	x
Company 3	✔	✔	✔	x	✔	x	✔	✔	✔	✔	✔	x
Company 4	✔	✔	✔	x	✔	✔	✔	✔	✔	✔	✔	x
Company 5	x	✔	✔	x	✔	✔	✔	✔	✔	✔	✔	x
Company 6	✔	✔	✔	x	✔	✔	x	✔	✔	✔	x	x
Company 7	✔	x	x	x	✔	✔	✔	✔	✔	✔	x	x
Company 8	✔	✔	x	✔	✔	x	x	✔	✔	✔	x	x

4.1.1.2 Environmental responsibility

The second theme of specific standard disclosures is environmental responsibility. This code consists of 13 sub codes, including materials; energy; water; biodiversity; emissions; effluents and waste; products and service; compliance; transport; overall; supplier environmental assessment; environmental grievance mechanisms; and land degradation, contamination and remediation (for further explanations of sub codes, please refer to GRI - G4 CRESS index). The frequency of environmental responsibility code and

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[3] Numbers from 1-4 mentioned in table 1 to table 13, refer to: 1. annual reports, 2. interim reports, 3. websites contents, and 4. buildings presentations.

sub codes is 949 times (24%). The detailed information on frequency, coverage percentage and information types are available in the table 3 and table 4 respectively.

- Annual reports 2013

Beside the high frequency of environmental responsibility theme and relevant codes, 11% of the annual reports' content is dedicated to environmental responsibility information. In two reports (25%), only one percent of the whole report is covered with environmental information. In line with researcher's expectation, energy related information account for 5% of the total environmental responsibility theme coverage. All the eight annual reports (100%) have reported at least on two sub code and 62% of the companies mentioned four or more. However, none of the reports succeeded in reflecting on all aspects. From eight companies, six companies (75%) have reported all three types of information for at least two sub codes.

- Interim reports Q2 2014

Out of eight assessed interim reports, four companies included environmental responsibility information. Therefore, the average coverage percentage among all the reports is below one percent. The most repeated sub code is energy, but three companies reported at least on two items within their interim reports. Only two companies (25%), out of eight, reflected on all three types of information within their interim reports.

- Website contents

On average, 20% of the website contents is covered by information related to the environmental responsibility theme. Energy sub code with five percentage coverage was the most common sub code mentioned on the websites. All the eight websites (100%) labelled with at least three sub codes. 62% of the companies reported on eight environmental sustainability sub codes.

However, only two companies (25%) disclosed information related to "land degradation, contamination and remediation" (sector specific aspects). Three companies provided all three information types for at least two sub codes under the sustainability pages of their websites. The online materials have been collected during a period 04.08.2014 to 12.08.2014.

- Building presentations

Seven out of eight case presentations contained environmental information. On average, 14% of the materials were labelled with environmental responsibility theme and related sub codes. Contrary to the previous trend, transportation was the most seen sub code with four percentage coverage. Results show that two of the companies (25%) reported on five sub codes within the presentations. From eight companies, none has covered all three types of information. Only one company reported two types of sustainability information for one sub code.

Table 3 Frequency and coverage percentage of environmental responsibility code

Specific Standard Disclosures	Frequency	Coverage (%)			
		1	2	3	4
• Environmental Responsibility	949	11	1	20	14
Materials	85				
Energy	252				
Water	75				
Biodiversity	33				
Emissions	104				
Effluents and Waste	114				
Products and Services	74				
Compliance	31				
Transport	67				
Overall	34				
Supplier Environmental Assessment	52				
Environmental Grievance Mechanisms	9				
Land Degradation, Contamination and Remediation	19				

Table 4 Environmental responsibility Information types

	Environmental Responsibility											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	✔	✔	x	✔	✔	✔	✔	✔	x	✔	x
Company 2	✔	x	✔	x	✔	x	✔	✔	✔	x	✔	x
Company 3	✔	x	✔	x	✔	x	✔	✔	✔	x	x	x
Company 4	✔	x	✔	✔	✔	x	✔	✔	✔	x	✔	x
Company 5	✔	✔	✔	x	✔	✔	✔	✔	✔	✔	x	x
Company 6	x	✔	x	x	✔	x	✔	✔	✔	x	x	x
Company 7	✔	✔	✔	✔	✔	✔	✔	x	✔	✔	x	x
Company 8	x	x	✔	x	✔	x	✔	x	x	x	x	x

4.1.1.3 Social responsibility

Social responsibility is the third theme of specific standard disclosures. This category includes four codes as follows, labour practices and decent work; human rights; society; and product responsibility. Each code consists of several sub codes (for further explanations of sub codes, please refer to GRI - G4 CRESS index). The frequency of social responsibility codes and sub codes is 981 times (25%). The detailed information on frequency, coverage percentage and information types related to labour practices and decent work, human rights, society, and product responsibility are provided tables 5 to 12 in the table respectively.

- Annual reports 2013

13% of the annual reports, on average have been labelled with social responsibility codes. Labour practice and decent work code has the highest coverage percentage with six percent on average. All the eight annual reports (100%) have reported at least on two sub codes, and six companies (75%) reflected on all codes. Product responsibility accounts for three percent of the content and Society represents three percent coverage. Only six reports, out of eight, mentioned human right issues within their reports of which, around one percent is dedicated to human rights issues.

From eight companies, all the eight companies (100%) covered three types of information for labour practice and decent work code. Only two companies (25%) provided human

rights information in three defined types. Four companies (50%) had reported all three types of information for Society related materials and similarly, four companies (50%) covered all three types of information for product responsibility code.

- Interim reports Q2 2014

Only one percent of the interim reports are covered with social responsibility materials and it is all labelled under sub code labour practice and decent work. Six companies (75%) have elaborated on one sub code belongs to the social responsibility theme. From which, no company has reported all three types of information for labour practice and decent work code, only two interim reports (25%) covered two information types for labour practice and decent work materials. Human rights information has not been reported in any of the three defined types. In the same way, society and product responsibility codes are not covered by defined information types.

- Website contents

Nearly, 28% of the content of the websites are provided with social responsibility information. Labour practice and decent work, the most frequent sub code, has the highest coverage percentage with 12%. Five out of eight companies (62%) reported on all four codes belong to the social responsibility theme. Product responsibility and society sub codes each cover seven percent, only two percent of the sustainability pages are dedicated to Human rights information.

From eight companies, all the eight companies (100%) covered three types of information for labour practice and decent work code. Only two companies (25%) provided human rights information in three defined types. Similarly, one company (12%) has reported all three types of information for Society related materials. For product responsibility codes, two companies (25%) covered all three types of information. The online materials have been collected during a period 04.08.2014 to 12.08.2014.

- Building presentations

Companies dedicated 17% of the advertisements to social responsibility information. Product responsibility has covered 12% of the labelled materials, society with three percent, and labour practice with two percent are the following mentioned sub code. Six out of eight companies elaborated at least on one sub code. Three companies (37%)

provided information on two sub codes. From eight companies, none of the companies covered three types of information for labour practice and decent work code. Likewise, reported human rights information covers none of the three defined types, as well as for society related materials. However, two companies (25%) have reported all three types of information for product responsibility code.

Table 5 Frequency and coverage percentage of labour practices and decent work codes

Specific Standard Disclosures	Frequency	Coverage (%) 1	2	3	4
• Social Responsibility	981	13	1	28	17
→ Labour Practices and Decent Work	426	6	1	12	2
Employment	53				
Labour/Management Relations	15				
Occupational Health and Safety	112				
Training and Education	64				
Diversity and Equal Opportunity	48				
Equal Remuneration for Women & Men	11				
Supplier Assessment for Labor Practices	15				
Labor Practices Grievance mechanisms	22				

Table 6 Labour practices and decent work Information types

	Labour Practice and Decent Work											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	x	✔	x	✔	x	✔	x	✔	x	✔	x
Company 2	✔	x	✔	x	✔	x	✔	x	✔	x	x	x
Company 3	✔	x	✔	x	✔	x	✔	x	✔	✔	x	x
Company 4	✔	x	✔	x	✔	x	✔	✔	✔	✔	✔	✔
Company 5	✔	x	✔	x	✔	✔	✔	x	✔	✔	✔	x
Company 6	✔	x	✔	x	✔	✔	✔	x	✔	✔	x	x
Company 7	✔	x	x	x	✔	x	x	x	✔	✔	x	x
Company 8	✔	x	x	✔	✔	x	x	✔	✔	✔	x	✔

Table 7   Frequency and coverage percentage of human rights code

Specific Standard Disclosures	Frequency	Coverage (%)			
		1	2	3	4
• Social Responsibility	981	13	1	28	17
→ Human Rights	67	1	0	2	0
Investment	3				
Non-discrimination	9				
Freedom of Association and Collective Bargaining	6				
Child Labor	10				
Forced or Compulsory Labor	8				
Security Practices	2				
Indigenous Rights	2				
Assessment	0				
Supplier Human Rights Assessment	12				
Human Rights Grievance Mechanisms	0				

Table 8   Human rights Information types

	Human Rights											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	x	✔	x	✔	x	x	x	x	x	x	x
Company 2	✔	x	✔	x	✔	x	✔	x	✔	x	x	x
Company 3	✔	x	✔	x	x	x	✔	x	x	x	x	x
Company 4	x	x	✔	x	✔	x	✔	x	x	x	x	x
Company 5	x	x	x	x	x	x	x	x	x	x	x	x
Company 6	x	x	x	x	x	x	x	x	x	x	x	x
Company 7	✔	x	x	x	✔	x	x	x	✔	x	x	x
Company 8	x	x	x	✔	x	x	x	✔	x	x	x	x

Table 9 Frequency and coverage percentage of Society codes

Specific Standard Disclosures	Frequency	Coverage (%) 1	2	3	4
• Social Responsibility	981	13	1	28	17
→ Society	187	3	0	7	3
Local Communities	68				
Anti-corruption	41				
Public Policy	12				
Anti-competitive Behavior	14				
Compliance	13				
Supplier Assessment for Impacts on Society	31				
Grievance Mechanisms for Impacts on Society	3				

