Controlling For a Sustainable Future
- The practical use of management control systems

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Abstract

Sustainability is becoming increasingly more important for companies as the public demands that companies are more transparent and act in a responsible manner. This thesis researches what role management control systems play when implementing and working with sustainability. This was done by interviewing CSO’s and controllers as well as examining annual financial and sustainability reports at three large Swedish firms, all praised for their sustainability work. The data was compared between the case companies and analysed by using the management control systems framework by Malmi and Brown (2008). The findings show that the cultural controls coupled with the administrative controls have the most important role to play when implementing sustainability, as they provide the basis for the other control systems. These other control systems have currently a much smaller role to play as there are still challenges connected to sustainability that hinder the use of these control systems to their full potential. The findings further show that the key to implementing sustainability lies in the company’s ability to find and create business cases concerning sustainability as this help aligning the sustainability goals with the business goals and overall strategy.

Keywords

Management control systems, cultural controls, planning, cybernetic controls, reward and compensation controls, administrative controls, sustainability.
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We wish you all pleasant reading… and please make the world a better place!

Uppsala, May 30th 2017

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1. Creating a Greener World

*If global warming was investigated for murder
the fingerprints of businesses would be found all over the crime scene.*

– Atkisson, 2011:122

The increased importance of sustainability in society in recent years has resulted in increased pressure on companies to be responsible, transparent and accountable for their actions and activities (DiPiazza and Eccles, 2002; Kleindorfer et al. 2005). This increased pressure was formalised by the passing of new sustainability laws and legislations in the EU that force large companies operating in the EU to start reporting on their sustainability work starting with the fiscal year 2017 (European Commission, 2016). Sweden also approved a new sustainability law for the fiscal year of 2017. This law uses stricter parameters for companies operating in Sweden (Hållbarhetslagen, 2017) and forces a plethora of companies operating in Sweden to start working with sustainability, whether they want to or not. Sustainability should however not be seen as an expense imposed by an external force, but should instead be considered a business opportunity and investment, since being able to calculate and evaluate the sustainability efforts can yield great benefits for companies as well as possible increases in profits (Hahn, Hök and Jannesson, 2016). In order to capitalise on these business opportunities, sustainability needs to be embedded into the organisations operations for which the use of management control systems can be crucial (Durden, 2008; Schaltegger and Burritt, 2010; Gond et al. 2012; Baker and Schaltegger, 2015).

Embedding sustainability into the organisation and its operations is anything but simple since it requires the alignment of interrelated formal and informal controls within the organisation to ensure goal congruence between the sustainability goals and business goals (Gond et al. 2012). This goal congruence is challenging to achieve via the management control systems since they were originally created to measure, evaluate and control tangible matters such as revenues and costs, whereas sustainability requires the evaluation and measuring of intangible values (Byrch et al. 2007; Eccles et al. 2012). When using the management control systems to implement sustainability there is also the issue of the time aspect. Namely the fact that companies and in extension their management control systems have a tendency to focus on a rather short time horizon (Merchant, 1990) such as the next
quarterly or yearly report, whereas the essence of sustainability implies the need for a longer time perspective (Porter and Kramer, 2011). This implies that the management control systems need to create attention on sustainability and maintain it over a longer period of time, than it tends to be used to when working with other issues faced by the organisation. In order to ensure goal congruence, the alignment of the management control systems, and thus the sustainability and business goals, of the organisation need to find common ground over a longer period of time and not merely in the short run. The new challenges arising today that the implementation of sustainability present to the management control systems makes it highly relevant and interesting to study frontrunners in this area.

1.1. Question and Aim

There exists limited literature in regards to how companies use management control systems to implement sustainability (Gond et al. 2012; Maas et al. 2016), which is why examining what role management control systems play in the implementation of sustainability is relevant for both practitioners and academics alike. This thesis contributes to the existing literature by addressing the need for more international research and case studies that explore how companies use management control systems in practice (Berry et al. 2009; Nixon and Burns, 2012; Malmi, 2013) and in particular how these are used to control work with sustainability (Gond et al. 2012; Maas et al. 2016). This is done by examining how frontrunners use management control systems to implement and work with sustainability. This thesis will simply put research the following question:

- What role do management control systems play when implementing and working with sustainability?
2. The Guiding Foundations

2.1. Sustainable Development

There is a plethora of different keywords used when discussing sustainability. The most common include corporate social responsibility (CSR), sustainability, sustainable development and the triple bottom line. Since this thesis examines what role management control systems play when implementing and working with sustainability, CSR will not be used as it is often seen as focusing on the reduction of various risks (Porter and Kramer, 2011), whereas the other keywords focus more on business opportunities and how companies can work with sustainability issues to further improve their performance and become more successful. Note that sustainability and sustainable development will be used interchangeably throughout this paper.

Sustainability was defined by the Brundtland Commission in a report to the United Nations in 1987 as “[S]ustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs [.]” (United Nations, 1987:41). This definition is also supported by Porter and Kramer (2011) who emphasize the importance of sustainable development as companies are too focused on their short-term financial success and consequently ignore the effects it has on their future in regards to both financial, environmental and societal aspects. In this thesis, sustainability is defined as per the definition given by the Brundtland commission. Sustainability is the act of doing well financially while still doing good for the environment and society, implying that the financial aspect should not be the only aspect considered when making business decisions. The environmental aspect mainly concerns the climate, ecosystem and biodiversity, while the societal aspect deals with corruption, human rights, justice and various health factors. The financial aspects on the other hand deals with ensuring that the financial development does not occur at the expense of any of the other two aspects (KTH, 2017; Vos, 2007). However, inherent in this is the difficulty of balancing all three aspects equally (Merriman and Sen, 2012), which is what Elkington (1994) defines as the triple bottom line.

2.1.1. The Triple Bottom Line

The triple bottom line was first developed by Elkington in 1994 in order to encourage companies to work with the three bottom lines, namely the financial, societal and
environmental aspects of their business and not just focus on the financial numbers (Elkington, 1998). Elkington (1997:69-94) claims that all businesses should work with goals connected to all three bottom lines, and that they should all be equally important for companies. The three aspects of sustainability and the triple bottom line are interdependent and can, if handled with care, reinforce each other and create synergies (Bansal, 2005; Byrch et al. 2007). These synergies are what Porter and Kramer (2011) refer to as “Creating Shared Value”. Creating shared value is about enhancing the competitive edge of the company while simultaneously improving the economic and social conditions in the area in which the company is active, implying that the key to sustainable development lies in the ability to seize opportunities that benefit both the company and society at large (Porter and Kramer, 2011).

Social and environmental concerns should not simply be viewed as obstacles, they should rather be analysed for any business opportunities they may encompass (ibid.). Sustainability issues are unique to each company, meaning that sustainability work cannot be standardised (Atkisson, 2011:110ff).

Despite the possible synergies between the financial, environmental and societal aspects, trade-offs between these aspects are likely to emerge, forcing decision makers to choose one aspect above the other (Jamali, 2006; Hahn et al. 2010). Bonn and Fischer (2011) also found that companies tend to struggle with which parts of the triple bottom line to prioritise, often resulting in failing to include and reach sustainability goals. There is however another side to this which is discussed by Phillis, Kouigoalou and Manousioutakis (2010). They claim that the societal and environmental impacts should be considered, but should in no way be allowed to jeopardize the financial profitability of the company, since not making money is punished by the market (Atkisson, 2011) and could potentially result in bankruptcy. In order to avoid bankruptcy and to help companies enforce their sustainability efforts management control systems are needed (Norris and O’Dwyer, 2004; Leug and Radlach, 2016).

2.2. Management Control Systems

Management control systems consist of all systems that are used in organisations to guide the attention of managers and employees to certain aspects, to build foundations for decision making (Bartolomeo et al. 2000), to influence employee behaviour and to help ensure goal congruence within the organisation (Chenhall, 2003; Merchant and Van der Stede, 2007; Malmi and Brown, 2008). As a result, management control systems are needed to enforce all
tasks the company undertakes and aims to accomplish, making the control systems relevant to enforce all manner of different objectives within the organisation, not merely financial queries (Durden, 2008; Gond et al. 2012).

Leug and Radlach (2016) argue that sustainable development cannot be enforced without both formal and informal controls, which is also supported by Norris and O’Dwyer (2004) and Riccaboni and Leone (2010). Flamholtz (1983) and Fisher (1998) argue that the management control systems are interconnected and influence not just the employees but also each other, which implies that the control systems need to be studied together. Consequently, in order to reduce the risk of underspecification, a framework covering both formal and informal controls are needed so that all management control systems can be studied together in relation to each other (Chenhall, 2003; Kennedy and Widener, 2008; Sandelin, 2008). As a result of this and since there is a risk of inaccurate conclusion being drawn if the management control systems are not studied together, the management control systems as a package of Malmi and Brown (2008) is used in this thesis. It should be noted that this framework was not created specifically to deal with sustainability and could thus cause some important aspects concerning sustainability and the used control systems to be overlooked. However, the framework of Malmi and Brown (2008) has been found suitable “to provide a comprehensive understanding of SD [Sustainable Development] enforcement in practice” (Leug and Radlach, 2016:158), making it an adequate framework to use when examining what role management control systems play when implementing sustainability.

The management control systems framework of Malmi and Brown (2008) consists of five main parts, which include both formal and informal controls. These are cultural controls, planning, cybernetic controls, reward and compensation as well as administrative controls. Figure 1 below shows the complete management control systems framework of Malmi and Brown (2008). The cultural controls at the top provide the frame in which the other control systems function. The planning, cybernetic controls and reward and compensation are all linked in a loop going from left to right and influence employee behaviour through goals, measurements and rewards. The final management control system is administrative controls, which provides a framework in which the planning, cybernetic controls and reward and compensation control systems are carried out.
2. 2. 1. Cultural Controls

Company culture in itself is not seen as a control system, rather it becomes a control mechanism first when managers use it to influence employee behaviour (Malmi and Brown, 2008). Cultural controls are informal controls that help enclose and direct the other formal control systems (Rosanas and Velilla, 2005; Malmi and Brown, 2008; Van der Heijden et al. 2010). As a result, it is important to ensure that the formal control systems work in congruence with the informal control systems so that they both support and enhance each other instead of working in opposite directions (Morsing and Oswald, 2009; Stoughton and Ludema, 2012). According to Malmi and Brown (2008), there are three different aspects of company culture which can be used as a management control system. These aspects are values, symbols and clan based controls.

Value based controls are primarily used to influence employee behaviour by ensuring that the employees adopt certain values that are consistent with the company’s own core values and in extension aligned with their overall strategy (Malmi and Brown, 2008). Values are important since they influence and direct the actions, reasoning and prioritisation of employees (Schein, 1990; Hatch, 1993; Jollands et al. 2015). This value based control system is often used as early as in the recruitment of the employees, by striving to recruit those who already possess values similar to those of the company (Malmi and Brown, 2008). Symbol based controls on the other hand refer to how the company uses visible expressions, such as dress codes or the office layout, to further imprint a certain culture amongst the employees (Alvesson and Sveningsson 2008:36; Malmi and Brown, 2008) and clan based controls refer
to various groupings or subcultures within an organisation. These groupings help create a
shared set of values and hence help ensure goal congruence within each subculture (Malmi
and Brown, 2008).

