

Perceptions of and Motivations for Eco-Lighthouse Certification in Ringerike

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Abstract

Environmental certification (EC) is a means through which businesses and organizations can communicate their environmental commitment towards stakeholders. Since 1993, with the early beginnings of environmental management systems (EMSs) through the standard BS 7750, businesses across the world have adopted such management systems and become certified. Today, most EMSs are based on the standard ISO 14001, and the EU has devised its own framework based on this standard, the Eco-Management and Audit Scheme (EMAS). Among the businesses that have adopted some form of EMS and subsequently become certified, motivations vary greatly; while some appear to show genuine care for the environment, some are instead primarily focused on the economic benefits and the potential for competitive advantages. Norway is no exception, and certified businesses in the country show similar motivations as is seen in the international trend. What is different for Norway, however, is that they have developed their own EC scheme, the Eco-Lighthouse Certification (ELC) scheme (developed by the Eco-Lighthouse Foundation, ELF), which has recently (in 2017) been acknowledged by the EU as being a valid substitute for EMAS in public procurement processes. Notwithstanding, motivations for the ELC scheme are similar to those of EMSs in general. Furthermore, businesses (certified and uncertified) that have previously been consulted, agree that ELC is important if the business wishes to participate in public procurement processes, owing to the requirements imposed by the government (but also the EU). However, businesses are not flocking to become certified, and even though there exist studies that attempt to document the motivations for and effects of ELC, this is a topic that requires more research. This research project therefore strove to investigate perceptions and motivations for ELC among certified businesses, but also among businesses without ELC, as well as businesses who have previously been (but are not currently) certified. In addition to consulting with 21 different businesses in Ringerike, single interviews were also carried out with both ELF and the municipality of Ringerike (RK). Ultimately, it was discovered that businesses' perceptions of the ELC scheme (e.g. with respect to workload, benefits, cost) vary significantly, depending on whether they are certified or not. Intuitively, certified businesses are more likely to view ELC as a positive contribution, but they also admitted that their pre-certification perceptions of the ELC scheme (e.g. of the perceived workload) had been wrong, indicating that there are, at present, misconceptions surrounding the ELC scheme among businesses. Thus, efforts to communicate and promote the scheme can be improved and the information clarified. Furthermore, it is clear that the market demand for ELC varies, and it is in some cases (e.g. at consumer-level) non-existent. Because market demand is important for businesses, it is crucial that the market is educated on the importance of environmental performance. This could cause a shift towards an increasingly higher demand for businesses that are environmentally conscious, with ELC being an ideal tool that businesses can utilize to increase their environmental performance and to become regulatory compliant. Educating the market can also be facilitated by certified businesses viewing the ELC as a mark of honour, and to actively use it to promote themselves as environmentally conscious. However, this is, at present, not something businesses are doing to any significant extent. Moreover, RK themselves can "lead by example" and strive to certify their own institutions, as this would increase awareness of the ELC scheme and would incentivize businesses to follow suit. Lastly, it is critical that RK exerts its authority as a supervising body, and penalizes those businesses that neglect their environmental responsibilities, thus preventing them from undercutting competitors who are, on the contrary, environmentally conscious.

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This year at the University of Twente has been a journey. Coming from Norway to Leeuwarden with my degree in materials science, I have since been able to expand my horizon and gain insight into the field of environmental management through the MEEM programme. I am very grateful for having had the opportunity to participate in this programme, and to pursue a degree in this field. In fact, I believe I have finally figured out 'what I want to be when I grow up'.

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List of Abbreviations

- EC – Environmental Certification
EL – Eco-Lighthouse
ELF – Eco-Lighthouse Foundation
ELC – Eco-Lighthouse Certification
EMAS – Eco-Management and Audit Scheme
EMS – Environmental Management System
RK – The Municipality of Ringerike
SQ – Sub-Question

Chapter 1 – Introduction

This introductory chapter provides a brief history of how environmental aspects have become increasingly important when conducting business, and how environmental management systems have developed. Subsequently, it elaborates on the Eco-Lighthouse Certification scheme and its significance in Norway, as well as shortly describing earlier studies that have attempted to analyse it. Then, the following sections formulate the problem statement, the research objective and the research questions that established the foundation for this research project, followed by a short explanation of the methodologies utilized. Lastly, an outline of the thesis is provided.

1.1 – Background

Since the 1960s, corporate environmental management has developed from being a reactive strategy, dealing with environmental issues as they occurred, towards, as is the case today, a proactive system, aiming to reduce both the risk and extent of potential environmental issues (Berry & Rondinelli, 1998). In addition to reduced costs of operations (e.g. through energy-conservation and waste reduction), other driving forces include stronger regulatory frameworks, stakeholder forces (e.g. public demand for environmental protection), and competitive requirements (Berry & Rondinelli, 1998). EMSs are systems that concentrate on managing the impact on the environment (Sheldon & Yoxon, 1999), such as, for instance, waste management and handling of chemicals. EMS standards, such as ISO 14001 and the Eco-Management and Audit Scheme (EMAS), allow businesses to systematically (according to a PLAN-DO-CHECK-ACT cycle) develop and implement such systems. Subsequently, once a business has adopted an EMS, they can choose to become certified according to an environmental certification (EC) scheme, providing them with a proof of compliance that signals their environmental commitment externally. Such a certificate can then be presented upon inquiry, saving time that would otherwise have been spent probing the business's operations for necessary documentation.