Table 10 Society Information types

	Society											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	x	x	✔	✔	x	✔	x	x	x	x	x
Company 2	x	x	✔	x	✔	✔	✔	✔	✔	✔	x	x
Company 3	✔	x	✔	x	✔	x	✔	x	✔	x	x	x
Company 4	✔	x	✔	x	✔	x	✔	x	x	x	x	x
Company 5	✔	x	x	x	✔	x	✔	x	✔	x	x	x
Company 6	✔	x	✔	x	✔	x	✔	✔	x	x	✔	x
Company 7	✔	x	✔	x	✔	x	x	x	✔	x	x	x
Company 8	✔	x	x	✔	✔	x	x	✔	✔	x	x	x

Table 11 Frequency and coverage percentage of product responsibility codes

Specific Standard Disclosures	Frequency	Coverage (%)			
		1	2	3	4
● Social Responsibility	981	13	1	28	17
→ Product Responsibility	257	3	0	7	12
Customer Health and Safety	41				
Product and Service Labeling	134				
Marketing Communications	41				
Customer Privacy	5				
Compliance	2				

Table 12 Product responsibility Information types

	Product Responsibility											
	Aims and Values				Actions				Performance Data			
	1	2	3	4	1	2	3	4	1	2	3	4
Company 1	✔	x	✔	x	✔	x	✔	x	x	x	x	x
Company 2	✔	x	✔	x	✔	x	✔	x	✔	x	x	x
Company 3	✔	x	✔	x	✔	x	✔	x	x	x	x	x
Company 4	x	x	✔	✔	x	x	✔	✔	x	x	✔	✔
Company 5	✔	x	✔	x	✔	x	✔	✔	x	x	x	x
Company 6	✔	x	✔	x	✔	x	✔	✔	✔	x	x	x
Company 7	✔	x	✔	✔	✔	x	✔	✔	✔	✔	✔	✔
Company 8	✔	x	x	✔	✔	x	x	✔	✔	x	x	✔

4.1.2 General Standard Disclosures

General standard codes mainly focus on corporate governance issues. There are seven sub codes under General standard disclosures, including Strategy and analysis; Organisational profile; Identified materials aspects and boundaries; Report profile; Governance, commitments and engagement; Stakeholder engagement; and Ethics and integrity. The frequency of General standard disclosures codes is 1166 times (30%). General standard disclosures codes are reported either as type 1. aims and values, or type 2. actions to achieve those goals. Few companies covered type 3. performance indicators information. The results of the analysis can be found in follows. More information on frequency, coverage percentage and information types is added in the table 13.

- Annual reports 2013

On average, 32% of the annual reports' content has been labelled with general standard disclosures codes. The organisational profile code was the most frequent code and had the highest coverage percentage with 13%. Governance, commitments and engagement, as well as strategy and analysis are the next frequent sub codes that the companies elaborated on. Only one company (12%) was able to communicate on all seven sub codes. However, all of the case companies (100%) provided information on at least five elements.

- Interim reports Q2 2014

Within Q2 2014 Interim reports, almost 25% of the content has been coded with general standard disclosures codes, from which 14% of the materials were assigned to organisational profile sub code. Half of the companies (50%) gave information on four items or above. There was only one Interim report that included "stakeholder engagement" information.

- Website contents

Nearly, 35% of the content of companies' websites are dedicated to general standard disclosures' information. According to the results, the organisational profile is the most frequently used sub code with 15% coverage. The next most-mentioned sub codes are as follows, stakeholder engagement and strategy and analysis. Seven out of eight companies reported on at least five of the general standard disclosures' components.

Only one company (12%) managed to provide information for all the codes. The online materials have been collected during a period 04.08.2014 to 12.08.2014.

- Buildings presentation

Only three presentations (37%) included general standard disclosures' related information. The average coverage percentage is little above one percent. Furthermore, each presentation reflects only on one sub code, including ethics and integrity; organisational profile; and governance, commitments and engagement.

Table 13 Frequency and coverage percentage of general standard disclosures codes

Codes	Frequency	Coverage (%)			
		1	2	3	4
General Standard disclosures	1166	32	25	35	37
Strategy and Analysis	253				
Organisational Profile	445				
Identified Material Aspects and Boundaries	5				
Report Profile	99				
Governance, Commitments and Engagement	218				
Stakeholder Engagement	105				
Ethics and Integrity	41				

4.1.3 Reflecting on the results

In general, all of the case companies communicated some sustainability information within their publicly published reports. All the eight companies reported on leastwise one item in the economic responsibility theme, mainly in the field of economic performance. In addition, the absolute majority of companies (100%) are labelled with environmental responsibility codes, mainly under energy, water, waste, and emissions codes. However, with regard to building presentations, the environmental sustainability of the building was not highlighted. With regard to the social responsibility theme, 86% of the companies reported on at least two codes belonging to this theme. Slightly more than 75% of the reports dedicated the major part of social sustainability information to labour practice and decent work code. These findings are in line with Vuontisjärvi (2006) results that

companies tend to report on the labour practice and decent work issues among other social responsibility codes. Few companies reported all type of information for human rights.

As it has been mentioned before, on average, 49% of all sub codes covered by information type 1. aims and values and 56% belong to type 2. actions. Only 37% of the sub codes are related to type 3. performance data.

Overall, the results of this research show that most of the companies describe their sustainability actions, but do not present their performance data, especially, in numeric manner. Few organisations (25%) reported all three types of information for the 33% of the reported codes, and another firm provides all three types of for ½ of the sub codes. None of the companies reported all the three information types for the GRI index elements. From another point of view, tables 2, 4, 6, 8, 10 and 12 reveal how companies report each code, that is to say how many information types the companies provided for each code. According to this table, although economic responsibility sub codes are mainly reported by second information type, but, reporting all three types of information in this area is a common trend among companies.

With regard to the environmental responsibility theme, most of the information belongs to information type 2. However, all three types of information are seen in the following codes: energy, water, waste and emission. The performance data for the above-mentioned items are also provided in quantitative form in 37% of the cases.

Under the social responsibility theme, most of the companies only elaborated on their related actions (type 2). Labour practice and decent work is the most seen code that has been covered with three types of information (51%). All the eight companies provided quantitative information for occupational health and safety as well as employment sub codes. However, few companies provide information on equal remuneration for men and women, instead, they mainly reveal the female/male employee ratio under the diversity and equal opportunity sub code. Human rights information are covered mainly with information type 1, society code is covered with information types 1, and the product responsibility materials are covered with two types of information.

In other word, an insignificant number of companies reported all of the three information types for one or more items in the areas of human rights, product responsibility and society. The results show that only 33% of the companies have provided quantitative data for the three recently-mentioned codes. In addition, human rights information has received little attention in Finnish corporate sustainability reporting. However, a trend to provide more information on human rights issues is seen among the case companies. The findings of this research show that as many as six companies (75%) follow their Code of Conduct for their business functions, in which, they have expressed their respect and support for the Universal Declaration of Human Rights. However, none of the case companies implement the guidelines provided by the UN in the Guiding Principles for Business and Human rights, prepared in 2005. This guideline provides "authoritative global standard for addressing adverse impacts on human rights linked to business operations, wherever such impacts occur" (UN Global Compact, 2014.) This framework requires companies to adopt strategies that not only respect human rights, but practically combat the eventual weakening of human rights within their business operations.

Another challenge seen in the analysis is the lack of information on the company's supply chain practices. GRI G4 index as well as an increasing number of stakeholders expect companies to impose social and environmental sustainability issues of their supply chain (PwC, 2014). Despite the demand, only a small number of the assessed companies provided information on their supply chain sustainability practices.

Another interesting fact observed in sustainability reports, as PwC (2014) also mentioned, is providing information on corporate tax expenses and impacts. Several companies studied in this research have reported on their tax footprint in their annual and interim reports. These efforts increase a company's transparency and reliability in the eyes of stakeholders.

With regard to the types of the studied real estate companies and the extent in which they focus on sustainability issues, the findings of this study confirm that the rank of the three investment companies is higher than those five construction companies, with respect to the content and quality of the reports. Of the four cases ranked the highest for their sustainability performance, three companies stem from the investment sector.

4.2 Findings obtained from semi-structured interviews

As it has been mentioned before, semi-structured interviews have been used as the supplementary method for the content analysis in order to gain deep insight into the phenomenon. Four employees from three investment companies have been attended in the face to face discussion. The detailed data obtained from interviews is presented in follows.

The first subject that raised was about the integration of sustainability into the business strategy of the real estate companies. It has been revealed that all the three companies have already set a sustainability strategy, which is enhanced continuously based on the board evaluation, annually, in order to improve the sustainability of the products and services offered to stakeholders. In addition to the overall sustainability strategy, one interviewed company has an environmental marketing strategy with the aim of achieving marketing benefits from their sustainability performance.

In response to the question about the intention of the companies into integrate sustainability into their business strategy and to communicate their performance to the stakeholders, the following reasons were discussed. From the investor's viewpoint, it is more liquid, safer or less risky to invest in sustainable assets compared with non-certified properties. In other word, interest of investors in sustainability roots in economic issues. However, all the members of three companies believed that sustainability measures will create economic, environmental and social values for the business sector.

From a real estate company's perspective, risk management, the public image, increased ability to compete in the competitive markets, such as Helsinki, as well as tougher legislation and policies on sustainability could be the motives that lead companies to have higher sustainability performance. With regard to sustainability information communication, the interviewees believe that it increases the reliability of the company in the eyes of stakeholders and shows that the company owns a management system that monitors, measures and publishes the performance of the company. In addition, public access to the information helps the company to revise its strategy on a regular basis in order to improve its sustainability performance. Finally, one of the interviewees has mentioned the following quote about the importance of publishing sustainability reports:

"When an organisation achieves success due to a high sustainability performance should communicate it publicly and let the stakeholders know about it and learn from it."