It takes time for a company to change their cultural controls (ibid.) and it has been
found that for a culture, and in particular values, to truly permeate a company they need to be
enforced by top management (Hoffman, 1999) or what Carroll (2004) refers to as the “tone at
the top”. This is also supported by Knox and Maklan (2004), Morsing and Oswald (2009) and
Lee, Park and Lee (2013), who claim that this is of particular importance when it comes to
sustainability.

2. 2. 2. Planning

Planning functions as a management control system by giving clear goals to employees when
it comes to the board’s expectations on the company, various business units and on the
employees, themselves (Malmi and Brown, 2008) and consequently influences the behaviour
of the employees (Flamholtz et al. 1985). Malmi and Brown (2008) also claim that one of the
strengths of the planning control systems is that they can aid coordination within the
company by ensuring that all business units have goals that are aligned with the overall
strategy and goals of the company and can thus help ensure goal congruence within the
company. It is important to note that the planning process needs to include a strategy
regarding how to motivate employees to commit to the plans so that they do not merely end
up as a list of future activities that need to be performed (Malmi and Brown, 2008).

Meyer (1994) argues that planning increases the possibility of the employees
assuming accountability, which tends to lead to improved results and increased likelihood of
reaching organisational goals. This implies that goals provide meaningful directions for
employees and that they also tend to strive to meet these expected goals, which is why all
important aspects of the business should be planned (Holton et al. 2010). This is also echoed
by other researchers (Perez et al. 2007; Arjaliès and Mundy, 2013) who claim that both short-
term and long-term planning needs to be carried out in both local and centralised processes
for the planning to take hold. The importance of short- and long-term planning is also voiced
by Malmi and Brown (2008). This implies that if a company truly strives to work with
sustainability goals they need to be planned in both the short- and long-term. Banerjee (2002)
and Eccles, Perkins and Serafeim (2012) also support this and claim that sustainability goals
should be linked to the business goals during the planning process for them to truly take hold.
This could cause complications as the control mechanisms and the planning of business goals have a tendency to be more short-term oriented than what is needed for sustainability, which suggests that aligning the goals over time can be challenging. Especially considering that the short-term financial gains must also align with the long-term sustainability goals.

2. 2. 3. Cybernetic Controls

Cybernetic controls refer to the use of feedback loops in the form of performance measurements and budgets to evaluate the performance of the business, plan and make changes to correct any deviations (Green and Welsh, 1988). These measures tend to be accounting based financial measures (Abagail and Siegel, 2000) but can be financial, non-financial or a hybrid of the two (Malmi and Brown, 2008; Roth, 2008). The purpose of these measurements is to make employees accountable for the performance of the business (Roth, 2008) and help translate organisational strategy into action (Kaplan and Norton, 1996).

One of the more commonly used cybernetic tools is the budget. Budgeting is a forecast process that summarises and makes sense of the activities performed by the company (Otley, 1999) and attempts to predict future complications, expenses and revenues (Wallander, 2002:91). De Waal, Hermkens-Janssen and van de Ven (2010) have however found that the process of budgeting is more beneficial for companies than the budget itself as it promotes interdepartmental communication. This is crucial in order to provide employees a more holistic view of the company and enable the realisation of existing limitations. It is also during this process that performance measurements are decided upon for all business units.

It is important to continuously align the performance measurements with the company strategy to ensure that all managers and employees are working towards goals and objectives that are up to date and aligned with the overall strategy (Bourne et al. 2000), since managers and employees simply act in a way that is encouraged by the system (Wouters and Wilderom, 2008). The better the process of updating the performance measurements systems are, the greater the chance of finding and in extension solving problems relating to the performance measurement systems and its connection to company strategy (Bourne et al. 2000). It should also be noted that a clearly defined strategy allows for performance measurements that align well with the given company strategy (Bourne et al. 2000). This implies that if a company has a strategy concerning sustainable development, this should also be visible in their used performance measurements.
Being able to put the sustainability goals into numbers or measurable indicators can be crucial for communicating the sustainable development objectives to the employees and exemplifying it in an easily understood and comparable manner (Roth, 2008). This is however quite challenging, as the complexity of sustainability makes it rather difficult to translate into measurable indicators (Gray, 2010) and the traditional numbers used to measure performance are often inadequate for measuring sustainable development (Byrch et al. 2007; Eccles et al. 2012). The traditional measurements were created to measure financial costs and gains, whereas the measurements needed to measure sustainability need to be able to measure something more intangible, namely value. One of the more prominent measurements that have been created to measure value is materiality. Materiality is a way for companies to decide which investments they should make, based on the importance of the investment to various stakeholders and the possible benefits it brings to the company (International Integrated Reporting Council, 2013). It revolves around identifying, evaluating and prioritising relevant matters for the company by considering quantitative and qualitative factors regarding financial, operational, strategic and reputational perspectives in both the short and the long run (IIRC, 2013). Calculating materiality is thus a subjective matter that can have different outcomes depending on the inherent values and beliefs of whoever is calculating the materiality for the company (Gray, 2010).

2.2.4. Reward and Compensation Controls

Reward and compensation control systems function as control mechanisms by rewarding employee behaviour that is deemed favourably and behoves the company (Malmi and Brown, 2008). The purpose of the reward and compensation controls is thus to influence the employee decision making process and motivate the employees to work towards organisational goals (ibid.). The rewards need to be connected to performance measurements in order to be measurable and easy to grasp for the employees (Van Dijk et al. 2001; Aguinis et al. 2013).

To ensure goal congruence between the employees and the company the rewards need to be easy to understand and connected to larger overall goals of the company (Dutta and Lawson, 2009; Goetz, 2010). This is particularly important for sustainable development as this creates accountability for the sustainability work (Ramus, 2002) and ensures that managers decision making is influenced by the sustainable development goals and not just financial goals (Merriman and Sen, 2012). If the decision making process of managers is only
influenced by rewards pertaining to a certain aspect, the other aspects are likely to be ignored when making decisions (ibid.). I.e. if managers are only rewarded for the financial performance of their unit they are likely to make decisions based solely or mostly on what increases the financial performance of the unit the most. Resulting in them discarding choices that could be better for the company or business unit as a whole but is financially worse in regards to whichever performance measurements that are used to reward the manager.

2. 2. 5. Administrative Controls

Administrative controls function as a structure in which planning, cybernetic controls and reward and compensation controls can be performed. Malmi and Brown (2008) divide administrative controls into three distinctive groups. These are organisational structure, governance structures and policies and procedures. Organisational structure refers to structures that encourage or discourage certain interactions in the workplace. This means that it is important for companies to have a structure that is beneficial for reaching their objectives and thus encourages the necessary employees to interact with each other. (Malmi and Brown, 2008)

Governance structure refers to the board composition and management teams and how they influence other employees via the hierarchical structure in the organisation by portraying authority and ensuring accountability of employees (ibid.). The importance of this hierarchical structure is also supported by Carroll (2004), who implies that the managers higher up in the hierarchy set the examples for the other managers and employees and that the “tone of the top” plays a crucial role in influencing employee behaviour. Lauring and Thomsen (2009) argue that the governance structure is crucial for setting company policies and claim that all relevant employees should be involved in creating these policies.

Official policies and procedures include the use of standard operating procedures, guidelines and general rules and regulations that apply within the organisation (Malmi and Brown, 2008). These policies help guide decision making and creates boundaries within which the company expects all tasks to take place (ibid.). This holds particularly true for sustainability and according to Bebbington and Gray (2001) one of the key prerequisites for companies to work successfully with sustainability is clearly defining what sustainable development means for them, so that all employees know what it entails for the company. This is crucial as it helps create goal congruence and reduces the risk of employees making their own interpretations regarding what sustainable development is (Durden, 2008).
The official policies tend to be written in connection to more long-term goals, which means that they tend to be rather broad and not frequently changed (Malmi and Brown, 2008). It is however crucial to ensure that the policies and rules are updated regularly and that old policies and rules that no longer apply are removed in order to make the policies and rules manageable for the employees and ensure a good fit with the overall strategy (Haglund et al. 2005:104). It should be noted that for the policies and procedures to have the desired effect of compliance, they need to be enforced by someone (Haglund et al. 2005:16).

2.3. Theoretical Summary

Management control systems as a package consists of cultural, planning, cybernetic, reward and compensation and administrative controls and together form the backbone of a company’s control capabilities. The management control systems are important tools to influence employee behaviour, since employees behave and act in accordance with the system that is used to control and influence them (Merchant and Van der Stede, 2007). These control systems are studied in this thesis to see what role they play when implementing and working with sustainability. As shown in Figure 2 below, the implementation of sustainability into the company depends on the usage of the five management control systems.

![Figure 2. The relation between management control systems and sustainability.](image-url)
Considering that cultural control is seen as the frame in which the other control systems function (Malmi and Brown, 2008) it is deemed as an important part of the control systems package and should thus be present to aid the other control systems. However, due to the exceedingly long time it takes for companies to change the company culture (ibid.) coupled with the fact that sustainability is a rather new phenomenon it is considered unlikely that cultural controls are prominent in enforcing sustainable behaviour amongst employees in the case companies. Planning on the other hand is likely to exist in the companies since it is a task the case companies have performed since their inception and applying it to sustainability should not prove overly difficult. However, the goals created in the planning process are likely to be both diffuse and long-term oriented as a result of the difficulty to create relevant performance measurements for sustainability. This difficulty stems from the fact that sustainability requires the control systems to measure and evaluate intangible matters such as value over a far longer time horizon than they were originally meant to do. Implied that existing measurements are likely to be vague, diffuse and sub-optimal, as a result of companies not being used to adequately measuring value, which in turn also makes it difficult to ensure that the sustainable performance measurements are up to date.

This inherent complexity of measuring sustainability also affects the reward and compensation controls. Connecting rewards to the sustainability goals of the company is challenging since the rewards tend to be based on performance measurements. Suggesting that companies will not have rewards connected to sustainability unless they have managed to create pronounced performance measurements to which the rewards can be connected. The administrative controls, which provide a framework for the planning, cybernetic controls and the reward and compensation controls (Malmi and Brown, 2008), are likely to exist in companies working with sustainability despite the phenomenon being rather new. Establishing new policies and procedures or merely adjusting existing ones can be done rather quickly, implying that policies and procedures pertaining sustainability should be implemented early on when a company starts to work with sustainability. The governance structure is also rather easy to affect, since it is the “tone at the top” that is important and hiring a sustainability expert should not take too long. As a result, it is likely that there are administrative controls in place that behove the sustainable development of the company.