Within Norway, the most common EC scheme is that of the Eco-Lighthouse Foundation (ELF); the Eco-Lighthouse Certification (ELC) scheme, originating as a local project in 1996, but in 2004 funded by the Ministry of Environment and adopted at a national scale (Eco-Lighthouse Foundation, n.d.-a). There is no size-requirement to become certified, and it can be adopted by both Small and Medium-Sized Enterprises (SMEs), as well as by large corporations. In 2017, an EU Directive on public procurement went into effect (European Parliament and the European Council, 2014), allowing local governments in the EU to require proof of EMAS certification from businesses participating in public procurement processes. The same year, the ELC scheme was acknowledged by the EU as a valid alternative to EMAS (Eco-Lighthouse Foundation, n.d.-c). Compared to the international ISO 14001 standard, the ELC scheme provides explicit guidelines for more than 80 industries, accounts for both internal (e.g. Health & Safety) and external environments, and specifies the requirement of annual reporting (Eco-Lighthouse Foundation, 2017). At present (2019), the ELC scheme is the most widely adopted environmental certification scheme in Norway (6070 certified businesses, Eco-Lighthouse 2019¹), although some businesses also become certified according to ISO 14001 (1319 certified businesses, ISO 2018²) and EMAS (19 certified businesses, 2018³).

Because the ELC scheme is widely adopted and integrated in Norway, this research project was focused on this specific scheme. Previously, there has been conducted some research on the effectiveness of the ELC scheme, as well as motivations for businesses to become certified. For

¹ Value obtained from the Eco-Lighthouse register.

² Value obtained from the ISO Survey.

³ Value obtained from the European Union EMAS register.

instance, one study found that while the majority of certified businesses reported high satisfaction, there were outliers that reported “low flexibility” and a “lack of relevancy” when commenting on the ELC scheme (Westermann & Andreassen, 2012). This later was opposite to the findings from the work of (Solberg, 2013), who found that, when examining the city of Trondheim, the requirement for certification in public procurement was an important motivation for businesses to become certified. These studies indicate that the ELC scheme may be valuable to businesses that become certified. However, they did not conduct in-depth interviews with any of the businesses, and they did not further investigate businesses that refrained from becoming certified. In the case of Skorstad (2015), they went for a more qualitative approach and performed in-depth interviews with both certified businesses and businesses that, even without being certified, enforced internal environmental requirements (Skorstad, 2015). Through those interviews, it was found that some businesses struggled with implementation, because they lacked knowledge and because they failed to mobilize the employees. Additionally, their respondents reported that the Eco-Lighthouse (EL) consultant came across as being more concerned with selling the ELC as a product, rather than instilling any meaningful, long-lasting awareness and acceptance of the ELC scheme. Therefore, some interviewees admit that they do not see the need for certification, unless the market demands it (Skorstad, 2015).

After compiling and analyzing studies that deal with the ELC scheme, the researcher could observe that they have something in common, i.e. there is a clear trend of assessing merely certified businesses, and to inquire about their motivations for becoming certified. In one study, Skorstad (2015) included some uncertified businesses in their in-depth investigation, although these were not entirely unfamiliar or adverse to the concept of EMSs in general (Skorstad, 2015) and, despite not having ELC, were conscious about their environmental performance. However, further studies may be carried out with the aim of uncovering why uncertified businesses decline to adopt ELC. Additionally, as is highlighted in the Trondheim study (Solberg, 2013), it is not clear why businesses that do not participate in public procurement processes, should decide to become certified. In fact, as indicated by some preliminary phone calls that were conducted in the context of *this* research project, the researcher was informed that some businesses let their certification expire because their customers, e.g. households, never asked for it. This leads to another important consideration, one that is also raised by Westermann (2012), which is that virtually no studies have investigated how external parties relate to the ELC scheme (Westermann & Andreassen, 2012). For example, how do individual consumers perceive the certification scheme, and do they inquire about this when they purchase goods and services. Correspondence with a senior advisor from ELF through email confirms that their marketing department has not focused on targeting consumers, other than “sporadic adverts and articles”. Thus, there seem to be two areas that require further research. Firstly, why do uncertified businesses choose to not get certified, and why do some businesses let their certification expire? Secondly, how do external parties (i.e. consumers) perceive the businesses with ELC, and do they inquire about this when they purchase goods and services? Due to time constraints and the externalities surrounding this research project, only the first area was explored.

1.2 – Problem Statement

As highlighted in the beginning, an EMS allows a business to increase its environmental performance, and by doing so it will (often) reduce operational costs (Berry & Rondinelli, 1998). An EMS improves the necessary feedback loop with respect to environmental protection, an aspect that is becoming increasingly important (Sheldon & Yoxon, 1999). To adopt an EMS will allow a business to improve its environmental performance but is also important if the business is to survive in an increasingly competitive market. As mentioned earlier, the EU requires businesses to be certified according to EMAS (or Eco-Lighthouse) if they are to participate in public procurement (European Parliament and

the European Council, 2014). However, adopting EMSs and improving environmental practices will be beneficial even if the business is not actively participating in public works, as several studies have found; improved efficiencies in energy-use and utilization of materials in SMEs in Europe (Zorpas, 2009); significant improvements in operation and business performance of SMEs in Malaysia (Goh & Wahid, 2010); ELC gives rise to sustained competitive advantages for businesses in Norway (Djupdal & Westhead, 2013).