Later, interviewees have been asked if higher sustainability performance increases the ability of the company to attract and retain investors. All the attendants agreed that sustainability has become more important in recent years and being a sustainable company is a plus in the eyes of investors that ensure the company is a low-risk investment choice. Weak sustainability performance involves higher taxes, possible fines and lower transaction risk. One interviewee also mentioned cost-saving benefits as a result of following sustainability measures, as another competitive advantage to the real estate company. However, according to one of the responds, the main focus of the investors in the current economic situation is on the cash flow rather than sustainability performance of a company. On the other hand, in Europe, there are a few green investors, who look for sustainable property investment choices and monitor the sustainability performance of the companies very closely. Therefore, owning certified assets accelerates the investment process and facilitates the transaction.

The second topic discussed was about the most common sustainability principle that real estate companies focus on. The two companies confirmed that the environmental sustainability is the most commonly focused principle in the real estate sector. This might be due to the negative impacts of properties on the environment as well as the economic advantages of adopting energy efficiency measures and approval of tougher legislation on sustainability issues. Out of three companies, two mentioned the local community engagement as the second important principle that companies concentrate on. Because the local communities are the first group that are exposed to construction and development operations. Only one company claimed that the main focus of the company is the economic responsibility in the current economic climate, since investors are more attracted to the companies with higher financial performance that ensures a company will exist for a long-term.

Later, the interviewees have been asked about the list of the sustainability information companies provide stakeholders. All the interviewees agreed that annual and

sustainability reports are the main channel of communication as they constitute a large proportion of providing information, including graphs and quantitative data. In addition, interim reports are giving the updated energy and environmental figures on a quarterly basis as well as the web pages. Furthermore, company presentations on specific buildings are available on request. The above-mentioned materials are together the main channels of information communication to stakeholders. The communication languages of companies are mainly Finnish and English. The findings from the interviews are in line with the responses from other companies about the main sources of sustainability information. All the stakeholders have the equal opportunity to access the sustainability materials due to the companies' code of conduct. According to interviewees, the publication of sustainability reports is a recent phenomenon in the real estate market in Finland. It seems that those three case companies have started publishing their combined sustainability reports since 2009. The first sustainability reports, however, only included the environmental data. Later, other sustainability principles, including social sustainability have been gradually covered.

Afterward, interviewees have been asked about their opinion on the improvements in sustainability reporting since 2009. According to the responds, currently, more companies tend to follow voluntary sustainability frameworks. The reason could be that adopting a voluntary reporting framework fulfills the legal requirements of the state, due to demanding nature of the international reporting guidelines. However, for the mid-size companies (all the case companies), it is a heavy process to cover all the elements required by the GRI G4 index. As three organisations involved in sustainability reporting, in different ways, it is seen that the concept of materiality becomes an increasingly important word in the reporting lexicon. Obtained from interviews, out of three, two companies follow GRI G 3.1 CRESS and one organisation applies GRI G4 CRESS guidelines for their sustainability reports.

In addition, two of the case companies consider EPRA criteria for communicating their sustainability performance indicators. The two above-mentioned companies, also, take part in GRESB surveys. The members of both companies confirmed that there is an emerging trend in using GRESB as a link between investors and real estate companies. In 2014, both companies received several questions by investors for more detailed answers

to GRESB survey. However, interviewees believe that investors use GRESB as a challenging tool for companies to see if they can produce information and report them in a systematic manner. This process indicates if the company has a management system and, therefore, is a low-risk option.

The researcher, then asked the interviewees if the companies contact their target audience to know their expectations from the sustainability reports. If they receive any feedback from their stakeholders after publication of the sustainability reports. All the respondents confirm that the key investors are being consulted about their opinions on the published performance indicators. However, most of the investors are satisfied if the company owns green certified assets and do not seek detailed information about the sustainability performance of the company.

Along being connected to key investors, one company considers the prospects of other stakeholders, including owners, tenants, consumers, and employees. There are various channels for being connected to stakeholders, including panel discussion on sustainability issues and questionnaires. However, they all agreed that receiving feedbacks for the published data is not common. It is always a reporting company who has to ask the stakeholders for their feedback on the reports and the received reviews are rather general.

In answer to the future plans for improvements in the quality of the published sustainability reports, the following options have been discussed. First is complying with the updated sustainability reporting frameworks. Another project is to create a storyline sustainability report that explains the impacts of the company's operations, actions to reduce those impacts and the environmental, social and economic benefits caused by the actions taken. Another aspect that needs consideration is the improved link between the financial performance and sustainability performance in the sustainability report, in order to be prepared for publishing integrated reporting in the near future. Other issues discussed were the external auditing of sustainability information, monitoring and reporting the impacts of the supply chain process, as well as understanding the significance of providing social sustainability information in the sustainability reports.

The next issue discussed was about the perception of sustainability reporting in Finland compared with the pioneer countries in this field. All the three companies agreed that

Finland moves on a right track due to strict legislation for real estate operations. In addition, it is claimed that the Finnish government has a good mentality on sustainability issues, which supports the sustainability initiatives within a business sector, both financially and politically. Some believe that being a follower instead of a pioneer, helps the market not to make the same errors that pioneers already experienced, in other word, lowers the possible legal or financial risks. This answer can be explained by the common culture of cautiousness and steadiness in Finland. The above-mentioned reasons can explain why none of the studied companies have started publishing such integrated reports in Finland yet. The researcher asked if the interviewees have an example of the systematic sustainability report in their mind that is published by other real estate companies in Finland and the reasons behind it. Names of the companies mentioned by respondents are in line with the companies that achieved the highest rank in the present research. There was a range of reasons for choosing those reports, including readability of the report, an integrated approach to sustainability reporting, publishing quantitative sustainability performance indicators as well as provision of a concrete picture of the sustainability performance of the respective company.

5 Discussion and Conclusion

In this chapter, the main findings with regard to the research questions are discussed, in addition, recommendations for further improvements in real estate corporate sustainability reporting are provided. During the first section, the research questions are addressed, and recommendations to overcome the challenges are provided. Section two represents the validity and reliability of the findings. Section three reviews the significance and critique of the literature in light of the findings. Later, the further implications of the present research are described in section four. Finally, the limitations of this research are explained and suggestions for further research are presented in section five.

5.1 Synthesis of findings and addressing the research questions

According to PwC (2014) more Finnish companies are now pursuing actions that facilitate integration of sustainability issue to their business strategy. In addition, the number of publicly listed Finnish real estate companies who publish a sustainability report is also constantly increasing (PwC, 2014). Although the history of publication of the corporate sustainability reports is rather "young" in Finland compared with the other developed countries, it seems that the progress of sustainability reporting has been steadier in comparison with previous surveys.

Of the eight companies studied, the majority (88%) provide sustainability information combined with annual and interim reports. Only one company (12%) reports this information in a separate report called corporate social responsibility, yet, mentions the brief summary of its sustainability performance in the financial statement. Revealed from the interviews, it seems that the greater number of Finnish real estate companies will tend to provide integrated sustainability reports in the near future. This could be due to stricter legal requirements or to meet the demand of stakeholders. In addition, integrated sustainability reporting offers several benefits to the respective company; for example, it helps the company to attract and retain investors and better satisfy the stakeholders by providing a more holistic picture (Lozano and Huisingh, 2011).

During conducting this research, it comes clear to the researcher that unlike the past, an increased number of companies recognised that measuring emissions and energy consumption is only one aspect of sustainability reporting. In general, the findings of this study show that the eight case companies tend to consider the holistic view of sustainability while preparing the sustainability reports. Reporting in such a manner provides a balanced view of the company's performance in the economic area as well as environmental and social field. This helps the company to translate its strategy into both financial and non-financial achievements and possible failures. However, the content and quality of the sustainability reports depend on various variables and differ in each company.

According to the interview findings, annual and sustainability reports are the main channel of communication as they constitute a large proportion of providing information, including graphs and quantitative data. However, the size of the case sustainability reports varies, which brings its own difficulties to the process of analysis; varying from few pages on general aspects of sustainability, to a detailed sustainability report that covers aims and values, actions and performance of a company. The space devoted to sustainability information in such reports is in a reasonable balance with the financial statement. With regard to other communication channels, a positive trend is seen in an effective use of communication platforms, such as websites, to promote corporate sustainability and responsibility. Almost all the companies dedicated a page to sustainability themes on their website, providing updated information regarding their sustainability performance and initiatives for the public use. It was obtained from interviews that motivations for communicating sustainability information vary among the companies, however, risk management, reputation and the improved public image, as well as financial advantages are the most common motives mentioned by interviewees.

Overall, almost all the interviewees agreed on the following significant features of sustainability reporting:

- Preparing a report is not an ultimate goal itself, rather it is a tool for stakeholders to measure and compare a company's performance. Moving towards greater transparency requires companies to report on achievements as well as failures.

In other word, sustainability reporting helps the companies to meet the expectation of stakeholders and improve their sustainability performance.

- Following legal requirements or international voluntary guidelines help the companies to improve the content and quality of the reports. In addition, the engagement of stakeholders and using external assurance of sustainability information increases the reliability of the provided data.

- Companies should consider publication of integrated sustainability reports in the near future in order to lower the legal and financial risks as well as to better satisfy the stakeholders and to attract and retain investors.

- The significance of identifying and starting a dialogue with stakeholders on sustainability issues should be immediately understood by the real estate companies. This helps the company to build a trust-based relationship with the stakeholders. However, it seems that some of the case companies do not make sufficient efforts to include the expectation of stakeholders in their sustainability reports.

Based on the findings gained from conducting content analysis and semi-structured interviews, the research questions are addressed in follows. It seems that the developed multi-qualitative research method for this research succeeded in addressing all the research questions and therefore is feasible to be used for similar studies.

Q 1.what is the state of art and the shortcomings of sustainability reporting?