Considering that the management control systems were not created to deal with intangible matters it makes sense that most of the expected issues are rooted in the intangibility of sustainability. The inability to measure value coupled with the longer time horizon required for sustainability work means that the control systems are heavily
disadvantaged from the beginning as they were created to deal with the tangible issues of an organisation. Materiality comes to mind as a possible solution to help solve the disparity between the management control systems and what they are required to do in order to efficiently be used to control and influence employees’ behaviour towards sustainability issues. Materiality was created for the very purpose to calculate and measure value and should thus be a useful tool that can aid the management control systems and in extension the companies in their sustainability work.
3. The Gathering of Data

3.1. Study Objects

The choice of cases for the study was based on the research question (Eisenhardt and Graebner, 2007) implying that frontrunners were needed so that the practical use of control systems to implement and work with sustainability could be studied. The companies included in this study are Nordic Choice Hotels (henceforth called NCH), Sandvik and Livförsäkringsbolaget Skandia Ömsesidigt (henceforth called Skandia). These companies were chosen due to their nominations and awards in sustainability. The idea to use the aforementioned companies derived from the nominated finalists for the title “Årets hållbarhetschef” (this year's sustainability manager) in Sweden 2015 or 2016, a title given by Aktuell Hållbarhet, whose main focus is the creation and spreading of knowledge within the field of sustainability (Aktuell Hållbarhet, 2017). The nominations of the sustainability managers served as the basis to find suitable companies for this study. However, since the nominations only referred to the sustainability managers they were only consider indications that the companies were frontrunners in sustainability. Further research was thus done to ensure that the companies themselves were also seen as frontrunners that have managed to do well financially while still doing good for the environment or society.

NCH, formerly named Choice Hotels Scandinavia is a chain of hotels operating mainly in the Nordic countries (NCH, 2017). It was originally founded in 1996 and today it has more than 190 hotels and 13 000 employees (ibid.). NCH was awarded “The best place to work” in travel industry in Norway 2015 and was at the top of the Sustainable Brand Index 2015 in the category sustainable tourism (ibid.). They also won the “Arla Guldko” 2015 for their ability to make sustainability issues easy grasp and their commitment to their employees (KonferensVärlden, 2015). This commitment to their employees coupled with their demand for transparency also earned them the Gold Award for Company culture and the Gold Award in Communication in 2016 from The Hospitality Sales and Marketing Association International Europe Awards (HSMAI, 2017).

Sandvik is an industrial high-tech engineering company that was founded in Sandviken in 1862 (Sandvik, 2017b). Today it operates in 150 countries with more than 43 000 employees across the world. Sandvik specialises in tools and systems for metal cutting, equipment and solutions for mining industries as well as industrial heating and various
special patented alloys (ibid.). Sandvik is included in the Dow Jones Sustainability Index, meaning that they are among the top 10 % who perform the best in financial, environmental and societal aspects in their industry (Sandvik, 2017b). One of the other more renowned sustainability indexes is the Financial Times Stock Exchange 4Good Index, in which Sandvik is also included (FTSE Russell, 2017). Additionally, Sandvik is mentioned in the RobecoSAMs sustainability yearbook, which lists the top 15 % most sustainable companies in each industry worldwide (Sandvik, 2017b).

Skandia is an insurance and investment company founded 1855 (Skandia, 2017). Skandia offers include health and safety insurance, banking and advisory services as well as special saving schemes (ibid.). Skandia operates primarily in the Nordic countries and has more than 2 500 employees (ibid.). Skandia truly pioneered their industry in regards to sustainability by enforcing strict transparency on their investment funds and by driving research, via their foundation “Idéer för livet”, to develop means for calculating social investments (Aktuell Hållbarhet, 2017). Skandia also created the financial coalition against child pornography, which now includes all Swedish banks (ibid.). Skandia is also the only Swedish company listed in the Fortune Magazine Change the World List, which aims to highlight companies that have contributed to important social or environmental progress in their industry (Fortune, 2017). Skandia is the only listed Swedish company and holds the 20th place on this list.

3. 2. Data Collection Process

The chosen techniques for collecting data were based on the research objectives and aim. A pre-study was conducted by going through and analysing news coverage and external reports. A pre-study was performed to create a better foundation and perception (Saunders et al. 2009:146f) regarding the sustainability work of each specific company, thus enabling more information rich interviews (Bryman and Bell, 2015:402). The use of a pre-study was deemed particularly important since Malmi and Brown (2008) point at the importance of understanding the business settings that affect the decision making within the organisation when applying their framework.

Qualitative case studies were performed since the aim of the study was to acquire information in a context where values, beliefs, norms and behaviour play a role and can affect or influence the researched phenomenon to some extent (Bryman and Bell, 2015:417;
Qualitative case studies also allow for in depth descriptions and enable the researchers to dig deep into complex areas (Doz, 2011; Bryman and Bell, 2015:67) such as the use of management control systems when implementing sustainability. This depth was further increased by comparing the three case companies. This comparison is done to more adequately understand and explore the researched phenomenon as comparing findings in relation to each other provides insights into the phenomenon that a single case is unable to do (Bryman and Bell, 2015:72). Comparing findings allow for a deeper analysis and reduces the risk of certain findings being case specific and hence allows for more generalised conclusions to be drawn. It should be noted that the use of control systems should not differ in regards to sustainability amongst the different industries since employees need to be influenced and guided all the same, regardless of what the company sells or provides. The fact that the three chosen companies operate in different industries allows more generalised conclusions to be drawn as the findings will not only be applicable to a certain industry, but will portray what role management control systems play when working with sustainability regardless of industry.

In order to delve into these complex areas a variety of different sources were used when collecting the necessary research data as suggested by Eisenhardt and Graebner (2007). Using a variety of different sources is also supported by Yin (1981) who claims that researchers should use both text and numbers when performing case studies, in order to increase the depth of the study and have more data as a basis for the empirical analysis. The two primary means of data collection were interviews and annual reports. The annual reports, both financial and sustainability reports from all case companies, for the fiscal year 2015, were examined. During this stage data that was considered relevant for the study, i.e. discussed a management control system or sustainability, was collected and extracted from the reports. This step was performed by both researchers to ensure that all available details, both text, numbers and various measurements, were identified in all reports. The data was then compiled and sorted into tables for each company in order to prepare for the coding and analysis step and to allow for easier comparisons between the reports of the companies as well as data collected from the interviews. The information from the annual reports was then further summarised to create an overview for the reader and introduce the main sustainability subjects of the respective reports. This data was put into a table that can be seen in the empirical analysis.

The reading and analysing of annual financial and sustainability reports served as triangulation, meaning that they were used to complement as well as validate or invalidate
statements from the interviews (Bryman and Bell, 2015:402). Comparing data from different sources reduces the risk of the researchers being biased or subjective as the other sources will support or reject theories or explanations that only derive from one source of data (Eisenhardt and Graebner, 2007). This was done to increase the credibility of this study by having more than one source and hence being able to compare and combine data allowing for a richer analysis that also reduces the risk of biases affecting the results (Bryman and Bell, 2015:648). Note that the yearly reports used in this study are for the fiscal year 2015. This was deemed necessary since the 2016 financial and sustainability reports were not released to the public until the end of the study, thus making the 2015 reports the most up to date reports available.

Interviews were chosen as a means of data collection since it was rather easy to identify the individuals in key positions who were expected to possess the knowledge and insights needed to perform the study (Rowley, 2012). The key individuals in this case held the position of Chief Sustainability Officer (CSO) or possessed an equivalent title. It was also considered necessary to interview an individual who possessed more insights and knowledge regarding the management control systems of the company. Controllers were thus interviewed in order to provide these insights and allow for information from another inside source to contradict or validate the information given by the CSO. The interviews were performed face-to-face whenever possible as this allows for better rapport building and consequently more information rich interviews. However, a few interviews were performed by phone, as the interviewee was unable to meet the researchers in person, see table 1 for details. In the case that any follow-up questions were needed they were solely performed by email. All the interviews were recorded so that both researchers could focus as much as possible on the interview itself and avoid the risk of becoming preoccupied with continuously taking notes. Recording the interviews allow for deeper analysis of the data since no data will be missed or lost and all expressions and thoughts of the interviewer can be analysed in full in its context (Bryman and Bell, 2015:497).
<table>
<thead>
<tr>
<th>Company</th>
<th>Respondent</th>
<th>Position</th>
<th>Medium</th>
<th>Length interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordic Choice Hotels</td>
<td>Catherine Dehli</td>
<td>Director of Sustainability</td>
<td>Telephone</td>
<td>60 min</td>
</tr>
<tr>
<td>Nordic Choice Hotels</td>
<td>Sara Björklund</td>
<td>Director of Group Business Control</td>
<td>Face-to-face</td>
<td>50 min</td>
</tr>
<tr>
<td>Sandvik</td>
<td>Christina Båge-Friborg</td>
<td>Head of Sustainable Business</td>
<td>Face-to-face</td>
<td>45 min</td>
</tr>
<tr>
<td>Sandvik</td>
<td>Johnny Ulander</td>
<td>Controller Global Environment, Health &amp; Safety</td>
<td>Telephone</td>
<td>45 min</td>
</tr>
<tr>
<td>Skandia</td>
<td>Lena Hök</td>
<td>Chief Sustainability Officer &amp; Head of the foundation “Idéer för livet”</td>
<td>Face-to-face</td>
<td>60 min</td>
</tr>
<tr>
<td>Skandia</td>
<td>Ulrika Boman</td>
<td>Chief Financial Control Concern</td>
<td>Face-to-face</td>
<td>45 min</td>
</tr>
</tbody>
</table>

*Table 1. Respondents and interview length.*

The interviews were of a semi-structured form, which is the suggested kind of interview for more explorative studies, when a certain issue is studied from various perspectives (Casell, 2015). Kvale and Brinkmann (2014:127f) have found that an interview that is well prepared, is more likely to find and contribute new knowledge to the studied field. As a result of this an interview guide was created, see appendix 1, from reviewing relevant theory as well as prior literature on the subject and closely related subjects, thus making the guide theory driven. This guide also helps ensure that no important areas are missed during the interview (Bryman, 2011:421) as well as ensuring comparability between the interviews since they all followed the same guide and thus dealt with the same subjects (Bryman and Bell, 2015:484). In order to strengthen the dependability of the study (Bryman and Bell, 2015:486), the interview guide was given to all respondents prior to the interview.

