

**EFFECTIVE MANAGERIAL PRACTICES FOR
CREATION OF EMPLOYEE COMMITMENT
TOWARDS ENVIRONMENTAL MANAGEMENT**

**Jyväskylä University
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Master's Thesis

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**Author: Emily Lainpelto
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Supervisor: Tiina Onkila**



JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

ABSTRACT

Author Emily Lainpelto	
Title Effective managerial practices for creation of employee commitment towards environmental management	
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<p>Abstract</p> <p>For humankind to have a fighting chance in overcoming its biggest obstacles and keeping climate warming to 1,5 °C above pre-industrial levels organizations all around the world need to do their part by evolving to be environmentally sustainable in their own operations. One widely used way to implement environmental sustainability in an organization is to implement an environmental management system. And in order for a company to successfully implement an environmental management system, it needs to have its employees committed to environmental management.</p> <p>This thesis studies managerial practices for creation of employee commitment when an environmental management system is first being implemented, and therefore the theoretical framework of this study consists of change management and employee commitment literature. Both of these fields have been widely researched, but since organizational context is ever evolving, studying practices of change management and employee commitment is relevant even today. The aim of this study is to provide insight considering managerial practices for the creation of employee commitment towards environmental management from perspectives of both employees and managers.</p> <p>This study was conducted using a qualitative research method, and the data was collected through ten semi-structured interviews of employees and managers in the case company when an environmental management system was being implemented. The data has been analysed using thematic analysis.</p> <p>In the thematic analysis themes have been developed in three categories: (1) effective managerial practices for employee commitment, (2) barriers for commitment to change, and (3) other identified factors of employee commitment. The developed themes for the main research findings, effective managerial practices for employee commitment, are perceived managerial commitment, possibility to influence, strong communication, clear instructions, sensible reasoning, and practical possibilities. From the findings of this study, suggestions for managerial practices are concluded and possibilities for future research presented.</p>	
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TIIVISTELMÄ

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<p>Tiivistelmä</p> <p>Jotta ihmiskunnalla olisi mahdollisuus selvitä sen suurimmasta haasteista ja pitää ilmaston lämpeneminen 1,5 °C esiteollisen tason yläpuolella, on yritysten joka puolella maailmaa tehtävä osansa kehittämällä omaa toimintaansa ympäristön kannalta kestäväksi. Yksi laajasti käytetty tapa kehittää toimintaa ympäristön kannalta kestävämmäksi on jalkauttaa käyttöön ympäristöjärjestelmä. Jotta ympäristöjärjestelmän jalkautus olisi onnistunutta, tarvitsee henkilöstön sitoutua siihen.</p> <p>Tämä Pro Gradu -tutkielma tutkii johtamiskäytäntöjä henkilöstön sitouttamiseksi ympäristöjärjestelmään, kun sitä jalkautetaan käyttöön yrityksessä. Tämän vuoksi tutkielman teoreettinen viitekehys koostuu muutosjohtamisen ja henkilöstön sitoutumisen kirjallisuudesta. Molemmat näistä aloista ovat laajasti tutkittuja, mutta koska organisaatiokonteksti on aina kehittyvä, on muutosjohtamisen ja henkilöstön sitouttamisen käytäntöjen tutkiminen merkityksellistä yhä tänäpäivänä. Tämä tutkimus tähtää tuottamaan tietoa tehokkaista johtamiskäytännöistä henkilöstön sitouttamiseksi yrityksen ympäristöjärjestelmään työntekijöiden ja johtajien näkökulmasta.</p> <p>Tutkimus on suoritettu laadullisena tutkimuksena ja aineisto on kerätty kymmenellä työntekijöiden ja johtajien osittain jäsennellyllä haastattelulla tutkitussa yrityksessä. Aineisto on analysoitu teema-analyysin avulla, ja tuloksia on verrattu aikaisempiin tutkimustuloksiin.</p> <p>Teema- analyysissa on kehitetty teemoja kolmessa kategoriassa: (1) tehokkaat johtamiskäytännöt henkilöstön sitouttamiseksi, (2) esteet sitoutumiselle muutokseen, ja (3) muut tunnistetut henkilöstön sitoutumiseen vaikuttavat tekijät. Kehitetyt teemat päätuloksille, tehokkaille johtamiskäytännöille henkilöstön sitouttamiseksi, ovat johdon havaittu sitoutuminen, mahdollisuus vaikuttaa, vahva vuorovaikutus, selkeät toimintaohjeet, järkevät perustelut ja käytännön mahdollisuudet. Tutkimuksen tulosten pohjalta ehdotuksia johtamiskäytännöille on tehty ja mahdollisuuksia tulevaisuuden tutkimukselle esitetty.</p>	
Asiasanat Henkilöstön sitoutuminen, muutosjohtaminen, ympäristöjohtaminen, ympäristöjärjestelmä	
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CONTENTS

1	INTRODUCTION	9
1.1	Background of the study	9
1.2	Research questions.....	11
1.3	Key concepts.....	12
1.4	Case company: KPA Unicon	13
1.5	Structure of the study	13
2	THEORETICAL FRAMEWORK	15
2.1	Change management.....	15
2.1.1	Background of change management and organizational change	15
2.1.2	Effective change management	16
2.1.3	Change management process	18
2.1.4	Change leadership	19
2.2	Employee commitment	21
2.2.1	Background of employee commitment	21
2.2.2	Description of employee commitment	23
2.2.3	Multiple commitments in the workplace	25
2.3	Resistance	26
2.3.1	Resistance to organizational change	26
2.4	Environmental management.....	28
2.4.1	Environmental management.....	28
2.5	Summary of key literature.....	30
2.5.1	Synthesis of main themes	30
3	RESEARCH METHODOLOGY	32
3.1	Research design.....	32
3.2	Data collection	34
3.2.1	Data collection method	34
3.2.2	Selecting interviewees.....	35
3.2.3	Data collection process.....	35
3.2.4	Interview outline.....	36
3.3	Data analysis.....	38
4	RESULTS	41
4.1	Effective managerial practices for employee commitment	41
4.1.1	Perceived managerial commitment	41
4.1.2	Possibility to influence	43
4.1.3	Strong communication.....	45
4.1.4	Clear instructions.....	47
4.1.5	Sensible reasoning	48
4.1.6	Practical possibilities	50
4.2	Barriers for commitment to change.....	51

4.2.1	Lack of interest and understanding.....	51
4.2.2	Resistance as reaction.....	52
4.2.3	Conflicts of interest in important issues.....	54
4.2.4	Workload	55
4.3	Other important factors in employee commitment	56
4.3.1	Personal values	56
4.3.2	Company values	58
4.3.3	Learned behavior.....	59
4.3.4	Perceived value of change.....	60
5	DISCUSSION	61
5.1	Summary and analysis of research findings.....	61
5.1.1	Main research findings	61
5.1.2	Further research findings	64
5.1.3	Similarities and differences between employee and managerial interviews	65
5.2	Implications for managerial practices.....	66
5.3	Reliability and validity.....	68
5.4	Limitations	70
5.5	Future research possibilities.....	71
6	CONCLUSIONS.....	73
	REFERENCES.....	74
	APPENDIX 1 RESEARCH INTERVIEWS	78
	APPENDIX 2 TUTKIMUSHAASTATELUT	80

LIST OF TABLES AND FIGURES

Table 1: Synthesis of theoretical framework.....	31
Figure 1: Structure of the study	14
Figure 2: Interview questions grouped by content.....	38
Figure 3: Effective managerial practices for employee commitment.....	40
Figure 4: Barriers for commitment to change.....	40
Figure 5: Other identified factors of employee commitment	40
Figure 6: Perceived managerial commitment.....	43
Figure 7: Possibility to influence	44
Figure 8: Strong communication	47
Figure 9: Clear instructions	48
Figure 10: Sensible reasoning.....	49
Figure 11: Practical possibilities.....	50
Figure 12: Lack of interest and understanding.....	52
Figure 13: Resistance as reaction	54
Figure 14: Conflict of interest between important issues.....	55
Figure 15: Workload.....	56
Figure 16: Personal values.....	57
Figure 17: Company values.....	59
Figure 18: Learned behavior	60
Figure 19: Perceived value of change	60

1 INTRODUCTION

In this chapter the research topic and research questions are introduced. In addition, background of the study and motivation to the study are presented. This study has been conducted as a case study in the case company, KPA Unicon, that is presented in this chapter to provide a better understanding of the research setting and the context to which the research findings will provide most value. Lastly, the structure of the study is shortly described.

1.1 Background of the study

The biggest obstacles that the humankind is facing include climate change, the deterioration of biodiversity, and overconsumption of natural resources (Valtioneuvosto, n.d.). The Intergovernmental Panel on Climate Change (IPCC) (2018) has stated that limiting climate warming to 1,5 °C above pre-industrial levels is crucial if the humankind wants to limit loss of fragile ecosystems, and avoid multiple crises to vulnerable people and societies around the world. Achieving this will require a significant decline in global greenhouse gas emissions and transitions in all aspects of society (IPCC, 2018). Therefore, organizations all around the world need to do their part in the preservation of our environment and mitigation of climate change. Already, organizations have started to pay more and more attention to their sustainability and the environmental impacts their operations cause. This is evident from the growing number of organizations practicing corporate sustainability or environmental reporting in one form or another.

Elkington (1997) illustrated corporate sustainability through the idea of a triple bottom line. According to this principle, corporate sustainability consists of economic prosperity, environmental sustainability, and considerations for social justice (Elkington, 1997). One popular way for organizations to include environmental sustainability as part of their operations is implementing an environmental management system. Widely used environmental management systems include The EU Eco-Management and Audit Scheme (EMAS) and the ISO14001 standardizations from the International Organizations for Standardization (ISO). EMAS are a management system developed by the European Union to help organizations reduce their environmental impacts, strengthen their legal compliance and employee involvement, as well as save resources (European Commission, n.d.). The ISO14001 family of standardization has been developed for organizations that need practical tools for environmental management (ISO, n.d.b). According to ISO (n.d.b) there are more than 300 000 ISO14001 certifications in 171 different countries. ISO14001:2015 standard specifies requirements for environmental performance (ISO, n.d.a). This environmental management tool helps

organizations to better manage their environmental responsibilities and enhance their environmental performance (ISO, n.d.a). In the establishment of an environmental management system the focus is on understanding where the major environmental impacts stem from in the case of an individual company and how can the company better its performance considering these impacts. There are no set performance criteria, excluding applicable legal regulations, that the company would need to reach considering environmental performance to qualify to get a certification (ISO, n.d.a). Focus is on continuous, systematic improvement of environmental performance (ISO n.d.a). This research has been conducted in a setting where an environmental management system based on the ISO14001:2015 standard was being implemented in the case company.

Implementing an environmental management system is a traditional change circumstance in an organization. Change management is a highly required managerial skill in organizations (By, 2005) and a highly research field in academic literature. In the field of change management attention has been paid to practical factors that influence effective implementation of change management (see Andersson & Andersson 2002; Andersson & Andersson, 2010; Beer et al., 1993; Gill, 2002; Fedor et al, 2006; Proce & Chahal, 2006; Sirkin et al., 2005), and to managerial factors that lead to failed implementation of organizational change (Gill, 2002). In companies where change programs have been implemented successfully the commitment of employees as well as managers to the change has been identified as a crucial factor (Sirkin et al., 2005).

Considering employee commitment literature, the managerial practices that result in creation of commitment have been widely studied (see Fornes et al., 2008; Lok & Crawford, 1999; Meyer & Allen, 1991; Nijhof et al., 1998; Parish et al., 2008; Steers, 1977). With a high level of employee commitment an organization can adapt to any change it faces better (Nijhof et al., 1998). Just as change management, employee commitment is a widely researched field. Employee commitment has been researched starting already from the 1950s (Cohen, 2003). High levels of employee commitment have been found to yield benefits for both the company (Fornes et al., 2008; Nijhof et al., 1998) and the individual employee (Fornes et al., 2008). An employee's commitment towards an organization is discussed as employee commitment only in part of the literature reviewed for the purpose of this study. It is important to note that, some literature reviewed for the purpose of this study discusses a very similar concept, perhaps more simplified, as organizational commitment. Since organizational commitment has been defined as psychological and emotional attachment of employees to their organizations (Mathieu & Zajac, 1990; Meyer & Allen, 1991; Morrow, 1993, as cited in Fornes et al., 2008), literature considering organizational commitment is also included when reviewing employee commitment literature.

Organizations need to evolve to be environmentally sustainable for the humankind to have a fighting chance in overcoming its biggest obstacles - climate change, the deterioration of biodiversity, and over consumption on natural re-

sources. As a result, scientific research on implementing environmental management and corporate sustainability in organizations is a growing field of study. Still, considering the growing importance of environmental sustainability in a changing world corporate environmental management deserves more attention and practices on how to further environmental sustainability in an organizational context needs to be studied. And even though change management and employee commitment are both widely research fields, organizational context, and culture for example in terms of employees working tasks, and expectations of respected managers and effective management styles are ever evolving and therefore, studying practices of change management and employee commitment is relevant even today.

1.2 Research questions

Change management and employee commitment are both widely studied fields. Research on employee commitment towards corporate environmental performance and environmental management has also received attention prior to this study. The value of this study is mainly concentrated on producing information from the case company's context and creating a deeper understanding of managerial and employee views on effective managerial practices for creating employee commitment towards a new environmental management system. As mentioned earlier, organizational context and culture are ever evolving and therefore, studying practices of change management and employee commitment is relevant even today. The research questions of this study are presented below.

Main research questions:

1. What type of management practices are effective for implementation of an environmental management system to create employee commitment in an organisation from an employee view?
2. What type of management practices are effective for implementation of an environmental management system to create employee commitment in an organisation from a managerial view?

Further research question:

3. Do the views of employees and managers differ anyhow and if so, what are suggestions for better practices in the future?

In addition to researching factors of effective change management for creation of employee commitment, collection of data considering barriers for effective change management has been performed as part of this study to briefly analyse possible barriers for creation of employee commitment when implementing an environmental management system.

1.3 Key concepts

The key concepts of this study are change management, employee commitment, environmental management, and environmental management systems. Consensus on a one definition for three of the first mentioned terms has not been agreed upon in literature. Therefore, the key concepts are shortly described below.

Change management is about evaluating, planning, and implementing operational, tactical, and strategic journeys inside an organization, and it can be characterized by its complexity (Paton & McCalman, 2008). It is the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers (Moran and Brightman, 2000).

Employee commitment can be characterized as individuals personal psychological and emotional attachment to their professions, careers, teams, and peers, and as the force that connects an individual to certain actions relating to set targets (Cohen, 2003).

Environmental management can be characterized as a goal or a vision, as an attempt to guide processes or as an application of set tools to seek to establish new perspectives towards the environment and human societies (Barrow, 2005).

Environmental management system can be defined as the means of ensuring effective implementation of an environmental management plan or procedures and compliance with environmental policy objectives and targets, and this includes a preparation of documented system procedures and instructions to ensure effective communication and continuity of implementation (EEA Glossary, 1999). Particularly in this study environmental management systems are discussed based on the ISO14001:2015 standard, which characterises an environmental management system as a practical tool that helps organizations to better manage their environmental responsibilities and enhance their environmental performance (ISO, n.d.a).

In this thesis sustainability is discussed in many instances. Therefore, providing a definition for sustainability will be beneficial. Elkington's (1997) triple bottom line illustrates that corporate sustainability consists of economic prosperity, environmental sustainability, and considerations for social justice. In the case of this study the environmental aspect of corporate sustainability is highlighted. Furthermore, sustainable development has been defined by The World Commission as development which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987).

1.4 Case company: KPA Unicon

KPA Unicon is a Finnish family owned company that produces clean energy solutions (Business Finland, 2020). The company was founded in 1990 and it offers clean energy solutions for energy production and renews already existing energy production plants (Business Finland, 2020). In addition to these, the company offers digital products for energy producers and advocates for clean energy (Business Finland, 2020).

Since the company operates in the renewable energy industry, furthering environmental sustainability is in the core of its business operations (KPA Unicon Group Oy, 2020a). Prior to implementing an environmental management system based on ISO14001:2015, environmental values were already strongly present in the company's official statements and business agenda.

To provide an idea of the management culture in the case company, the case company's operation in terms of management will be described here briefly. In the case company a team model has been adopted as the way to operate over the past two years (KPA Unicon, 2020b). The company has several multiprofessional teams that have been assigned a great deal of decision-making power (KPA Unicon, 2020b). In this model great amount of trust, as well as responsibility, is placed on the employees and their professional knowledge, and the success of this type of a model is highly reliant on continuous training of personnel in streamlined internal processes (KPA Unicon, 2020b). In practice employee's performance is not constantly monitored and controlled (KPA Unicon, 2020b).

1.5 Structure of the study

This thesis consists of six (6) chapters. In this introduction chapter background of the study, research questions, key concepts and the case company are presented. In the following chapter the theoretical framework of this study is presented. Literature review is performed on change management and employee commitment literature. In addition, literature on resistance to organizational change and environmental management is briefly reviewed. In the third chapter, research methodology, the research design, data collection method and data analysis methods are presented. In addition to presenting the methodological choices made in this study, justification is provided for the selection of made methodological choices. Research findings are presented in the fourth chapter. Research findings are presented through the developed research themes. Following this, the discussion chapter presents a summary and analysis of the main research findings, implications for managerial practices derived from the research results, assessment of the readability, validity, and limitations of this study, as well as interesting topics for future research. In this chapter the set research questions are answered. In the

final chapter the conclusions on the study are presented. The structure of this study is presented in Figure 1.

Structure of the study	
Chapter	Main contents
INTRODUCTION	Background of the study, research questions, key concepts and an introduction to the case company
THEORITICAL FRAMWORK	Literature review on change management and employee commitment literature
RESEARCH METHODOLOGY	Research design, data collection and data analysis
RESULTS AND ANALYSIS	Research findings
DISCUSSION	Summary of research findings, implications for managerial practices, assessment of the research and future research possibilities
CONCLUTIONS	Final conclutions

Figure 1: Structure of the study

2 THEORETICAL FRAMEWORK

In the chapter findings of prior literature from the fields of change management and employee commitment are presented. Firstly, prior change management literature is reviewed considering the background of change management and organizational change, effective change management practices, change management process, and effective change leadership. Secondly, employee commitment literature is reviewed considering the background of employee commitment, creation of employee commitment and existence of multiple commitment in the workplace. Literature considering resistance to organizational change is also reviewed and briefly presented. In addition to these, literature on environmental management and corporate sustainability is briefly reviewed through its connections to change management and employee commitment.

2.1 Change management

2.1.1 Background of change management and organizational change

Managing change is about managing people (Moran and Brightman, 2000) and a highly required managerial skill due to fast pace of change in organizational environments (By, 2005). According to Paton and McCalman (2008) change management is a complex process of evaluating, planning, and implementing operational, tactical, and strategic journeys. To make matters even more complex change solely in strategies of business is not enough anymore (Andersson & Andersson, 2002). Since prior to 1980s, it has been a requirement for a company to be able to manage the behavior and mindsets of people to keep up with the current business world (Anderson & Anderson, 2002). Due to this, organizational leadership can be seen as the new and evolved way of change management (Anderson & Anderson, 2002) and both approaches, change management and change leadership, are covered as part of this literature review.

Successful change management is crucial for long-term survival of an organization in today's competitive and rapidly evolving business environment (By, 2005). Andersson and Andersson (2002) conceptualize that there are three types of organisational change which are developmental change, transitional change, and transformative change. Implementing an environmental management system in this specific case can be seen to have features from transitional and transformative organizational change. Creation of new systems, processes, policies and procedures is seen as transitional change and transformative change is seen as something that requires a breakthrough in organisational mindset, meaning a broad, holistic change in corporate core purpose, values, vision and mission (Andersson & Andersson, 2002).