The results reveal that majority of Finnish real estate companies do not report systematically on their sustainability performance. Although all the eight companies provide some sustainability information, the number of items covered is relatively moderate. Furthermore, only 37% of the items are covered by performance indicators (type 3). Reviewing the results shows that almost all the eight companies failed to cover all three information types for at least one theme. In addition, a few companies only reported on the aims and values (type 1) for some codes. Therefore, it can be concluded that most of the companies tend to provide narrative sustainability information.

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At first glance, it seems that some of the studied companies move towards greater transparency, in a way that they elaborate on achievements as well as failures. The assessment of sustainability information indicates that the majority of companies applied a systematic approach only in reporting the following themes: "economic responsibility"; "labour practice and decent work"; and "environmental responsibility". The extensive coverage in the above-mentioned themes could be explained by the presence of strict regulatory requirements that could create financial or legal risks if are not followed. On the other hand, human rights, belongs to the social responsibility theme, was the least mentioned code. Possibly because in Finland they are rare cases of human rights violations or it is hard for the companies to identify how their operations might violate human rights. However, whenever this aspect is reported, it concerns international suppliers.

Overall, the level of quality and content of the studied materials is considered rather moderate. As it has been mentioned in the results chapter, in more than half of the collected materials, companies sufficed to provide information on their aims and values (type 1) or the efforts they made to achieve those goals (type 2). It is often forgotten to supply qualitative and quantitative performance indicators (type 3) showing lack of a systematic approach to address this matter. This is indeed a failure for some companies in which the sustainability reporting is used as a tool for marketing. This will generate suspicion about the reliability of the information provided with the intention of showing an environmentally sustainable public image. This is an obvious failure of sustainability strategies.

Besides the positive trend seen in sustainability reporting, real estate companies still face several challenges in the process of preparing the sustainability report. Some of the challenges are described in the follows. With regard to stakeholders, all the studied companies dedicated a section to stakeholders, explaining how the stakeholders are engaged in the business operations. However, revealed from the data analysis and interviews, few companies (25%) already connect with their stakeholders to identify their requirements and their feedback on the published sustainability materials.

The next challenge, as it has been mentioned before, is that companies often underestimate the provision of performance data both in qualitative and quantitative

formats. Lacking performance indicators decrease the level of a company's credibility in the eyes of stakeholders. Another issue the decreases the credibility of provided information is the lack of external assurance for sustainability information. So far among the case companies, only one uses external auditing service for its sustainability reporting information. However, of the four interviews, all confirmed that their respective companies are planning to use external assurance for auditing its sustainability information in the near future. Besides the GRI requirement for utilizing external audits, the following motives could lead companies to apply external auditing service, including an increased level of reliability of the sustainability information; gaining the trust of stakeholders; competitive advantage; and here in Finland, being a pioneer real estate company to audit their sustainability information.

In addition, companies often neglect to consider the sustainability of the supply chain. However, a company is not considered sustainable if the supply chain is not monitored for possible labour, the environment or human rights violation. Finally, a large number of companies failed to provide information on how their sustainability reports are prepared and who is responsible for conducting it.

Q 2. What voluntary guidelines are used by real estate companies for sustainability reporting?

With the increased number of companies disclosing sustainability reports, the need for existence of reporting guidelines and frameworks to standardise the format, content and quality is more felt (European Commission, 2011). Adopting such international reporting guidelines help the companies to move on a right track during the process of reporting by defining the framework of the report and the content (PwC, 2014). Therefore the consumption of resources- (human and financial) and time is reduced considerably, at the same time, the credibility of the provided information will be increased in the eyes of stakeholders (European Commission, 2011). Results show that an increasing number of companies are adopting voluntary sustainability reporting frameworks, such as GRI guidelines, EPRA recommendations and/or GRESB.

However, as sustainability indices are becoming popular, a new trend is seen among investors in the Finnish real estate market. Recently, more companies have been asked by investor members to answer sustainability questions within the GRESB framework. GRESB is a material index, which is designed particularly for real estate sector, and could be addressed by active real estate companies in the field. Interviewees, yet, believe that GRESB is a tool in the hands of investors to challenge the accountability of a target real estate company. In other word, answering GRESB questions is an indicator that a company has a management system for monitoring its performance and, therefore, is a low-risk investment choice.

From eight case companies, six companies (75%) applied the CRESS of the GRI G3 or 3.1, as a framework for their sustainability reports. Only one company reports its sustainability information in accordance with the CRESS GRI G4. Based on the six companies' self-assessments, the reports represent GRI Application Level from Level C to Level B+. In addition, three companies report their sustainability reports based on EPRA Sustainability Best Practices recommendations. Furthermore, at least two companies (25%) participated in GRESB surveys.

Out of eight companies, three have received awards for their sustainability reports in the year 2013, including a Bronze award from EPRA, GRESB second Green Star award, and Best construction company in the Nordic coutnries at reporting carbon emissions by CDP's Nordic 260 Climate Disclosure Leadership index.

3. What are the benefits for the real estate companies to publish sustainability information?

Sustainability reporting becomes recognized as a significant element of a company's contribution to achieving sustainable development goals (Lozano and Huisingh, 2011). Companies may see a range of benefits in publishing a sustainability report. An internal benefit to the company can be that monitoring, measurement and communication of a company's performance lead the company to revise its strategy on a regular basis in order to improve its sustainability performance. This also helps the companies to lower the economic and legal risks due to weak sustainability performance. Besides internal reasons, societal aspects such as increased credibility in the eyes of stakeholders and the

improved public image play an important role. Further motivation is caused by financial opportunities offered by sustainability reporting as well as providing a competitive advantage.

4. Do types of real estate companies in Finland differ with respect to disclosing sustainability information?

Investors display an integrative and more broadly based view of sustainability than construction companies. The investors are more closely involved in their properties. They seem to consider the property use and prospective resale value, instead of focusing exclusively on the current exchange value. Therefore, they provide more sustainability information for their clients and tenants and tend to have stronger sustainability performance at the same time. Construction companies tend to narrow sustainability down to green buildings. This might be due to the short-term involvement in properties. In addition, their industrial bias and possible inability to reflect impartially on their own work, could be other reasons for such a weak performance.

5.1.1 Recommendations to overcome the shortcomings

The investigation of the companies' sustainability reports reveals that there are still a lot of efforts needed in order to improve the content and quality of the reports provided. This study suggests the following actions for further improvements in the engagement of stakeholders into the preparation of sustainability reports, as well as in the assessment of supply chain performance and communication of the results within sustainability reports.

In the concept stakeholder engagement, first, it is necessary for organisations to identify the stakeholders' expectations regarding the information provided in sustainability reports as well as their feedbacks on the presented reports. The stakeholder engagement is one of the components of the general standard disclosures required by GRI index. Several initiatives can be conducted by companies to involve stakeholders, such as conducting pervasive easy-to-understand surveys; updating the sustainability information on the company's website; and creating platforms for communication between internal and external stakeholders, including investors, tenants, employees and managers. These actions -facilitate the relationship between companies and stakeholders to progress from engagement to cooperation.

With regard to supply chain management, companies should consider the impacts that their operations have on the environment as well as the communities in which they operate. The following steps can be taken in order to ensure that the supply chain is sustainable. First, companies should assess the risks associated with their supply chain. Then the criteria for sustainable supply chain should be defined. The supply chain has to be monitored and managed for the environmental, social and governance risks. Finally, in order to minimise their impact, companies can consider the best practices from across the real estate stakeholders.

5.2   Reliability and validity of the findings

Reliability is defined as the degree to which an assessment tool produces stable and consistent results (Phelan and Wren, 2006). In order to examine the reliability of the findings of this research, the parallel forms reliability technique has been conducted on the collected materials. This technique enables the researcher to apply different versions of the content analysis to the collected materials. The outcomes from two versions of the same method, then, have been correlated in order to evaluate the consistency of results across both versions. The results from both versions of the content analysis are consistent.

However, reliability is not sufficient on its own, the results should also be valid (Phelan and Wren, 2006). In order to investigate the validity of the results, content validity has been carried for the present research. For this reason, two of the interviewees (experts in this field) have been asked to assess if the concept under study can be adequately covered by the collected materials.

5.3   The significance and critique of literature in light of findings

The findings from the integrated qualitative research method were able to address the research questions as well as help the study to achieve its aim that is to investigate the content and quality of public sustainability information provided by Finnish real estate companies. In addition, the developed method used for this research have been validated by several similar studies that are previously published.

The following paragraphs summarize the comparison of the findings of this research with the results of other studies.

Hopwood (2009) claims that companies provide systematic information about the aims and intentions for achieving sustainable development goals rather than revealing their actual actions and performance data to reach those goals. In contrast to Hopwood's study, this research shows that companies tend to provide information that are mainly related to the actions of a respective company to achieve the sustainability goals (information type 2). In addition, the findings of this study are not in line with Robertson and Nicholson's study in which they suggest that companies report the sustainability information in a general level. Contrary to the expectations, the finding of this study shows that although the systematic level of sustainability is moderate, the collected reports contain some detailed information on the aims, actions and quantitative measurements of the impacts. This can, to some extent, address the expectations of stakeholders. Nevertheless, this point that over 63% of the reported codes and sub codes are not covered by information type 3 (performance data) is thinkable.

However, the findings of this research are in line with the results of a survey conducted by the Business and Society Belgium (2010) on the best practices, trend, and benchmarks in the sustainability reporting. It seems that Belgian listed companies also neglected to enter to the "meaningful dialogue" with their stakeholders about the materiality of the reports and feedbacks on their recent publications. The results of the present research also confirm the findings of Vountisjärvi's (2006) where she claims that few companies provided quantitative performance data for labour practice and decent work theme. Moreover, with regard to the type of the real estate company and their approach to sustainability, the findings are in line with the findings by Dair and Williams (2006) and Gyourko and Rybczynski (2000) but differ from those of Pivo (2008). Finally, the findings from interviews with regard to benefits of sustainability reports for the companies are in line with the advantages that Deloitte (2014) mentions.