The strength of semi-structured interviews lies in the fact that the responses of the interviewee can guide the interview. Meaning that the sequence of questions or discussed subject areas can be adjusted to what order they appear in the interview (Merriam, 1988:88). This creates an interview with better flow that feels more like a discussion or conversation, which enhances the rapport between the interviewer and interviewee (Bryman and Bell, 2015:481). This rapport was further enforced through the use of a mind map, see appendix 2. Semi-structured interviews allow the respondent or interviewee to talk in depth about each subject and to choose which parts they deem more important through open-ended questions (Bryman, 2011:415). This is crucial for any explorative research as it allows the respondent to speak freely and avoids having the interviewer put their own words or world view into the answers of the respondent, hence also increasing the validity of the interview (Bryman, 2011:420).
Performing semi-structured interviews is a rather complex task that requires certain training and skills from the interviewers to be performed at an adequate level (Kvale and Brinkmann, 2014:207-210). The main skills that ensure a good interview include the ability to establish rapport, avoiding leading questions as well as knowing when to probe and when not to probe. Failure to perform any of these can lead to the collection of insufficient or corrupted data (Bryman and Bell, 2015:490, 492). The risk of collecting corrupted data was considered low since one of the researchers has undergone advanced HUMINT (Human Intelligence) training and possesses several years of practical experience of interviews and communication.

Additionally, there are some ethical aspects that need to be taken into consideration when conducting qualitative case studies that require the interviewing of key individuals. According to the Swedish Research Council (2011) there are four main principles that need to be adhered to. These four are the information requirement, the consent requirement, the confidentiality requirement and the use requirement. To fulfil these four requirements and ensure that the study lives up to the expected ethical standards of the Swedish Research Board, special care was taken to ensure that the interviewees knew the exact purpose of the study as well as their own part in it. The interviewee was given the choice whether they wished to remain anonymous or not. They were also given the information that the researchers would observe professional secrecy, that the interview was confidential and that any and all information gathered during the interview would only be used for the sole purpose of the research objectives. In order to ensure that no information or statements were taken out of context, all respondents were given the opportunity to review and comment on the information used from their interview. Adhering to the principles from the Swedish ethical guidance council also serves to reduce the participation bias, i.e. that the interviewees are likely to focus on the positive aspects regarding the sustainability work of their company and might both consciously and unconsciously attempt to cover up anything that is not deemed to be top notch (Saunders et al. 2009:156f).

3.3. Data Analysis

The literature review lies as a basis for the structure of the analysis process of the collected empirical material (Bryman and Bell, 2015:585). Analysing empirical material involves the coding and linking together of data, attempting to find various patterns and hence make sense
of the vastness of information (Bryman and Bell, 2015:579). In order to analyse the collected data, theoretical lenses based on the previously reviewed literature were used as suggested by Eisenhart and Graebner (2007). The purpose of the theoretical lenses is to aid in the linking together of all relevant data and thus help understand and build better descriptions of the studied phenomena.

To begin the analysis process, the data first had to go through what Miles and Huberman (1994:10) refer to as the “data reduction process”. This process involves selecting which parts of the empirical data are relevant for answering the research question, followed by extracting and simplifying it so that it is more easily analysed and compared to other selected and extracted parts (Bryman and Bell, 2015:588). The data reduction process started in the pre-study when data that was deemed relevant was extracted from news coverage and external reports and used as a basis for the interviews and help guide the remainder of the study. The next step was the extraction of data from interviews and annual reports that was considered relevant to the purpose of the study. This step started during the interview itself by taking notes (Miles and Hubermann, 1994:51). The notes taken during the interview guided the researchers’ attention when listening to the recorded interviews and thus played a vital role in selecting the relevant bits of information from each interview.

Directly after each interview both interviewers compared notes and discussed the main points from the interview to ensure that both interviewees shared the same views and ideas regarding the acquired information. A few days after the interview took place the recording was listened to and the relevant information and data was extracted and transformed into text. This was done in an attempt to create some distance between the interviewers and the interviewee and thus reduce any personal bias that could influence the analysis of the interview itself. All the quotes taken from the recordings were translated into English, as the interviews were performed in the respondent’s native language, with special care taken to retaining the original meaning and avoid any distortion.

Following the data reduction step was the coding of data. Coding is essential when performing analysis of data, since as Miles and Hubermann (1994:55) put it “if you don’t know what matters, everything matters”. The data was thus coded in order to link information together and help find patterns or irregularities in and between the different study objects (Bryman and Bell, 2015:599). The used codes were descriptive in nature and come from a directed content analysis approach, meaning that the descriptive codes used were derived from the literature review or in some instances research findings (Miles and Huberman, 1994:58; Hsieh and Shannon, 2005).
<table>
<thead>
<tr>
<th>Control mechanisms</th>
<th>Operationalisation</th>
<th>Keywords (when coding)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural controls</td>
<td>How values and norms are used to guide employee behaviour.</td>
<td>Values, norms, culture, dress codes, routines, traditions, formality</td>
</tr>
<tr>
<td>Planning</td>
<td>How the planning cycle is used to ensure goals congruence and generate new goals.</td>
<td>Planning, short-term goals vs. long-term goals, goal congruence</td>
</tr>
<tr>
<td>Cybernetic controls</td>
<td>How performance is measured, in particular in regards to sustainability. Which measurements are prioritised?</td>
<td>Financial measurement, non-financial measurement, hybrid measurements, budget, budgeting, performance measurement, KPI’s</td>
</tr>
<tr>
<td>Reward and compensation</td>
<td>What behaviour or activities are rewarded?</td>
<td>Rewards, compensation, bonus, group based rewards, company based rewards, long-term vs. short-term incentives</td>
</tr>
<tr>
<td>Administrative controls</td>
<td>How the hierarchical structure, rules and regulation affect the decisions of employees.</td>
<td>Organisational structure, meetings, policies, regulations, rules, procedures, codes of conduct</td>
</tr>
</tbody>
</table>

Table 2. Operationalisation of the conceptual framework.

The table above shows the operationalisation of the management control systems as a package of Malmi and Brown (2008). The chosen keywords were used to sort the data and identify which parts of the collected data discussed which control mechanisms. This was done in order to sort the data from each interview and report, and allow easier comparison and analysis of the data between all sources from each company as well as between all companies. After the data from both the interviews and annual reports had been coded and all parts relating to the same aspect of the management control systems package had been assembled in one place, they were compared. The aim of this comparison was to analyse whether the different sources from each company validated or invalidated each other and to see if there were any contradictions or gaps in the collected material that needed to be addressed before continuing with the analysis. The analysis was performed by analysing the collected data relating to each of the three companies and then comparing it with the data from the other two companies. This was done by focusing on one control mechanism at a time while analysing similarities, contradictions and inconsistencies between the three companies. In case any contradictions or inconsistencies were found within a company or between any of the companies, further analysis was performed to find probable underlying reasons for these differences or differing views.
4. Controlling for Sustainability

4.1. Balancing Business and Sustainability

All three case companies work with and report on their sustainability (NCH, 2016; Sandvik, 2016b; Skandia, 2016b). These sustainability reports are summarised and compared in table 3 below to provide an overview of the sustainable development and, in particular, the reports of each company. This is done in order to provide a first glance into how the case companies use their management control system to implement and work with sustainability.

<table>
<thead>
<tr>
<th></th>
<th>Nordic Choice Hotels</th>
<th>Sandvik</th>
<th>Skandia</th>
</tr>
</thead>
<tbody>
<tr>
<td>A five year sustainability report retrospect</td>
<td>Reported on sustainability five years ago</td>
<td>Reported on sustainability from 2006 and onwards</td>
<td>Was owned by Old Mutual. Hence, no separate sustainability report for Skandia</td>
</tr>
<tr>
<td>How was sustainability reported on for the fiscal year 2015?</td>
<td>Interlinked reporting on the triple bottom line. Only available online</td>
<td>An annual report with a sustainability chapter</td>
<td>A separate sustainability report</td>
</tr>
<tr>
<td>Length of the sustainability report</td>
<td>Webpage</td>
<td>35 pages (the sustainability chapter)</td>
<td>57 pages</td>
</tr>
<tr>
<td>Definition of sustainability?</td>
<td>Has a clear definition</td>
<td>Has no definition</td>
<td>Has a vague definition</td>
</tr>
<tr>
<td>Clear numbers and measurement</td>
<td>Yes, extensive</td>
<td>Yes, extensive</td>
<td>Only a few numbers and measurements</td>
</tr>
<tr>
<td>Values &amp; culture</td>
<td>People, Planet and Profit</td>
<td>High-performance, efficiency</td>
<td>Think further, shared value, transparency</td>
</tr>
<tr>
<td>Ownership structure</td>
<td>Owned by Home Invest, which is wholly owned by Petter Stordalen</td>
<td>Limited company</td>
<td>Mutual company owned by the policyholders</td>
</tr>
<tr>
<td>GRI reporting</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 3. A compilations of the case companies’ sustainability reports for the fiscal year 2015 (NCH, 2016; Sandvik, 2016b; Skandia, 2016b).

As shown in table 3 above there are quite a few differences regarding how and what the three case companies include in their sustainability reports. The overview shows that NCH is the only company that has chosen to embrace sustainability in their annual reports by reporting on sustainability issues intertwined with the financial information that is generally reported on in the annual reports. Both NCH and Sandvik have reported on and thus dealt with sustainability during at least five years, and ten years in the case of Sandvik. Implying that the new legislation forcing companies to report on sustainability should not pose a major
issue for the two companies. The fact that they have reported on sustainability several years suggests that they both should have a fair amount of experience with sustainability. It is also important to note that the three case companies have quite different ownership structures, as seen in table 3, which affects their reactivity to change and affects the strength of the “tone at the top”. NCH having a single owner is likely to have a stronger and clearer “tone at the top” than Sandvik or Skandia, since they need to take more owners and their preferences into consideration when making decisions and steering the company.

Porter and Kramer (2011) found that the key to sustainable development lies in the company’s ability to find and capitalise upon business opportunities that benefit both the company and the society, hence creating shared value. This notion was supported by all companies, but in particular by Skandia, who continuously mentioned shared value in their annual reports (Skandia, 2016b). Finding these opportunities can however become rather troublesome, as sustainability issues tend to be unique to each company (Atkisson, 2011:110ff). This means that the companies have to identify sustainability issues on their own and can only receive limited aid from investigating what issues other companies are facing. Cathrine Dehli (2017), CSO at NCH, clearly portrayed this by claiming that “sustainability is innovation. It is a new way to find solutions to common problems and development problems […]”, showing that companies need to think outside the box and come up with new ideas to ensure sustainable practices that work well with the operations of the company.

This issue of uniqueness is clearly displayed amongst the three case companies when it comes to their chosen sustainable development areas and goals, which can be seen in their respective sustainability reports (NCH, 2016; Sandvik, 2016b; Skandia, 2016b). NCH has chosen to focus on improving their food offerings, by for example prioritising ecological food, increasing their offerings of fruits and vegetables while reducing their selection of red meats, their overall food wastage as well as products containing palm oil (NCH, 2016). Sandvik, being a company in a completely different industry, has chosen to put their sustainability efforts into creating a circular economy attempting to increase the percentage of recycled materials in their products (Sandvik, 2016b). According to their annual reports, they have also chosen to be sustainable by creating products that make their customers more sustainable, by being safer, lasting longer or causing less pollution (Sandvik, 2016a; Sandvik, 2016b; Sandvik, 2017a). Skandia on the other hand has chosen to portray how all their equity funds affect the climate allowing their customers to see how many kilos of CO₂ each investment creates (Skandia, 2016b). The CSO’s at all companies claim that finding their
unique challenges and turning them into business cases is the key to working with sustainability and creating shared value (Båge-Friborg, 2017; Dehli, 2017; Hök, 2017), which is in line with the theory of creating shared value by Porter and Kramer (2011). The business cases function as a way to link sustainability goals with business goals and thus ensure that the chosen sustainable development areas and goals align well with the company, its strategy as well as the industry in which it operates (Båge-Friborg, 2017; Dehli, 2017; Hök, 2017). These business cases are used by the CSOs to convince other managers and employees, with both text and numbers, that the sustainability goals and operations are worthwhile and behoves the company in more ways than just goodwill. I.e. that they can capitalize on the business opportunities and reap the benefits, financial and otherwise, of sustainability (Båge-Friborg, 2017; Dehli, 2017; Hök, 2017).