Cameron and Green (2019) conceptualize organizational change to consist of developing and delivering business outcomes, interest through mobilizing influence, authority and power, and emotions through enabling people and culture to adapt. Leaders and managers are viewed to be vital for successful change, which can be achieved through understanding that change is happening in all these three levels (Cameron & Green, 2019). Furthermore, Cameron and Green (2019) describe that four different approaches can be utilized to create awareness in change management which are behavioral, cognitive, psychodynamic, and humanistic psychology approach (Cameron & Green, 2019). In the behavioral approaches it is suggested that employees can be motivated to comply with organizational change with rewards and punishments (Cameron & Green, 2019). In this approach attention is mainly paid to linking performance management to employee behavior and assessing the most motivational combinations of rewards and punishments (Cameron & Green, 2019). With the cognitive approach employees behavior is influenced through paying attention to achievements and outcomes though the setting of targets for example (Cameron & Green, 2019). Clear targets are connected to achieving results in an organizational context, but this approach completely lacks understanding of emotional components (Cameron & Green, 2019). In the psychodynamic approach employees' inner emotions are taken into consideration and attention to these emotions is paid though understanding of employees' reactions (Cameron & Green, 2019). Understanding employees' reactions can help managers to deal with employees' emotions during the change process (Cameron & Green, 2019). The humanistic psychology approach emphasises that effective leaders are not purely rational but have a high level of self-awareness and ability the engage with employees on an emotional level (Cameron & Green, 2019). In this approach the importance of employees' emotions towards the change is fully understood and seen as an aspect that should be managed (Cameron & Green, 2019).

The conceptualizations of organizational change presented above provide an idea that organizational change can occur and be management in several different ways. To summarise, change can occur in organizations in multiple ways and implementation can be achieved through multiple strategies, but the one certainty is that change management is an extremely complex practical issue and field of study.

2.1.2 Effective change management

Change management is seen as crucial for any organizations long-term survival in the competitive and ever evolving business environment (By, 2005). Successful organizational change can be achieved through high managerial (Nijhof, 1998) and employee commitment (Andersson & Andersson, 2002; Nijhof, 1998). Participation of personnel (Lewin et al., 1991 as cited in Waddell & Sohal, 1998; Price and Chahal, 2006), strong dialogue between the management and employees, and understanding employees' emotions have been highlighted as important factors that increase the likelihood of successful change implementation (Price &

Chahal, 2006). On the other hand, main reasons why executing organizational change might fail include poor planning, monitoring, and controlling as well as lack of resources and unsuitable policies and practices inside the organization (Gill, 2002). Next, different conceptualizations on change management are presented.

Anderson and Anderson (2010) conclude that areas that need to receive managerial attention in organizational change are mindset, behavior, culture and systems. These four issues need to be considered from the perspective of both the individual and the collective of the organization, as well from both internal and external perspectives (Anderson & Anderson, 2010). To further explain this model, mindset is seen to consist of aspects such as values, beliefs, thoughts, emotions, and levels of commitment, whereas behavior is seen to include work styles, skills, actions and behavior (Anderson & Anderson, 2010). Culture is seen as norms, collective ways of being, working and relating, climate and the common spirit in the organization, and systems are seen to include structures, systems, business processes and technology. All these aspects need to be considered and managed, since transformative organizational change needs attention to change considering not just systems, but individuals and their mindsets as well as the way that team's function (Anderson & Anderson, 2010).

On the contrary, Sirkin et al. (2005) suggest that there are four hard, but crucial, factors that contribute to successful change management. These factors are defined to be project duration, performance integrity, commitment of senior executives and staff that will be influenced the most and additional effort required by employees (Sirkin et al., 2005). The authors argue that in terms of duration of change, successful change management relies on reviewing the project regularly, rather than focusing on implementing the change fast and suggest that change programs should be reviewed at least bimonthly (Sirkin et al., 2005). Effective reviews are based on setting milestones for substantial achievements and monitoring progress and identifying risks (Sirkin et al., 2005). Companies need to be able to trust their executives, supervisors, and employees to carry out planned change and this takes time (Sirkin et al., 2005). According to Sirkin et al. (2005) in companies where change programs have been successful, executives, supervisors and employees are motivated to go the extra mile to execute change. Getting all relevant parties to go the extra mile in executing change means that they need to be committed to the change and the outcomes of it, and in this the management of resistance, employee involvement and communication play a crucial role. Sirkin et al. (2005) suggest that commitment of both executives and employees is needed for effective change management. Employees need to see the upper management committed, leading by example and communicating to employees when it comes to organizational change (Sirkin et al., 2005). When it comes to putting effort towards executing change, employees often have their workdays already filled and finding time for executing change efforts is overlooked by the management (Sirkin et al., 2005). According to Sirkin et al. (2005) no employee's workload should be increased by more than 10% due to change

execution. Therefore, upper management needs to decide where the time for executing change comes from whilst keeping everyday business activities going.

Continuing on the practical success factors of change management, according to Anderson and Anderson (2002) for an organization to achieve effective transitional change, attention needs to be paid to well-communicated case of change, clear change plan, high employee involvement in planning, local control of implementation and sufficient support as well as integration time. In organizational change managers need to be able to guide the organization from its past to the planned future state, and in this strong core purpose of organization, as well as shared vision and shared values are seen critical (Anderson & Anderson, 2002).

With change it is important to note that change often is exciting for those doing it and threatening for those who are solely experiencing it (Gill, 2002). A common solution to this is participation of personnel in the change process (Gill, 2002). Main reasons why executing organizational change might fail include poor planning, monitoring, and controlling as well as lack of resources and unsuitable policies and practices inside the organization (Gill, 2002). Lack of communication or inconsistency in communication can lead to misunderstanding which again leads to lack of commitment to change (Gill, 2002), naturally since change is not correctly understood. Furthermore, lack of commitment towards change in an organization can be explained through lack of evidence of the benefits of the change, and through lack of managerial commitment which can be detected as unwillingness to accept responsibility, be involved, invest resources, make difficult decisions and admit the impacts their one's own behavior to the change process (Gill, 2002).

Fedor et al. (2006) highlight the importance of management's fairness and favourableness of change in organizational change as well the extent of the change and influences of it to individuals' jobs in their study on the effects of organizational change to commitment to specific change and broader organizational change. Furthermore, considering successful change management requires employees commitment to change (Nijhof, 1998) it has been found that involving personnel in the process of change from learning and planning to implementation itself creates commitment to the change, and lowers the level of resistance (Lewin et al., 1991, as cited in Waddell & Sohal, 1998).

2.1.3 Change management process

Even though a large body of scientific literature and knowledge considering managing organizational change exists, the change process itself has not received as much attention and therefore there is a lack of knowledge in this area exists (Brown et al., 2003). Due to this, a change management two frameworks for change process will be next introduced.

Price and Chahal (2006) have developed a six-step process for successful implementation of strategic change in an organization. In this framework the six

steps are (1) preparing the organization, (2) developing the vision and implementation plan, (3) checking, (4) communication and workforce engagement, (5) implementation, (6) evaluation. When preparing the organization, it is important to listen to the workforce, have constructive dialogue with the workforce to gain knowledge, and to ensure fair action of management and transparency of the change (Price & Chahal, 2006). When developing a vision and implementation plan, workforce feedback should be carefully analysed to gain understanding of the direction of the change, change vision should be defined and a task team with authority created (Price & Chahal, 2006). In the checking stage, plans need to be carefully reviewed before implementation (Price & Chahal, 2006). When communicating and engaging workforce, the impacts of change and those impacted by it need to be identified, communication channels need to establish to ensure everyone receives information, and attention to employees feelings and working closely alongside them throughout the change process needs to be played (Price & Chahal, 2006). In the implementation stage, management need to ensure continuous support, portrayal of a positive outlook, and collection and consideration of feedback (Price & Chahal, 2006). Furthermore, any resistance needs to be recognized, and consistent behavior of all departments and employees ensured so that no department or employee falls back to the old ways of operating (Price & Chahal, 2006). In the last stage, evaluation, the success of the process needs to be evaluated and possible needs for adaptations in the strategy discovered (Price & Chahal, 2006). Furthermore, the most common factors that lead to failure of change process are poor communication and underestimation of required amount of retraining in the organization (Price & Chahal, 2006).

Similarly to Price and Chahal's (2006) process perspective, Beer et al. (1993) have identified six vital steps for effective implementation of change programs in an organization. These steps are (1) mobilizing commitment to change through joint diagnosis of business problems, (2) developing a shared vision of how to organize and manage for competitiveness, (3) fostering consensus, competence and cohesion surrounding the new vision, (4) spreading change to all departments, (5) institutionalizing change through formal policies, systems and structures, and (6) monitoring and adjusting strategies along the change process.

2.1.4 Change leadership

Gill (2002) argues that managing change is not enough, but effective leadership is also needed for successful implementation of change. Organizational leadership can be seen as the new and evolved way of change management (Anderson & Anderson, 2002). According to Graetz (2000) change leadership plays a pivotal role in promoting and sustaining change in an organization long-term. Furthermore, Herold et al. (2008) found out that transformational leadership is more strongly related to employees' commitment to change, and this is seen to have more influence the more personal impacts the change has for an employee. In change leadership, an increased amount of attention is paid to cooperation, collaboration, and communication (Graetz, 2000). For the senior management this

means paying more attention towards openness and employee participation, instead of commanding and controlling the employees (Graetz, 2000).

According to Gill (2002) the most important factors in effective change leadership are vision, values, strategy, empowerment, and motivation, as well as inspiration. Similarly to Anderson and Anderson's (2010) conceptualization of change management, Gill (2002) suggests that effective change leadership needs to take into consideration cognitive, spiritual, emotional, and behavioral aspects. As can be seen from this conceptualization, Gill (2002) highlights humane and emotional components of change and the management of them, and as mentioned earlier change management truly is about managing people (Moran & Brightman, 2000).

Graetz (2000) highlights that key concepts related to change leadership include novelty, quality, flexibility, adaptivity, speed, and experimentation. Graetz (2000) conceptualized change leadership through dividing it into instrumental and charismatic leadership, from which both are needed to pay attention to in change leadership. Instrumental leadership consist of organizational design, control, and reward, which in other words can be seen as creating conditions to ensure the successfulness of planned change (Graetz, 2000). Charismatic leadership consist of empowering and energizing employees, and in practise requires personalised leadership and strong interpersonal skills (Graetz, 2000). Furthermore, considering both of the leadership roles, the study concludes that aspects of change leadership can be defined as creating readiness for change, inspiring a shared vision and communicating it, involving several people to increase commitment, enable people to act, the use symbolic and substantive actions, demonstrating new ways on behaving, and continuous multilevel communication with the help of key stakeholders (Graetz, 2000). Graetz (2000) concludes that in successful implementation of change considering both the strategy, structure, systems, and technology, as well as vision, values, behaviors and attitudes is important for sustained change.

Transformational leadership is seen to create higher levels of employee commitment comparing to change-specific leadership (Herold et al., 2008). In transformational leadership the emphasis is placed on employees intrinsic motivation, and it can be seen as a better fit for today's complex organizations where employees need to be able to feel challenged and empowered in order to be loyal and perform highly (Bass & Riggio, 2006). A transformational leader helps their followers grow and develop their own leadership capacity (Burns, 1978 as cited in Bass & Riggio, 2006).

Considering the above presented literature on change leadership and transformational leadership, change leadership can be seen as a more holistic approach to change management where the humane, emotional components present in the organizational change are largely considered and managed. To summarize the presented literature, change leadership and transformational leadership emphasise inspiring employees and making employees want to truly work towards the change through intrinsic motivation.

By (2005) states that even though successful change management is seen as crucial for any organizations long-term survival in the competitive and ever evolving business environment, theories and approaches to change management are contradictory, and mostly lacking empirical evidence. Since the beginning of 2000s change management literature has evolved and today practical evidence to support change management frameworks can be found. This literature review does support the notion that research findings considering change management are somewhat contradictory. Still, several similar aspects, for example considering identified success factors, can be found between many of the change management conceptualizations and approaches. These aspects influencing success of change management in reviewed literature are summarized in Table 1. This being said, change management is complex field and theorizing this phenomena and the development of practical framework for change management needs to continue in the evolving business environment to guarantee a high success rate of implemented organizational change in the future.

2.2 Employee commitment

In this thesis, commitment is mainly discussed as employee commitment. When discussing employee commitment, organizational commitment is included since it can be defined as psychological and emotional attachment of employees to their organizations (Mathieu & Zajac, 1990; Meyer & Allen, 1991; Morrow, 1993, as cited in Fornes et al., 2008). In addition to these, other forms of commitment such as supervisory commitment, job commitment and team commitment are briefly discussed to gain a better understanding of commitment as a field of study and in practice. Furthermore, the research results of this study can be interpreted to showcase aspects of these different types of commitments as part of creating commitment towards environmental management and therefore discussing them is valuable.

2.2.1 Background of employee commitment

Employee commitment can be characterized as individuals personal psychological and emotional attachment to their professions, careers, teams, and peers (Cohen, 2003). Commitment can be seen a force that connects an individual to certain actions relating to set targets (Cohen, 2003). Next, employee commitment is discussed through its benefits for employees and an organization.

Commitment has been researched since the 1950s and first it captured the attention of interested parties such as academics and practitioners (Cohen, 2003). Furthermore, interest towards employee commitment has risen to answer the issues that have surfaced considering commitment and the effects of it to work-

place behavior including absenteeism and turnover (Mowday et al. 1982). According to Cohen (2003) at least in America the interest towards employee commitment has risen due to Americans no longer being greatly committed and loyal to their workplace. Researching and paying attention to employee commitment is beneficial employee commitment have been found explain absenteeism of employees, turnover, rate of job satisfaction, performance, and motivation (Mathieu & Zajac, 1990, as cited in Fornes et al., 2008).

Benefits of commitment in the workplace for individuals include increased happiness and productivity of employees, as well as spill over to commitment to employees' personal lives (Morrow, 1993). From the perspective of an employee, the lack of employee commitment can lead to loss of an aspect of identity and belonging, as well as decreased well-being (Meyer & Herscovitch, 2001). Similarly, Jamal (1990, as cited in Fornes et al. 2008) have found that high organizational commitment in employees leads to decreased levels of stress and exhaustion. Furthermore, employees' trust and commitment towards an organization have been found to be higher when they perceive that the organization is committed and supports them, and perceived organizational support and commitment have been found to be higher when an organization conducts developmental appraisals (Whitener, 2001).

There are several benefits of high employee commitment for an organization. According to Nijhof et al. (1998) the most important of these are improved communication, quality and client-centredness as well as decreased rate of illness. Similarly, Steers (1977) has found high employee commitment to be related to high attendance in the workplace in some cases. Considering organizational change, high level of commitment leads to employees committing to change and participating to it actively by bringing in their own knowledge to the process more willingly (Nifhof et al., 1998). Furthermore, Nijhof et al. (1998) have found that a high level of commitment leads to improved organisational performance and is therefore profitable for the organization. Similarly, Konosvsky and Cropanzaro (1991, as cited in Fornes et al., 2008) have found that organizational commitment has been showed to have a positive influence on competitiveness, accountability, and the willingness to improve work performance. On the other hand, Pinho et al. (2014) and Steers (1977) have not found employee commitment and organizational performance to have a significant connection. Furthermore, organizational commitment and voluntary turnover have a definite negative relationship (Angle & Perry, 1981).

The willingness of employees to remain in the organization leads to more stable workforce and can be seen as one of the biggest benefits of high organizational commitment (Steers, 1977). Interestingly, Angle and Perry (1981) note that the desire to remain in the workforce does not imply the employee plans on being a hardworking and dependable employee, which is why they conclude that commitment to stay and commitment to work are different commitments and any positive influence from organizational commitment to performance is depended

on the form of the commitment. To contradict, Steers (1977) have has found performance to be generally unrelated to commitment.

2.2.2 Description of employee commitment

Employee commitment is a widely researched and complex concept. In commitment literature consensus has not been reached over the definition of commitment (Morris et al. 1993, as cited in Fornes et al., 2008). Commitment can be defined as organizational and task commitment, and three main characteristics can be found from several different definitions of commitment (Nijhof et al., 1998). These are (1) a belief in and acceptance of values of the organization, (2) a strong willingness to put in effort for the organization and (3) the desire to remain with the organization (Nijhof et al., 1998). Based on these characteristics, commitment is not solely an attitude, but a behavior (Nijhof et al., 1998). In practice, commitment has a critical role in improving organizational performance, and with employee commitment and a competent workforce, an organization can compete in quality and better survive and adapt to changes (Nijhof et al., 1998). Next, several conceptualizations of employee commitment are presented.

Fornes et al. (2008) suggest that workplace commitment consists of organizational commitment, individual commitment, and outcomes of commitment in the workplace. Furthermore, organizational commitment includes organizational and supervisory commitment and is influenced through organizational values and behaviors and can be defined as psychological and emotional attachment of employees to their organizations (Mathieu & Zajac, 1990; Meyer & Allen, 1991; Morrow, 1993, as cited in Fornes et al., 2008). Supervisory commitment can be defined as “the strength of identification with the supervisor and the internalization of the supervisor’s values (Fornes et al., 2008). This definition highlights the importance of supervisor’s attitudes and behavior that are visible for the employees in day-to-day actions. Positive spill out to employees can happen through admiration and internalization of supervisors’ values and behavior (Becker, 1992), and positive outcomes that have been related to commitment include job satisfaction, increased motivation and performance, as well as lower rate of absence and turnover (Mathieu & Zajac, 1990 as cited in Fornes et al., 2008).

According to Fornes et al. (2008) managerial practices that can help commitment in the workplace can be divided into factors of organizational commitment and individual commitment. The factors that influence organizational commitment are clarity of purpose, equity and fairness, empowerment, congruency, feedback and recognition, autonomy, and interesting work (Fornes et al., 2008). On the other hand, the factors that influence individual commitment are congruency, feedback and recognition, autonomy, and interesting work (Fornes et al., 2008). According to Fornes et al. (2008), by focusing on these factors’ effectiveness and productivity in both organizational and individual level can be positively influenced.

Parish et al. (2008) have found that in organizational change the perceived fit with vision, quality of employee-manager relationship, job motivation and role autonomy influence commitment to change. In the study, fit with vision refers to the degree that the intended change matches the organizations overall vision and direction, in employee-manager relationships the important aspects are satisfaction, commitment, and trust created as result of the relationship, job motivation can be characterized as an energizing force resulting in certain behavior in the working environment, and employees autonomous behavior refers to having the extent of freedom an employee has to make decisions and adjust behavior in the job position (Parish et al., 2008). According to the study having a change that fits the organizations overall direction, high-quality employee-manager relationships as well as employees that are motivated to do their jobs and have decision-making power considering their own work result in higher levels of employee commitment (Parish et al., 2008).

Steers (1997) has conceptualized organizational commitment by dividing antecedents of organizational commitment into influencing categories of personal characteristics, job characteristics and work experiences. In the study, Steers (1997) found out that an individual's need for achievement and educational background are the most influential antecedents in the category of personal characteristics, the characteristics of tasks are most influential antecedents in the category of job characteristics, and group attitudes towards the organizations, individual's perceived personal importance of an to the organization and an organization's dependability are most influential antecedents in the category of work experience. The study found work experiences to be most influential to commitment (Steers, 1997). Furthermore, the study notes that commitment levels decrease when an organization does not provide its personnel with meaningful and challenging tasks (Steers, 1997).

Meyer & Allen (1991) have developed a three-component model to conceptualize organizational commitment that highlights different aspects of commitment than several other conceptualization of employee commitment. Interestingly, this conceptualization highlights features such as personal costs and alternatives, as well as the feeling of obligations towards the organization (Meyer & Allen, 1991) that are not often mentioned in employee commitment literature. According to this study organizational commitment can be divided into affective commitment, continuance commitment and normative commitment (Meyer & Allen, 1991). Affective communication can be characterized as the decide to remain as part of the organizations workforce resulting from emotional attachment influenced by personal characteristics, organizational structure, and work experiences (Meyer & Allen, 1991). Continuance commitment is characterised by perceived costs that are created through investments and available alternations that often act as the reason for an employee to remain in an organization (Meyer & Allen, 1991). Normative commitment refers to the feeling of obligation which can result from rewards gained in advance such as payment of education or training (Meyer & Allen, 1991).