5.4 Further implications of the study

The findings of this study have several implications for assessment and further improvements in the quality and content of the sustainability reports. At minimum, it contributes to the ongoing dialogue regarding the publication of systematic sustainability reports by real estate companies in Finland.

Furthermore, this research gives the Finnish real estate companies an insight to the state-of-art of their present work as well as the shortcomings. In addition, the present research investigated whether there is a connection between sustainability performance and the type of the real estate company. The findings of this study may serve to raise awareness among real estate companies about their approach to sustainability, as well as their activities and communication strategies that are associated with it. They could also be used to support possible improvements in the sustainability strategy of the real estate companies.

5.5 Limitations and future research

Although the integrated multiple qualitative research method helped the research to achieve its aim as well as addressing the research questions, it is necessary to mention the limitations of the present research, which in future research or in a PhD dissertation of the researcher, could be tackled. First, this study does not investigate all the Finnish real estate companies' materials as well as only considering the English publications due to the lack of Finnish language proficiency in this field. Second, the study was not able to appraise the overall content, quality and credibility of the provided information, as it only focuses on pre-defined codes and information types. This issue can be addressed by using surveys sent to the target audience of the sustainability reports (here stakeholders). Third is the defined boundary for the material collection and the time-limit that prevented the research in some cases to record the relevant materials of a specific company, for example the green books, for the purpose of homogenization. Finally, the computer-assisted software, MAXQDA 11, had some difficulty with calculation of the coverage percentage of the defined codes in the materials, which caused some delays in the analytical research.

This research suggests the following topics for future research; a detailed survey of the expectations and feedback from stakeholders about the published sustainability information by Finnish real estate companies, and to testify if there is a connection between the quality of sustainability reports and the degree at which the sustainability has been integrated into the business strategy of the respective company. In other word, does the high quality of reports necessarily mean that the sustainability performance of the company is at an acceptable level?

References

Adair, W., Brett, J., Lempereur, A., Okumura, T., Tinsley, C., and Lytle, A. (1998) *Culture and negotiation strategy.* Evanston, IL: Dispute Resolution Research Center, Northwestern University [online] available from <http://onlinelibrary.wiley.com/doi/10.1111/j.1571-9979.2004.00008.x/abstract> [16 May 2014]

Adams, C. A. (2004). 'The ethical, social and environmental reporting-performance portrayal gap.' *Accounting, Auditing & Accountability Journal* 17, (5) pp. 731–757

Adams, C.A. and Harte, G.F. (2000) 'Making discrimination visible.' *Accounting Forum* 24, (1) pp.56-79 [online] available from <http://onlinelibrary.wiley.com/doi/10.1111/1467-6303.00029/abstract> [18 May 2014]

Al-Tuwaijri, S.A., Christensen, T.E., and Hughes II, K.E. (2004) 'The Relations Among Environmental Disclosure, Environmental Performance, and Economic Performance: A simultaneous equations approach.' *Accounting, Organizations & Society* 29, (5-6) pp. 447-471

Archel, P., Fernández, M., & Larrinaga, C. (2008) 'The organizational and operational boundaries of triple bottom line reporting: A survey.' *Environmental Management* 41, (1) pp. 106-117

Azlan, A. (2006) *Corporate Social Reporting in Malaysia: An Institutional Perspective.* PhD Thesis, University of Malaya

Azlan, A., and Siti-Nabiha, A.K. (2009) 'Corporate Social Reporting in Malaysia: A Case of Mimicking the West or Succumbing to Local Pressure.' *Social Responsibility Journal* 5, (3) pp. 358-375

Barriball, K.L., and While, A. (1994) 'Collecting data using a semi-structured interview: a discussion paper.' *Journal of Advanced Nursing* 19, pp. 328-335 [online] available from < http://www.researchgate.net/profile/Alison_While/publication/234055873_Collecting_data_using_a_semi-

structured_interview_a_discussion_paper/links/0fcfd50ea96fa548fd000000> [5 Oct 2014]

Beattie, V., and Thomson, S. J. (2007) 'Lifting the lid on the use of content analysis to investigate intellectual capital disclosures.' *Accounting Forum* 31, (2) pp.129-163 [online] available from <http://www.sml.hw.ac.uk/discussion/papers/DP2006-AF01.pdf> [9 June 2014]

Beck, M.B., Jiang, F., Shi, F., Villarroel Walker, Ro., Osidele, O.O., Lin, Z., Demir, I., and Hall, J.W. (2010) 'Reengineering cities as forces for good in the environment.' *Proc. Inst. Civil Eng.-Eng. Sustainability* 163, (1) pp. 31-46

Bibri, SE. (2013) 'A foucauldian-fairclaughian discursive analysis of construction of ICT for sustainable urban development in the European Information Society.' *Masters Thesis, Department of Urban Studies.* Malmo: Malmo University [online] available from<http://dspace.mah.se/handle/2043/15201> [14 June 2014]

Blacconiere, W. G., and Patten, D. M. (1994) 'Environmental disclosures, regulatory costs, and changes in firm value.' *Journal of Accounting and Economics* 18, (3) pp. 357-377

Bloomberg (2010) *Clean energy investment down just 6.5% in 2009; Asia outstrips the Americas.* [Online] available from <https://bnef.com/PressReleases/view/105> [3 May 2014]

Bonnedahl, K.J. and Eriksson, J. (2008) '*The role of discourse in the quest for low-carbon economic practices: A case of standard development in the food sector.'* [online] available from < http://www.sciencedirect.com.libproxy.aalto.fi/science/article/pii/S0263237310000927> [2 May 2014]

Bouten, L., Everaert, P., Van Liedekerke, L., De Moor, L., and Christiaens, J. (2011) 'corporate social responsibility reporting: A comprehensive picture?' *Accounting Forum* 35, pp. 187-204

Branco, M. C., and Rodrigues, L. L. (2008) 'Factors influencing social responsibility disclosure by Portuguese companies.' *Journal of Business Ethics* 83, (4) pp. 685-701

Brennan, L., Binney, W., McCrohan, J., and Lancaster, N. (2011) 'Implementation of environmental sustainability in business: Suggestions for improvement.' *Australian Marketing Journal (AMJ)* 19, (1), pp. 52-57 [online] available from < http://www.sciencedirect.com/science/article/pii/S144135821000090X> [7 Oct 2014]

Brown, T., and Bhatti, M. (2010) 'Whatever happened to housing and the environment?' *Housing Studies* 18, pp. 505-515 [online] available from <chrome-extension://oemmndcbldboiebfnladdacbdfmadadm/http://www.tandfonline.com.libproxy. aalto.fi/doi/pdf/10.1080/02673030304253> [23 May 2014]

Brown, N., and Deegan, C. (1998) 'The public disclosure of environmental performance information – a dual test of media agenda setting theory and legitimacy theory.' *Accounting and Business Research* 29, (1) pp. 21-42

Buhr, N. (2001a) 'corporate silence: Environmental disclosure and the North American Free Trade Agreement.' *Critical Perspectives on Accounting* 12, pp. 405-421

---. (1998b) 'Environmental performance, legislation and annual report disclosure; the case of acid rain and Falconbridge.' *Accounting, Auditing and Accountability Journal* 11, (2) pp.163-190

Business and Society Belgium (2010) *Survey of best practices, trends and benchmarks in Sustainability reporting.* [Online] available from <http://modulas.kauri.be/uploads/Documents/doc_1066.pdf> [30 June 2014]

Business Council for Sustainable Development (1993) *Getting eco-efficient, Report of the Business Council for Sustainable Development, First Antwerp Eco-Efficiency Workshop.* Geneva: Business Council for Sustainable Development.

Campbell, D. J. (2000) 'Legitimacy theory or managerial reality construction? Corporate social disclosure in Marks and Spencer Plc. corporate reports, 1969–1997.' *Accounting Forum* 24, 24(1), pp. 80-100 [online] available from <http://www.researchgate.net/publication/229761595_Legitimacy_Theory_or_Manageria

l_Reality_Construction_Corporate_Social_Disclosure_in_Marks_and_Spencer_Plc_Corp
orate_Reports_19691997> [25 May 2014]

Cavanagh, S. (1997) 'Content analysis: concepts, methods and application.' *Nurse
Researcher* 4, (3) pp. 5-16 [online] available
from<http://rcnpublishing.com/doi/abs/10.7748/nr1997.04.4.3.5.c5869> [6 June 2014]

Construction Benefit Services (CBS) (2014) *Definition of Construction Industry.* [online]
available from <
http://www.cbserv.com.au/home/cbs/index.php?option=com_content&view=article&id=
49:definition-of-construction-industry&catid=40:workers&Itemid=55> [4 Oct 2014]

Cormier, D. and Magnan, M. (2007) 'The Revisited Contribution of Environmental
Reporting to Investors' Valuation of a Firm's Earnings: An international perspective',
Ecological Economics 62, (3/4) pp. 613-626

Correia, A.D. (2011) *Sustainability Reporting in Capital Markets: A Black Box* [online]
available from <http://www.frenchsif.org/pdf/prix-FIR/edition2011-FIR-
PRI/Duarte%20Correia%20-%20abstract%20-
%20Sustainability%20Reporting%20in%20Capital%20Markets%20A%20Black%20Box
.pdf> [15 July 2014]

Crabtree, L., and Hes, D. (2009) 'Sustainability uptake in housing in metropolitan
Australia: an institutional problem, not a technological one.' *Housing Studies* 24, pp. 203-
224 [online] available from
<http://www.tandfonline.com/doi/abs/10.1080/02673030802704337#.VC_DjPmSwcM>
[23 May 2014]

CSR Europe (2010) *A Guide to CSR in Europe Country Insights by CSR Europe's
National Partner Organisations* [online] available from <chrome-
extension://oemmndcbldboiebfnladdacbdfmadadm/http://www.reportingcsr.org/force_do
cument.php?fichier=document_666.pdf&fichier_old=csr2010.pdf> [20 June 2014]