A logical deduction from earlier studies is that the lack of EMSs and positive environmental practices, in addition to being negative with respect to environmental performance, may negatively affect businesses' performance. Therefore, an ideal world is one where all businesses strive to achieve exemplary environmental performance. In this case, Norway is no exception. The ELC scheme, being the most widely adopted in Norway (Eco-Lighthouse Foundation, n.d.-a), is a tool for businesses to increase their environmental performance, while at the same time providing other benefits (e.g. economic gains, employee wellbeing and health). Thus, it makes sense that Norwegian businesses would be eager to adopt such a scheme, but literature indicates that motivations for doing so vary, and some businesses find it difficult to implement the measures that ELC requires. To increase ELC rates among Norwegian businesses, it is important to assess the motivations that cause businesses to become (or not) certified in the first place. Furthermore, for businesses not participating in public procurement processes, the benefits of certification outside the public sphere must be uncovered and understood. Thus, these issues, in the context of the Ringerike region in Norway, form the foundation for this research project..

1.3 – Research Objective

The research objective was to identify the motivations of businesses in the Ringerike region to adopt (or reject) Eco-Lighthouse Certification (ELC). To achieve this, an *opinion analysis*⁴ was carried out, in which certified/uncertified/previously certified businesses were interviewed regarding their decisions related to ELC. Furthermore, a *background analysis*⁵ was conducted, to clarify how the local government and the certifying body attempts to promote ELC and increase certification rates.

1.4 – Research Questions

The following research questions served as the foundation for this research project. Answering the research questions provided a diagnostic overview of the current situation and allowed businesses' perceptions of the ELC scheme to be analysed. Ultimately, the included businesses' motivations were identified, providing a foundation on which potential strategies for increasing awareness and adoption rate of EL in Ringerike can be developed.

Main Research Question

How can businesses in Ringerike be motivated to obtain certification and to remain certified according to the Eco-Lighthouse Certification (ELC) scheme?

Sub-Questions

To provide an answer to the overarching research question, the following sub-questions were formulated.

1. What criteria are relevant for assessing motivations for ELC?

⁴ Opinion Analysis: Research and analysis to assess opinions and perceptions with regard to the problem being diagnosed, e.g. how businesses view the ELC scheme (Verschuren & Doorewaard, 2010).

⁵ Background Analysis: Research and analysis to clarify the background and the reasons for the problem, e.g. what are the current practices of promoting the ELC scheme (Verschuren & Doorewaard, 2010).

2. What are the current practices and incentives for promoting ELC adoption amongst businesses in Ringerike?
 - a. From the perspective of the Eco-Lighthouse Foundation?
 - b. From the perspective of the municipality of Ringerike?
3. Why have ELC businesses in Ringerike chosen to become certified according to the ELC scheme?
4. Why have uncertified businesses in Ringerike chosen not to become certified according to the ELC scheme?
5. Why have some businesses in Ringerike let their ELC expire?
6. Are the stakeholders aligned with respect to their perceptions of the ELC scheme?
7. What can ELF and RK do to increase ELC adoption among businesses in the region?

1.5 – Systematically Answering the Research Question

This research project is constituted as a practice-oriented, diagnostic research project (Verschuren & Doorewaard, 2010) with a qualitative approach. To ensure a certain validity with respect to the findings, a method of triangulation was utilized, and data was thus collected through multiple sources, such as a series of semi-structured interviews with selected businesses, as well as through consultation with literature. Due to the nature of the research question (and sub-questions), it was decided that a semi-structured interview was the optimal method of collecting data, as this provided some steering with respect to interview content and ensured that the interviews would stay on track. Subsequently, the data was analysed and assessed through an approach based on Grounded Theory (Charmaz, 2014), meaning that the interviews were transcribed verbatim and coded independently before codes and content were comparatively analysed. This allowed recurring ideas and topics of interest to be identified in an isolated (single-case) setting, before being cross-examined with other cases. Ultimately, this proved to be a valuable approach that allowed the research question to be answered.

When considering the businesses that were selected for investigation (also indicated by sub-questions 3-5), it should be clarified that they were classified according to their ELC status, meaning that three different classifications were used:

- Classification 1: Businesses with ELC
- Classification 2: Businesses without ELC
- Classification 3: Businesses that have previously had ELC

To prevent this section from becoming excessively long, the research methodology for this research project has been elaborated in Chapter 3. There, the methodology for collecting and processing the data (e.g. the Grounded Theory method) is presented, as well as the matter of selecting businesses that were to be interviewed.

1.6 – A Brief Outline of the Thesis

Following this introductory chapter, Chapter 2 continues with presenting the literature that is relevant for the research project, as well as identifying the motivational drivers that were used for the analytical process. Subsequently, Chapter 3 elaborates on the research strategy for the project, and the methodologies used to collect and analyze data, emphasizing the interview process and the analysis-approach based on Grounded Theory. Then, the findings – the results of processing the accumulated data – is presented in Chapter 4, and all the sub-questions presented above are tackled in an orderly manner. Lastly, Chapter 5 consolidates the content of the preceding chapter, providing short and concise summaries and conclusions, as well as proposing some ideas for future studies.