Lok and Crawford (1999) conclude that measures of organizational culture, innovativeness and supportiveness of organizational subcultures, leadership style and job satisfaction considering the level of control over working environment, praise from colleagues and leaders, level of interaction with colleagues, flexibility of shift scheduling, the level of acceptance by co-workers, the amount of professional activities provided and the amount of pay being received influence commitment the strongest. Considering these results, satisfaction with the level of control over the working environment was found to positively correlate with commitment the most (Lok & Crawford, 1999). Interestingly, Lok and Crawford (1999) found that organizational subculture in the workplace influences commitment more than overall organizational culture. Furthermore, years of experience and years in a certain position were found not to be related to commitment (Lok & Crawford, 1999).

Considering creation of commitment, according to Nijhof et al. (1998) commitment in the workplace can be increased effectively through informal gatherings, parties, and meeting. In addition to this, practical actions that an organization can take to increase commitment in the workplace could include training of human resources managers, and a formal commitment policy, all though the effects of these actions still need to be further studied and proved through scientific research (Nijhof et al., 1998).

To summarize, employee commitment and organizational commitment are complex and widely research themes. In the reviewed literature, most highlighted success factors for creation of employee commitment are autonomy and possibility to influence one's task or working environment (Fornes et al., 2008, Parish et al., 2008; Meyer & Allen, 1991; Lok & Crawford, 1999). Furthermore, factors that surface from the literature include managers and employees relationship and contact quality (Nijhof et al., 1998; Parish et al., 2008), and communication whether it be in the form of feedback and recognition (Fornes et al., 2008) or training (Nijhof et al., 1998; Meyer & Allen, 1991). From the reviewed literature it can be concluded that, just as in successful change management, in creation of employee commitment empowering employees rather than commanding them leads to success. Employee commitment literature is further summarized in Table 1.

2.2.3 Multiple commitments in the workplace

Starting from the 1980s attention in scientific research has been largely paid to multidimensional commitment (Cohen, 2003). In this subchapter team commitment, job commitment and career commitment are briefly described since as explained in the introduction, the case company operates as a team organization and employees are expected to be self-directing, which leads to these aspects of multidimensional commitment being the most valuable to highlight in this study.

Team commitment can be characterized as an "individual's identification and sense of cohesiveness with other members of a group" (Fornes et al., 2008) and it has been found to strengthen the relationship between an individual and

the organization (Randal & Cote, 1991 as cited in Fornes et al., 2008). Furthermore, commitment has been found out to have great connection to colleagues and the style of management in an organization, which are both more common in organizations with an informal organizational culture with low hierarchy between employees and managers (Nifhof et. Al., 1998). Job commitment can be described as the level to which an individual identifies with one's work (Fornes et al., 2008), and career commitment as the employee's personal devotion to the one's chosen profession (Morrow, 1983, as cited in Fornes et al., 2008). For an individual the effects of employee commitment and team commitment include increased job performance and satisfaction, and for a team the effects that employee commitment and team commitment have include improved team performance and cohesion as well as pro-social behavior inside the team (Bishop & Scott, 1997, as cited in Fornes et al., 2008).

2.3 Resistance

2.3.1 Resistance to organizational change

Resistance to change is one of the most important factors in organizational change (Waddell & Sohal, 1998), and when change is being implemented there will always be some resistance (Price & Chahal, 2006). Resistance can be seen as the phenomenon that hinders the process at its beginning or its development, aiming to keep the current situation (Del Val & Fuentes, 2003). Interestingly, resistance is often viewed as a negative factor in change, but it can have positive impacts to organizational change as well (Waddell & Sohal, 1998).

Resistance often results from the need of change not being recognized by those it effects, from increased uncertainty relating to individual's or group's future job, its rewards, power and status, and from change strategy failing sufficiently consider the conditions under which people learn and display new behaviours in an organization (Williams, 1989, p.91 as cited in Price & Chahal, 2006). In practice, sources of resistance should be analysed once resistance has been identified (Price & Chahal, 2006). Common factors that influence the creation of resistance are conflict between values or interests, force of habit, fear of loss, insecurity, ignorance, peer pressure, lack of faith and/or trust towards management, laziness, greater workload, feeling threatened, and poorly managed change (Price & Chahal, 2006).

According to Kurb (1996, as cited in Gill, 2002) common reasons for resistance to change can be cognitive and behavioral or emotional in nature. Cognitive and behavioral reasons to resistance are lack of know-how, and lack of understanding considering why change is needed which leads to lack of motivation towards the change. Emotional reasons, which are viewed as most powerful are dislike of planned change, dislike of surprises, lack of confidence to one's self and others, management refusing to deal with rising difficulties, disturbed practices,

habits and relationships, self-interest and power dynamics, lack of respect and trust to the person promoting the change and doubt considering previous failures (Kurb, 1996, as cited in Gill, 2002). Similarly, Del Val and Fuentes (2003) have identified that the most significant factors that create resistance are deep-rooted values, different interests among employees and management, communication barriers, organizational silence, and gaps in capabilities.

In addition to seeing resistance as a crucial factor to lower commitment in organizational change it can be seen as an empowering factor, an opportunity, for furthering change and creating effective change management practices (Ford & Ford, 2009; Waddell & Sohal, 1998). Resistance points out that change is not always good since it can only be evaluated through its consequences (Hultman, 1979, 53, as cited in Waddell & Sohal, 1998) and works as a tool for important feedback from personnel (Ford & Ford, 2009). Resistance encourages stability which is crucial for finding a daily rhythm in an organization and for organizational survival (Hultman, 1979, 53, as cited in Waddell & Sohal, 1998). Resistance also motivates to address possible issues and find alternative practices (Waddell & Sohal, 1998). According to Waddell and Sohal (1998), even though resistance is often faced in organizational change, employees do not resist for the joy of resisting. They resist due to uncertainty of outcomes, and when resistance is managed as an opportunity it can strengthen the creation of employee commitment towards change (Waddell & Sohal, 1998). All in all, resistance can point several possible issues in planned change and when the issues are exposed through resistance it is possible to evaluate change and address the issues to create better change management practices. Furthermore, feedback from resistance should always be considered and the change changed accordingly (Ford & Ford, 2009).

Reducing resistance has been the crucial task in scientific literature considering resistance in organizational change. For the reduction of resistance, participation of the personnel in change has been recognized to be an effective management practice (Ford & Ford, 2009; Lewin et al., 1991 as cited in Waddell & Sohal, 1998). Furthermore, Price and Chahal (2006) conclude that ways to reduce identified resistance include managers communicating honestly about the change and listening to concerns, taking resisters as part of the change project and using their knowledge to improve the change, being honest though allowing team's open discussion, managers leading by a positive and assertive example, using peer pressure to make everyone accept changes, creating a safe environment though training and informing so that personnel has nothing to fear in change, managing the change better though better organization and planning, and as a last resort disciplining those that do not comply with change with a warning. Similarly to some of Price and Chahal's (2006) methods, Waddell and Sohal (1998) suggest that managers should communicate with their employees regularly, involve the employees in the change process, and hear the employees' feedback to reduce resistance to change. Resistance can be overcome with encouraging teamwork of managers and employees, and by providing the employees with the right environment and needed resources to influence the change process (Waddell & Sohal, 1998). Furthermore, managerial practices considering

reduction of resistance should consider the origin of the resistance (Del Val & Fuentes, 2003). For example, resistance resulting from communication barriers or lack of capability could be overcome with training and resistance resulting from values could be overcome with ensuring fit of change and organizational culture (Del Val & Fuentes, 2003). Furthermore, managerial practices to reduce resistance should pay attention to increasing employee awareness on the change and the purpose of it (Ford & Ford, 2009).

2.4 Environmental management

2.4.1 Environmental management

Since the 1960s the interest towards the environmental damage that has been caused has been growing, which has naturally led to increasing amount of environmental legislation and policies (Welford, 2014). Legislation and policies are likely to be tightened in the future which will have an effect on how organizations can operate (Welford, 2014). Environmental management has risen as a way for organizations to voluntarily take responsibility for the environmental damage their operations cause (Welford, 2014). Furthermore, links between environmental management and improved financial performance in the organization have been found (Klassen & McLaughlin, 1996). Therefore, by incorporating environmental management as part of their operation organizations do not take responsibility on the environmental damage, they cause but also ensure their long-term survival in the business environment.

Considering employee commitment towards environmental management, Fornes et al. (2008) have found that high employee commitment leads to employees identifying themselves with the organization, and this can lead to increased employee interest towards a variety of organizational concerns such as the organizations reputation, survival, and long-term success. Therefore in today's world, high level of employee commitment inside an organization can lead to increased interest towards environmental management. Encouraging environmentally sustainable behaviour in employees is especially important in organizations since employees are the actors that at the end of the day implement environmental policies into everyday life (Ones & Dilchert, 2012). Furthermore, organizations are increasingly paying attention to green human resources management (Dumont et al., 2017). Based on prior literature Chaudhary (2020) summarizes that human resources management to be viewed highly significant in achieving environmental sustainability due to human resources management being the authority in highlighting green values already in recruitment, involving employees in designing green initiatives and providing training and awareness of environmental matters. Collier and Esteban (2007) found out that there are two types of factors that impact employee commitment to corporate social responsibility (CSR). The first identified factor is that organizational culture considering

the compliance and values to CSR and the level to which CSR has truly been implemented as part of the organization influence employee behavior and attitudes (Collier & Esteban, 2007). The second factor is that an employee's ability to align one's personal identity and image to the organizational identity and image influence employee commitment towards CSR (Collier & Esteban, 2007). Therefore, to reach high levels of employee commitment towards CSR, an organization must truly commit to the ideas of sustainability and implement this as part of their organization. In an organization, having CSR for the sake of brand image will not contribute positively to employee commitment (Collier & Esteban, 2007). Furthermore, since individuals need to be able to align themselves with the organizations values, recruiting of employees that view CSR positively and/or increasing employees awareness on sustainability can be seen as crucial for high levels of employee commitment towards CSR in an organization. Furthermore, studies show that when environmentally friendly behaviour in workplaces is appreciated and rewarded, it becomes the behavioural norm (Chaudhary, 2020). In addition, Collier and Esteban (2007) found that rewarding of positive CSR performance influences employee commitment towards CSR.

Considering environmental management system implementation, a study on ISO14001 implementation found out that the outcomes of implementing an environmental system to level where it has been certified by an external body are improved environmental performance, improved reputation and relationships with stakeholders, improved organizational efficiency, improved environmental management practices, and improved environmental awareness in the organization (Waxin et al., 2019). In a qualitative study based on interviews about ISO14001 implementation by Waxin et al. (2019) identified six important factors the implementation of an environmental management system. These six factors are (1) senior management's support, (2) employees' awareness, involvement and competence, (3) government initiatives and commitment, (4) sufficient organizational resources, (5) adoption of a continuous, integrative, and collaborative approach, and (6) the use of external consultants (Waxin et al., 2019). On the other hand when looking at environmental management as a process, Newman (2012) has developed a three-phase process for change management towards sustainability in organizations. The phases of this framework are (1) awakening, (2) pioneering, and (3) transformation (Newman, 2012). According to Newman (2012) when implementing sustainability change, in practice it is important to inform institutional strategy by recognising characteristics of the sustainability change process, and to prepare a team that has implementing the change as their task. Overtime, value can be created by continuously developing sustainability behavior through new solutions and objectives (Newman, 2012). Awakening is often achieved through establishment of a change manager with the task of implementing sustainability and pioneering can be characterized as setting new vision and direction inside the company (Newman, 2012). Implementing an environmental management system can be seen to comply with Newman's (2012) framework, since environmental management systems offer clear tools considering implementing sustainability and focus is set on continuous improvement (ISO, n.d.a).

2.5 Summary of key literature

2.5.1 Synthesis of main themes

The synthesis table presented as Table 1 illustrates the findings of some prior research in the fields of change management and employee commitment used to create the theoretical framework of this study. In the synthesis table, factors for successful change implementation and creation of employee commitment are presented by source, and the summary is later utilized when analysing results.

Change management literature shows that factors to be considered in successful change management include participation of personnel (Lewin et al., 1991 as cited in Waddell & Sohal, 1998, Price & Chahal, 2006), strong communication/dialogue between the management and employees (Andersson & Andersson, 2002; Price & Chahal, 2006), and understanding employees' emotions (Price & Chahal, 2006).

The factor for creation of employee commitment that surfaced in the literature the most is employees' autonomy and possibility to influence tasks or the working environment (Fornes et al., 2008, Parish et al., 2008; Meyer & Allen, 1991; Lok & Crawford, 1999). Furthermore, other factors that surfaced from the prior literature include managers and employees relationship/contact quality (Nijhof et al., 1998; Parish et al., 2008), communication whether it be in the form of feedback and recognition (Fornes et al., 2008) or training (Nijhof et al., 1998; Meyer & Allen, 1991).

As stated earlier, the change management and employee commitment literature show that in successful change management and in creation of employee commitment empowering employees rather than commanding them leads to success. Both change management and employee commitment literature highlight employee empowerment, through motivating (Gill, 2002) and autonomy (Fornes et al., 2008, Parish et al., 2008) rather than through commanding and controlling employees. Change management and employee commitment literature showcase many of the same factors, management fairness (Fedor et al., 2006; Fornes et al., 2008), strong communication (Andersson & Andersson; Price & Chahal, 2006; Nijhof et al., 1998;) whether it be in the form of feedback (Fornes et al., 2008; Price & Chahal, 2006), praise (Fornes et al., 2008; Lok & Crawford, 1999), or training (Meyer & Allen, 1991; Nijhof et al., 1998).

Table 1: Synthesis of theoretical framework

Reference	Factors for successful change implementation and creation of employee commitment
Change management	
Beer et al., 1993	(1) Mobilizing commitment to change through joint diagnosis of business problems, (2) developing a shared vision of how to organize and manage for competitiveness, (3) fostering consensus, competence and cohesion surrounding the new vision, (4) spreading change to all departments, (5) institutionalizing change through formal policies, systems and structures, and (6) monitoring and adjusting strategies along the change process.
Gill, 2002	vision, values, strategy, empowerment, and motivation, as well inspiration.
Survey of 259 senior executives in fortune 500 companies in the USE (American Management Association, 1994, as cited in Gill, 2002)	Leadership, corporate values, communication, team building, and education and training
Andersson & Andersson, 2002	Well-communicated case of change, clear change plan, high employee involvement in planning, local control of implementation and sufficient support and integration time.
Andersson & Andersson, 2010	Mindset: values, beliefs, thoughts, emotions, and levels of commitment etc. Behavior: work styles, skills, actions and behavior Culture: norms, collectives' ways of being, working and relating, climate and the common spirit in the organization Systems: structures, systems, business processes and technology Individual and collective perspective, internal and external perspective
Fedor et al., 2006	Favourableness of change: viewed favourable outcomes of change Fairness of change: Management handling change fairly
Price & Chahal, 2006	Strategic change management is a six-step process: <ol style="list-style-type: none"> 1) Preparing the organization (listening to workforce, constructive dialogue to collect knowledge, management ensuring fair actions, transparency) 2) Developing the vision and implementation plan (Analysing feedback to gain understanding of direction of change, creating change implementation team with proper authority, defining change vision) 3) Checking (reviewing plans) 4) Communication and workforce engagement (identifying impacts and those impacted by change, understanding feeling that are experienced by employees, establishing channels of communication, working alongside employees in the change implementation, achieving high levels of employee consultation and participation) 5) Implementation (continued support of upper management, portraying positive outlook, gaining and taking into account feedback, ensuring all team's and departments consistent behaviour according to the change, recognizing resistance and analysing sources of it) 6) Evaluation
Employee commitment	
Fornes et al., 2008	Organizational commitment antecedents (clarity of purpose, equity and fairness, empowerment, congruency, feedback and recognition, autonomy, and interesting work) lead to an employee's perception of support received which creates an emotional attachment to the organization (organizational commitment). The antecedents to individual commitment (congruency, feedback and recognition, autonomy, and interesting work)
Nijhof et al., 1998	Activities as defined in the original study: meeting where employees get information about the organization, stimulation of informal contacts between managers and employees, training and education, and parties for employees.
Parish et al., 2008	Fit with vision, employee-manager relationship quality, job motivation, and role autonomy
Meyer & Allen, 1991	Affective commitment: job satisfaction, management repetitiveness, leader-member relations and opportunity to voice one's views Continuance commitment: sunk costs, skill specificity and availability of better alternatives Normative commitment: internalization of normative pressure prior entry into the organization, "rewards in advance" (payment of education, training)
Steers, 1977	Personal characteristics: need for achievement, education Job characteristics: task identity Work experiences: group attitudes towards the organization, perceived personal importance to the organization, organizational dependability
Lok & Crawford, 1999	Measures of organizational culture, subculture (innovative and supportive), leadership style and job satisfaction (satisfaction with the level of control over working environment, praise from colleagues and leaders, level of interaction with colleagues, flexibility of shift scheduling, the level of acceptance by co-workers, the amount of professional activities provided and the amount of pay being received)

3 RESEARCH METHODOLOGY

The aim of this chapter is to describe the research methods utilized to collect and analyse the research data. In this chapter the data collection method, the selection of interviewees, the data collection process, the contents of the semi-structured interviews, and the data analysis are described and justification for methodological choices is provided.

3.1 Research design

The aim of the study is to gain understanding of effective managerial practices for the implementation of an environmental management system in the case company. The main aim of the interviews was to provide answers to the set research questions. The research was conducted in the case company whilst an environmental management system was being implemented on the spring and early summer of 2020. The final research topic and research questions were chosen based on the researcher's personal interest.

Before conducting the interviews, a literature review considering change management and employee commitment literature was conducted. The literature review was conducted to provide the researcher with an understanding of current ideas, concepts and theories on literature relating to the research topic (Bloomberg & Volpe, 2018). In addition to this the written literature review presented as the theoretical framework in this thesis will also provide the reader with the basic understanding of scientific findings relating to the chosen research topic. Literature reviews are deemed important not only because they provide the research with the understanding of the field, but they also help the research to understand how they themselves can contribute to scientific literature (Bloomberg & Volpe, 2018). New knowledge is built on existing knowledge and the literature review helped to identify gaps in the existing knowledge. Furthermore, in this study the reviewed literature is used to analyse results of the conducted qualitative research.

A qualitative case study methodology is adopted in this study since it provides tools for researchers to study complex phenomena within the selected context (Baxter & Jack, 2008), and as mentioned earlier change management and employee commitment are highly complex phenomena. The aim of a case study is to develop theory, evaluate programs, and develop interventions (Baxter & Jack, 2008). Therefore, the case study approach suits this thesis, since the ultimate aim is to identify what type of managerial practices are effective in creation of employee commitment, which can be seen as the underlying theory of creating employee commitment when implementing an environmental management system. Furthermore, this study was performed using qualitative research methods. Data

was collected from both managers and employees to gain a better understanding of effective managerial practices from both managers' and employees' perspective. The study provides further value by comparing these two interview groups' interview findings to highlight differences of emphasis in the deemed importance and effectiveness of certain managerial practices that surfaced in the interviews and were recognized as effective managerial practices in this study.

One generally agreed upon definition for qualitative research does not exist (Järvenpää, 2006). The aim of qualitative research is to understand a phenomenon from the perspective of the subject (Järvenpää, 2006). The subject could be an individual or a group of individuals such as in the case of this research, where the subjects experiencing the researched phenomena are the two groups, employees and managers. In qualitative research the research phenomena is often complicated and studying the phenomena would be impossible through the methods of quantitative research resulting from practical or ethical reasons (Järvenpää, 2006). Furthermore, qualitative research can be characterized as the study of unknown phenomena or phenomena which causing variables have not been identified (Järvenpää, 2006). As mentioned, the fields of change management and employee commitment have both been studied widely, but since the organizational context and culture are ever evolving, studying practices of change management and employee commitment is relevant today.