Despite the unique challenges facing all companies in regard to their sustainability issues, they all face the same basic difficulty, namely how to balance the three aspects of sustainability (Elkington, 1994; Merriman and Sen, 2012). This challenge was confirmed by the controller at Sandvik, Johnny Ulander (2017), and the importance of achieving this balance was emphasized by the CSO at Sandvik, Christina Båge-Friborg (2017), when stating “you don’t compromise your sustainability work to increase short-term profits”, a sentiment that was also expressed by the CSO at Skandia, Lena Hök (2017). This shows the importance of not allowing the financial development to occur at the expense of the environmental or societal aspects of sustainability, which is also supported by the literature review (Vos, 2007).

This balancing act is incredibly challenging, especially considering that the companies are all punished by the market if their financial profitability takes too big a hit from their sustainability work (Phillis et al. 2010; Atkisson, 2011), which could have devastating consequences for the companies continued survival. The challenge of allocating resources towards sustainability also has an inherent risk of overextending the company’s resources to attain certain sustainability goals which is why management control systems are needed. These control systems help balance the triple bottom line by influencing employee behaviour (Chenhall, 2003; Malmi and Brown, 2008), thus reducing the risk of overextending the company’s resources (Norris and O’Dwyer, 2004; Leug and Radlach, 2016).
4. 2. Cultural Controls

You have to have the culture and the people with you. There is a good saying that is culture eats strategy for breakfast. If you don’t have the culture with you... you can have any damn strategy or vision or plans, but if you don’t have the people and the culture with you then it is not going to happen, meaning that it is there you need to focus your work.

– Lena Hök, 2017

The quote above by the CSO at Skandia shows just how important it is to have a culture that is aligned with the strategy and vision of a company. This emphasis on culture aligns well with the importance of cultural controls in the management control systems package (Malmi and Brown, 2008). The cultural controls are the controls that create the framework for the other control systems (Rosanas and Velilla, 2005; Malmi and Brown, 2008; Van der Heijden et al. 2010). This makes it rather important for a company to ensure that the cultural controls work in congruence with the other control systems in place (Morsing and Oswald, 2009; Stoughton and Ludema, 2012) in order to work towards a given strategy. The CSO at NCH also emphasizes the importance of a strong focused culture aligned with the strategy of the company and claims that this is of particular importance when it comes to sustainability by stating “the key to sustainability is how to deal with people's engagement. You need to focus everyone's engagement so it does not end up as marbles going everywhere on the floor” (Dehli, 2017). Focusing everyone’s engagement can be achieved via values, since they influence and direct the actions, reasoning and prioritisation of employees (Schein, 1990; Hatch, 1993; Jollands et al. 2015), which further shows the importance of culture and cultural controls.

There are many ways to influence and affect the values within a company. Malmi and Brown (2008) suggest that this takes place first when recruiting employees, by striving to recruit employees that share the values of the company. This was not supported by any of the case companies. It was instead suggested that people applied for jobs at these company as a result of their already existing culture and sustainability work (Dehli, 2017; Hök, 2017). A common concept among the three companies in the study when it comes to affecting the values of their employees was training in their codes of conduct or other culture influencing programs (NCH, 2016; Sandvik, 2016b; Skandia, 2016b; Hök, 2017). According to the CSO at Skandia as well as their sustainability report, this training was done to ensure that everyone knew why sustainability was relevant for them in their job and what they could do to affect
the sustainable development of the company (Skandia, 2016b; Hök, 2017). Another concept that NCH has adopted is allowing the employees to vote on possible investment projects, which in 2012 resulted in the company investing in the protection of child victims of human trafficking (NCH, 2016). This was done in order to make the employees feel included in the sustainability work of the company according to Sara Björklund, the controller at NCH (Björklund, 2017). Skandia took a different route to make their employees feel part of the sustainability work. They named all their conference rooms after historical events that are connected to their organisation and in particular to the areas in which they focus their sustainability work (Hök, 2017), such as BRIS (Children’s Rights in Society) and ECPAT (End Child Prostitution, Child Pornography and Trafficking in Children for Sexual Purposes) both of which support and strengthen children and young adults' rights in society and work to prevent and increase awareness of child pornography and trafficking, a subject that is important in Skandia’s company culture. These rooms serve as symbols to further imprint the values and culture (Alvesson and Sveningsson 2008:36; Malmi and Brown, 2008).

NCH attempts to affect the culture by having an annual kick-off event, during which they invite thousands of their coworkers and mostly discuss the company’s culture and sustainability work (NCH, 2016; Björklund, 2017; Dehli, 2017). During this annual event, the CEO and owner Petter Stordalen as well as his wife (who is a board member) both attend and address sustainability issues (Björklund, 2017), thus spreading the culture from the top and helping it permeate the whole company. This enforcing of the culture from the CEO and board has previously been found to be important for a strong company culture (Hoffman 1999) and has proved to be especially important when it comes to sustainability and the values connected to it (Knox and Maklan, 2004; Morsing and Oswald, 2009; Lee et al. 2013). The fact that the CEO at NCH attends and personally speaks at these annual events coupled with both his and his wife’s fondness for sustainable development is thus likely the reason why NCH in particular possess such a strong culture in regards to sustainability. The controller at NCH mentioned important meetings regarding sustainability being postponed due to the CEO wanting to first discuss the issue with some of the meeting attendants via phone due to his own absence (Björklund, 2017), thus showing a strong “tone at the top” regarding sustainability. The importance of the “tone at the top” is also voiced by the controllers at Skandia and Sandvik (Boman, 2017; Ulander, 2017) as well as by Hoffman (1999) and Carroll (2004). The controller at Sandvik exemplified this by stating “what interests my boss fascinates me” (Ulander, 2017) when discussing the importance of the actions and views of the board and the top management. Ulander (2017) also claimed that the
“tone at the top” in Sandvik does not pay a lot of attention to sustainability, which could explain why their culture is less focused on sustainability compared to in Skandia and NCH as Knox and Maklan (2004), Morsing and Oswald (2009) and Lee, Park and Lee (2013) found that the “tone at the top” is particularly important when it comes to integrating sustainability into the company culture.

The increased focus on transparency has influenced the culture at all companies to become more open to and supportive of sustainability (NCH, 2016; Sandvik, 2016b; Skandia, 2016b; Björklund, 2017; Boman, 2017; Båge-Friborg, 2017; Sandvik, 2017a; Ulander, 2017). All interviewees at both NCH and Skandia, CSO’s and controllers alike, experienced their company as having a very supportive culture in regards to sustainability. The controller at NCH, emphasizes this focus on sustainability in the culture by stating that “we would rather earn less money but on good grounds” (Björklund, 2017), which is also supported in their annual report (NCH, 2016). At Sandvik on the other hand, there exists a culture focused on high-performance (Sandvik, 2016a; Sandvik, 2016b) that is very focused on objectives, targets and monitoring (Sandvik, 2017a; Ulander, 2017). This was affirmed by the CSO at Sandvik, who stated that Sandvik was a rather linear company and that everyone automatically ran towards a goal when given one (Båge-Friborg, 2017). This difference could be a result of the time it takes to change the culture within a company, since the controller claimed that they are currently working on incorporating sustainability more into the culture (Ulander, 2017). The controller feels as if the culture has started to change towards a more sustainability oriented one as a result of new fresh thoughts coming into the board (Ulander, 2017). It should be noted that the CSO’s at all companies expressed having struggled with changing the company culture (Båge-Friborg, 2017; Dehli; Hök, 2017). The CSO at NCH exemplifies her struggles by comparing her work to an uphill run and states “you had to throw up a lot of balls into the air and see who catches them, and then run together with the guys who caught a ball” (Dehli, 2017). This shows that in order to change the culture, time needs to be spent to influence the employees, starting with those who are already susceptible to the inherent values of the new culture. This sentiment was also voiced by the CSO’s at Sandvik and Skandia (Båge-Friborg, 2017; Hök, 2017). Even though NCH has managed to achieve a culture that is focused on sustainability it has not been an easy task. Their CSO proclaimed that when she knocked on doors initially attempting to discuss sustainability a plethora of doors were closed, but now most are open to her and sustainable development discussions (Dehli, 2017). Showing that changing the culture is challenging and exceedingly time consuming, which is supported by Malmi and Brown (2008).
Culture and cultural controls play an important role when it comes to sustainability which is highlighted by the CSO at Skandia (Hök, 2017) when stating “you have to get it into the culture. And if you manage that, then you have a control mechanism that is incredibly powerful and there you have a stickiness that is fantastic!”. The controller at Sandvik agrees that the culture is important for sustainability and claims that they as a company have struggled with it and have mainly managed to be sustainable by relying on the strengths already present in their existing culture, which is planning, measuring and monitoring, and the efficient systems they have in place as a result of this (Ulander, 2017). All three case companies have portrayed different company cultures. However, they all emphasize the importance incorporating sustainability into the company culture and aligning it with the company strategy in order to create a company culture that benefits the implementation of sustainability, hence showing the importance of creating a strong framework in which the other controls can function (Rosanas and Veliilla, 2005; Van der Heijden et al. 2010). Additionally, they all claim that it requires a tremendous amount of time and effort to truly change the company culture and integrate sustainability, which is in line with previous research (Malmi and Brown, 2008).

4.3. Planning

All three companies in the study have goals connected to sustainability, which suggests that sustainability is important for the companies, since all important aspects of the business should be planned (Perez et al. 2007; Holton et al. 2010; Arjaliès and Mundy, 2013). This planning is crucial to ensure that goals are reached and has been found to be of particular importance for sustainability (Banerjee, 2002; Eccles et al. 2012).