Chapter 2 – Literature Review

This chapter constitutes the literature review for the research project and seeks to review relevant literature on the important concepts. First, the concept of environmental certification (EC) is elaborated, providing a theoretical background on the purpose and characteristics of such certification. Then, a theoretical background on the motivations that drive businesses to seek certification, to unravel how these properties can be identified and assessed in the context of Ringerike. Subsequently, an in-depth look at the Eco-Lighthouse Foundation (ELF) and their Eco-Lighthouse Certification (ELC) scheme is provided, to explain why this certification scheme is important in the Norwegian (and especially Ringerike) context. Finally, a brief summary is provided, highlighting the key points raised in the preceding sections, as well as aggregating the theoretical concepts that were important for the research project.

2.1 – Environmental Certification

In 1979, British Standard BS 5750 was introduced as the “world’s first national standard on quality management systems” (Sheldon & Yoxon, 1999). The aim of its development was to provide a set of technical standards that contained those activities and functions necessary for a successful system. BS 5750 later evolved into the international standard ISO 9000, and in 1993, the first such standard was introduced for environmental management systems (EMSs). The standard, namely BS 7750 (Smith, 2008), aimed to enable businesses to increase their environmental performance. EMSs concentrate on “managing an organization’s activities that give rise to impacts upon the environment” (Sheldon & Yoxon, 1999). Once a corporation has installed an EMS, they can consult with an accredited certifying body to evaluate their EMS and, if validated, provide them with an EC. Obtaining such certification depends on a number of factors, such as selecting a set of standards against which they will be evaluated. Furthermore, it must also be decided whether the goal is to certify the entire business, or if certification is limited to products and services. In the latter case, a company’s products or service could be certified, e.g. through ecolabeling (European Commission, 2019).

With respect to EMSs, the most widely adopted standard has historically been the ISO 14001 (Melnyk, Sroufe & Calantone, 2003). This standard constitutes an internationally agreed upon standard that “helps organizations improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders” (ISO, 2015). It is designed to be suitable for organizations of all types and sizes, and it requires that the organizations evaluate all ways in which their operations may adversely affect the environment (e.g. pollution, waste issues, etc.). The ISO 14001 is a set of standards that businesses can voluntarily choose to use if they wish to develop an EMS. However, ISO themselves do not issue certificates with regards to the system, and third-party certification bodies must be consulted if such certification is desired, allowing each user of ISO 14001 to meet the EMS requirements in their own way (Sheldon & Yoxon, 1999).

Comparingly, EMAS is a framework devised by the European Commission, and is a “voluntary environmental management tool for companies and other organisations to evaluate, report and improve their environmental performance” (European Commission, n.d.). Although EMAS utilizes the standards set forth by ISO 14001, it adds its own, stricter requirements, such as legal compliance with all environmental legislation, and a demand for continuous improvement of environmental performance (European Commission, n.d.). Furthermore, the European public procurement directive of 2014 allow Member States to increasingly demand long-term sustainability and environmental performance when contracting public projects (European Parliament and the European Council,

2014). Essentially, this makes EMAS a valuable component for businesses wishing to participate in public procurement processes within Europe.

However, it is important to acknowledge that installing an EMS does not necessitate that a standard is utilized, and that the ISO 14001 (and other standards), are merely guidelines for how such an EMS could be implemented. In fact, a complete adoption of the principles laid out in ISO 14001 followed by certification could end up requiring significant resources (Darnall & Edwards, 2006), sometimes beyond the capabilities of smaller enterprises. Darnall and Kim (2012) say that, “at the most basic level, an EMS can help facilities ensure that their management practices conform to environmental regulations”, and that an EMS can, in some cases, be considered a necessity to operate (e.g. EMAS for public procurement). Furthermore, they find, through a comparison of environmental performance among ISO 14001-certified EMSs, complete (noncertified) EMSs and incomplete EMSs, in seven countries, that EMSs “are associated with greater reported environmental performance improvements than non-EMS adopters” (Darnall & Kim, 2012). This finding indicates that EMSs are beneficial for businesses seeking to, for whatever reason, increase their environmental performance, and that an incomplete EMS is better than having none.

Ultimately, the actual implementation of an EMS differs depending on the enterprise, and, if such is desired by the enterprise, the subsequent certification (be it according to ISO 14001 or EMAS) requires consultation with a third-party certifying body. Following certification, the certified business can signal internally and externally that it is committed to improving its environmental performance.

2.2 – Motivations for EC

The motivations that cause businesses to implement EMSs and become certified is sure to vary, as hinted on by the motivations for ELC differing between commercial actors, who seek competitive advantages (Skorstad, 2015), and non-commercial actors, such as publicly owned kindergartens who are to a higher degree driven by internal motivations (Gaustad, 2011). However, making an environmental commitment is highly dependent on the involvement of the managerial segment of a business, and motivating employees requires managers to “embrace environmental issues as opportunities” (Sharma, 2000). In fact, Solevåg et al. (2010) found that businesses agreed that “motivated management” was the most crucial success factor if they were to succeed with their environmental commitment. A study from Murillo-Luna et al. (2008) found that within a sample of firms (small, family-owned firms; firms with highly concentrated ownership), managers were mostly influenced by their bosses and shareholders/owners, and the external regulatory framework (e.g. environmental legislation), suggesting that economic motivations may be important. Interestingly, a study by Gjørsv (2016) found that the supply industry in the petroleum sector in Norway had simple motivations for adopting EMSs; the most important customers (in this case the rig operator Statoil) demanded it, and there were no indications that EMSs would have been adopted if this was not the case.