According to Lichtman (2017) one of the key differences between the methods of qualitative and quantitative research is that qualitative research is often used to describe and understand human and social phenomena, whereas quantitative research is used to test hypotheses and provide descriptive information. Mahoney and Goertz (2006) suggest that the terms qualitative and quantitative research describe these two methods poorly, and better names could be statistics vs logic, effect estimation vs outcome explanation, or population-oriented versus case-oriented approaches. Since this research study is especially focused on understanding a human and social phenomenon, employee commitment and the managerial practices that influence it, qualitative research was the logical methodological choice for this research. Regardless of the method chosen, the importance of thoughtfulness and critical considerations in each part of the research process is recognized (Hammersley, 2011).

To gain truthful information and an accurate understanding of managerial practices for the effective implementation of an environmental management system, an inductive approach is adopted to the data analysis. Inductive studies rely on observing and finding explanations to observations to generalize them (Mantere & Ketoniemi, 2013). For a study such as this one, inductive approach seems the most reasonable since the results of this study and generalisations made according to the results are not the absolute truth for every organization, rather they apply to a certain organizational setting and naturally this setting differs from one organization to another. An inductive approach is adopted to assure that the interview results produce valuable information in the context of the case company. In this study, former scientific literature on change management and employee commitment is used to create a theoretical framework that the study

results can be viewed against to detect similarities and differences. The aim of the comparison of the research results against former literature is to gain support for the research results and to point out any possible differences that should be further analysed if such differences surface from the results. This part of the study follows a more abductive logic in which observation is used to explain outcomes to theorize (Mantere & Ketoniemi, 2013).

3.2 Data collection

3.2.1 Data collection method

For the purpose of this study data was collected through semi-structured interviews. In semi-structured interviews there is a set of questions meant to guide the conversation (Raworth et al., 2012). These questions are developed to learn about each interviewee's behaviors, attitudes and beliefs (Raworth et al., 2012). Qualitative semi-structured interviews were chosen as the method of data collection since this approach gives the interviews a structure that will guarantee comparable results for the thematic analysis, but also highlights the possibility for thoughts and ideas to surface regarding what the interviewees view as valuable considering the research topic. In a qualitative study where the aim is to gain an understanding of interviewees' perceptions of the topic, keeping the interviews open to thoughts outside the interview frame can prove valuable. In this study the use of semi-structured interviews was proved to be valuable for two reasons. First reason being that more themes surface through conversation, and the second being that interviewees became more comfortable and gave more answers when given the chance to converse and discuss any thoughts and ideas out loud.

Eight out of ten of the interviews were conducted distantly by utilizing a virtual communications platform. The remaining two interviews were conducted as face-to-face interviews. The choice to conduct most of the interviews virtually was made since the interviewees are spread out in several different locations all around Finland. In addition, due to the outbreak of covid-19 conducting the interviews distantly was best for all participants' safety. Two of the interviews were conducted as face-to-face interviews since this was the easiest way for the interviewees to participate. All interviews were conducted separately as one-on-one interviews. This choice was made so enough data can be collected from each interviewee.

The interviews were conducted in the case company during the process of building and implementing an environmental management system. As mentioned earlier, sustainability and environmental values were already a big part of the case company's brand and daily operations due to operating in the clean energy market. The perceived prior knowledge of interviewees on environmental management varied.

3.2.2 Selecting interviewees

Ten semi-structured interviews were conducted in the case company during the spring and summer of 2020. The ten interviews consisted of four interviews to persons in upper management positions and six interviews to employees of varying positions. These two groups of interviews will be referred to as managerial interviews and employee interviews. The employee interviews further consisted of three interviews for personnel that work in an office environment and three interviews for personnel that work in production workshops.

The selection of interviewees in this qualitative study was not random. The selection of interviewees for both interview groups was based on personal consideration of the researcher. The main criteria for the overall selection was to form a group of interviewees that would consist of professionals whose knowledge would cover several of the case company's processes to gain a holistic understanding of the research topic. Alongside the criterion of covering several company processes, the possible level of knowledge on environmental management was considered to be of importance. Thought has been put into looking at employees' titles and trying to compile a group that would well reflect understanding of environmental management inside the company. Selection of interviewees was not restricted to those who have a high level of knowledge on environmental management. Considering the employee interviews, an important criterion was to include an equal number of interviewees that work in offices and workshops. Taking into consideration that the case company's employees work in several different locations around Finland, it is worth noting that the interviewees for the research study work in seven different premises which also gives variation considering the working environment of each interviewee. Out of the ten interviewees four were men and six were women. The location and gender as factors in selecting interviewees were considered as secondary factors and had little practical importance since even variation on these was already achieved through the criteria of covering several company processes.

3.2.3 Data collection process

The interviewees were planned and conducted by me, the researcher. In the spring of 2020, two preliminary interview frames were planned by me, and I received assistance from my thesis supervisor on tweaking the interview questions to be suitable for this study. This study has two distinctive interview groups and separate interview frames were planned for both groups. Reviewing and tweaking the interview frames was of great importance to make the interview questions understandable for the selected interviewees and to guarantee that with the interview questions a comparable data set that provides answers to the research questions can be collected. Once me and my thesis supervisor were content with the interview frame, the actual conducting of the interviews was able to begin.

The interviews were conducted in the spring and summer of 2020. Eight of the interviewees were invited to participate in the study through me contacting them personally either via e-mail or by using a virtual communications platform used inside the company to agree upon a time for the interview. In this stage only the topic of the interview and practical details such as estimated duration and the purpose of the interview were shared with the interviewee. If the interviewee did not reply to the first invitation, a reminder was sent, again via e-mail or by using a virtual communications platform used inside the company. The remaining two interviewees were contacted through their superior, and face-to-face interviews were scheduled. Presumably, the same information on the topic of the interview and practical details such as estimated duration and the purpose of the interview was communicated to these participants. All participants were native Finnish speakers which is why the interviews were conducted in Finnish. The results to the extent that they are presented in this thesis have been translated to English. Originally 11 people were invited to take part in the interview, but due to scheduling difficulties ten interviews were conducted for the purpose of this study.

As mentioned earlier, eight of the interviews were conducted by utilizing a virtual communications platform as a call and two interviews were conducted face-to-face. The two face-to-face interviews took place in Kiuruvesi in the case company's facilities. All interviews were recorded with the permission of the interviewee.

All the interview recordings were later transcribed. In the transcription process only relevant parts of the interview were transcribed, and any conversation that does not concern the research topic at all and is not therefore viewed as valuable for the research was left out from the transcription documents. Only some of the interview are not fully transcribed since most of the content of all research interviews was deemed as valuable for this study. In addition to this, in most parts in all the interview transcripts filler words and habitual continuous repeating of the same word twice in a row is not transcribed.

3.2.4 Interview outline

The main aim of the interviews was to provide answers to the set research questions, and through that gain insight on what type of change management practices are deemed as effective for the creation of employee commitment towards environmental management from the viewpoints of both employees and managers.

Since this study has two distinctive interview groups, two different sets of interview frames were planned. One for each group. In these interview frames, some of the questions were completely the same and some of the questions were slightly different, but still considered the same topics in both interview frames. In the questions that were different, the main difference came from the different perspective the two interview groups provide for the implementation of change management practices and the creation of employee commitment. The interviews

frames can be found both in English (Appendix 1) and in Finnish (Appendix 2) in the Appendix.

All the interviews begun with introductions if necessary. After this every interviewee received a brief verbal description of what is an environmental management system and what does implementation of an environmental management system mean for the case company in practice. After the interviewees received a similar description of the research topic that was already provided to them earlier as part of the research invitations. The interviewees were instructed to ask questions at any point of the interview if something felt unclear and further explanation was needed. The research questions were quite open by design since restrictions of the answers were wanted to be minimal. Main causes for the interviewee to ask for further information during the research interview derived from the need to know what type of an answer is precisely wanted or because the practical future changes caused by environmental management in the case company were unclear to the interviewee. Even though the research is conducted in the context of implementation of an environmental management system, change management practices are still the same as in any organizational change. This was pointed out to the interviewees since all the interviewees have experience on the implementation of change inside a company but might not have specific experience on the implementation of an environmental management system. The interviewees were asked to consider implementations of any type of change inside a company they have experienced in the past to enrich their answers.

The interview questions were designed utilizing the knowledge gained from the literature review and recognizing that at foremost importance is answering the set research questions. In addition, the researchers personal interest considering the topic influenced the design of the interview questions.

The interviews consisted of 11 questions. The questions can be divided into four categories. First, two background information questions were presented considering the interviewees role in the company, daily tasks, and personal views on how these relate to environmental sustainability. The second groups of questions consisted of four questions for employees and three questions for managers that considered interviewees personal opinions on environmental values and management both inside the case company and in a broader sense in general. The third group of questions was designed to specifically answer the research questions. In employee interviews these four questions considered interviewees personal opinions on what motivates them to participate to the pursue of environmental sustainability inside the company and what type of management and communication do they deem as effective for their own commitment considering the environmental management system that was being implemented. On the managerial interviews these five questions considered what the manager deems creates employee motivation towards the pursue of environmental sustainability inside a company and what type of management and communication do they deem as effective for employee commitment considering the environmental management system. The fourth group of questions consisted of one question that

considered the biggest barriers for employee commitment both in cases of an environmental management system and in change situations in general. The interview outline is presented in Figure 2.

Interview outline	
Question group	Obtained information
BACKGROUND INFORMATION	Occupation, daily tasks, and views of how one's own work and environmental sustainability relate to one another
VIEWS ON ENVIRONMENTAL VALUES AND MANAGEMENT	Practical meaning of case company's environmental values, viewed importance of environmental management and values, and personal motivation towards environmental sustainability in a company
EFFECTIVE CHANGE MANAGEMENT PRACTICES	Factors and practices in creating employee commitment towards environmental management, and effective communication practices
BARRIERS	Barriers for employee commitment

Figure 2: Interview questions grouped by content

3.3 Data analysis

Often in qualitative data analysis the data is viewed as a whole, and the ultimate meaning of the data is to increase understanding of an already internally logical concept (Alasuutari, 1994, 28-29). Analysis of qualitative data needs to be absolute in the sense that deviation is not acceptable, and all findings require an explanation (Renvall, 1965, as cited in Alasuutari, 1994, 29). Explanations of differentiating findings between individual interviews cannot be solely explained through statistical differences between individuals (Renvall, 1965, as cited in Alasuutari, 1994, 29). According to Alasuutari (1994, 30) qualitative data analysis consist of simplifying results and solving mysteries. In the stage of simplifying results

study finding are reviewed relying on a theoretical frame or a methodological approach to limit the amount of raw data used in the research (Alasuutari 1994,30-31). In addition to this, study findings need to be combined to further increase the manageability of the collected data set (Alasuutari, 1994, 31). In the stage of solving mysteries, interpreting results, collected research data is interpreted for example by utilizing prior research findings or causalities (Alasuutari, 1994, 35). Interpreting results in qualitative research can be seen as creating sets of structures (Renvall, 1965, as cited in Alasuutari, 1994, 35). In this study, the above described method is utilized through combining research findings into sets of structures, themes, with the method on thematic analysis.

Thematic analysis is an increasingly popular method used to analyse data in qualitative research (Braun & Clarke, 2012). In thematic analysis emergent themes are derived from the collected data set to describe a particular aspect and the aim of thematic analysis is to find out structures and meanings (Gavin, 2008). The analysis process consists of examining the data for emergent themes, identifying the data that relates to these emergent themes, creating representative sub-themes for each theme from the data, and defending the division of data into developed themes with for example existing literature (Gavin, 2008). In this study emergent themes were developed such as described above, and factors that can be seen as sub-themes are identified for each theme. Themes surfaced from the interviews quite naturally through repeatedly mentioned ideas in the interviews. In addition, the research findings are compared to former research findings from the fields of change management and employee commitment to ensure validity of research findings.

In this thesis themes from the thematic analysis considering the main research questions that surfaced in the in the interviews will be presented as effective managerial practices for employee commitment. In addition, set of themes considering barriers for effective change management and a set of themes for other factors that influence the studied issue are presented. Themes for effective managerial practices for employee commitment, barriers for commitment to change and other identified factors in employee commitment have all been developed based on both employee and managerial interviews. Considering the themes, both interview groups gave similar answers and therefore developing themes for both groups was possible. In chapter 4 the results are explained in detail and differences on what was highlighted by both groups considering the developed themes in described in detail and examples in the form of quotations are provided.

The themes developed to describe effective managerial practices for creating employee commitment are perceived managerial commitment, possibility to influence, strong communication, clear instructions, sensible reasoning, and practical possibilities. These themes are illustrated in Figure 3.

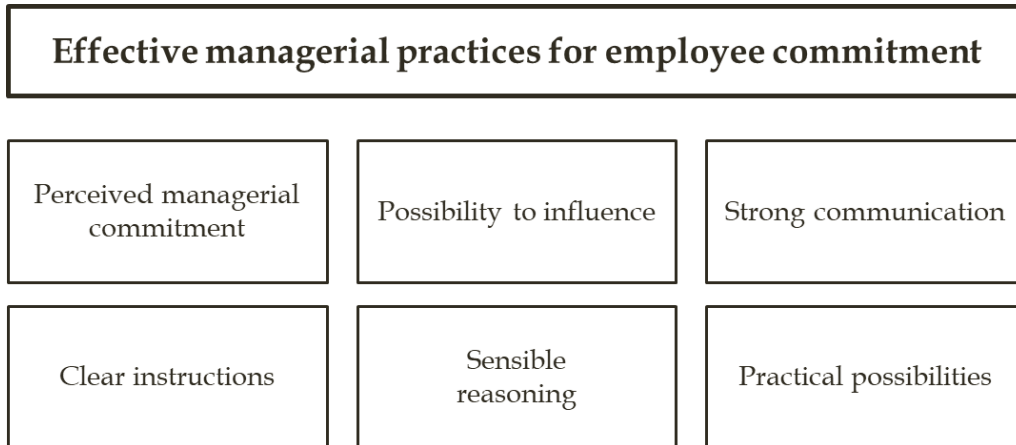


Figure 3: Effective managerial practices for employee commitment

The themes developed to describe barriers for the creation of employee commitment towards change are lack of interest and understanding, resistance as reaction, conflicts of interest between important issues, and workload. These themes are illustrated in Figure 4.



Figure 4: Barriers for commitment to change

The themes developed to describe other identified factors in creation of employee commitment towards environmental management are personal values, company values, learned behavior, and perceived value of change. These themes are illustrated in Figure 5.

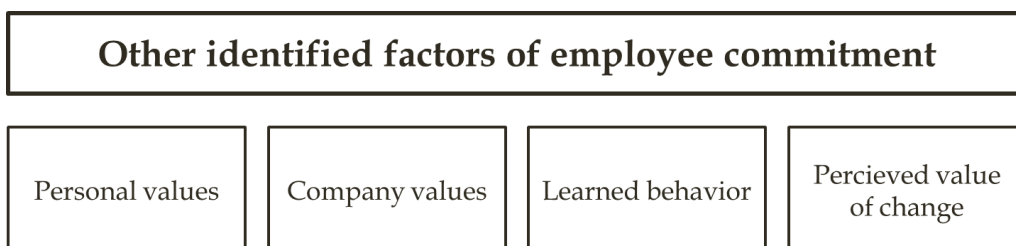


Figure 5: Other identified factors of employee commitment

4 RESULTS

In this chapter the research findings are presented. The findings offer insight to what is deemed to have importance when creating employee commitment towards a new environmental management system. Subchapter 4.1 presents the main research findings and therefore answers to the set research questions. Subchapters 4.2 and 4.3 discuss further findings of the study.

The research interviews were conducted in Finnish since all the research subjects were native Finnish speakers. The quotations from research interviews presented in the coming subchapters to describe the themes and the factors that influence them have been translated to English with careful thought on retaining the original contents of the comments.

4.1 Effective managerial practices for employee commitment

Main findings of the study are presented in this chapter. Themes developed to describe effective managerial practices for creating employee commitment are perceived managerial commitment, possibility to influence, strong communication, clear instructions, sensible reasoning, and practical possibilities. In this chapter the developed themes are described through dividing each theme into factors that influence the theme.

4.1.1 Perceived managerial commitment

Perceived managerial commitment has a significant role as a motivator for employee commitment. Several of the interviewees noted that change begins with upper management and trickles down from there. Furthermore, lack of managerial commitment was identified as barrier for change in this study. Factors that influence perceived managerial commitment are authority, initiative and leading by example, "walking the talk", communication and visibility of company values in daily operation. These factors are presented in Figure 6.

Management's commitment is seen as vital since in the eyes of employees the managers have authority. This theme was developed from the employee interviews. In the interviews, managerial authority in implementation of change was considered as quite self-evident.

"...the authority is completely different if it comes from the management..." (employee interview)

"...upper management's message is always a bit stronger." (employee interview)

Management's initiative in change and leading by example surfaced in several of the employee and managerial interviews. What was found considering management's initiative is that change begins from upper management and trick-

les to employees of the company from there. Leading by example was highlighted as change having to be visible in daily actions of managers to really be implemented to the company so that something like an environmental management system is not forgotten as a separate system from daily management.

"...if one notices that the issues are cared about of course it has an impact [to employee commitment] ..." (employee interview)

"The more it [environmental management system] can be brought as a part of daily management and daily working the better. It cannot remain as a separate system in terms of management." (managerial interview)

The theme walk-the-talk can be characterized as management ensuring that the company complies with its own value promises. This theme specifically identifies the need for concrete actions to live up to the value promises that the company has made. Concrete actions need to be taken to ensure the employees that environmental sustainability in the company is taken seriously and is not just an empty promise that has been made for the sake appearance.

"...from the employer that it [environmental sustainability] is being worked for and it is real, the environmental values, not just talk..." (employee interview)

"... how well the company complies with its value promises, and this is one pretty clear and concrete way to show that we ourselves operate according to our values." (managerial interview)

Communication about the change is considered as important by both employees and managers. Considering managerial commitment what is deemed as important is initial communication from upper management when change is first being implemented and communication with immediate management present in daily work life and face-to-face communication with coaches (supervisors) further down the line. In addition, the importance of encouragement and not punishment as a motivator was identified in the employee interviews.

"...probably from the upper management at first yes, but after that the coaches and teams' immediate supervisors..." (employee interview)

"...from the immediate supervisor more on the daily work, so that if needed you can get support in decisions and if challenging situations surface where you don't really know how to move forward..." (employee interview)

The need for company's environmental values and environmental management to be visible for the employees to increase employee commitment towards environmental management was identified as part of the employee and managerial interviews. Both company values and the concrete actions that are being taken must be visible for the employees.