The sustainability report of Skandia show that they have rather diffuse short- and long-term sustainability goals (Skandia, 2016b) which was also supported by their controller, Ulrika Boman (2017). NCH and Sandvik on the other hand both have clear long-term as well as short-term goals regarding sustainability (Björklund, 2017; NCH, 2016; Sandvik, 2016b). Sandvik has particularly clear long-term goals for 2020, such as striving to “to the greatest extent possible, our products and solutions should contribute to a reduction in the environmental impact of our customer processes, and also be recyclable” (Sandvik, 2016b:12). Sandvik, being an old engineering company, is used to work with goals and has targets that are broken down and followed up quarterly (Ulander, 2017). Both Sandvik and
NCH have clear annual short-term goals as well as steps to take in order to reach these goals (Sandvik, 2016b; Björklund, 2017; Båge-Friborg, 2017; Dehli, 2017; Sandvik; 2017; Ulander, 2017), which the controller at Sandvik claimed has been crucial for their successful implementation of sustainability (Ulander, 2017). This shows the importance of clear goals that are broken down into simpler short-term goals, a sentiment that is echoed by Perez, Ruiz and Fenech (2007), Malmi and Brown (2008) and Arjaliès and Mundy (2013). The setting of goals in all three case companies was done both centrally and locally (Dehli, 2017, Hök, 2017; Ulander, 2017). The respondents at NCH and Skandia ensured that each of their subunits and respective hotels had their own plan and goals for sustainability (Björklund, 2017; Dehli, 2017; Hök, 2017) while the interviewees at Sandvik claimed that they built all their targets and goals from the bottom up. They collect numbers and ambitions from the decentralised units and then add everything together and create the targets and ambitions for the whole concern (Båge-Friborg, 2017; Ulander, 2017). The controller at Sandvik argued that this was done in order to force commitment towards the sustainable development goals (Ulander, 2017), which aligns with the theory that claims that well executed planning increases the likelihood of employees assuming accountability (Meyer, 1994).

Linking the sustainability goals to the business goals is seen as an important part when planning for sustainability (Banerjee, 2002; Eccles et al. 2012), which is echoed by all three companies. The interviewees at Skandia and NCH in particular emphasize the importance of creating shared value and being able to link the sustainability goals to the business goals (Björklund, 2017; Boman, 2017; Dehli, 2017; Hök, 2017). NCH exemplify this in their annual report by stating that “we create value for both the company and the community - because it is right and because it is profitable” (NCH, 2016), thus creating the business cases as discussed previously. Sandvik has also taken this approach of trying to connect the goals and claims in their sustainability report that “sustainable solutions are necessary to achieve commercial success.” (Sandvik, 2016b:2). NCH has truly taken this linking of goals to heart and continuously communicate regarding the importance of creating shared value, both in the interviews and in their annual reports, hence supporting the theory of creating shared value by Porter and Kramer (2011). The CSO at NCH claim that they work with their suppliers to achieve their goals regarding food offerings (Dehli, 2017). According to their controller they also strive to reduce water usage as much as possible (Björklund, 2017) and every night a customer spends at one of their hotels results in them preserving 100 m² of rainforest (NCH, 2016), all of which creates value for the company and the society simultaneously.
The study shows that Sandvik and Skandia have not managed to link their sustainability goals and business goals as efficiently as NCH. Sandvik has included sustainability into their products and offerings (Sandvik, 2016b; Båge-Friborg, 2017; Ulander, 2017), which in extension means that by them selling more products they are also making the world a better place, since they provide state of the art products that are as sustainable as possible (Båge-Friborg, 2017). Skandia on the other hand has created a system to prevent workplace illnesses and provides education to calculate the benefits of working preventively with potential illnesses or injuries that can occur in the workplace (Skandia, 2016a), which creates value for Skandia, their customers and society. There are however somewhat differing views regarding this linkage of goals in Skandia. The controller claimed that sustainability goals were not part of the business plan at this time, but that they would be in the future (Boman, 2017). This was also supported by their annual reports (Skandia, 2016a; Skandia 2016b), suggesting that the sustainability work was done impromptu. The CSO however argued that the goals were linked (Hök, 2017). She claimed that by examining what they had coming in the pipeline and discussing possible development improvements regarding sustainability they ensured that the sustainability goals and financial goals were the same (Hök, 2017). This incongruity between the sources regarding the linkages of goals and their clarity further validates the analysis that goals need to be clear and linked to business goals in order to truly permeate an organisation and its operations. Linking the different goals of the company can be quite problematic, which could be a result of the different time frames the goals tend to require. A financial goal that is considered long-term is often a year, which for sustainability could be considered a short time frame. This clash in time horizons could be the reason why the two goals are so challenging to link.

The true strength of the planning control system is often argued to be the process to set up the actual goals and not the goals in themselves, since this process aids coordination within the company and helps ensure goal congruence (Malmi and Brown, 2008). This is clearly portrayed amongst the three companies, since they all perform some kind of materiality analysis, albeit naming it somewhat differently (Sandvik, 2016a; Sandvik 2016b; Skandia, 2016b; Björklund, 2017; Dehli, 2017; Hök, 2017; Sandvik, 2017a; Ulander, 2017). They perform this materiality analysis in order to find and have a dialog with potential stakeholders and investigate key areas regarding their sustainability work, as well as analysing possible negative effects from their operations and discussing ways to reduce or deal with the issues. This analysis is important since it helps the company decide which sustainability issues they are uniquely qualified to deal with and how they can create shared
value (Hök, 2017; Ulander, 2017). The controller at NCH argued that this analysis also helps build coworker engagement since the coworkers are allowed to give their views on the matter (Björklund, 2017). The analysis and the consequent setting of goals help ensure goals congruence regarding sustainability goals within the firm and the CSO’s mainly act as consultants and work with getting employees to accept and help decide the goals (Båge-Friborg, 2017; Dehli, 2017; Hök, 2017).

4. 4. Cybernetic Controls

If a company truly strives to work with sustainability, then it should be visible in their used performance measurements, as these measurements provide the actions that need to be performed in accordance with the overall strategy (Kaplan and Norton, 1996). Being able to put the sustainability goals into measurements has previously been found to be important in order to better communicate sustainability goals and exemplifying it in an easily understood manner as well as make employees accountable for the sustainable development (Roth, 2008). The importance of being able to measure sustainability was voiced by the CSO’s at both Skandia and NCH as it creates accountability and enables the following up of the development and progress of sustainability initiatives (Dehli, 2017; Hök, 2017).

Being able to measure sustainability is anything but simple and as the CSO at NCH put it “the system is the problem, not the people. The main issue is how to measure it and make a business case” (Dehli, 2017). This difficulty was also evident from the numbers or lack thereof in the sustainability report of Skandia (Skandia, 2016b). The sentiment of the existing systems and performance indicators being incapable of measuring sustainability is also voiced by Byrch et al. (2007) and Eccles, Perkins and Serafeim (2012). The insufficiency of existing systems when it comes to measuring sustainability is likely a result of the fact that they were created to measure tangible matters, such as costs, whereas sustainability requires the systems to measure value, which is both subjective and intangible. Another factor that could affect the existing systems ability to measure sustainability is the time aspect. More precisely the fact that measuring sustainability requires systems that are able to measure to value potential of an investment over a longer period of time than what is often expected and need of financial investments. Despite this difficulty, performance measurements regarding sustainability exists, to various degrees, among all companies, as far down as each business unit or equivalent (NCH, 2016; Sandvik, 2016b; Skandia, 2016b; Hök,
2017), which shows that sustainability is also a part of their strategy according to previous research (Bourne et al. 2000). Sandvik portrays a plethora of sustainability measurements in their annual sustainability report (Sandvik, 2017b. One of their key measurements derive from Sandvik having embraced the concept of circular economy and thus measure what percentage of the raw materials in their production process originate from recycled materials (Sandvik, 2016b; Båge-Friborg, 2017). The controller at Sandvik does however point out the challenges they faced when creating and applying the measurements to their daily activities (Ulander, 2017). The inherent complexity of sustainability makes it difficult to translate into measurable indicators (Gray, 2010), which was also highlighted by the CSO at NCH who mentioned how incredibly difficult it is to create these performance measurements for sustainability and how much they struggled with both collecting the numbers and developing measurements that made sense and functioned practically (Dehli, 2017). This was further emphasized by their controller, who had a coworker whose sole purpose was to create new measurements and ways to follow up sustainability initiatives (Björklund, 2017).

The concept of materiality comes to mind as an alternative way to calculate sustainability. Materiality is theoretically seen as a way to attempt to calculate and measure sustainability (IIRC, 2013), as it was created to evaluate intangible matters over a long time horizon and was as such expected to be used to aid the used management control systems. However, the practical findings from the case companies indicate that it is rather used to identify key sustainability areas for the company (Björklund, 2017; Dehli, 2017; Hök, 2017; Sandvik, 2017a; Ulander, 2017). This could be a result of materiality being a rather subjective calculating tool that is time consuming to perform (Gray, 2010) and hence fails to provide objective, bias free measurements in a timely manner which is needed for performance measurements to be able to provide the necessary feedback to managers.

The performance measurements used by each company are analysed, reported on and if needed updated at least once a year (Sandvik, 2016b; Dehli, 2017; Hök, 2017). The CSO at NCH adds that some of their measurements are updated more often depending on what the performance indicator measures (Dehli, 2017). For example, every hotel gives monthly reports on their amount of residual waste (NCH, 2016). This example of reporting on, and when needing updating measures more often than yearly, is also present in Sandvik and Skandia (Sandvik, 2016b; Hök, 2017), which ensures that the used measures are up to date and still relevant for the company and its overall strategy (Bourne et al. 2000).

Budget is traditionally seen as an important part of the cybernetic controls of the management control systems framework since it helps summarise and make sense of the
company’s activities (Otley, 1999). However, when it comes to sustainability is seems to have lost its relevance since none of the three companies budget for sustainable development (Boman, 2017; Björklund, 2017; Båge-Friborg, 2017; Dehli, 2017; Ulander, 2017). Respondents at all companies claim that this is the case because sustainability should be integrated into their other activities (Båge-Friborg, 2017; Dehli, 2017; Hök, 2017; Ulander, 2017). The sustainability goals are so different from other business goals that it does not end up well to budget for them separately (Björklund, 2017; Båge-Friborg, 2017). The fact that none of the case companies utilize the budget when working with sustainability means that they miss out on the benefits that arise from the cross-departmental coordination and communication that takes place when setting a budget. The communication used when setting the budget has been found to be more important for companies than the actual budget itself as it helps managers realise possible limitations or bottlenecks within the organisation and gives them a more holistic view of the company (De Waal et al. 2010). There is thus a purpose for companies to incorporate a budget or a similar process when working with sustainability as this could benefit the cross-departmental communication as well as help align the sustainability work and behave the general permeation of sustainability awareness in the organisation.

4. 5. Reward and Compensation Controls

The reward and compensation controls are used to guide employee attention and influence their decision making in order to increase the likelihood of them making choices that are in line with and benefit the organisation's goals (Malmi and Brown, 2008). These controls have been found to be particularly important for sustainability as they create accountability for the work (Ramus, 2002) and ensure that the decision making process of employees is influenced by both sustainability goals and financial goals to ensure a good balance of the triple bottom line (Merriman and Sen, 2012). Both NCH and Sandvik have rewards or compensation packages for their employees in leading positions (Sandvik, 2016a; Björklund, 2017; Sandvik, 2017a). These rewards are mainly connected to business and financial goals, with the exception of some managers such as the CSO or HR-managers, whose rewards are based on sustainability goals as well as financial or business goals (Björklund, 2017; Dehli, 2017; Ulander, 2017).