A review of EMSs for SMEs by Zorpas (2009) found that there are several important benefits of implementing an EMS: (i) a financial benefit due to less waste and greater efficiency; (ii) a market benefit because an increasing trend of “green consumerism” demands increased environmental performance; (iii) legislative benefits because effective EMSs reduces the risk of environmental incidents, and; (iv) community and employee benefits because both employees and local communities seem enthusiastic towards businesses that embrace environmental management. However, there are also perceived disadvantages; such as an unexpected high cost of implementing and certifying the EMS, unexpected and difficult hurdles occurring during implementation, and a dissatisfaction when the “rewards” promised by the EMS consultant fail to materialize (Zorpas, 2009). All these aspects are important to consider when assessing why businesses decide (or not) to

implement an EMS and become certified. Collectively, there are internal benefits (e.g. positive shift in employee attitudes towards the environment, and interactions between staff and management) and external benefits (e.g. commercial, environmental, communication) of adopting EMSs and becoming certified. However, the degree of importance assigned to each of these will vary depending on the business (Zorpas, 2009).

Among other literature, EMS implementation in Malaysia has been found to have a “positive and significant relationship with SMEs’ performance”, especially with respect to operations and business performance, and that this is an important motivation (Goh & Wahid, 2010). An analysis of Indian industries found, for one, that larger firms were more likely to adopt comprehensive EMSs than SMEs, owing to availability of resources and internal capabilities for change (Singh, Jain & Sharma, 2015). Furthermore, it found that relational motivations are significant drivers, and that EMSs are often adopted for “better compliance, prevention of environmental incidents and to portray the image of an environmentally responsible firm”. Remaining competitive by following the same standards as their peers was also found to be an important motivation. Interestingly, it was found that the possibility of innovation and operational improvement were not considered important motivations here.

A study from New Zealand (Cassells, Lewis & Findlater, 2011) found that the degree of importance assigned to the various benefits that could be obtained from an EMS varied depending on the size of the firm. For example, whereas “improved environmental performance” was the main benefit for SMEs, large firms identified “compliance with legislation” as being the most important. Although the exact motivations were not uncovered, they can be generalized to be either economic (e.g. competitive advantage, cost-saving), or because of genuine care for the environment (Cassells, et al., 2011). Furthermore, SMEs, lacking the same resources and capabilities of larger firms, identified that an important barrier for EMS implementation was that the voluntary standards were “too complex and insufficiently tailored to the SME context.”, and the study raises an important question of whether EMSs are, in fact, the best method of engaging SMEs with environmental management (Cassells, et al., 2011).

A study of Catalanian hotels found that operational performance and competitiveness showed greater improvement when environmental practices were implemented voluntarily, as opposed to being forced due to pressure (either governmental, consumer, supplier, and other stakeholders) or legislative requirements (Femenias, Celma & Patau, 2016). It was found that environmental practices generally had a positive effect on the business, with workers performing more efficiently, and a better utilization of resources leading to cost savings. They stress that the findings indicate that it is in the self-interest of the businesses to adopt environmental practices, because the increasing environmental awareness in society will undoubtedly cause external stakeholders to value businesses that show environmental responsibility. They therefore argue that the government must, in addition to regulate, also promote awareness of the purpose and benefits of adopting environmental practices (Femenias, et al., 2016). Based on this, for the purpose of this research project, it was decided that an initial assessment of the local government’s activities (through an interview) in this area was required.

2.3 – Eco-Lighthouse Certification (ELC)

Devised by the European Commission, EMAS has long been the certification scheme of choice for businesses within Europe. However, around the same time that EMAS was conceived (1993), the Eco-Lighthouse Foundation (ELF) was founded in Kristiansand, Norway in 1996, providing a national certification scheme for Norway (Eco-Lighthouse Foundation, n.d.-a). ELF is the certifying body responsible for the Eco-Lighthouse Certification (ELC) scheme, providing certification services and

personnel training, and the scheme is at present “Norway’s most widely used environmental management system” (Eco-Lighthouse Foundation, n.d.-a). It is considered to be complementary to the ISO 14001 and EMAS systems, and provides pre-defined industry-specific criteria tailored for Norwegian enterprises. In 2017, ELF became recognized by the EU “as an environmental certification system on a par with the EU’s certification system EMAS.” (Asgard, 2018). Its recognition can be attributed to the fact that it complies with and fulfils the main requirements for an EC scheme as defined by EMAS, and effectively allows Norwegian businesses to present ELC documentation instead of EMAS when participating in public procurement processes (Eco-Lighthouse Foundation, n.d.-b). ELC supplies pre-defined specific criteria for more than 80 industries, whereas EMAS requires the application of generic criteria for each business to develop the ad hoc policy and plan. ELC is also (more than EMAS) directed towards small and medium-sized enterprises (European Commission, 2017). With regards to size, one study found that small businesses benefitted from the ELC scheme, in that they reported higher levels (albeit a weak effect) of both effectiveness and profitability, and that the certification enables them to address the liabilities of newness and smallness (Djupdal & Westhead, 2013). It should also be noted that the Norwegian government, as of 2017, requires public procurers to consider environmental aspects in their purchases, and the focus on businesses’ environmental performance (visualized through EMSs and ECs) is increasing (Eco-Lighthouse Foundation, n.d.-e)