"It guides one's actions in a certain way, and the thinking, to the direction [of environmental sustainability] once it's being communicated very strongly, and the environmental values are kept visible." (employee interview)

"From the upper management I would hope that the goal was kept clear and visible to the organization..." (employee interview)

"It is probably the visible change in the operating environment, which is why it is so important to bring visibility to the indicators..." (managerial interview)

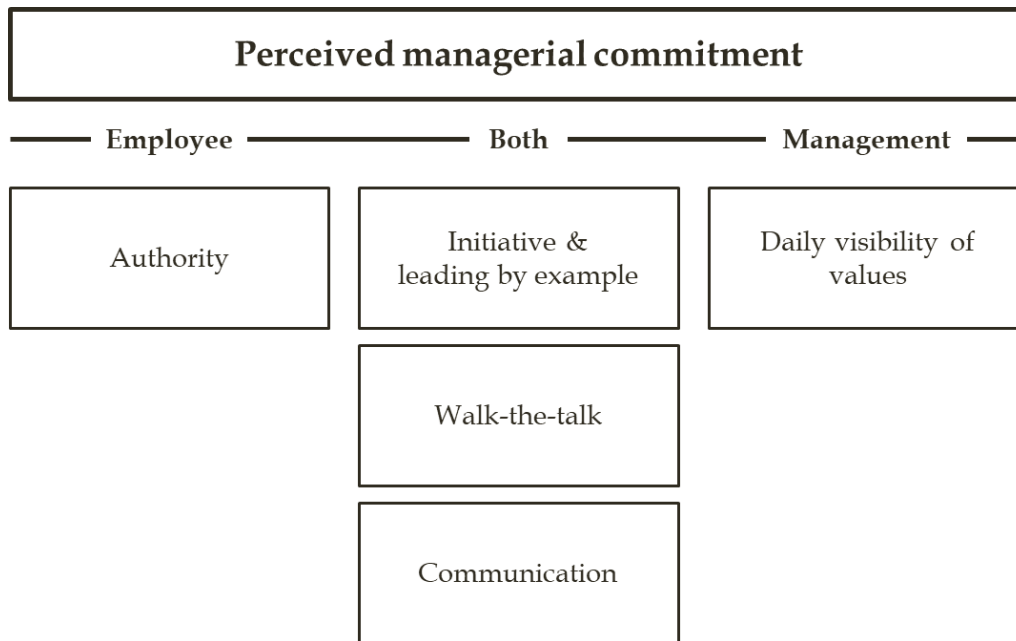


Figure 6: Perceived managerial commitment

4.1.2 Possibility to influence

Possibility to influence was seen to create commitment by both employees and managers. The influencing factors are defined to be practical implications of actions, consistency, staff involvement and open discussion, and utilization of personnel's knowledge. These factors are presented in Figure 7. The interviews showed that possibility to influence change was craved by the employees and commitment could be created if employees get to influence change rather than having a set change forced upon them. Managers saw value in involving the employees and utilizing their knowledge in planning change measures.

The theme of practical implications of actions can be described as the employees' possibility to influence the targets of environmental management so that they are realistic. In practice, this has significance when a company is setting its environmental targets. For the employees to commit to achieving set targets, they have to naturally be something that they can help to achieve with their own behavior in the workplace. This theme was identified from the employee interviews.

"Well if they are measurable and you feel that you can influence the outcome. That motivates me that you can see that your own actions have influence on whether we reach the target..." (employee interview)

From the employee interviews a theme of consistency was developed. This theme emphasises the need to plan any change carefully before the implementation inside the company. Considering environmental management, set targets should be maintained over time and change management should be consistent so the employees can plan their own actions in the working environment to comply with the set targets and know that overtime they play a part in achieving the targets.

"...clear targets that are not changed all the time so that you can trust that the target is for example the same for the whole year... consistency that you can actually plan your actions for the year..." (employee interview)

"...there will always be changes but in a way solidity that it is still realistic and sensible... it [change management] should be consistent." (employee interview)

Staff involvement and open communication where seen as important factors by employees and managers in the successful implementation of change. To increase employee commitment employees must feel that the change has been planned together, and a set change is not forced upon them. Furthermore, communication considering the change must be open and possibility for both sided discussion must exist.

"Probably open communication and also discussion about it [change] with the personnel so that they [changes] do not come as a given, transparency and understanding from both sides... one must be able to discuss and give good and even bad feedback...an open and conversational environment" (employee interview)

"...involving the staff in decision making is the first step in my opinion that the staff has the feeling that they have gotten a chance to influence, that this has been developed together." (managerial interview)

"..."I don't understand why are we operating like this but when forced"... this kind of mentality must not be born. We are not making any of these changes just because someone forces or commands." (managerial interview)

In the managerial interviews involvement of staff in decision making and the building of the environmental management system, for example through decisions considering concrete actions to achieve the targets, was seen as a resource. Employees have knowledge on their own tasks and utilizing this knowledge to develop influential environmental work inside the company is seen as beneficial.

"...set a target and peoples' commitment means in a way that they also ponder what can be done and we in teams ponder what can be done to achieve the target." (managerial interview)

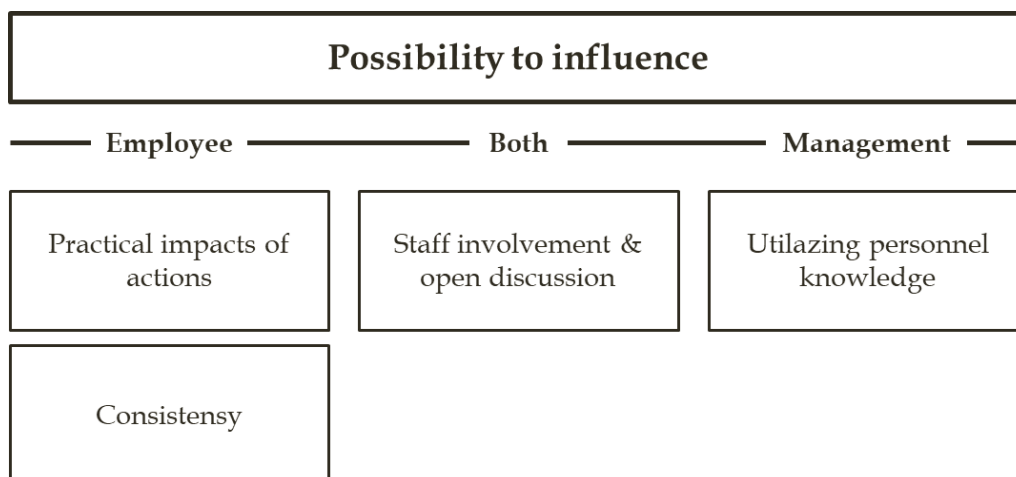


Figure 7: Possibility to influence

4.1.3 Strong communication

In this study, communication was the most highlighted theme. This is partly due to the researcher's own interest which led to the interview frame having separate questions considering communication meaning communication was discussed as part of every research interview. Therefore, results on this theme are abundant. Factors that describe the theme of strong communication are conciseness, personalized communication and training, multichannel communication, concrete change, continuity, transparency, numerical data, increasing and ensuring awareness, and stories. These factors are presented in Figure 8.

Conciseness was identified as a factor in the employee interviews. Employees process large amounts of information on daily basis, and therefore the results show that communication considering environmental management need to be conciseness. When the important information is offered shortly the employee is more likely to remember it and commitment can be created.

"... in some way demonstrative and concise because people do not read long [texts]..." (employee interview)

Personalized communication and training surfaced from both employee and managerial interviews. Results show that personalised communication and training better reach the employees that are needed internalize new information.

"...for the ones that have changes in modes of operation and working, for those separately more targeted training..." (employee interview)

"And then in a way clarity, that everything does not apply to everyone... sort of like a personalized message." (managerial interview)

The importance of multichannel communication was identified by both employees and managers. Different employees follow different channels inside the company, and therefore utilizing multichannel communication when communicating about environmental management can help reach a larger number of employees.

"... you can never communicate too much. Preferably on several different channels, in several ways, because people follow different channels in internal communications." (employee interview)

Face-to-face communication in organizational change is valued by employees and managers. According to the research results, change communication can be conveyed more understandably through face-to-face communication, and the understanding of the message controlled and assured better.

"Of course with new modes of operation, if you just send them by e-mail that "do it like this in the future" then that is not as effective and you cannot make sure that things are really understood comparing to you going through the things face-to-face with people..." (employee interview)

"The immediate supervisor's job is to in a way gently guide everyone to take a look and learn or go through in some way the main points that everyone needs to understand..." (managerial interview)

Continuity in communication was identified as an important factor by both employees and managers. The study showed that with continuous communication

the importance and practical implications of any change can be better understood, and any uncertainty about the change can be eventually diminished.

"... perseverance on the communication so that the new mode of operation and the new model is understood..." (employee interview)

"... when we are implementing a new system the amount of repetition kills the uncertainty..." (managerial interview)

The factor transparency surfaced in both employee and managerial interviews. Transparency in communication is highly valued and seen as a positive factor in creating employee commitment towards the environmental management system.

"... open communication and discussion with personnel... transparency and understanding on both sides so that it is not just an order." (employee interview)

"... down to earth, pretty phrases are pointless to people, the text should be as honest and straightforward as possible, so people do not have to think about what was meant by that." (managerial interview)

The factor of increasing and ensuring awareness was developed based on the managerial interviews. The results show that more communication is preferred over too little communication on environmental management. With continuous communication employees awareness on environmental issues related to the company's operations can be ensured and continuous communication helps to keep environmental sustainability in the minds of employees so that environmental management can truly be implemented as part of daily operations in the company.

"I think many types of communication is needed... rather more than less." (employee interview)

"...that [awareness] should be improved with practices of management and communication, the awareness of people because then again that would have a big impact to the motivation." (managerial interview)

Three distinct types of communication considering the content of communication were identified as part of this study. These are concrete change, numerical data, and stories. The study results show that different types of communication influence different employees. Communication on concrete change and numerical data was identified in both employee and managerial interviews. The use of stories in communication was identified in the managerial interviews.

"... an example is that could somehow numerically show that could be a good motivator." (employee interview)

"Concrete change has been what is the most memorable..." (managerial interview)

"My experience is that all changes and development on the change needs to be measured and the results need to be visible..." (managerial interview)

"... if stories can be told forward as part of management then someday that story will be our own in a way that people act according to it... that touches new employees as well that need to be committed to the same values." (managerial interview)

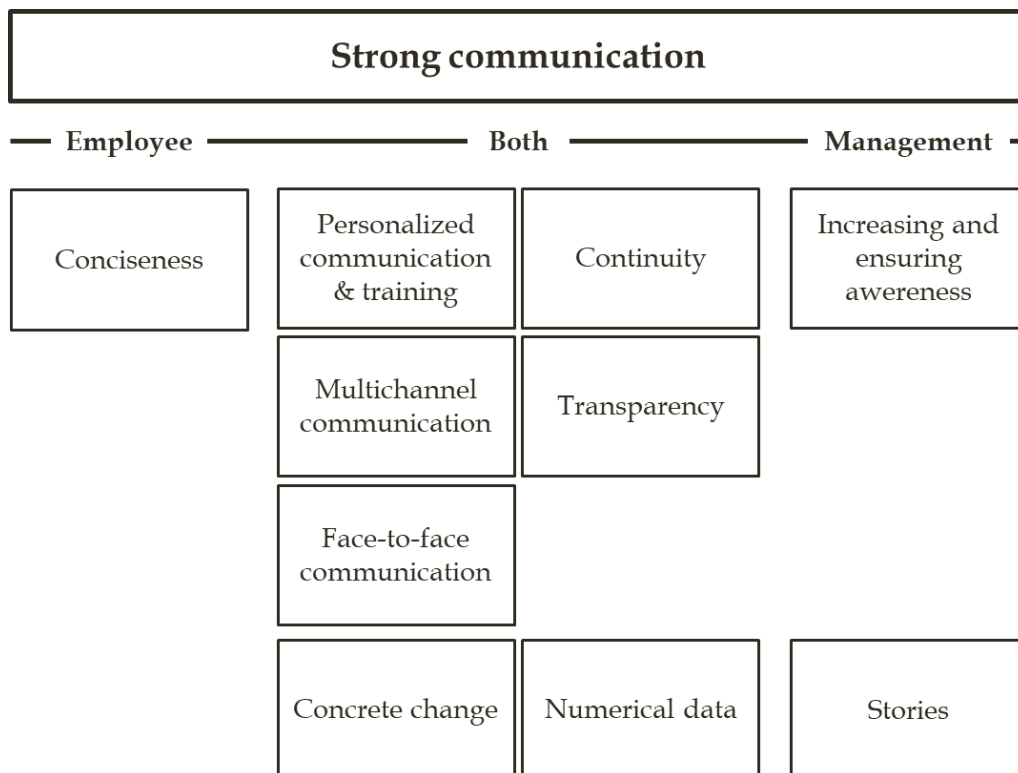


Figure 8: Strong communication

4.1.4 Clear instructions

Clear instructions considering environmental management and for example the achievement of set environmental targets was developed as a theme in this study. Since environmental management is more of an overarching system that applies to all the case company's processes, clear operating instructions are needed. Employees that are professionals in their own tasks benefit from clear instructions since environmental management is not their main responsibility or area of knowledge. Clear instructions help to understand what is expected from the employees and how has the company decided it is best to apply environmental management to its processes. The factors that influence this theme are mandatory operating instructions, training, understandable operating instructions, process-like daily action and responsibilities. These factors are presented in Figure 9.

The factor of mandatory operating instructions was developed based on the employee interviews. Having mandatory operating instructions was seen as a possible way to avoid neglect of environmental management resulting from employees' lack of interest. In this study, a factor has been developed for lack of interest as part of studying the barriers for commitment the change.

"... of course the defining of operating instructions in it is important so that we know how to act. So that it is clear to everyone how to act." (employee interview)

The factor of training here covers the need to have training, especially when the environmental management system is first being implemented to the company, available for those that can benefit from it and that have significant

responsibility in the achievement of set environmental goals. The training should provide the needed instructions to the employee clearly and easily.

"It [implementation of an environmental management system] largely depends on communication and training." (employee interview)

In addition to mandatory operating instructions, the need for the clear and understandable instructions surfaced in employee and managerial interviews.

"... in any change the availability of support needs to be assured, and clear instructions somewhere where people can find them." (employee interview)

Based on the managerial interviews a factor for process-like daily action was developed. This factor can be characterised as achieving higher employee commitment towards and benefits from environmental management through implementing environmental awareness into daily actions as much as possible to the extent where it becomes a routine.

"of course in a way it is a systematic way to operate for us to keep this side [environmental management] in order so that one day it will be sort of process management and process-like operating as well." (managerial interview)

In the managerial interviews the need to delegate responsibility to assure effective implementation of environmental management surfaced. Through delegating responsibility, the company can monitor compliance.

"...responsibility of the certain operation so that we strive to follow own policies and have operations that comply with our values." (managerial interview)

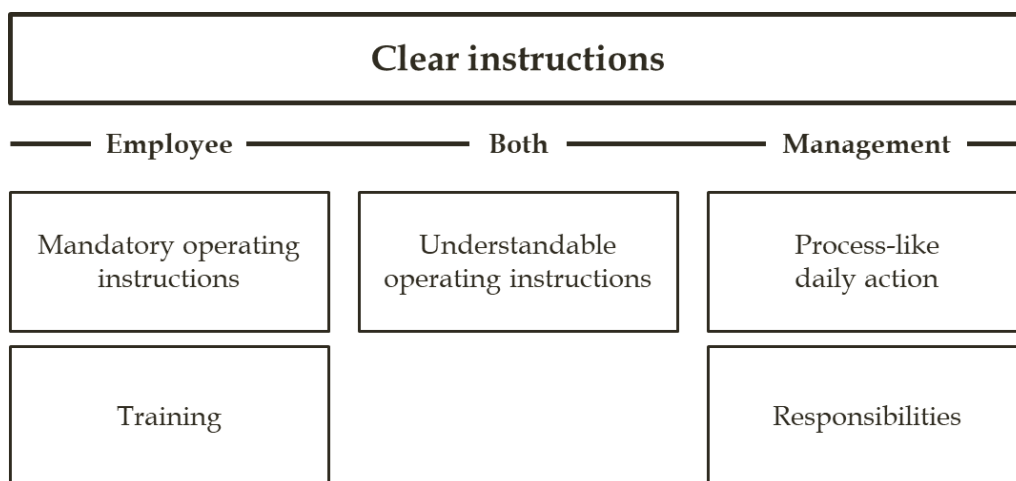


Figure 9: Clear instructions

4.1.5 Sensible reasoning

Results show that sensible reasoning considering organizational change is needed to achieve effective implementation and high level of employee commitment towards it. Factors of sensible reasoning identified in this study are practical benefits, selling the change to personnel, well-reasoned change, and understandable background reasoning. These factors are presented in Figure 10.

Practical benefits of any change should be reasoned to personnel. The findings show that understanding the possible practical benefits, such as lower carbon emissions, increase the commitment towards the environmental management system. The factor surfaced in the employee interviews.

"...if there would be some clear [instructions]. That the company had thought of how we could lower our carbon footprint then sure one would be happy to do that if it was smart and well-reasoned..." (employee interview)

Based on the employee interviews there is a need for the management to "sell" the change to the employees. The reasoning for the organizational change has to be seen as something the employees want to further.

"...and the reasoning, it is not enough to just give instructions, it [change] must be sold to the people that it is smart and reasonable." (employee interview)

Most of the collected data that contributed to the development of the theme sensible reasoning highlighted the need for well-reasoned change in increasing employee commitment. In the implementation stage the meaning and the benefits of the environmental management system should be clearly reasoned to the personnel.

"...if the change has been reasoned that why it is smart. That it is sensible in a way, then that is enough motivation." (employee interview)

"...well-reasoned change on itself already creates commitment towards it." (managerial interview)

In addition to reasoning benefits of the change, background of the change should also be communicated to the personnel. This factor can be described with the personnel's need to have reasoning to why the environmental management system is needed and what inside the organization needs to change and why.

"... now that this new thing [an environmental management system] is coming, it would be good to fully explain that why and how it affects our day-to-day actions and why is it better than not having it." (employee interview)

"... understandable and well-reasoned, the reasons for the change." (managerial interview)

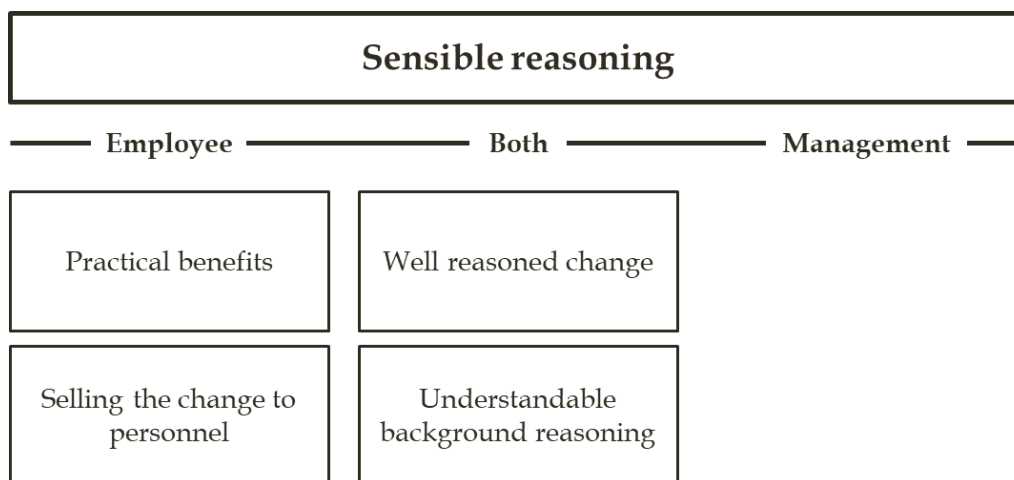


Figure 10: Sensible reasoning

4.1.6 Practical possibilities

The theme of practical possibilities that was developed based on both employee and managerial interviews is included in the main findings since management can take actions to ensure that complying with the environmental management systems in the everyday working environment is possible and relatively easy for the employees. Identified factors for this theme are practical ease, possibilities in the operating environment, and the possibility to be environmentally friendly in the workplace and in the work tasks. These factors are presented in Figure 11.

Practical ease, a factor identified in employee interviews, can be described as the employees' need to have complying with environmental management to be relatively easy. According to the interviews, employees would be more likely to commit to environmental management if it is made easy in practise.

"...but of course that it [environmental friendliness at work] would have been made easy." (employee interview)

The factor possibilities in the operating environment surfaced from the employee interviews. This factor can partly be influenced by management. One example to explain this factor that surfaced in the interviews is the use of virtual communication platforms in external communications to decrease emissions from business travel. For a company to be able to utilize a virtual communication platform in external communications, other companies need to also utilize them. Management can assure that the company has means to act in a certain way and it can even try to influence other companies, but possibilities are not guaranteed.

"... now this covid-19 -time, I hope that it has made a little change in Central Europe. They have clearly started using Teams and others more."