The CSO and controller at NCH claimed that the disconnection between rewards and sustainability has been a direct result of the issues NCH faced when attempting to calculate
and measure sustainability indicators, hence making it difficult for managers to know how to affect them and potentially be rewarded for their work (Björklund, 2017; Dehli, 2017). The CSO claimed that they could finally measure a large amount of their sustainability work, which has led to discussions taking place regarding how to implement the use of rewards connected to sustainability goals for all managers (Dehli, 2017). This makes sense considering that rewards need to be clearly connected to measurements to ascertain that employees can easily understand how they can affect and achieve the goals connected to the rewards (Dutta and Lawson, 2009; Goetz, 2010; Van Dijk et al. 2011; Aguinis et al. 2013). The CSO at Sandvik believes that the connection between rewards and compensation packages and sustainability is a trend that is coming and that the company’s stakeholders might soon expect them to have rewards connected to their sustainability goals, which will force Sandvik to adapt accordingly and introduce rewards connected to sustainability goals as well (Båge-Friborg, 2017).

The findings show that Skandia has taken a completely different approach and has removed all kinds of rewards and compensations for their employees (Skandia, 2016b; Boman, 2017; Hök, 2017). This means that there are no rewards or similar connected to their sustainability goals or business goals. This removal has been seen as positive and the controller at Skandia argues that it has changed the culture in Skandia to a more long-term oriented culture (Boman, 2017). The fact that Skandia has removed all rewards could be argued to be a way of ensuring that employees consider the three aspects of sustainability equally. However, since sustainability is not enforced and businesses are accustomed to deal with financial matters and business goals it is likely that the removal of rewards and consequent absence of rewards connected to sustainability only serves to enforce the oblivious nature of companies when it comes to sustainability and forces the company culture to be more inclined towards sustainability for it to affect the decision making process of employees. This absence of rewards connected to sustainability goals implies a risk, at all companies, that the decision making of managers is only, or primarily, influenced by financial aspects, thus causing the sustainable development to suffer (Merriman and Sen, 2012) as employees are more likely to make decisions that they are rewarded for.
4. 6. Administrative Controls

Defining what sustainability means for a company is according to Bebbington and Gray (2001) crucial to establish goal congruence throughout the company and ensure that employees understand what sustainability entails, thus making it easier for employees to perform tasks and follow rules concerning sustainability. Two of the companies, Skandia and NCH, have clearly defined what sustainability means for them as a company in their annual reports (NCH, 2016; Skandia, 2016b). Sandvik on the other hand has chosen not to define sustainability. Their CSO stated that they deemed sustainability to be to diffuse and that defining it did not behove the company, they felt it became “corporate bullshit” rather than anything beneficial (Båge-Friborg, 2017). This absence of a definition of sustainability could cause different interpretations regarding sustainability amongst the employees, which could result in incongruent behaviour or decisions being made by employees (Durden, 2008).

All three companies, do however, have a plethora of policies, rules and regulations that they expect all their employees to abide by and follow (NCH, 2016; Sandvik 2016b; Skandia, 2016a; Skandia 2016b; Dehli, 2017; Hök, 2017; Sandvik 2017), thus creating boundaries within which all tasks of employees should be performed (Malmi and Brown, 2008). They all also have codes of conduct that all of their suppliers or equivalent sign and are expected to uphold (NCH, 2016; Dehli, 2017; Hök, 2017; Sandvik, 2017a). The policies, rules and regulations present in all companies have a base in the laws governing their industry as well as in UN and EU laws, regulations and guidelines (NCH, 2016; Sandvik, 2016b; Skandia, 2016a; Hök, 2017). Howbeit, some policies and rules are also unique for them as companies, such as the red list present in NCH that maps out products their hotels are to avoid due to their heavy impact on society or the environment (NCH, 2016; Dehli, 2017) or the internal rules Skandia applies on all their investments to ensure that they live up to certain minimum requirements regarding sustainability (Skandia, 2016b), thus further showing the uniqueness of sustainability issues each company faces as discussed Atkisson (2011:110ff).

The challenge of having such an abundance of different rules and policies that govern the daily activities of all employees means that the rules need to be updated regularly to ensure that the existing policies and rules are relevant for the company and are manageable for the employees (Haglund et al. 2005:104). All companies claim that they, in general, update these rules when needed, but that they evaluate them regularly, at the very least once a year (Sandvik, 2016b; Hök, 2017; NCH, 2017).
Another factor that is crucial to guarantee the compliance of the policies and rules is their enforcement (Haglund et al. 2005:16). This enforcement was found in all case companies as they all have systems and practices in place to enforce their policies (NCH, 2016; Sandvik, 2016a; Sandvik, 2016b; Hök, 2017). Sandvik and NCH use implementation programs to instruct their employees in their policies, primarily in their codes of conduct (Sandvik, 2016b; Dehli, 2017). The CSO at NCH claimed that they further enforce their policies by giving all their new recruits a book about their policies (Dehli, 2017). They also perform internal controls at the very least yearly (Björklund, 2017) and regularly checks to ensure that all their suppliers follow their codes of conduct as well (NCH, 2016). Skandia is the only company that has a whole department that works with sustainability issues and one of their tasks is specifically the monitoring of rules and regulations (Skandia, 2016b; Boman, 2017; Hök, 2017). They also have an internal audit department, a compliance department and a risk department who perform focused examinations to ensure compliance with the various company policies (Boman, 2017).

Sandvik and NCH do not have sustainability departments, but both CSOs emphasize their whistleblowing systems, whose purpose is to allow employees and external stakeholders to anonymously report on cases of non-compliance regarding the company policies (NCH, 2016; Sandvik, 2016a; Sandvik, 2016b; Dehli, 2017; Sandvik, 2017a). Sandvik, who has a long history of monitoring and following up important measurements, has according to their annual reports set up their whistleblowing system in 18 different languages so that all employees have the opportunity to use it, and has a team of internal investigators that follow up all reports within 48 hours (Sandvik, 2016b; Sandvik, 2107). Sandvik has also set up sustainability coordination teams in geographic locations deemed as high-risk areas for Sandvik, where ensuring the compliance of their policies were considered of extra importance (Sandvik, 2016b; Båge-Friborg, 2017). Similarly to Skandia, Sandvik also has various units, such as an internal audit function and a business integrity unit, which reviews and examines their operations, to further enforce the compliance to their policies (Sandvik, 2016b; Ulander, 2017).

All relevant employees should be involved in the creation of policies, which in the case of sustainability in particular means the CSO, and the governance structure is crucial to allow this involvement (Lauring and Thomsen, 2009). Considering this, it is rather peculiar none of the CSO’s are included in their respective boards (Sandvik, 2016b; Skandia, 2016a; Skandia, 2016b; Båge-Friborg, 2017; Dehli, 2017; Hök, 2017). Instead they all report to someone, who sits on the board (Sandvik, 2016b; Skandia, 2016b; Dehli, 2017; Hök, 2017).
According to the findings, there is no one at Sandvik and Skandia who is solely responsible for sustainability in the board as a result of this (Skandia 2016b; Hök, 2017; Ulander, 2017). Skandia has however ensured that the voice of the CSO is heard by allowing the CSO to put forward subjects to be added to the agenda of board meetings and by the creation of a sustainability council in which the CEO sits, that convenes on the request of the CSO (Hök, 2017). At NCH they have a board member, who represents the CSO and is responsible for the sustainable development in the board. This coupled with the fact that their owner and CEO is also on the board and is, according to Björklund (2017) and Dehli (2017) a heavy supporter of sustainability initiatives, sets strong examples regarding the importance of sustainability and consequently influence their employees to consider sustainability equally important (Carroll, 2004). This important role of the board is confirmed by the CSO’s at Skandia and NCH, who indicated that the CSO is often in a tight spot with limited resources and mandates, but deals with strategic questions (Dehli, 2017; Hök, 2017). This is why it is important that the board clearly indicates their preferences as they set the direction of the sustainable development (Dehli, 2017; Hök, 2017). The important role of the board was echoed by Skandia’s controller as she stated that “I believe that it is crucial that it is present in the higher levels and in the highest deciding organs of the organisation” (Boman, 2017).

This plethora of policies present at all companies as well as the enforcement strategies and routines show that the companies put a lot of effort into their administrative controls. This is logical considering that both Skandia and Sandvik state in their sustainability reports that they see it as a basis and starting point for the rest of their sustainability work (Skandia, 2016b; Sandvik, 2016b), thus truly portraying the importance of strong administrative controls when working with sustainability issues. This significance of administrative controls aligns well with the thought that they provide the structure in which the other control systems are carried out (Malmi and Brown, 2008). It follows that the administrative controls should be particularly crucial for sustainability as they can be implemented swiftly and since sustainability is a subject that is heavily influenced by external laws and regulations.

4. 7. Concluding Thoughts

This thesis found that the management control systems that had the most crucial role to play when it comes to implementing and working with sustainability were cultural controls and administrative controls, which aligns well with the management control systems framework
of Malmi and Brown (2008), since they describe these controls as the frame and structure in which the other control systems are carried out. Although the importance of a strong culture aligned with the formal control systems and the overall strategy is echoed by Rosanas and Velilla (2005) and Van der Heijden, Driessen and Cramer (2010), only two companies, NCH and Skandia, showed signs of a culture that was supportive of sustainability. NCH having a strong “tone at the top” regarding sustainability in their CEO and owner with a strong personal focus on this subject has lead them to a strong sustainability culture. Skandia also showed evidence of sustainability in their culture, but less so than NCH, which could be a direct result of the different ownership structures, see table 3. Sandvik on the other hand did not possess a very sustainability oriented culture, but showed a deep rooted high-performance culture. However, all three companies emphasized the importance of working with the company culture and in particular ensuring that you are not working against it. This was clearly portrayed by Sandvik when the controller explained that they had leaned on their high-performance culture when it came to their sustainability work and consequently relied heavily on the use of goals and milestones to reach their sustainability objectives. This exemplifies the most important aspect of the cultural controls, namely the importance of working in congruence with the company culture and aligning the other controls to work with the culture and not against it. Following the literature review, a culture geared towards sustainability was not expected as sustainability is a rather new phenomenon in the business world and it takes time to change a culture. The fact that NCH and Skandia have managed this shows how important sustainable development is for them as companies.