2.3.1 – The Certification Process

Note that ELF itself does not issue certifications. Rather, the foundation is responsible for developing and managing the certification scheme, providing the digital system and tools through which businesses can implement their EMS. However, they also provide lectures and seminars aimed to increase understanding of EMSs and on how to efficiently implement ELC. The actual certification process involves various actors, such as the consultant, a professional who is trained and monitored, but not employed, by ELF and provides the business with counselling to help establish and implement the procedures and measures required for the certification (Eco-Lighthouse Foundation, n.d.-f). The consultant must have completed an ELF course on EL consulting. The local municipality (or the provincial government) in which the business is located is assigned the role as certifying body, possessing a license from ELF (Eco-Lighthouse Foundation, n.d.-g). Their role is to carry out the initial certification of businesses in the region, but also to follow up on them once certified. Once the business is ready to become certified, the certifying body will assign a third-party certifier (who can be either a municipal employee or a private certifier) to go through the certification process (Eco-Lighthouse Foundation, n.d.-g). Objectively speaking, the ELC process requires interaction with varied personnel and systems, potentially acting as a barrier for some businesses. When the business is finally certified, it is expected that the business strives for continuous improvement of its environmental performance, and that they document their progress through an annual report. Furthermore, they are required to go through a recertification process every three years. There is also an initial fee (€380 if less than 10 employees, capped at €2280 if more than 1000 employees) and an annual fee (€170 if less than 10 employees, capped at €1762 if more than 1000 employees) that is paid to ELF, depending on the size of the business⁶.

The following summarized steps are required for businesses that want to become certified according to the ELC scheme (Eco-Lighthouse Foundation, n.d.-h):

1. Initiate contact with ELF consultant – The business is required to enter an agreement with a licensed ELF consultant, either through seminars or through direct consultation.

⁶ Values obtained from ELF website.

2. Implement measures and procedures to meet requirements – Following the agreement with the consultant, the next step is to inspect the business and identify the measures that must be implemented for the business to meet the ELC criteria.
3. Become certified – When the requirements have been met, an independent third-party certifier from the municipality in which the business is located will validate the ELC and issue a certificate.
4. Continuous improvement – EL requires environmental reports on an annual basis, and businesses should strive for continuous improvement, even after they have become certified. To accommodate this, ELF organizes both physical and online courses that allow businesses to learn more about environmental management.

Furthermore, once certified, the business must apply for recertification after three years.

2.3.2 – Current Perceptions of ELC

Despite ELF actively trying to promote their certification scheme as being a positive addition for businesses that choose to adopt it, businesses' perception of the ELC scheme varies. Furthermore, even though some studies have attempted to document these perceptions, the attitude of private citizens (i.e. consumers) towards the certification scheme has hardly been documented at all⁷. According to findings by Skorstad (2015), the main motivation for getting certified according to ELC is because of the competitive advantage it gives, and Granly and Welo (2014) found that "market benefits and cost reduction" were important drivers for ELC, as compared to the consumer pull of ISO 14001. In fact, ELF themselves advertise their certification as being economically beneficial, and highlight the competitive advantage it gives (Eco-Lighthouse Foundation, n.d.-d).

Skorstad (2015) revealed some effects of ELC which can be considered benefits for the business, i.e. increased environmental awareness among employees, and that the measures that increase firms' environmental performance can also have health-benefits for the employees (e.g. focus on cycling instead of driving). However, not all businesses report the same attitude towards the scheme. One uncertified (with their own environmental procedures) business views the certificate as being a way to "show off" for businesses, although they value the fact that certification can be useful for businesses that have no prior experience with EMSs (Skorstad, 2015). Another uncertified business reports that the certification scheme is not relevant for them, because they provide services, not products, and the ELF consultant seemed more eager to sell the certification rather than instilling lasting change within the business. They admit that they do not, at present, feel coerced by the market to become certified, but will look into it if the situation changes. On the other hand, certified businesses report great success with the certification, and state that the certification is a "trump card" when participating in public procurement processes, but also useful for the business to present themselves as environmentally conscious and socially responsible (Skorstad, 2015). To add to this, Solevåg (2010) uncovered, through a survey of businesses that were certified, that ELC commonly resulted in the businesses experiencing a decreased rate of absence due to illness, as well as an improvement in their external reputation. The certified businesses also reported that they had successfully reduced their expenses when purchasing, but that they at the same time experienced increased costs due to recycling and waste management (Solevåg, et al., 2010).

For the city of Trondheim, located in the middle of Norway, Solberg (2013) investigated the motivations for businesses to become certified. Trondheim, being a city, must accommodate the legal framework surrounding public procurement, and must therefore consider environmental aspects during such processes. They found that most businesses find this requirement to be the main

⁷ This was uncovered through preliminary email correspondence with ELF.

motivation for adopting an EMS, because public procurement is a valuable segment of their business. The businesses also report that they are setting environmental requirements for their suppliers, suggesting that a “domino effect” is taking place. Interestingly, although businesses report that their initial motivations for becoming certified is linear⁸ (e.g. only for the competitive advantage), the actual implementation phase of the EMS causes a shift towards a circular motivation⁹, as all employees become more environmentally conscious as its effects are made visible (Solberg, 2013). Furthermore, Westermann (2012) found, in their survey of businesses with ELC, that businesses often struggle with the actual implementation of the EMS, which may discourage them and result in them not getting certified. However, one general conclusion of the study is that the advantages of ELC seem to outweigh the potential disadvantages. Ytterås (2015) on the other hand reports that ELC is an important contribution to the sustainable development of society but argues that the certification scheme in itself is not enough. They state that businesses must increasingly view themselves as being part of a larger entity, and that they have a responsibility to become more socially and environmentally conscious (Ytterås, 2015).