Considering the theme of practical possibilities, most of the data collected showed that both employees and managers deem having practical possibilities to comply with environmental management in the workplace important.

"if it [waste sorting] was not offered [in properties], then the company would have to create possibility for it." (management interview)

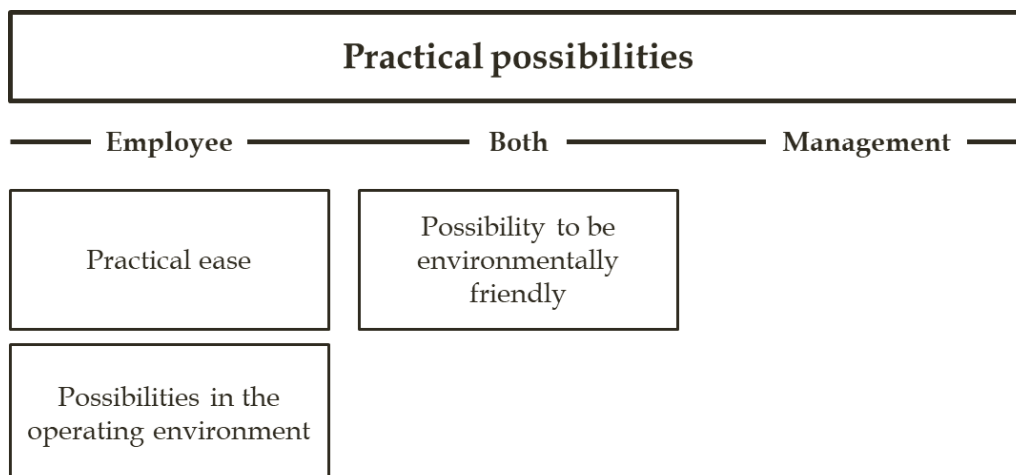


Figure 11: Practical possibilities

4.2 Barriers for commitment to change

This chapter looks at barriers for commitment to change in a company. Questions considering barriers for commitment to change were included in the interview frame, and therefore views on possible barriers were discussed with each interviewee. The themes developed to describe barriers for employee commitment towards change are lack of interest and understanding, resistance as reaction, conflicts of interest between important issues, and workload.

Considering the environmental management system, an opinion surfaced that it should not receive a significant amount of resistance. This is due to the case company's existing environmental agenda and the notion that furthering corporate environmental performance is a positive change for the company.

"... there will always be resistance, but I do not see that with an issue such as this one there would foreseeable or expectable resistance." (managerial interview)

An interesting individual comment that surfaced as part of a managerial interview dealt with simplicity. Environmental management can be so simple and self-evident that it in a way makes implementing change challenging.

"the biggest bottle neck considering the implementation of the environmental management system is that these issues are self-evident for everyone..." (managerial interview)

4.2.1 Lack of interest and understanding

According to the results of the study, lack of interest and understanding towards environmental management can act as a significant barrier. The factors influencing this theme, lack of understanding of importance and lack of personal interest are presented in Figure 12. Furthermore, managers efforts to increase and ensure awareness of environmental management and its importance has been defined as on the factors in the theme strong communication covered in subchapter 4.1.3.

Lack of understanding of importance was identified from employee and managerial interviews. The factor consists of lack of understanding towards the importance of environmental management, global environmental issues, and the environmental impacts of one's own work.

"If someone sees that there are no benefits in changes..." (employee interview)

"...the goal of the change is not understood, what is wanted out of it and the reasoning. Then it is clearly very difficult to commit or see the change as positive, let alone act according to it..." (managerial interview)

"...a big issue with the motivating is people's lack of awareness in a way that what is the impact of one's own actions in a larger scale." (managerial interview)

Lack of personal interest towards environmental management as a barrier for change surfaced from employee and managerial interviews. In the employee interviews lack of interest was pointed out as a natural phenomenon in a sense that some people just will not be interested. In the managerial interviews this was

not pointed out as such, but the topic was discussed through discussing the importance of personnel's personal environmental values and taking that into consideration already in the recruiting stage. Findings on the importance of personal values to commitment are discussed more in detail in subchapter 4.3.1.

"But everyone is not interested in it [environmental sustainability], so what you going to do." (employee interview)

"...of course, everyone has their personal opinions however deep in their head and changing them is always a bit of a challenge..." (employee interview)

"When we are recruiting a new person to work for us, of course these sort of values overall in a way that we evaluate whether they fit to our company's culture, so in the recruiting they [personal environmental values] are being taken into consideration." (managerial interview)

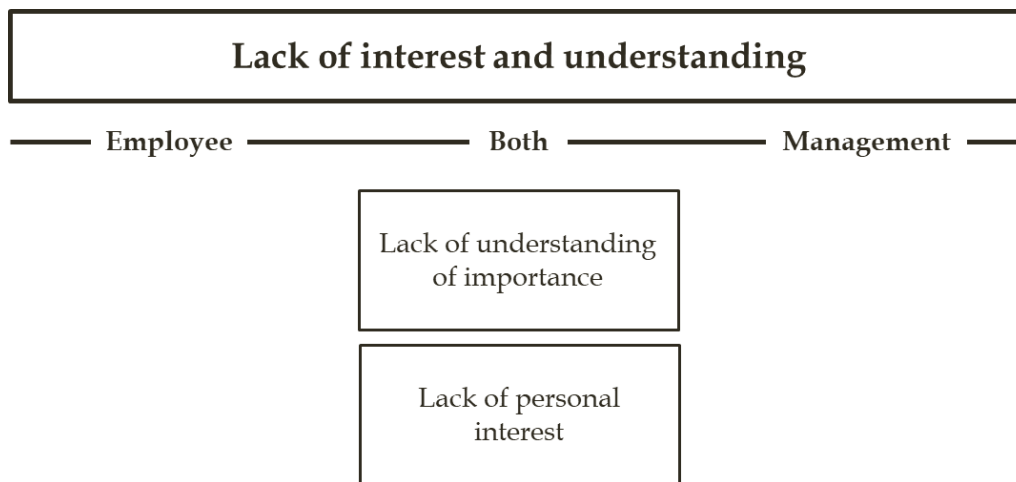


Figure 12: Lack of interest and understanding

4.2.2 Resistance as reaction

The study showed that resistance as a first reaction can act as barrier for commitment to organizational change. This theme was developed based on research answers that highlighted resistance as a natural first reaction meaning the resistance might not have a reason that is yet determined. Other characteristics are the timeliness of this theme being a first reaction, and that it is seen as a very expectable and even as a natural reaction. Factors that influence this theme include old habits, forcing set change, lack of communication, lack of implementation as part of daily actions, and lack a managerial commitment. These factors are presented in Figure 13. In the employee interviews this theme was highly discussed using the want to maintain in current situation instead of moving to a changed situation as an explanation. In the managerial interviews this theme was discussed through what could have been done better to prevent the resistance.

Old habits, and more specifically sticking to old habits was identified as a factor in the employee interviews. There seems to be a clear notion that a fraction

of employees wanting to stick to old ways of behaving is expected when organizational change is being implemented. The study did not find clear reasons as to why but based on other identified barriers for commitment to change this could stem from lack of interest and an already significant workload.

"... if one is stuck in the old modes of operation then that is usually the biggest barrier..." (employee interview)

Forcing set change was identified as a factor in the employee interviews. According to the results, employees tend to display more resistance when they have not had the opportunity to influence the implemented change. Relating to the factor of forcing set change, possibility to influence, which is presented in subchapter 4.1.2, has been identified as one of the main themes in of this study.

"... bigger changes are always more difficult to implement when one must learn away from something old... if people at all get the feeling that modes of operation are now brought to them as ready which they have not had a change to influence then resistance can result from that." (employee interview)

Lack of communication surfaced as a factor from the managerial interviews. In this study, close attention has been paid to the role of communication in the creation of commitment towards an environmental system when it is being implemented. These findings have been presented in subchapter 4.1.3.

"... probably the resistance stems from lack of awareness, so in a way the biggest problem is the lack of communication, and communication specifically needs the commitment of the owners and the management..." (managerial interview)

"... when a change like this comes, of course a part of people in a way tend to resist and part of people are instantly on board..." (managerial interview)

"... lack of communication there as well and that if the message is not told enough and the facts are not told and not told concrete enough..." (managerial interview)

Lack of managerial commitment was identified as a factor based on the managerial interviews. According to this study, communication and managerial commitment are closely related. Managerial commitment is needed for the establishment of effective communication on environmental management, and at the same time communication of managerial commitment towards environmental management must be established to create employee commitment towards environmental management. The results considering the communication of managerial commitment towards organizational change are presented in chapter 4.1.1.

"... probably the resistance stems from lack of awareness, so in a way the biggest problem is the lack of communication, and communication specifically needs the commitment of the owners and the management..." (managerial interview)

Lack of implementation as part of daily operation was identified as a factor in the managerial interviews. According to the research results, the environmental management, and the goals of it need to be related visibly to daily operation to really cause permanent change inside the company.

"... if they [targets of environmental management] are not taken as part of daily management well enough, and as targets in daily operations then it [an environmental management system] is threatened to stay kind of as a secondary system." (managerial interview)

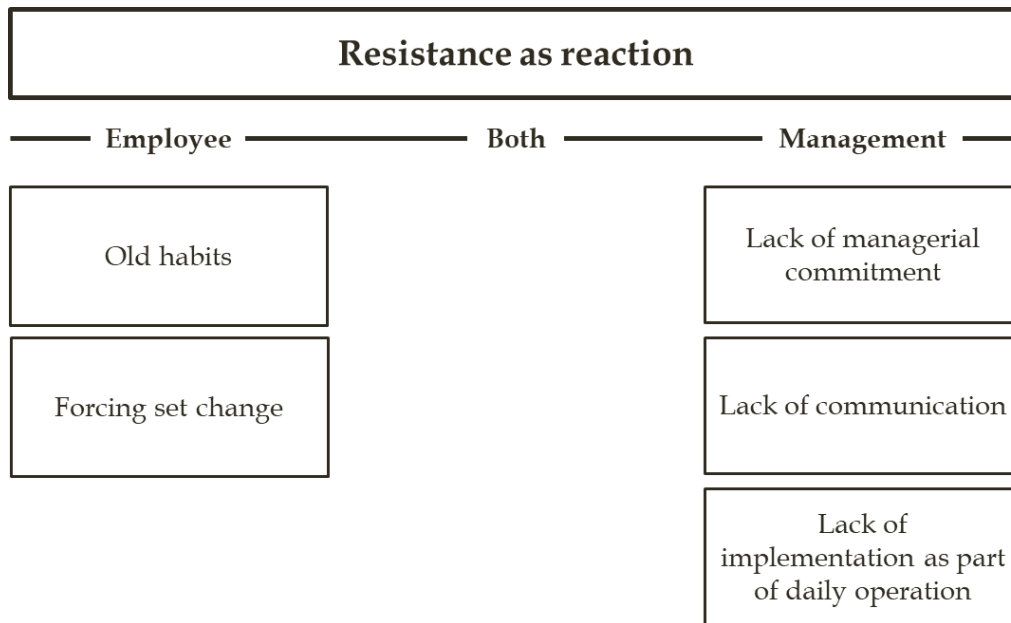


Figure 13: Resistance as reaction

4.2.3 Conflicts of interest in important issues

In this study conflicts of interest between important issues was identified as a possible barrier for successful implementation of an environmental management system. Factors that influence this barrier deal with the need to have basics in order in the workplace as well as with economic performance and other values inside a company. These factors are presented in Figure 14.

The factor basics in order was identified as a factor in the employee interviews. According to the results of this study, the basic tools and opportunities needed for daily work must first exist in the working environment for employees to set value on environmental management. If an employee struggles to complete their working tasks due to lack of proper tools and opportunities, commitment towards the change considering an environmental management is less likely to be created. From the research results it can be speculated that the negative reception for environmental management in a case where other important aspects, such as working tools and opportunities that enable a healthy and safe working environment where working tasks can be completed, are lacking could result from the understanding of limited resources and the view that resources should be directed towards bettering other important issues inside a company.

"Of course it has an effect if there are no blueprints or tools or possibilities..."
(employee interview)

The conflict between environmental management and other organizational values and economic performance surfaced as a factor from the managerial interviews. Economic values often overrule environmental values. Relating to this the positive influence company's environmental performance can have on its

economic performance is discussed in subchapter 4.3.2. In addition to identifying the importance of economic values, the research identified that on daily basis employees have their own work tasks relating to the core functions of the company that are naturally viewed as the most important issue and therefore are highlighted the most in daily actions and discussions.

“At the moment, the economic values and other values in the company tend to go ahead the environmental values easily...” (managerial interview)

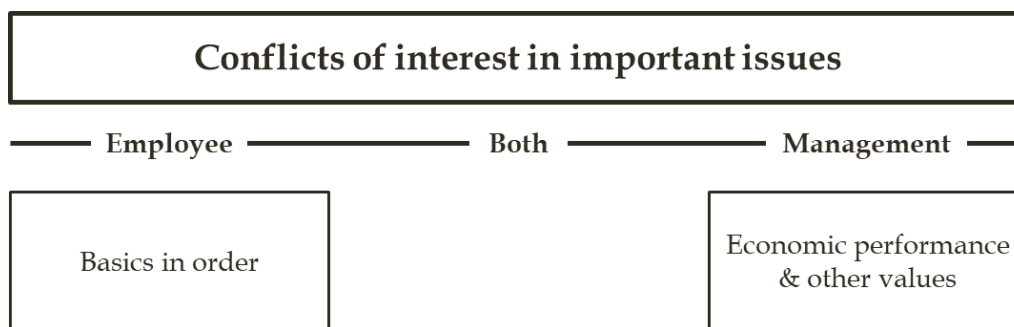


Figure 14: Conflict of interest between important issues

4.2.4 Workload

Employees workload was identified as a possible barrier in this study. The factors that influence workload were identified to be hurry and keeping up with daily tasks. These factors are presented in Figure 15.

The factor hurry was identified from the research interviews conducted to employees. The study found that employees have their own main working tasks that often cause full working days and time for considering other issues, such as environmental performance of the company, is extremely difficult to organize. Considering that each employee obtains a great amount of knowledge and practical skills considering their own working tasks, managers organizing time to discuss environmental performance in different company processes can be valuable.

“People’s workload has an impact on that too. If change is constantly coming and there is only a little amount of people, then that could increase the resistance to change.” (employee interview)

Keeping up with daily tasks surfaced as a factor from employee and managerial interviews. Employees have their tasks that need to be completed, and this can act as a barrier in the sense that if an employee has significantly more tasks than there is time to complete them, the employee will not have time to adopt new modes of operation or evaluate and participate in the company’s environmental management and setting of targets together.

“Hurry, some people have so much to do that they do not have the time to adopt new modes of operation.” (employee interview)

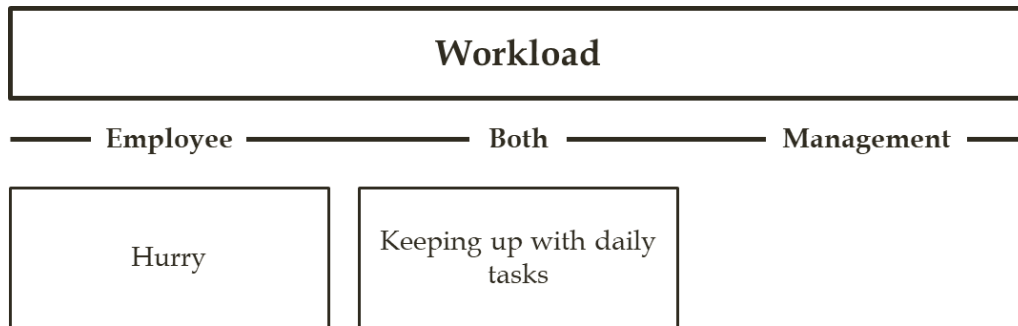


Figure 15: Workload

4.3 Other important factors in employee commitment

This chapter introduces results of the study that are outside of the original agenda of managerial practices but are still viewed as valuable for creation of employee commitment and therefore also viewed as valuable for this study. These themes are the other important factors that influence employee commitment. The developed themes are personal values, company values, learned behavior and perceived value of change. In the subchapters the themes are described in detail and connections to effective managerial practices are provided.

4.3.1 Personal values

The importance of personal values for commitment towards environmental management was identified in both employee and managerial interviews in this study. Factors that influence this theme are intrinsic motivation, societal values, and environmental values. These factors are presented in Figure 16.

Intrinsic motivation surfaced as a factor from the employee interviews. Some employees did not feel there was any need for the management to perform any particular practices to create employee commitment towards environmental management. The intrinsic motivation to have a meaningful profession and commitment to working towards environmental sustainability already exists.

"It stems from personal values. One does not need to think about the motivation separately, that where do I find motivation to make green choices when one makes them in personal everyday life." (employee interview)

"... you want your job to have a bigger meaning." (employee interview)

"... it is already a matter of choosing a profession." (employee interview)

Societal values were identified as a factor that influences personal values as part of both employee and managerial interviews. According to the study results, environmental sustainability is positively viewed in the broader societal sense and that again affects persons' personal values and awareness concerning environmental sustainability. The study shows that the environmental values

that are present in the society drive individuals and companies to view environmental management and the striving to be environmentally friendly as almost a norm and a mandatory feature of business operations inside a company.

"This world is changing, and we all have to do our part for it. Not just as a civilian but also where we work... I think people will probably easily relate to the operation of the environmental management system, the targets and policies, when you can kind of correlate that to your personal behavior as well." (managerial interview)

Environmental values were identified as a factor in employee and managerial interviews. Environmental awareness of employees is closely related to prevalent societal values. It has been identified as its own factor since environmental awareness of employees can be influenced through the managerial practice of persistent communication on the importance of environmental sustainability. According to study results, personal environmental values, and awareness should be considered already when recruiting employees. By highlighting the importance of the possible employees' environmental values, a truly sustainably minded workplace can be created. By recruiting persons that already value the natural environment highly, commitment towards environmental management can be created more effortlessly. The motivation to commit to company's environmental management and sustainability can already exist in an employee.

"I think it is important [highlighting environmental values]... sure this earth will end if something is not done to these things." (employee interview)

"... one is concerned of the state of the natural environment... one should think about, how to create less burden to the environment." (employee interview)

"Everyone's got it [environmental awareness] in the back of their head and we work on these [environmental issues]. That's where the motivation comes from..." (managerial interview)

"... with means of management and communication you would need to be able to increase the awareness of people and that would have a big impact on the motivation." (managerial interview)

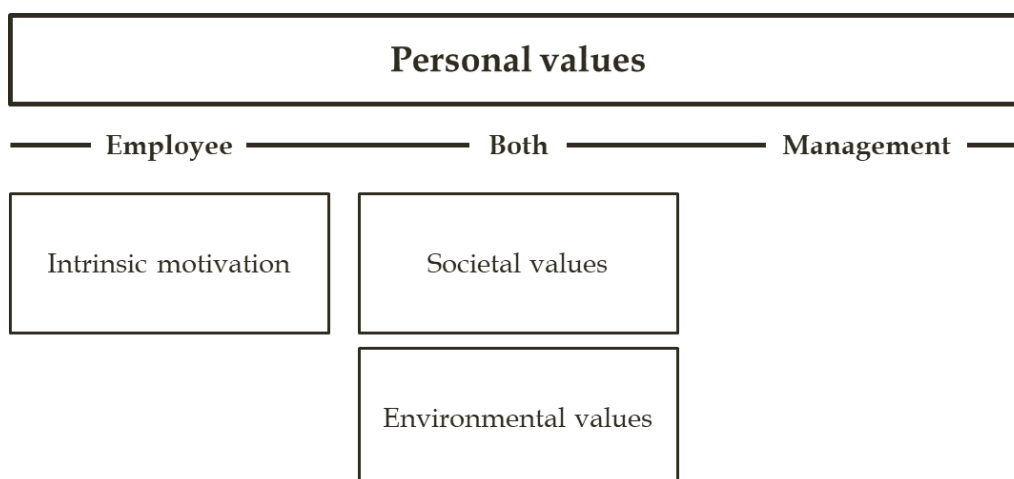


Figure 16: Personal values

4.3.2 Company values

In this study company values were identified to have significance on creation of employee commitment towards environmental management. The theme of company values is built around the value of an environmentally friendly brand image and employee expectations considering employers environmental sustainability. Identified factors that conclude the theme company values are societal values, positive image, and environmental awareness. These are presented in Figure 17.