D'Arcy, E. and Keogh, G. (1998) Territorial competition and property market process: an
exploratory analysis, Urban *Studies* 35, pp. 1215-1230 [online] available from
<http://usj.sagepub.com/content/35/8/1215.full.pdf> [16 May 2014]

Dale, A. (2001) at *the edge: Sustainable development in the 21st century*. Vancouver: UBC Press

De Francesco, A.J. and Levy, D. (2008) 'The impact of sustainability on the investment environment.' *Journal of European Real Estate Research* 1, (1) pp. 72-87 [online] available from <http://www.emeraldinsight.com/doi/abs/10.1108/17539260810891505> [15 May 2014]

Deegan, C., and Rankin, M. (1997) 'The materiality of environmental information to users of annual reports.' *Accounting, Auditing & Accountability Journal* 10, (4) pp.562 - 583 [online] available from <http://www.emeraldinsight.com/doi/abs/10.1108/09513579710367485> [2 July 2014]

Deegan, C., Rankin, M., and Voght, P. (2000) 'Firms' Disclosure Reactions to Major Social Incidents: Australian Evidence.' *Accounting Forum* 24, (1) pp.101-130

Delmas, M.A., and Burbano, V.C. (2011) 'The Drivers of Greenwashing.' *UCLA* [online] available from < http://www.environment.ucla.edu/media/files/Delmas-Burbano-CMR-2011-gd-ldh.pdf> [7 Oct 2014]

Deloitte Global Services Limited (2011) *GRI sustainability reporting services* [online] available from <http://www.deloitte.com/view/en_LU/lu/services/featured-services/sustainable-development/GRI-sustainability/index.htm#.VC77dfmSwcM> [18 May 2014]

De Villiers, C.J. and Van Staden, C.J. (2010) 'Shareholders' corporate environmental disclosure need.' *South African Journal of Economic and Management Sciences* 13, (4) pp. 436-445

Dhaliwal, D. S., Li, O. Z., Tsang, A., and Yang, Y. G. (2011) 'Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting.' *The Accounting Review* 86, (1) pp.59-100

Eerikäinen, H., and Sarasoja, A.L. (2013) 'Marketing green buildings – well-structured process or forgotten minor detail? Evidence from Finland.' *Property Management* 31, (3) pp.233 - 245 [online] available from <http://www.emeraldinsight.com/doi/full/10.1108/02637471311321478> [13 May 2014]

Elkington J. (1997) *Cannibals with Forks: The triple bottom line of 21st Century Business.* Oxford: Capstone Publishing

Elo, S., and Kyngäs, H. (2008) *the qualitative content analysis process.* National Center for Biotechnology Information (*NCBI*) [online] available from< http://www.ncbi.nlm.nih.gov/pubmed/18352969> [4 June 2014]

Era 17 (n.d.) *ERA 17-For an energy-smart built environment 2017.* [Online] available from < http://era17.fi/en/> [10 June 2014]

EPRA (2012) *Real Estate in the Real Economy.* [Online] available from http://www.epra.com/media/Real_estate_in_the_real_economy_-_EPRA_INREV_report_1353577808132.PDF [6 Oct 2014]

European Commission (2013a) *Commission staff working document-Guidance for National Energy Efficiency Action Plans.* [Online] available from http://ec.europa.eu/energy/efficiency/eed/doc/neep/20131106_swd_guidance_neeaps.pdf [13 Oct 2014]

---. (2011b) *The Commission's new Energy Efficiency Directive.* [online] available from <http://europa.eu/rapid/press-release_MEMO-11-440_en.htm?locale=en> [16 May 2014]

Falkenbach, H. (2010) *International Property Investments – Articles on Market Selection and Effects on Local Markets.* PhD thesis, Aalto University [online] available from <http://lib.tkk.fi/Diss/2010/isbn9789526031880/> [15 May 2014]

Fereidouni, H.G., and Masron, T.A., (2013) 'Real estate market factors and foreign real estate investment.' *Journal of Economic Studies* 40, (4), pp.448 - 468 [online] available from <http://www.emeraldinsight.com/doi/abs/10.1108/JES-05-2011-0066> [17 May 2014]

Fifka, M. S. (2013) 'Corporate Responsibility Reporting and its Determinants in Comparative Perspective- a Review of the Empirical Literature and a Meta- analysis.' *Business Strategy and the Environment* 22, (1) pp. 1-3

Fraunhofer IBP (n.d.) *Life cycle assessment* [online] available from <http://www.ibp.fraunhofer.de/en/Expertise/Life_Cycle_Engineering/Life_Cycle_Assessment.html> [25 Sep 2014]

FS Insight (2014) *G4, the next stage in sustainability reporting.* [Online] available from <http://fsinsight.org/insights/detail/g4-the-next-stage-in-sustainability-reporting> [4 June 2014]

Global Reporting Initiative (GRI) (2014a) *About Sustainability Reporting.* [Online] available from https://www.globalreporting.org/information/sustainability-reporting/Pages/default.aspx [20 June 2014]

---. (2011) *Sustainability Reporting Guidelines, version 3.1.* [Online] available from < https://www.globalreporting.org/resourcelibrary/g3.1-guidelines-incl-technical-protocol.pdf> [8 Oct 2014]

Gluch, P., and Stenberg, A.C. (2006) 'How do trade media influence green building practice?' *Building Research & Information* 34, pp. 104-117 [online] available from <http://www.tandfonline.com/doi/abs/10.1080/09613210500491613?journalCode=rbri20#.VC_ERfmSwcM> [14 May 2014]

Goss, A., and Roberts, G. S. (2011) 'The impact of corporate social responsibility on the cost of bank loans.' *Journal of Banking & Finance* 35, (7) pp. 1794-1810

Gray, R. (2006) 'Social, environmental and sustainability reporting and organisational value creation? Whose value? Whose creation?' *Accounting, Auditing & Accountability Journal* 19, (6) pp. 793-819 [online] available from <http://www.emeraldinsight.com/doi/abs/10.1108/09513570610709872> [13 May 2014]

Gray, R., Javad, M., Power, D. M., and Sinclair, C. D. (2001) 'social and environmental disclosure and corporate characteristics: A research note and extension.' *Journal of Business Finance & Accounting* 28, (3-4) pp. 327–356

Green Building Canada (2012) *WHY BUILD GREEN? Infographic explaining green building's many benefits* [online] available from <http://www.greenbuildingcanada.ca/2012/why-build-green-infographic/> [20 Sep 2014]

Green Building Council Finland (2010) *Green Building Council Finland.* [Online] available from <http://figbc.fi/en/gbc-finland/> [17 May 2014]

GRESB (2014) *About GRESB.* [Online] available from <https://www.gresb.com/about> [4 Jun 2014]

Guthrie, J. and Abeysekera, I. (2006) 'Content analysis of social, environmental reporting: What is new?' *Human Resource Costing and Accounting* 10, (2) pp.114-126 [online] available from <chrome-extension://oemmndcbldboiebfnladdacbdfmadadm/http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1589&context=commpapers> [2 June 2014]

Hahn, R., & Kühnen, M. (2013) 'Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research.' *Journal of Cleaner Production* 59, (0) pp. 5–21

Halsnaes, K., Shukla P., et al. (2007). Framing issues. In B. Metz & O. R. Davidson, *Climate change 2007: Mitigation. Contribution of working group III to the fourth assessment report of the intergovernmental panel on climate change.* Cambridge: Cambridge University Press

He, C., Wang, J., and Cheng, S. (2009) 'What attracts foreign direct investment in China's real estate development?' *The Annals of Regional Science* 46, pp. 267-293 [online] available from <http://link.springer.com/article/10.1007%2Fs00168-009-0341-4> [4 May 2015]

Heerwagen, J. (2000) 'Green buildings, organizational success and occupant productivity.' *Building Research & Information* 28, (5-6) pp. 353-367 [online] available from <https://www.wbdg.org/pdfs/grn_bldgs_org_success.pdf> [8 May 2014]

Hideanpää, P. (2014) *Investor Relations and Communications Manager at Technopolis* [interview by Anahita Rashidfarokhi] Helsinki. [7 Aug 2014]

Hindman, T. (2014) 'Developing sustainable healthcare facilities with a value-based approach.' *Nextcore Group* [online] available from< http://blog.nexcoregroup.com/sustainable-healthcare-real-estate/> [3 Oct 2014]

Hoesli, MER. & Gibb, K. (2003). 'Developments in urban housing and property markets'. *Urban Studies* 40, (5-6) pp. 887-896.