In contrast to the economic motivation reported by some businesses, Gaustad (2011) rather looks towards some public services, more specifically kindergartens in the capital, Oslo. As a result of the city’s decision in 2003 to become a “Green Municipality” (Municipality of Oslo, n.d.), they adopted ELC as a tool for public institutions to implement EMSs into their operations. Interestingly, the study found, through interviews with employees from various kindergartens, that the main motivation for them to increase their environmental performance was internal, rather than the competitive advantage sought after by commercial actors. The employees reported that their environmental consciousness extended beyond the working place, and that they especially felt responsible for inspiring the children in their care. These findings give insight into how motivations for ELC are not necessarily economic in nature.

In summary, despite the efforts of ELF to portray the ELC scheme as a positive contribution for businesses that choose to adopt it, businesses’ perceptions of the scheme vary. There does not seem to be any consensus on whether ELC is viewed as positive or negative, and, depending on which business is consulted, both perspectives can be identified. Both Solevåg (2010) and Westermann (2012), who both conducted surveys of businesses with ELC, concluded that ELC gives an overall positive effect. On the other hand, Skorstad (2015) found businesses that were more critical of the scheme. Such contradictory findings indicate that more research is required to be carried out on the subject.

2.4 – Motivational Drivers of Relevance for the Research Project

As is apparent from the literature that has been introduced in the previous sections, there are several motivational drivers that induce businesses to adopt EMSs and become certified. Commercial actors value the potential for a competitive advantage in the market, and the consulted studies collectively raise this to be an important motivation. An important aspect of this competitive advantage is the requirement of EC for participation in public procurement processes. Furthermore, several cases highlight the economic benefits that can arise, such as cost-savings due to resource and energy-efficiency, but also that better environmental management results in fewer (costly) environmental incidents. In contrast to commercial actors, public institutions (e.g. kindergartens) highlight internal motivation as being the most important factor. Interestingly, larger firms assign a

⁸ Linear motivations: Internal/external factors induce motivations that lead to environmental measures that give results.

⁹ Circular motivation: The obtained results in turn affect the motivations, giving a continuous, cause-and-effect relationship where the results reinforce the motivations and catalyze additional improvement.

higher importance to regulatory compliance, whereas smaller firms rather value “improved environmental performance”, although the exact motivations have not been uncovered. It is also uncovered that smaller firms, lacking resources and/or capabilities, tend to be more concerned about the complex and insufficiently tailored standards, as well as a challenging implementation phase. Furthermore, the size of the firm and the sector in which it operates, also affects the importance of customer demand. For instance, the supply industry for oilrig operators were obliged by their customers (e.g. Statoil) to increase their environmental performance, and public procurement projects in Trondheim caused a “domino effect” regarding EC among contractors and actors in their supply-chains. On the other hand, some businesses (some providing services or digital products do not feel coerced by the market to become certified, and a firm performing electrical installations entirely in the private sector was never inquired about certification by their customers¹⁰ and therefore let their certification expire. It should be noted that ELF is more focused on marketing the ELC to commercial actors and the governmental sector, and they have not investigated the perceptions of consumers towards the certification scheme. Lastly, several studies uncovered that businesses tend to take pride in having an EC through which they can present themselves as being environmentally conscious and socially responsible.

Effectively, this provided several aspects that were important for the development of the conceptual model for this research project, as well as the content of the interviews that were conducted. Thus, the following are the aspects that were considered to assess the motivations for businesses in Ringerike to become certified according to the ELC scheme.

- Regulatory compliance – To what extent is ELC required for regulatory compliance?
- Competitive advantage – Does ELC provide a competitive advantage?
- Internal motivation – Is internal motivation among employees enough for pursuing ELC?
- Economic benefits – What are the economic benefits of obtaining ELC?
- Business image – How does ELC affect the external image of a business?
- Perceived difficulty of implementation – Is the ELC process too challenging?
- Customer demand – Do customers require ELC (e.g. public vs private)
- Results of ELC – Is there a reinforcing feedback effect of having ELC?

These aspects were used to develop an analytical framework (Section 3.3.4), which laid the foundation for the interview guides (Section 3.4) that were utilized for gathering data, as well as guiding the subsequent data analysis process. Ultimately, the findings of this research project were viewed in the light of these aspects.

¹⁰ This was uncovered through a preliminary phone call with the business, and this is therefore not mentioned earlier in the literature review.

Chapter 3 – Methodology

This chapter contains a description of the research strategy and the methodologies used during the research project. It starts with a presentation of the initial research framework, followed by an elaboration on the research material, as well as an explanation of how data was collected (e.g. through interviews) and subsequently processed. Lastly, a brief summarization of the research limitations and boundaries is provided.

3.1 – Research Framework

In order to steer the research project in a systematic manner and to obtain answers to the research questions presented earlier, the research framework presented in Figure 1 was developed and utilized. It can be formulated as follows:

(a) A conceptual model was developed through an initial study of literature regarding environmental certifications (EC) and the Eco-Lighthouse Certification (ELC), in addition to theories on motivations for EC, as well as preliminary interviews with the Eco-Lighthouse Foundation (ELF) and the municipality of Ringerike (RK). (b) The model was subsequently utilized to investigate perceptions among businesses in Ringerike towards the ELC scheme, (c) leading to a subsequent confrontation of the results of the individual analyses, (d) concluding with an identification of the motivations for businesses in Ringerike to become certified according to the ELC scheme.