Administrative controls were present to a large extent and enforced in all three case companies, which was expected due to the short time it takes to create, roll-out and implement policies, rules and regulations. Sandvik in particular excelled at these controls, and especially in their enforcement, which could be directly attributed to their high-performance culture and efficient business systems. This was supported by their controller, namely that they had succeeded with their sustainability work due to being able to rely on their high-performance culture and capable business systems. It should however be mentioned that the administrative controls played a crucial role in the management control systems in all three companies. The part that was the most important of the administrative controls was their enforcement, which was portrayed in all case companies. This is logical considering that the administrative controls create the framework and rules that all the companies’ actions are expected to comply with. Despite these controls being considered paramount to the successful implementation of sustainability, the CSO did not sit on the
board in any of the case companies and only NCH had a board member responsible for sustainability in their board. Implying that either the hierarchical structure is not important for sustainability or that the companies do not consider sustainability issues important enough to create a position in the board responsible for these issues.

The main challenge all case companies had faced when implementing sustainability was managing to create and measure performance indicators for sustainable development. This could be a direct result of the fact that the business systems that are used in practice were created to calculate and support employees working with more tangible subjects such as costs whereas sustainability requires the measuring and evaluating of values, which is highly intangible and subjective. Materiality, which was created to evaluate these issues, proved to be lacking and was rather used to simply identify key sustainability areas. Despite these challenges all companies had managed to create some, albeit limited, performance measurements for sustainability. Sandvik and NCH led the way in this regard. The plethora of measurements used at Sandvik is again attributed to their high-performance culture and strong business systems, while the success of NCH in this area was purely the result of a lot of work, according to their CSO (Dehli, 2017). Another part of the cybernetic controls is the budget, a part that all companies had completely ignored. None of the three case companies had created a budget for sustainability, which suggests that the relevance of the budget has been lost when it comes to sustainability. However, it should be noted that the absence of a budget also means the absence of the setting of said budget. This absence means that the companies are missing out on important cross-departmental communication, that the setting of the budget requires, which helps ensure goal congruence and the spreading of ideas.

The fact that all companies had experienced issues with their cybernetic controls is likely the underlying reason for the diffuse goals in Sandvik and Skandia, as well as the absence of rewards connected to sustainability. This is logical, considering that the planning, cybernetic controls and reward and compensation controls are all linked and affect each other’s ability to influence the behaviour of employees (Malmi and Brown, 2008). Despite the difficulties associated with measuring sustainability, planning was found to varying extents in all companies. Especially proficient at this was NCH, who demonstrated an ability and drive to break down the goals as much as possible and ensure that they were easily understood by all employees. NCH was also the only company who had managed to clearly link the sustainability goals with their business goals. Their success in this area, can as per the cybernetic controls, be attributed to an abundance of work and a strong “tone of the top” that prioritises sustainability.
The alignment of sustainability goals and business goals require the use of management control systems, of which the cultural controls coupled with the administrative controls are crucial, as they provide the basis for the other control systems and since there are still challenges that hinder the use of the other control systems to their full potential. These challenges pose hindrances for the companies as employees tend to act as the system encourages them to (Wouters and Wilderom, 2008). Having control systems that are not aligned can hence divide the employees and cause goal incongruity. The importance of this goal congruence was also shown by how crucial all case companies regarded the ability to create business cases concerning their sustainability goals as these business cases helped align their sustainability goals with the business goals and overall strategy.
5. Towards a Sustainable World

The increased focus on sustainability in society has resulted in new sustainability laws and legislation being passed as well as increasingly more companies starting to implement and work with sustainability issues. The aim of this thesis is to examine what role management control systems play when implementing and working with sustainability. Sustainability is a complex subject and the issues each company face when working with sustainability tend to be unique, not just to the industry, but to the company itself. The findings from the study show the importance of identifying this uniqueness and capitalising upon it, thus creating business opportunities or what the case companies refer to as business cases. These business cases help the companies align their sustainability goals with their business goals and overall strategy, which is of great importance when using management control systems to guide and influence the employees’ attention and behaviour as it helps ensure goal congruence between the business goals and sustainability goals.

The important role of the management control systems when implementing and working with sustainability is supported by all case companies. The findings from the study imply that not all parts of the management control systems framework need to be geared towards sustainability to succeed, but you need to ensure that all parts of the management control systems work together and that there is goal congruence amongst the used control systems. It should however be noted that the findings show that it is not necessary to have all the pieces of the management control systems framework in place to succeed in steering the company and implementing sustainability. Sandvik has excelled as a sustainable company despite not having rewards connected to their sustainability measurements or goals as well as lacking a sustainability focus in their culture, but instead leaned on the strengths of their existing high-performance culture. The same applies to Skandia, who uses no rewards or compensation at all to motivate their employees and has struggled with their performance measurements.

The findings from the study show that the cultural and administrative controls have the biggest role to play when it comes to implementing and working with sustainability. The company culture is challenging to work against, implying that the most important part of the cultural controls is their alignment with the other control systems. The administrative controls can be implemented rather quickly and consequently the key lies in their enforcement. It should be noted that there are also challenges that hinder the use of the other control systems to their full extent. The fact that the case companies deem the cultural and administrative
control systems to have the most important role when implementing sustainability aligns well with the theory of Malmi and Brown (2008), namely that the cultural controls provide the frame for the other control systems and that the administrative controls provide the framework in which the other control systems are performed.

Even though the companies in the study are all frontrunners and renowned in their industries for their sustainability work, not one of them have managed to ensure that all control systems are aligned and geared towards sustainability. The fact that the companies in the study do not effectively use planning, cybernetic controls or reward and compensation controls to influence their employees’ behaviour towards sustainability, implies that the management control systems existing today are not sufficient to implement sustainability into the business and its operations. The findings thus imply that these insufficient control systems do not have a role to play in the implementation of sustainability, meaning that new management control systems are needed to effectively support the implementation of sustainability. The existing management control systems were created to deal with tangible measurements such as costs whereas sustainability requires intangible values to be measured and evaluated. This was supported by the findings in this study, suggesting that the management control systems of today are not proficient enough for sustainability. This is further supported by the fact that sustainability in its essence requires a far longer time horizon than most business or financial goals, which explains why planning for sustainability and in particular linking the sustainability goals to business goals is challenging.

5.1. Future Research

The need for more international case studies regarding management control systems has been highlighted by a plethora of researchers (Berry et al. 2009; Gond et al. 2012; Nixon and Burns, 2012; Malmi, 2013; Maas et al. 2016). Consequently, this thesis contributes to international research by providing case studies in the area of management control systems and sustainability, which is important for the furtherment of theoretical knowledge as it helps provide a basis for stronger theory building (Eisenhardt and Graebner, 2007). Due to this study using three case companies, it was impossible to examine the cultural controls as meticulously as such an ambiguous subject requires. This means that it would benefit the academia if future research focused on the use of cultural controls for implementing sustainability. This is especially relevant considering that one of the companies in the study
had a company culture that was not very supportive of sustainable development, yet has managed to be renowned in their industry for their sustainability work.

The use of extrinsic rewards when working with sustainability was not seen as important among the case companies. This implies a future need to study the use of reward and compensation controls in regards to sustainability and in particular the possible clash between the extrinsic and intrinsic motivation of the employees when working towards sustainability goals. There is also a need to develop new performance indicators or measurements that can be used to gauge sustainability and help decide the value of sustainability investments, as all case companies emphasized the difficulty of measuring and evaluating sustainability efforts. This implies a need for more research into the area of materiality analysis or similar methods and in particular connected to practical applications. Research in these above-mentioned areas could provide important findings that benefit companies attempting to work with sustainability and should hence be prioritised by the academia in the near future, since we need to be able to meet “the needs of the present without compromising the ability of the future generations to meet their own needs” (United Nations, 1987:41).
6. Reference List


6. 1. Interviews


7. Appendices

Appendix 1 Interview Guides

Interview Guide CSO

Warm-up questions
- Do you wish to be anonymous (explain purpose of study first)?
- Is it okay that we record this interview to ensure that all information used is correct and nothing of importance is missed?
- Tell us a little about your job. What do you do on a yearly/daily basis? How do you do this?
- Why did you choose to work at this company?

Sustainability
- What is sustainability for the company?
- How does the company work with sustainability (overall strategy - integrated/side project)?
- How does the company balance financial issues with sustainability issues? (TBL) prioritisation?

Cultural Controls
- How does the company culture affect the sustainability work?
- How important is sustainability to the board of directors? Is anyone responsible for sustainability in the board?
- Which part of TBL is prioritised by the board?
- How do you ensure that employees share the company’s values? Especially concerning sustainability issues.

Planning Controls
- How do you plan for sustainable development? Short vs. long-term. Different levels within the company.
- How are the sustainability goals linked to the business goals?

Cybernetic Controls
- How do you budget for sustainability?
- What kind of short-term (and long-term) performance measurements (financial and non-financial) do you use in regards to sustainability?
- How far down in the company do you use performance measurements pertaining to sustainability?
- How often do you update your measurements?
Reward and Compensation Controls
- How do you motivate employees to work with sustainability?
- Are there any rewards connected to your sustainability goals? (How far down?)
- What are these rewards based on (short-term vs. long-term)?

Administrative Controls
- What policies or rules do you have that enforce your sustainability work?
- Who do you interact with the most in order to achieve the (sustainability) goals?
- How do you ensure that the policies and rules are followed?

Conclusion
- What do you think about the possible trade-offs between financial gain and sustainable development?
- What is the most important for a company when working with sustainability issues?
- Do you want to add something in regards to anything we have discussed today? Is there anything important that we have missed to ask about?
- Is it okay if you contact you again if we have any follow-up questions? Via mail?
- Do you want to read any excerpts used from this interview prior to the printing of the thesis?

Interview Guide Controller
Warm-up questions
- Do you wish to be anonymous (explain purpose of study first)?
- Is it okay that we record this interview to ensure that all information used is correct and nothing of importance is missed?
- Why did you choose to work at this company?

Sustainability
- How does the company balance financial issues with sustainability issues?
- How does the company work with sustainability (overall strategy? - integrated/side project)?

Cultural controls
- How does the company culture affect the sustainability work?
- How important is sustainability to the board of directors? Is anyone responsible for sustainability in the board?
- Which part of TBL is prioritised by the board?

Planning Controls
- How do you plan for sustainable development? Short vs. long-term. Different levels within the company.
- How are the sustainability goals linked to the business goals?
Cybernetic controls
- How do you budget for sustainability?
- What kind of short-term (and long-term) performance measurements (financial and non-financial) do you use in regards to sustainability?
- How far down in the company do you use performance measurements pertaining to sustainability?
- How often do you update your measurements?

Reward and Compensation Controls
- Are there any rewards connected to your sustainability goals? (How far down?)
- What are these rewards based on (short-term vs long-term)?

Administrative Controls
- What policies or rules do you have that enforce your sustainability work? How do you ensure that these are followed?
- How do you work with the CSO and the sustainability issues?

Conclusion
- What do you think about the possible trade-offs between financial gain and sustainable development?
- Do you want to add something in regards to anything we have discussed today? Is there anything important that we have missed to ask about?
- Is it okay if you contact you again if we have any follow-up questions? Via mail?
- Do you want to read any excerpts used from this interview prior to the printing of the thesis?
Appendix 2 Mind map
Possible transitions between subject areas during interviews.