The factor positive image was identified in both employee and managerial interviews. According to the research results, positive brand image considering sustainability has an impact on how customers view a company and how desirable of a workplace a company is to employees. Due to increasing environmental awareness in the world a more positive brand image can be achieved through investing in environmental sustainability. According to the study results sustainable corporate brand is highly valued by customers in today's world. Furthermore, some employees put significant value on the employer's environmental values. These employees want to have a meaningful working position that results in greater good such as furthering environmental sustainability in the world. Therefore, environmental management creates positive brand image and establishing an environmentally sustainable brand image can help rear in the employees that already have the intrinsic motivation towards environmental management and sustainability in a company, which again has an impact on how well the company is able to truly implement its environmental management system and achieve results.

"... I could not work for an employer that does not view environmental values as important." (employee interview)

"...to me they are personally important [environmental values], so in that way it is good that a company has these types of values as well." (employee interview)

"Well it starts from the recruiting. When we recruited a new person then of course the values of the person in general, we in a way that way make the assessment on does the person fit to our company culture. They [environmental values] do already are payed attention to in the recruitment stage." (managerial interview)

"Customer do view taking environmental values into account as important these days." (managerial interview)

"... we need to be believable in that we supply environmentally friendly solutions..." (managerial interview)

Environmental awareness surfaced as a factor from both employee and managerial interviews. The factor environmental awareness of a company can be characterized as communicated environmental values of managers (and owners) that guide the company. Regarding the existence of environmental values in a company, the extent to which they impact employee's commitment towards environmental management was not further researched in this study.

"Those [environmental values] are definitely important. Already just because we operate in the energy industry and our strong message is that we want to produce these sort of green and clean solutions..." (employee interview)

“... that we operate environmentally friendly and can make initiatives to our customers to increase their environmental friendliness, that is a must for our success.” (managerial interview)

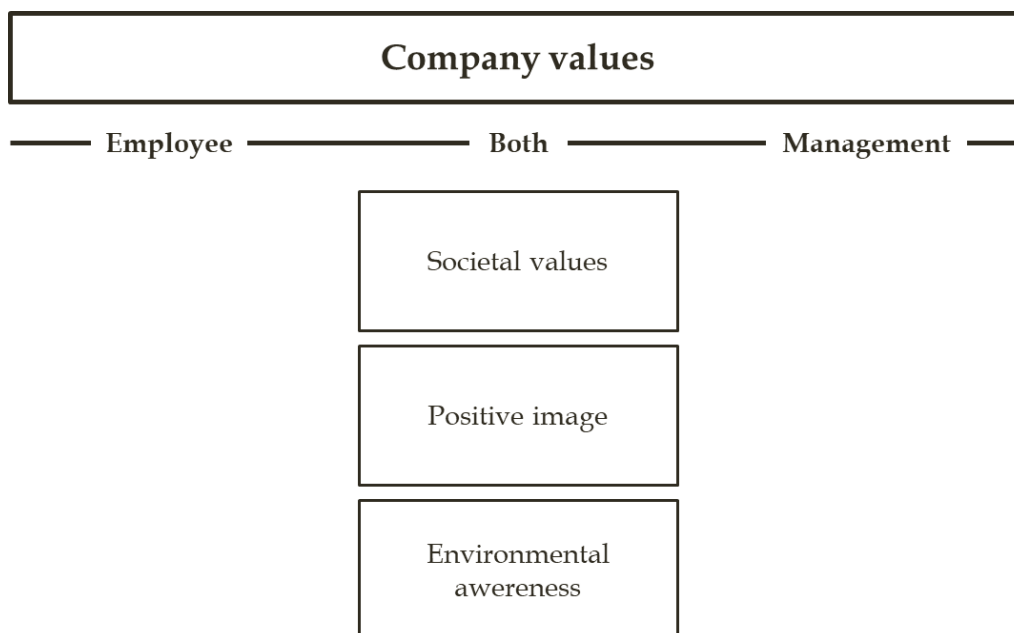


Figure 17: Company values

4.3.3 Learned behavior

According to the study findings, learned behavior can create higher employee commitment towards environmental management. Employees and managers have environmentally friendly everyday actions in their personal lives which can easily be moved to the working environment. Personal life is the only identified factor in the theme learned behavior. The theme is presented in Figure 18.

Considering personal life, in both employee and managerial interviews it was found that employees and managers relate environmental sustainability in the workplace heavily to environmental sustainability in their own lives, especially when it comes to everyday action and decisions. According to the study results, everyday decisions to increase environmental sustainability are widely practiced by the interviewees in their personal life, and the opportunity to make environmentally friendly everyday decisions in the workplace is appreciated.

“...at home I already pay attention a lot to what I do and how I do...” (employee interview)

“... personal behavior, what I practice outside work, very much originates from environmental friendliness...” (managerial interview)

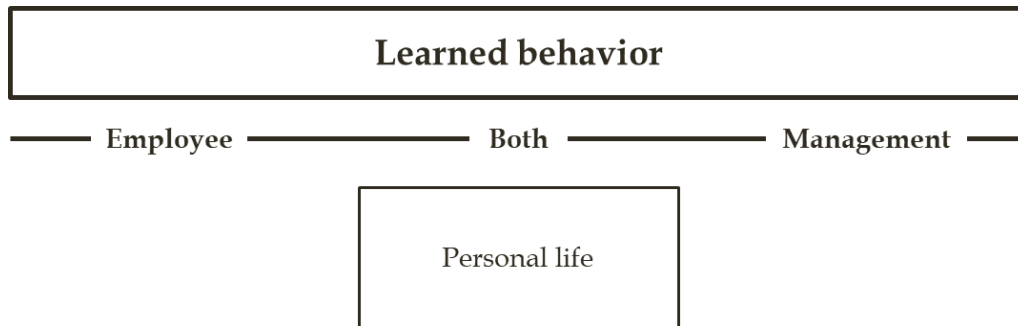


Figure 18: Learned behavior

4.3.4 Perceived value of change

According to the results, perceived value of the environmental management system to other aspects at work creates commitment for both employees and managers. Factors that influence the perceived value of change are success in work tasks and economic performance. These are presented in Figure 19.

Success in employee's own working tasks was identified as a factor in the employee interviews. Commitment is created if the employee sees that the company having an environmental management system benefits their work tasks.

"When you work with customers and on public procurement, those pretty much have ISO14001 as a requirement..." (employee interview)

Improved economic performance was identified as a factor in both employee and managerial interviews. Corporate environmental sustainability is seen to be positive in terms of brand image and economic benefit, and having a certified environmental management is even needed to operate with certain customers. Having voluntary environmental management can therefore be seen as almost mandatory if a company wants to survive in the industry.

"You can't really work with certain customers if you do not have an environmental management system." (employee interview)

"... the biggest benefits relate to the company's economic performance... by doing things more environmentally friendly we can affect our economic indicators." (managerial interview)

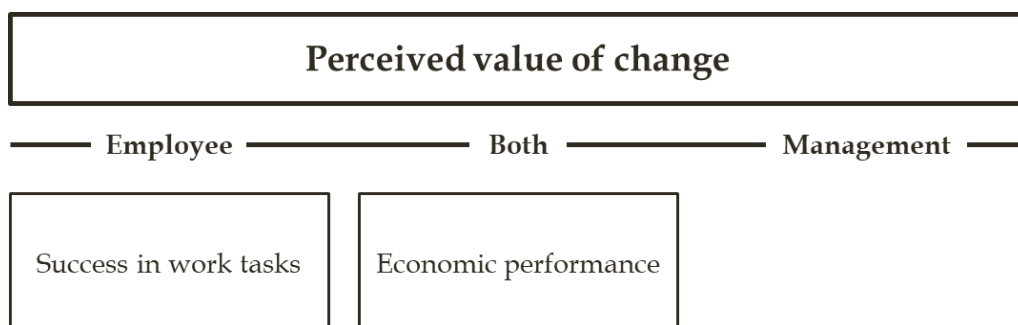


Figure 19: Perceived value of change

5 DISCUSSION

5.1 Summary and analysis of research findings

5.1.1 Main research findings

This qualitative study found that the following managerial practices help create commitment towards environmental management in a change situation where an environmental management system is first being implemented: (1) perceived managerial commitment towards the change, (2) employees' possibility to influence change, (3) strong communication between management and employees, (4) the existence of clear operating instructions, (5) sensible reasoning behind the change, and (6) practical possibilities in everyday environmental to comply with the change.

Change starts with the upper management and employees need to see that the management is committed to change, to environmental management in the case on this study, in order to understand that the implemented change really is important and therefore worth their commitment and effort. In this study, it was found that most significant factors that influence perceived managerial commitment include authority of management, management's initiative and leading by example, "walking the talk" (complying with made value promises), communication and visibility of company values in daily operations. The findings comply with Gill's (2002) and Andersson and Andersson's (2010) findings on the importance of strong values in change management. Furthermore, similarly to the research findings, communication (Andersson & Andersson, 2002; Meyer & Allen, 1991; Price & Chahal 2006), the need for proper authority (Price & Chahal, 2006), and management's continuous support (Andersson & Andersson, 2010; Price & Chahal, 2006) have been identified as factors in successful change management in prior literature.

The influence of the possibility to influence the implemented change was clearly identified in this study. Employees want to give their professional opinion on organizational change and on how the set objectives can be best achieved. Utilizing employees' knowledge, since each employee is a master in their own tasks, was identified as an important resource in this study. In addition, involvement itself was found to create commitment. Possibility to influence is formed from following factors: employee's possibility to influence change in their own tasks, consistency in objectives so that long-term actions can be planned, involving the staff in planning and achieving the change, open discussion between managers and employees, and utilizing personnel's knowledge to gain better results in change implementation. Andersson and Andersson (2002) and Price and Chahal (2006) found that high employee involvement in planning created commitment and the results of this study comply with their findings. Furthermore,

similarly to the findings of this study on possibility to influence as a factor in creation of employee commitment, Fornes et al. (2008) and Parish et al. (2008) concluded that autonomy in tasks creates commitment towards an organization, Meyer and Aleen (1991) found that opportunity to voice one's views created employee commitment and Lok and Crawford (1999) found that the level of control over one's working environment influences employee commitment. Parish et al. (2006) also identified that collecting personnel's knowledge through dialogue, and by truly listening to the workforce and taking account feedback to create dialogue increase employee commitment. Considering employees possibility to influence their own tasks, empowering (Fornes et al. 2008; Gill, 2002) and motivating (Gill, 2002) employees has been found to increase employee commitment and success of change management.

Communication was found to have high importance in the creation of employee commitment towards the implemented environmental management system in this study. The identified factors of the theme of communication are conciseness, personalized communication and training, multichannel communication, concrete change, continuity, transparency, numerical data, increasing and ensuring awareness, and stories. In communication, transparency and consistency were highly appreciated. Price and Chahal (2006) identified listening to workforce, constructive dialogue to collect knowledge, and transparency as factors in successful implementation of change. This study complies with the results of Price and Chahal (2006) by identifying the importance of transparency, listening to workforce, and utilizing their knowledge as well as two-sided dialogue between management and employees. Furthermore, considering the factors that create employee commitment, Meyer and Allen (1991) identified management repetitiveness, which is identified in this study as continuity. Furthermore, the importance of training (American Management Association, 1994, as cited in Gill, 2002; Nijhof et al., 1998) and fostering competence (Beer et al., 1993) has been identified in prior literature. In this study, the content of communication was found to have importance considering that different types of communication is effective for different people. Numerical data, examples of concrete change and stories were found to be effective. Furthermore, communication should reach every employee, meaning it should be multichannel and personal in a way that employees receive the information that is essential for them. Considering prior literature, Nijhof et al. (1998) highlighted the importance of providing information to employees where they can find it and in informal settings to which similar results were found in this study as importance of multichannel and face-to-face communication. Overall, in the literature reviewed for this thesis, communication was viewed as highly important for successful implementation of change and creation of employee commitment (Andersson & Andersson, 2002; Meyer & Allen, 1991; Price & Chahal 2006). Considering communication, in this study indications on the need for management praise was not specifically identified as has been in prior literature by Lok and Crawford (1999).

When implementing change that requires action from several employees beyond their own expertise and already existing workload, clear operating instructions need to be in place to ensure consistent behaviour. At its best environmental management should be so clearly, and strongly, instructed that it is a natural part of everyday operation. The factors that influence the theme of clear instructions are mandatory operating instructions, training, understandable operating instructions, process-like daily action and responsibilities. Similarly, Andersson and Andersson (2010) have identified systems including structures and business processes to have an impact on successful implementation of change and the results of this study comply with that. Furthermore, Beer et al. (1993) have identified the importance of institutionalizing change through systems and structures in implementation of change. And as discussed with communication, the importance of training (American Management Association, 1994, as cited in Gill, 2002; Nijhof et al., 1998) and fostering competence (Beer et al., 1993) has been identified in prior literature.

The theme of sensible reasoning is formed from practical benefits, selling the change to personnel, well-reasoned change, and understandable background reasoning. The employees need to understand that the change is valuable and worth working towards in order to commit to it. Similarly to what was found in this study, Andersson & Andersson (2002) identified that well-communicated case of change increases successfulness of change management. Clarity of purpose (Fornes et al., 2008) has been found to create employee commitment, similarly in this study it was found that employee understanding the change created employee commitment.

For employees to commit to environmental management and for it to be implemented successfully everyday possibilities in the work environment for furthering environmental sustainability of the company need to exist and taking everyday actions needs to be made easy for the employees. This theme is formed from factors of practical ease, possibilities in the operating environment, and the possibility to be environmentally friendly in the workplace and in the work tasks. In prior literature reviewed for the purpose of this thesis the importance of existing practical possibilities has not been considered. It is likely, that this is due to existence of practical possibilities being considered as self-evident when implementing change in an organization. This being said, this theme can be partly seen to relate to existence of systems and structures (Andersson & Andersson, 2010; Beer et al., 1993) which has been related to successful change management.

In prior literature the role of teams (American Management Association, 1994, as cited in Gill, 2002) and colleagues (Lok & Crawford, 1999. Steers, 1977) have been identified to have influence on successful change management and creation of employee commitment. Such finding were not made in this study. Furthermore, fairness (Fedor et al., 2006; Fornes et al, 2008) and overall job satisfaction (Lok & Crawford, 1999; Meyer & Allen, 1991) as well as job motivation (Parish et al., 2008), have been found to influence successful change management and creation of employee commitment, and these themes did not surface clearly in this study.

5.1.2 Further research findings

In addition to the main findings of effective managerial practices for creating employee commitment, the study found barriers for commitment to change and other significant aspects that influence the creation of commitment significantly.

The barriers for commitment to change found as part of this study are employees' lack of interest and understanding toward the importance of the change, resistance as a reaction to change, conflicts of issues between important issues and employees' workload. In prior literature reviewed for the purpose of this study, resistance has been identified as an important factor (Waddell & Sohal, 1998) that is always present in organizational change (Price & Chahal, 2006). Every employee will not be intrinsically interested in the company's environmental performance or understand the importance of it which acts as a barrier to change, and similar findings on the influence of lack of understanding (Kurb 1996, as cited in Gill, 2002) as a factor in creating resistance have been made. This study found that resistance can also surface as a very humane first reaction to change without specific identified reasons, and this can be related to employees not recognizing the need for change (Williams, 1989, p.91 as cited in Price & Chahal, 2006) and therefore resisting. Furthermore, this study found that focusing on one change can sometimes mean that other aspects do not receive as much attention and this can create resistance if employees' see that there are more important aspects that should receive attention and change, and that an already existing large workload was found to create resistance, since employees will not have time to focus on the change and learn the new modes of behavior. In prior literature, it has been highlighted that resistance should be seen as a positive force that points out grievances (Hultman, 1979, 53, as cited in Waddell & Sohal, 1998) and managed to increase employee commitment (Waddell & Sohal, 1998).

Other identified factors that have an influence on employee commitment towards the change of implementing an environmental management system are employee's personal values, company's values, learned behavior, and the perceived value of change. In such a value driven change, such as implementing environmental management, employee's own personal values were found to have influence on their commitment. If the employee is sustainably minded and has strong environmental values, the employee is more easily committed to company's work towards bettering environmental performance. Company values were found to create commitment through a positive brand image and some employees' valuing employers that have environmental values. In prior literature, the importance of values and vision for successful change implementation has been identified by several researchers (see Andersson & Andersson, 2010; Beer et al, 1993; Gill, 2002). In this study it was found that learned behaviour increases commitment through the ease of practical everyday actions. If an employee considers their actions' environmental impacts in their personal life, considering environmental sustainability in the work environment comes more naturally. Lastly, this study found that if the implemented change creates positive value for employee's everyday tasks, commitment is created more easily. Similarly, Fedor

et al. (2006) identified that viewed favourable outcomes of change increases successfulness of change management, and the factor of perceived value of change identified in this study complies with that.

5.1.3 Similarities and differences between employee and managerial interviews

In this study, managers and employees gave similar answers to the research questions to the extent that developing only one set of themes for effective managerial practices for employee commitment was possible. Differences in answers were more noticeable, due to the perspective, when taking a closer look at the themes and the factors that conclude them. Figures 6-19 illustrate differences in answers from employees and managers interviews in detail.

To summarize the main similarities of the answers given by the two research groups, both groups highlighted that change begins with management and they need to display their commitment and lead by example, and communication is extremely important and main aspects of it that should be considered are transparency, continuity, providing of training to ensure employee knowledge and the reaching of each employee through multichannel communication. Furthermore, both groups provided similar answers on the importance of involving personnel to the change process as much as possible, and the need for management to provide reasoning for change considering why it is being implemented and the background reasoning of it. Considering barriers for employee commitment, both interview groups identified lack of interest and understanding as a barrier, and has a shared understanding that employees have daily tasks that take priority, and this affects their ability to participate in the change process. Considering other factors that impact employee commitment, both interview groups saw that employees' personal environmental values and company's environmental values influence employee commitment towards environmental management and that these actors are influenced by societal values. Furthermore, a common understanding between groups was that if employees think about environmental sustainability of their actions in their personal life, bringing those as workplace modes of operation will be easier.

The main differences in answers between the two groups resulted from the perspective the group has to the company. Employees answers highlighted their personal, emotional experience in change situations and practical needs for everyday working environment for the change process to be easier for them. Managers on the other hand, highlighted the company as a whole considering aspects such as company strategy and operation, as well as economic value of change and the practical actions they can take in the daily operations in the workplace. To summarize the main differences of the answers given by the two research groups, the group of employees highlighted the practical ease of new ways of operating in everyday work life considering understandable communication and operating instructions, providing of training to ensure their competence, whereas managers highlighted the importance making environmental

management a self-evident part of daily operations, the economic value the change has, and their personal actions to increase employees awareness and utilize their knowledge to create effective change inside the company. Considering barriers to employee commitment, the employees highlighted resistance from the perspective of personal, emotional experiences of employees and managers highlighted their shortcomings in the implementation as source of resistance. Considering other factors that impact employee commitment, the main difference was that employees highlighted their intrinsic motivation in commitment.

5.2 Implications for managerial practices

The findings of this study provide insight to the types of managerial practices that create commitment towards environmental management in a company when it's first being implemented as part of operations. As subchapter 5.1 shows, the results of this study are strongly supported by prior literature, and therefore it can be concluded that the research findings do not only provide insight in the case of the case company, but to a larger extent. The research is deemed important due to the need of organizations to evolve to be environmentally sustainable for the humankind to have a fighting chance in overcoming its biggest challenges. The findings provide valuable information for the growing field of literature of environmental management and sustainability practices in an organizational context.