Hooks, J., and Van Staden, C.J. (2007) 'the Corporatization and Commercialization of Local Body Entities: A Study of Financial Performance.' *ABACUS* 43, (2) pp. 217-240 [online] available from <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6281.2007.00226.x/abstract> [27 May 2014]

Hopwood, A. G. (2009) 'Accounting and the environment.' *Accounting, Organizations and Society* 34, (3-4) pp.433-439

Hopwood, B., Mellor, M. and ÕBrien, G. (2005) 'Sustainable development: Mapping different approaches.' *Sustainable Development* 13, pp. 38-52

Hsieh, H.F., and Shannon, S.E. (2005) 'Three Approaches to Qualitative Content Analysis.' *Quality Health Research* 15, (9) pp. 1277-1288 [online] available from <http://qhr.sagepub.com/content/15/9/1277> [12 May 2014]

Hudson, R. (2005) 'towards sustainable economic practices, flows and spaces: Or is the necessary impossible and the impossible necessary?' *Sustainable Development* 13, pp. 219–252 [online] available from <http://onlinelibrary.wiley.com/doi/10.1002/sd.282/abstract> [10 June 2014]

IIRC. (2012) *the international <IR> Frameworks* [online] available from <http://www.theiirc.org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf> [20 May 2014]

Institutional Investors Group on Climate Change (IIGCC) (2012) *Enhancing the real estate sustainability policy framework.* [Online] available from <http://www.iigcc.org/files/publication-files/IIGCC_enhancing_the_real_estate_sustainability_policy_framework.pdf> [14 May 2014]

Intergovernmental Panel on Climate Change (IPCC) (2007) *IPCC fourth assessment report (AR4)-Climate change 2007: Synthesis reports.* Geneva: IPCC

International Institute for Sustainable Development in conjunction with Deloitte & Touche and the World Business Council for Sustainable Development (1992) *Business Strategy for Sustainable Development: Leadership and Accountability for the 90s.* DIANE Publishing Company

Investment in Finland (2013) *Finland Fact Book: A guide to doing cost-effective business in Finland.* [Online] available from <http://www.investinfinland.fi/uploaded/files/Finland_Fact_Book_2013-3.pdf> [18 May 2014]

Janggu, T., Joseph, C., and Madi, N. (2007) 'The current state of corporate social responsibility among industrial companies in Malaysia.' *Social Responsibility Journal* 3, (3) pp.9-18

Jiang, D., Chen, J.J., and Isaac, D. (1988) 'The Effect of Foreign Investments on the Real Estate Industry in China', *Urban Studies* (35), (11) pp. 2101-2110 [online] available from <http://usj.sagepub.com/content/35/11/2101.full.pdf> [13 April 2014]

Jose, A., and Lee, S. M. (2007) 'Environmental reporting of global corporations: A content analysis based on website disclosures.' *Journal of Business Ethics* 72, (4) pp. 307-321

Jørgensen, M., and Phillips, L. (2002) *Discuss analysis as theory and method.* London: Sage

Kajander, J-K., Sivunen, M., Heinonen, J., and Junnila, S. (2011) *Challenges for Sustainability Innovations in Real Estate and Construction Industry* [online] available from <http://www.lcm2011.org/papers.html?file=tl_files/pdf/paper/3_Session_LCM_Tools%20for_Green_and_Sustainable_Buildings/1_Kajander-Challenges_for_Sustainability_Innovations-728_b.pdf> [10 May 2014]

Karpoff, J. M., Lott, J. R., Jr., and Wehrly, E. W. (2005) 'the Reputational Penalties for Environmental Violations: Empirical Evidence.' *The Journal of Law and Economics* 48, (2) pp. 653-675

Kirsch, S. (2009) *Sustainable Mining.* [Online] available from
<https://www.scribd.com/doc/92749015/Sustainable-Mining> [10 May 2014]

Kok, N. (2012) 'Sustainability is moving up on the agenda in global real estate sector.'
FS Insight [online] available from <http://fsinsight.org/insights/detail/sustainability-is-moving-up-on-the-agenda-in-global-real-estate-sector> [2 July 2014]

Kondracki, N. L., and Wellman, N. S. (2002) 'Content analysis: Review of methods and
their applications in nutrition education.' *Journal of Nutrition Education and Behavior*
34, pp. 224-230 [online] available from
<http://www.sciencedirect.com/science/article/pii/S1499404606600973> [9 June 2014]

KPMG. (2011) *KPMG International Survey of Corporate Social Responsibility Reporting
2011* [online] available from
<http://www.kpmg.com/PT/pt/IssuesAndInsights/Documents/corporate-responsibility2011.pdf> [5 June 2014]

Kriese, U. (2009) 'Business and marketing strategies in responsible property investment.'
Journal of Property Investment & Finance 27, (5) pp.447 - 469 [online] available from
<http://www.emeraldinsight.com/doi/abs/10.1108/14635780910982331> [15 May 2014]

Krippendorff, K. (2004) *Content Analysis: An Introduction to Its Methodology,* 2nd
Edition. Thousand Oaks, CA: Sage

KTI Finland (2014a) *The Finnish Property Market 2014.* [Online] available from
<http://www.kti.fi/kti/doc/fpm/KTI_FPM14_net.pdf> [10 June 2014]

---. (2013b) *The Finnish Property Market 2013.* [Online] available from
<http://www.kti.fi/kti/doc/fpm/KTI_FPM13_net.pdf> [19 May 2014]

Lewis-Beck, M.S., Bryman, A., and Liao, T.F. (2007) *the Sage Encyclopedia of Social
Science Research Methods.* London: Sage Publications. [Online] available from <
http://knowledge.sagepub.com/view/socialscience/SAGE.xml> [4 Oct 2014]

Lion Nathan (2009) 'Sustainability Report 2009.' *Docstoc* [online] available from < http://www.docstoc.com/docs/80718139/Sustainability-Report-2009-(PDF-download)> [3 Oct 2014]

Lowe, R. (2006) *Defining absolute environmental limits for the built environment* [online] available from <http://discovery.ucl.ac.uk/2290/1/2290.pdf> [15 May 2014]

Lozano R (2008) 'Developing collaborative and sustainable organisations.' *Journal of Cleaner Production* 16, pp.499-509 [online] available from <http://www.sciencedirect.com/science/article/pii/S0959652607000066> [10 April 2014]

Lozano, R., and Huisingh, D. (2011) 'Inter-linking issues and dimensions in sustainability reporting.' *Journal of Cleaner Production 19*, (2-3) pp. 99-107

Mann, M., and Alley, R. (2014) 'Adaptation vs. Mitigation.' *The Pennsylvania State University* [online] available from < https://www.e-education.psu.edu/meteo469/node/175> [6 Oct 2014]

Mathews, M. R. (1993) *Socially Responsible Accounting*. UK: Chapman & Hall

MAXQDA 11 (2014) *How MAXQDA can help you do great research*. [Online] available from <http://www.maxqda.com/products/maxqda> [20 Aug 2014]

McKinsey & Company (2009a) *Pathways to a low carbon economy*; *Version 2 of the Global Green House Gas Abatement Cost Curve* [online] available from <http://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/Sustainability/cost%20curve%20PDFs/Pathways_lowcarbon_economy_Version2.ashx> [5 May 2014]

---. (2009b), *Unlocking energy efficiency in the U.S. economy* [online] McKinsey Global Energy and Materials. [online] Available from <http://www.mckinsey.com/client_service/electric_power_and_natural_gas/latest_thinking/~/media/204463a4d27a419ba8d05a6c280a97dc.ashx> [5 May 2014]

McNamara P (2000) 'The ethical management of indirect control–an internal perspective of SRI.' *Estates Gazette* 47, pp. 170–171

Milne, M., and Gray, R. (2007) 'Future prospects for corporate sustainability reporting.' Cited in J. Unerman, J. Bebbington, and B. O'Dwyer (n.d.), *Sustainability accounting and accountability.* London: Routledge

Monfreda, C., Wackernagel, M., and Deumling, D., (2004) 'Establishing national natural capital accounts based on detailed ecological footprint and biological capacity accounts.' *Land Use Policy* 21, (3) pp. 231-246 [online] available from < http://www.sciencedirect.com/science/article/pii/S0264837703000905> [4 June 2014]

Morse, J. M., & Field, P. A. (1995) *Qualitative research methods for health professionals*, 2nd Edition. Thousand Oaks, CA: Sage

Mustarudding, S., Norhayah, Z., and Rusnah, M. (2008) *An Empirical Examination of the Relationship between Corporate Social Responsibility Disclosure and Financial Performance in an Emerging Market* [online] available from <http://www.vodppl.upm.edu.my/~vauser/uploads/docs/dce5634_1298966144.PDF> [10 May 2014]

Neu D., Warsame, H., and Pedwell, K. (1998) 'Managing Public Impressions: Environmental Disclosure in Annual Reports.' *Accounting, Organizations and Society* 23, (3) pp. 265-282 [online] available from <http://www.sciencedirect.com/science/article/pii/S0361368297000081> [18 May 2014]

Nielsen, B.B. (2001) 'Manuals for Environmental Dialogue.' *Corporate Environmental Strategy* 8, (3) pp.217-222. 2001 cited in First I, and Khetriwal DS. (2008) 'exploring the relationship between environmental orientation and brand value: is there fire or only smoke?' *Business Strategy and the Environment* 19. (2) pp.90-103 [online] available from <http://onlinelibrary.wiley.com/doi/10.1002/bse.619/abstract> [24 May 2014]

Nordicum (2014) *Real Estate Annual Finland 2014*. [online] available from <http://www.nordicum.com/magazine/748/index.html?iProduct=> [1 June 2014]

O'Dwyer, B., Unerman, J., and Bradley, J. (2005) 'Perceptions on the emergence and future development of corporate social disclosure in Ireland-Engaging the voices of non-governmental organisations.' *Accounting, Auditing & Accountability Journal* 18, (1) pp.14 - 43

O'Dwyer, B., Unerman, J., and Hession, E. (2005) 'User needs in sustainability reporting: Perspectives of stakeholders in Ireland.' *European Accounting Review* 14, (4) pp.759-787

OECD (2009) 'OECD Environmental performance reviews: Finland 2009' *OECD Environmental Performance Reviews.* [Online] available from < http://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-finland-2009_9789264055582-en;jsessionid=2p988xis03a0i.x-oecd-live-01> [4 Oct 2014]

Olympic Delivery Authority (2007) *environmental statement Regulation 19 further information–Updated non-technical summary* [online] London: Olympic Delivery Authority. Available from < http://www.london2012.com/documents/oda-planning/planning-applications/environmental statement-non-technical-summary.pdf > [2 May 2014]

Phelan, C., and Wren, J. (2006) 'Exploring Reliability in academic assessment.' *University of NorthernIowa* [online] available from < https://www.uni.edu/chfasoa/reliabilityandvalidity.htm> [28 Oct 2014]

Pivo, G., and McNamara, P. (2005) 'Responsible property investing.' *International Real Estate Review* 8, pp. 128-143 [online] available from <http://www.unepfi.org/fileadmin/documents/ceo_briefing_property_01.pdf> [13 May 2014]

Pivo, G., and UN Environment Programme Finance Initiative Property Working Group (2008) 'Responsible Property Investing: What the Leaders are doing.' *Journal of Property Investment and Finance* 26, (6) pp. 562-276