For the effective implementation of an environmental management system, employees need to truly be committed to it and its objectives. The study concludes that effective managerial practices for creation of employee commitment are employees perceiving managerial commitment, employees possibility to influence sustainability change, strong communication between managers and employees, availability of clear operating instructions, managements sensible reasoning considering the change, and the existence of practical possibilities to further environmental sustainability in the working environment.

The findings suggest that managers need to pay attention to displaying their own commitment towards environmental management to employees in the workplace. According to the results, commitment should be shown in small everyday actions to further environmental sustainability in the workplace such as sorting waste properly and in bigger issues of the company for example by taking the time to initiate discussion considering company's environmental sustainability and how it can be bettered with employees to highlight the importance of continuously creating new ideas for better environmental management.

In a company where employees are guided to be self-directing, they expect to have a possibility to influence any change that is being implemented. The results show that managers should involve personnel already when planning company's environmental work, encourage open discussion, and ask for feedback to

create a feeling that change is not forced upon the employees. Furthermore, the findings identify the value that utilizing personnel's knowledge in change has.

Communication considering environmental management should be abundant, especially at first to show that environmental management is deemed as important in the company. The research findings suggest that communication needs to happen in several channels to reach everyone in the company and be diverse considering the content of it to make sure each employee finds something to relate to considering the themes of environmental management. In addition, managers need to pay attention to who communication is directed to. Employees receive large amounts of information on daily basis, and for them to pay close attention to communication considering environmental management, the communication needs to be relevant for them specifically. Therefore, it is suggested that communication is personalized, and further training is arranged to those employees who need to receive it.

The research findings suggest that employees are more likely to commit to environmental management if it is made clear to them how the change will be achieved in practice. Therefore, managers need to pay attention to creation of clear instructions for employees considering what needs to be done differently in practice and how.

According to the findings, strong and understandable reasons for change needs to be provided. Employees are more likely to commit to environmental management if it is clear to them why changes are being made and what are the benefits of the change for the company. Managers need to highlight these aspects to the employees.

Lastly, the results suggest that management needs to ensure that practical possibilities for furthering environmental sustainability in the working environment exist. Attention needs to be paid to easiness in daily operations. According to the findings, employees are more willing to pursue objectives of environmental management if the actions they need to take are made relatively easy.

Consider further results of the study on barriers for creation of employee commitment, the results suggest that resistance towards change results from lack of interest and understanding towards environmental management, resistance as an initial reaction, conflicts between several important issues, and workload. The findings suggest that employee's awareness and understanding on environmental issues and their importance needs to be grown to increase commitment. Therefore, managers need to ensure in their communication with employees that awareness and understanding exists or communicate to increase it. Considering resistance as an initial reaction, managerial practices considering, perceived managerial commitment, employees not feeling that change is forced upon them, and communication are discussed above. The findings show that management needs to ensure the employees that other important issues are not neglected since financial resources are directed towards environmental management. Lastly, the results show that employees workload needs to be understood and managed in order to increase commitment. Sirkin et al. (2005) suggest an employee's work-

load should not be increased by more than 10% due to change execution. Therefore, it is suggested that in any change situation management manages the time employees need to contribute to change execution and arranges time for those employees to participate that are needed to participate extensively in change efforts. Furthermore, any occurring resistance could be seen as a positive force (Waddell & Sohal, 1998). Resistance can show the management for example that the need for change is not recognized by those employees it effects (Williams, 1989, p.91 as cited in Price & Chahal, 2006), or that change is not always good (Hultman, 1979, 53, as cited in Waddell & Sohal, 1998). Once resistance is recognized, it can be managed. Effective ways to lower resistance include the including of personnel in planning of change (Ford & Ford, 2009; Lewin et al., 1991 as cited in Waddell & Sohal, 1998), and honest dialogue where employees' concerns are listened to (Price and Chahal, 2006). The findings of this study on effective managerial practices for employee commitment support these prior findings on how personnel's resistance can be lowered and avoided.

Considering further findings of the study on other important factors that influence employee commitment, the study found that personal values, company values, learned behavior, and perceived value of change influence create employee commitment. The results suggest that the company should pay attention to possible employees' personal values already in the recruiting stage. When the company recruits employees with strong environmental values, implementing any change considering environmental sustainability inside the company will be more effortless. Furthermore, the results suggest that to attract employees with strong environmental values, the company itself needs to have environmental values and communicate about the.

5.3 Reliability and validity

Methodological awareness is a valuable skill (Seale, 1999). Patton (2002, as cited in Golafshani, 2003) suggests that reliability and validity are concepts that a researcher should always concern themselves with in qualitative research in designing the study, analysing the results, and evaluating the quality of the study. On the other hand, it has been argued that in qualitative research reliability is an irrelevant concept due to the purpose of quality in qualitative research being generation of understanding of the studied phenomena (Stenbacka, 2001, p.551 as cited in Golafshani, 2003). Furthermore, Golafshani (2003) concludes that several authors have deemed that validity is not an applicable term in qualitative research. This being said, there is a need for ensuring reliability of any research and evaluating it's trustworthiness (Seale, 1999), and such as several authors have rejected the idea of validity, Golafshani (2003) concludes that they have simultaneously realised that a need for qualifying check or measure for their research exists.

The concepts reliability and validity are used to test trustworthiness and quality of a research (Golafshani, 2003). Next, explanation on aspects that influence the research quality and credibility in this study are presented to evaluate the reliability of collected data, chosen research methods, and performed data analysis, and validity of the overall study.

The research was conducted by utilizing the method on qualitative semi-structured interviews. This method enables the interviewee to discuss more freely about what the interviewee personally finds important or interesting. In this study, this has led to different types of results considering certain themes developed in the thematic analysis. Specifically, it can be seen that there were clear differences on how an issue was viewed and discussed by employees and managers in the interviews in some of the themes. The most notable difference is that in some of the themes where most the influencing factors can be seen to be clearly divided between the two interview groups, the interviewed employees pondered more on the reason of "why" whereas interviewed managers pondered on how can a certain problem be solved or avoided. This has effect on the comparability of the collected data. This being said, it is very intuitive for the different groups to view different issues from a different perspective, and a part of what makes this study valuable and interesting. The size of the research sample is small, ten subjects, and this influences the reliability of the research, since generating results where the results surface continuously, not just in couple of instances is virtually impossible. To increase reliability of results, prior findings in the fields of change management and employee commitment are used to support the research findings when analysing the results. Furthermore, many of the themes are interlinked with one another and convey similar characteristics. This means another researcher could have made somewhat different categorizations for the themes. This issue has been solved by the results chapter explaining the findings and making the similarities visible for the reader. Considering collection of data, there is uncertainly whether two of the subjects received the same information prior the interview considering the topic and purpose of the interview. This is due to these employees being reached through their supervisor when inviting them to participate in the study. In one of these two incidences, the interviewee was rather quiet in the interview setting and if this is due to uncertainty of the interview prior to the interview, a more comfortable setting could have been achieved by providing sufficient information prior the interview. Furthermore, considering the researcher's own ability to conduct interviews, the skill of discussing with interviewees and making them feel comfortable in the interview setting improved with each interview. Due to this, slight differences on the overall quality of the conducted interviews could be detected. The reliability of the sample considering selection of interviewees is difficult to evaluate considering the aim was to create a sample that reflects the overall understanding and attitudes considering environmental management inside the case company. Prior research on interviewees understanding and attitudes was not conducted, but interviewees were selected from different parts of the company to create a diverse sample.

To ensure sufficient validity of the overall study, a decent level of documentation considering the research has been achieved. In this thesis, methodological choices are explained in detail, and support for research results is provided from prior literature for most of the results. This being said, all research results are not supported by prior research since analysis of results was done through the theoretical framework largely established prior the research itself. Furthermore, in the theoretical framework, secondary sources are used in some cases when original literature has not been available to be viewed. In planning of the study, interview questions were created and evaluated so that data that truly answers the research topic could be collected. This could have been improved by examining more literature for the creation of interviewee questions prior to creating them.

5.4 Limitations

Considering this study, limitations surface considering both the theoretical framework, and research methodology.

The literature review conducted as part of this research creates limitations. Change management and employee commitment are both highly researched fields and systematically reviewing all significant literature from these fields is not possible considering that this research is a master's thesis. Due to abundance on available scientific literature, many of the reviewed article have been selected due to them being highly cited.

In the research setting limitations arise from the research context and sample size. The sample for this study has been collected from one company, and the total amount of interviewees is relatively small. The case company operates in the renewable energy industry, which leads to already positive attitudes towards environmental sustainability, and this has an effect on the results. Furthermore, results are limited considering the model of operating in the case company. Since employees are expected to be self-directing, a significant emphasis on possibility to influence change could be set by the employees. The interviews were mostly conducted through a virtual communication platform which could limit the amount of data collected, since in the case of several interviews there is no face-to-face communication between the interviewee and the interviewer that are not familiar with one another. As planned the subjects of the study were not experts on environmental management and it is important to remember that the results are meant to reflect the overall knowledge and attitudes of workforce in the case company. Semi-structured interviews were chosen as a research method for collecting data. Semi-structured interviews provided comparable data in many cases, but this did lead to different themes surfacing in different interviews. Interviews were also relatively short and the interview frame, meaning the amount of interview questions, was relative short which means that many factors could

have surfaces in the interviews if they were more specifically asked in the interview. Practical implications of environmental management to each employees' daily tasks are different and might even be very minimal. Therefore, considering this topic might be difficult if one feels that existence of an environmental management system will not affect their work noticeably, limitations in the collected data are created. The timing of the interviews in the spring and summer of 2020 when covid-19 was a significant global issue could lead to limited results, since employees are dealing with changes in the workplace and in their personal lives, and consideration of these issues achieved priority to development of company's environmental management. Considering analysis of results, it is limited to the literature that was reviewed as part of the theoretical framework.

5.5 Future research possibilities

During this study, several interesting research topics for future research were identified.

Considering the effective managerial practices that create employee commitment identified in this study, the importance of practical possibilities has not received much interest in scientific literature. The existence of practical possibilities in the workplace that enable employees to behave more sustainably in daily actions is mandatory for change. An interesting research topic would be to evaluate the importance of the practical possibilities to comply with change in the workplace. For example, if practical possibilities to act sustainably in the workplace are limited or non-existent regardless of company's set environmental values and targets, do employees go the extra mile to start a conversation about this issue or fix this issue in the workplace? Furthermore, how can employees be encouraged to make initiatives considering practical possibilities and help the company establish a working environment where sustainability can be practiced effortlessly?

An employee's workload and conflicts of interest between important issues in the workplace where identified as barriers for commitment towards environmental management in this study. These barriers have not received a great amount of attention in the scientific literature and therefore could be interesting topics for future research. Considering the importance of manageable workload of employees to their commitment towards any voluntary activities a company chooses to partake in such as environmental management, interesting research questions would be (1) how much time is needed to be arranged for the employees to ponder on environmental issues of the company to create commitment towards environmental management, or (2) what type of benefits are related to organizing time for the employees to partake in environmental management and utilizing their knowledge in the development a company's environmental work? The importance of conflicts of interest between environmental management and a variety of other interest of a company would also be an interesting research

topic. Of course, the importance of economic performance is understood but considering other interests, such as health and safety or employee well-being in the workplace, research could be conducted. An interesting research question would be that how do employees rank the importance of company's non-economic programs and targets? How highly do employees value environmental management of a company?

Considering the identified themes of personal and company values, as well as learned behavior interesting research could be conducted in the future. An interesting topic for future research would be the importance of the recruitment process to a company's environmental performance. Considering this topic research on how does recruiting sustainably minded employees impact environmental performance in a company and what type criteria can be used in the recruiting process to identify sustainably minded candidates would be interesting. In addition, from the viewpoint of employees it would be interesting to find out how much value is placed on a company's environmental sustainability and the existence of environmental values and management in a company, and how does this reflect on practical choices considering the decision to accept a working position with a certain wage. In today's world many people try to be environmentally friendly in their personal lives. Considering this learned behavior, an interesting future research topic would be to evaluate the impact of employees environmentally friendly behavior in their personal lives to assess whether it as itself creates similar behavior in the workplace.

6 CONCLUSIONS

The research for this thesis was conducted as a qualitative research, and the data was collected from ten employee and managerial interviews in the case company with semi-structured interviewees when an environmental management system was first being implemented. The data was analysed using thematic analysis, and themes were developed in three categories: (1) effective managerial practices for employee commitment, (2) barriers for commitment to change, and (3) other identified factors of employee commitment. The developed themes for the main research findings, effective managerial practices for employee commitment, are perceived managerial commitment, possibility to influence, strong communication, clear instructions, sensible reasoning, and practical possibilities. The themes developed considering barriers to employee commitment are lack of interest and understanding, resistance as reaction, conflicts of interest between important issues, and workload. The themes developed considering other identified factors that influence employee commitment are personal values, company values, learned behavior, and perceived value of change. Each of the themes is further explained through factors that were found to influence the theme in this study. The results of this study have been further analysed utilizing prior scientific literature on change management and employee commitment. The findings of the study are highly consistent with prior research findings.

The findings of this study provide insight into the types of managerial practices that create commitment towards environmental management. Considering implications for managerial practices, the research findings suggest that managers need to display their own commitment to environmental management in small everyday actions on workplace and in bigger issues of the company, include employees in the change process all the way from the planning of it, and communicate about the change abundantly, transparently, continuously, concisely and in multiple channels to ensure communication reaches all employees. Furthermore, managers need to ensure that clear operating instruction on new modes of operation are created and practical possibilities to further environmental sustainability exist in the working environment. Considering resistance to change, the findings indicate that managers need to pay attention to ensuring employees awareness and understanding of environmental issues and their importance, sufficient communication, that other important issues in the workplace are not neglected since financial resources are directed towards environmental management, and that no employee's workload becomes too big due to change efforts. The results on other important factors that influence employee commitment suggest that managers need to pay attention to possible employees' personal values already when recruiting them to make implementing environmental management more effortless. Furthermore, the results suggest that to attract these employees with strong environmental values, the company itself needs to have environmental values and communicate about them.

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APPENDIX 1 RESEARCH INTERVIEWS

Translated interviews frames in English.

EMPLOYEE INTERVIEW

Background information

1. What is your role in the company and what are your daily tasks?
2. In your opinion, how are the environment and environmental friendliness related to your work tasks?

Views on environmental values and management

3. Do the company's environmental values affect your daily activities? If so, in what way?
4. Would the existence of an environmental system be important for the company's operation? If so, why?
5. How do you view the emphasis on environmental values in the day-to-day operations of a company?
6. What motivates you to consider the company's environmental values in your own work tasks? What kind of a role does management/leadership play in your own motivation?

Effective change management practices

7. What motivates you to participate to the pursuit of environmental goals in your day-to-day actions?
8. What type of policies and management would make you committed to the functioning and objectives of the environmental management system?
9. In your opinion, what type of communication is needed considering the environmental management system, its objectives and new operating methods within the company?
 - a. How often should communication take place?
 - b. What type of communication?
10. Through which mediums would you like to receive information on the environmental management system in the future? Which way would the information best reach you?

Barriers

11. What do you think are the biggest barriers for employee engagement considering new modes of operation?

MANAGERIAL INTERVIEW

Background information

1. What is your role in the company and what are your daily tasks?
2. In your opinion, how are the environment and environmental friendliness related to your work tasks?

Views on environmental values and management

3. Do the company's environmental values affect your daily activities? If so, in what way?
4. Would the existence of an environmental system be important for the company's operation? If so, why?
5. What motivates employees to take environmental values/environmental friendliness into account in their own work tasks?

Effective change management practices

6. In your opinion, how is a new management system best implemented inside a company?
7. What type of practical measures can be used to get the personnel excited about change and the objectives of the environmental management system?
8. How do you lead or would lead the company's environmental values to the personnel?
9. In your opinion, what type of communication is needed considering the environmental management system, its objectives and new operating methods within the company?
 - a. How often should communication take place?
 - b. What type of communication?
10. Through which mediums would you like to receive information on the environmental management system in the future? Which way would the information best reach you?

Barriers

11. What do you think are the biggest barriers for employee engagement considering new modes of operation?

APPENDIX 2 TUTKIMUSHAASTATTELUT

Alkuperäiset tutkimushaastattelurungot suomeksi.

TYÖNTEKIJÖIDEN HAASTATTELU

Taustatiedot

1. Mikä on roolisi yrityksessä ja millaisia ovat päivittäiset työtehtäväsi?
2. Miten itse koet, että ympäristö ja ympäristöystävällisyys liittyvät työtehtäviisi?

Näkemykset ympäristöarvoista ja -johtamisesta

3. Koetko, että yrityksen ympäristöarvot vaikuttavat päivittäiseen tekemiseesi? Millä tavalla?
4. Koetko, että ympäristöjärjestelmän olemassaolo on yrityksen toiminnalle tärkeää? Miksi?
5. Miten itse suhtaudut ympäristöarvojen korostamiseen yrityksen päivittäisessä toiminnassa?
6. Mikä motivoi sinua huomioimaan yrityksen ympäristöarvot omissa työtehtävissäsi? Millainen rooli johdolla/johtamisella on omassa motivaatiossasi?

Muutosjohtamisen käytännöt

7. Mikä motivoi sinua osallistumaan ympäristöjärjestelmän tavoitteiden tavoitteluun omassa päivittäisessä toiminnassasi?
8. Millaiset toimintatavat ja johtaminen saisivat sinut sitoutumaan ympäristöjärjestelmän toimintaan ja tavoitteisiin?
9. Millaista viestinnän ympäristöjärjestelmästä, sen tavoitteita ja uusista toimintatavoista tulisi mielestäsi olla yrityksen sisällä?
 - a. Kuinka usein viestintää tulisi tapahtua?
 - b. Millaista viestintää?
10. Mitä kautta haluaisit ympäristöjärjestelmän toiminnasta tietoa tulevaisuudessa? Mitä kautta se tavoittaisi sinut parhaiten?

Esteet

11. Mitkä ovat mielestäsi suurimpia esteitä henkilöstön sitoutumiselle uusiin toimintatapoihin?

JOHDON HAASTATTELU

Taustatiedot

1. Mikä on roolisi yrityksessä ja millaisia ovat päivittäiset työtehtäväsi?
2. Miten itse koet, että ympäristö ja ympäristöystävällisyys liittyvät työtehtäviisi?

Näkemykset ympäristöarvoista ja -johtamisesta

3. Koetko, että yrityksen ympäristöarvot vaikuttavat päivittäiseen tekemiseesi? Millä tavalla?
4. Koetko, että ympäristöjärjestelmän olemassaolo on yrityksen toiminnalle tärkeää? Miksi?
5. Mikä mielestäsi motivoi henkilöstöä huomioimaan ympäristöarvot/ ympäristöystävällisyyden omissa työtehtävissään?

Muutosjohtamisen käytännöt

6. Miten on mielestäsi hyvä jalkauttaa uutta johtamisjärjestelmää yrityksen sisällä?
7. Millaisilla käytännön toimilla henkilöstö saadaan innostumaan muutoksesta ja ympäristöjohtamisjärjestelmän tavoitteista?
8. Miten itse johdat tai johtaisit yrityksen ympäristöarvoja henkilöstölle?
9. Millaista viestintää ympäristöjärjestelmästä, sen tavoitteista ja uusista toimintatavoista tulisi mielestäsi olla yrityksen sisällä?
 - a. Kuinka usein viestintää tulisi tapahtua?
 - b. Millaista viestintää?
10. Mitä kautta tietoa ympäristöjärjestelmän toiminnasta ja tavoitteista olisi hyvä jakaa tulevaisuudessa yrityksen sisällä?

Esteet

11. Mitkä ovat kokemuksesi pohjalta suurimpia esteitä yrityksen sisäisessä muutoksessa?