Polit, D. F., and Beck, C. T. (2004) *Nursing research: Appraising evidence for nursing practice*, 7th Edition. Philadelphia: Wolters Klower/Lippincott Williams & Wilkins

Pope, C., Ziebland, S., and Mays, N. (2000) 'Qualitative research in health care. Analysing qualitative data.' National Center for Biotechnology Information (*NCBI*) [online] available from <http://www.ncbi.nlm.nih.gov/pubmed/10625273> [28 May 2014]

PwC (2014a) *Emerging Trends in Real Estate-Europe 2014.* [Online] available from <http://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/real-estate-returns2014.pdf> [20 July 2014]

---. (2014b) *PwC's Corporate Responsibility Barometer 2013.* [Online] available from <http://www.pwc.fi/fi/publications/assets/corporate-responsibility-barometer-2013-pwc.pdf> [5 Sep 2014]

---. (2013c) *Dataline: A look at current financial reporting issues.* [Online] available from < http://www.pwc.com/en_US/us/cfodirect/assets/pdf/dataline/dataline-2013-14-fasb-investment-companies.pdf> [4 Oct 2014]

Radiah, O., and Rashid, A. (2009) 'Environmental Disclosures of Palm Oil Plantation Companies in Malaysia: A Tool for Stakeholder Engagement.' *Corporate Social Responsibility and Environmental Management* 10, (2) pp. 52-62 [online] available from < http://onlinelibrary.wiley.com/doi/10.1002/csr.218/abstract> [25 May 2014]

Rashidfarokhi, A. (2010) *How Olympic Games could deliver the environmental legacy?* Bachelor's Thesis, Coventry University

Rennings, K., Markewitz, P., Vögele, S. (2010) 'How clean is clean? 'Incremental versus radical technological change in coal-fired power plants.' *Journal of Evolutionary Economics* 20, pp. 1-25

Robert Wood Johnson Foundation (RWJF) *Semi-structured interviews.* [Online] available from < http://www.qualres.org/HomeSemi-3629.html> [7 Oct 2014]

Robertson, D. C., and Nicholson, N. (1996) 'Expressions of corporate social responsibility in U.K. firms.' *Journal of Business Ethics* 15, pp. 1095-1106.

Robinson, J., (2004) 'Squaring the circle? 'Some thoughts on the idea of sustainable development.' *Ecological Economics* 48, pp. 369-384 [online] available from <http://www.sciencedirect.com/science/article/pii/S0921800904000175> [23 May 2014]

Sayce, S. and Ellison, L (2004) Sustainable Buildings: everyone's problem: nobody's job. *Proceedings of the 2004 International Sustainable Development Research Conference* pp.: 529-538. 29-30 March - University of Manchester Shipley ERP Environment

Sayce, S. Ellison, L. and Parnell, P. (2005) *Investment Drivers for Sustainable Property: Have we got the balance right? Questions from the UK* [online] available from < http://www.cce.ufl.edu/wp-content/uploads/2012/08/Sayce.pdf> [24 Dec 2013]

Sathaye, J., A. Najam, C. Cocklin, T. Heller, F. Lecocq, J. Llanes-Regueiro, J. Pan, G. Petschel-Held , S. Rayner, J. Robinson, R. Schaeffer, Y. Sokona, R. Swart, H. Winkler (2007) *Sustainable Development and Mitigation*. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)]. Cambridge and New York: Cambridge University

Semantic Community (2012) *Notes and definitions-Notion of sustainability.* [Online] available from <http://semanticcommunity.info/Sustainable_Society_Foundation_Index_2010> [25 May 2014]

Spence, C. (2007) 'Social and environmental reporting and hegemonic discourse.' *Accounting, Auditing and Accountability Journal* 20, (6) pp. 855-882

Stenberg, A.C. (2007) 'Green ideas travelling across organizational boundaries.' *Building Research & Information* 35, pp. 501-513 [online] available from <http://www.tandfonline.com/doi/abs/10.1080/09613210601132603#.VC_C6fmSwcM> [16 May 2014]

Sullivan, R., Russell, D. and Robins, N. (2008) 'Managing the Unavoidable: Understanding the Investment Implications of Adapting to Climate Change.' *Henderson Global Investors, USS, Railpen Investments and Insight Investment* [online] available from<http://www.climatewise.org.uk/storage/1253/managing%20the%20unavoidable%20%20understanding%20the%20investment%20implications%20of%20adapting%20to%20%20climate%20change.pdf> [4 May 2014]

Sustainable Event Alliance (2010) *Responsible Investment*. [Online] available from <http://sustainable-event-alliance.org/responsible-business-practice/> [28 May 2014]

TEKES (2011) *World-class sustainable solutions from Finland.* [Online] available from <http://www.tekes.fi/Julkaisut/sustainable_solutions.pdf> [10 June 2014]

Tilt, C. A. (2004a) *Influences on corporate social disclosure: A look at lobby groups ten years on*. School of Commerce Research Paper Series, Flinders University, [online] Available from
<http://www.flinders.edu.au/sabs/business/research/papers/papers_home.cfm> [26 May 2014]

---. (1994b), 'the influence of external pressure groups on corporate social disclosure: some empirical evidence.' *Accounting, Auditing & Accountability Journal* 7, (4) pp. 24-46 [online] available from
<http://www.emeraldinsight.com/doi/abs/10.1108/09513579410069849> [24 May 2014]

Townshend, T., and Alderson, P. (2005) *the sustainable housing challenge: a view from providers.* Newcastle University [online] available from
<http://www.ncl.ac.uk/guru/assets/documents/ewp41.pdf> [20 May 2014]

Uher, T.A. (1999) *Absolute indicators of sustainable construction*. London: RICS Foundation [online] available from <http://www.rics-foundation.org/publish/document.aspx?did=2071> [15 April 2011]

Unerman, J., Striukova, L., and Guthrie, J. (2008) 'corporate reporting of intellectual capital: Evidence from UK companies.' *British Accounting Review* 40, (4) pp. 297-313 [online] available from
<http://www.sciencedirect.com/science/article/pii/S0890838908000498> [26 May 2014]

Union Asset Management Holding AG (2012) *We Take Responsibility-2011 Corporate Social Responsibility Report 2011*. [Online] available from <http://www.realestate.union-investment.fr/data/docme/downloads_difa/We-take-responsibility/CSR_engl_pdf/document/CSR_engl.pdf> [16 May 2014]

United Nations Conference on Trade and Development (UNCTAD) (2013) *Best practice guidance for policymakers and stock exchanges on sustainability reporting initiatives* [online] available from <http://unctad.org/meetings/en/SessionalDocuments/ciiisard67_en.pdf> [20 May 2014]

United Nations Development Programme (UNDP) (2014) *Adapting to climate change.* [Online] available from http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/strategic_themes/climate_change/focus_areas/adapting_to_climatechange/ [5 Oct 2014]

United Nations Environmental Programme (UNEP) (2009) *Independent Environmental Assessment: Beijing 2008 Olympic Games* [online] available from <http://www.unep.org/pdf/BEIJING_REPORT_COMPLETE.pdf> [2 May 2014]

United Nations Global Impacts (2014) *UN Framework and the Global Compact - Human Rights, Guiding Principles on Business and Human Rights.* [Online] available from<https://www.unglobalcompact.org/issues/human_rights/the_un_srsg_and_the_un_global_compact.html> [20 Aug 2014]

United States Environmental Protection Agency (US EPA) (2012) *Green Building* [online] available from <http://www.epa.gov/greenbuilding/pubs/about.htm> [10 April 2014]

United States Green Building Council (USGBS) (2014) *Members.* [Online] available from http://www.usgbc.org/member [2 Oct 2014]

The University of Arizona-College of agriculture and life sciences (n.d.) *A Public Policy Context for Sustainability and Sustainable Development.* [Online] available from < http://ag.arizona.edu/~lmilich/susdev.html> [5 Oct 2014]

Vuontisjärvi, T. (2006) 'corporate social reporting in the European context and human resource disclosures: An analysis of Finnish companies.' *Journal of Business Ethics* 69, (4) pp. 331-354 [online] available from <http://link.springer.com/article/10.1007%2Fs10551-006-9094-5> [15 May 2014]

Weber, R.P. (1990) *Basic Content Analysis,* 2nd Edition. CA: Newbury Park

Wedding, G.C. (2008) *Understanding sustainability in real estate: A focus on measuring and communicating success in green building.* [online] available from < https://cdr.lib.unc.edu/indexablecontent/uuid:a4756dea-08de-43ee-8442-a4e88ecbca01?dl=true> [2 May 2014]

Wei, Y.H.D., and Liefner, I. (2012) 'Globalization, industrial restructuring, and regional development in China.' *Applied Geography* 32, pp. 102-105 [online] available from < http://content.csbs.utah.edu/~weiy/PDF/Wei12AG1.pdf> [6 May 2014]

Wilkinson, S.J. (2013) *Conceptual understanding of sustainability in the Australian Property sector.* [online] available from < www.emeraldinsight.com/0263-7472.htm> [2 May 2014]

William, K., and Dari, C. (2006) 'What is stopping sustainable building in England? Barriers experienced by stakeholders in delivering sustainable developments.' *Sustainable Development* 15, (3) pp. 135-147 [online] available from <http://onlinelibrary.wiley.com/doi/10.1002/sd.308/abstract> [25 May 2014]

World Commission on Environment and Development (1987) *Our Common Future.* Oxford: Oxford University Press [online] available from < http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf> [5 Jan 2014]

World Health Organisation (WHO) (2004) *the precautionary principle: protecting public health, the environment and the future of our children.* [Online] available from http://www.euro.who.int/__data/assets/pdf_file/0003/91173/E83079.pdf [5 Oct 2014]

Yates, Daniel S., David S. Moore., and Daren, S. Starnes (2008) *the Practice of Statistics, 3rd Ed.* New York: W.H. Freeman and Company

Yudelson, J. (2007) *Green Building A to Z: Understanding the language of green building.* Canada: New Society Publishers