Note that the segment “Preliminary Research” includes the preliminary interviews that were carried out with staff members of ELF and RK, and that these were used to fine-tune the interview guides used when interviewing businesses. This was further elaborated in Section 3.4.

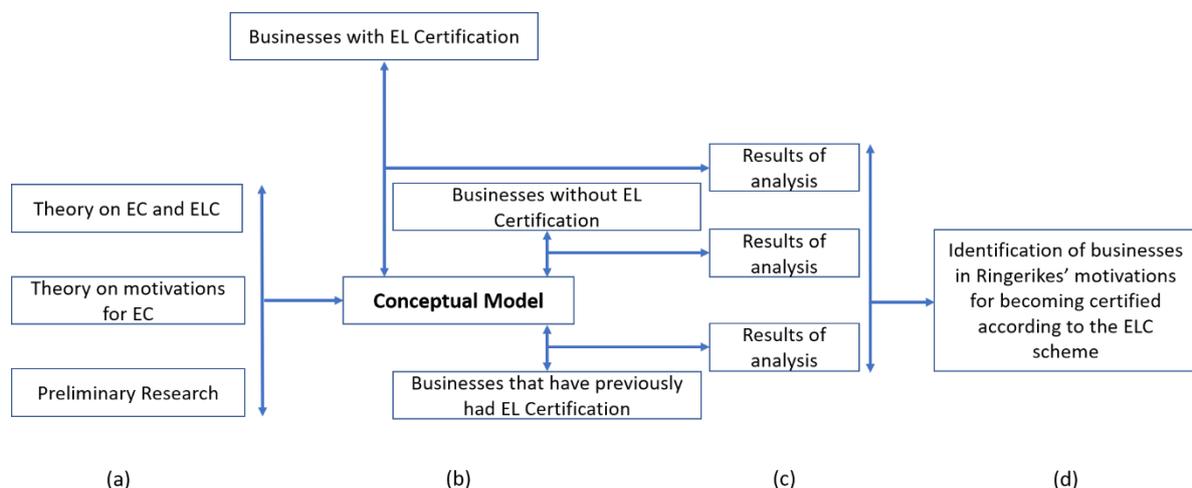


Figure 1: Research framework.

3.2 – Research Material and Accessing Method

To provide an adequate answer to the research question, a variety of methods were used to collect data and information, such as desktop research (e.g. consulting research literature, documents and websites), as well as in-depth interviews (the main method used during the research project) with representatives from various businesses, RK, and ELF.

The table below presents the separate research sub-questions and the methods that were used to collect the data necessary to answer them. Refer to Section 1.4 for the questions themselves.

Table 1: Description of research sub-questions and the methodologies used for data collection.

Research Sub-Question	Data required to answer the question	Data source	Method
SQ1	Literature on EC and ELC	Literature	Desk research
SQ2	Information on current practices and incentives to promote ELC	ELF RK	Document review and interviews
SQ3	Information from businesses with ELC	Businesses with ELC	Interviews
SQ4	Information from businesses without ELC	Businesses without ELC	Interviews
SQ5	Information from businesses that have previously had ELC	Businesses that have previously had ELC	Interviews
SQ6	Results from analysis of earlier sub-questions	All prior empirical data	Evaluate obtained empirical data
SQ7	Results from analysis of earlier sub-questions	All prior empirical data	Evaluate obtained empirical data

3.2.1 – Selecting Relevant Businesses for Investigation

The selection of businesses to be included in the research project was not subject to any significant constraints. Therefore, the businesses included vary in both size (e.g. number of employees, revenue) and in which sectors they operate. However, it should be noted that all businesses that were ultimately included were located within a certain proximity of the city Hønefoss, because of transport issues, and that this acted as a selection criterion. Furthermore, businesses that had a low or non-existing autonomy when it came to matters of ELC (e.g. a central headquarters make their decisions for them), were also excluded from the research project.

The following elaborates on how the three business classifications were populated:

- Classification 1: Businesses with ELC
 - This category was populated by consulting the online database provided by ELF on their website. At the time when this research project was carried out, there were 29 certified businesses in the region, of which 13 were ultimately included in the research. The remaining businesses were excluded for a variety of reasons, such as busy schedules, lack of autonomy, being located outside the set proximity, or other externalities. The sizes of the businesses vary, with some having fewer than 10 employees, and one more than 400 employees.
- Classification 2: Businesses without ELC
 - Populating this category turned out to be a challenging process, and businesses without ELC appeared to be less willing to agree to interviews, citing a variety of reasons. Therefore, 2 businesses without ELC were ultimately included in the research, and both businesses had fewer than 20 employees.
- Classification 3: Businesses that have previously had ELC
 - This category was populated following the preliminary interview with ELF, as they were able to provide an overview of businesses in the region that have previously had ELC. However, many of the businesses had not been certified in more than 5+ years, and some of them had no recollection or knowledge of the certification. Ultimately, 6 such businesses were interviewed.

See Table 3 (Section 3.4) for an overview over the types of interviews conducted with the various businesses.

3.3 – Data Analysis

3.3.1 – Method of Data Analysis

Following the data collection methods presented in Table 1, the following table lists how the collected data was subsequently processed and analysed. Background Analysis refers to investigating the background and forming an overview of the reasons for the perceived current problem, typically by reading existing literature and conducting preliminary interviews. Opinion Analysis puts more focus on the opinions and perceptions of the stakeholders involved, because, in some cases, these might be essential for diagnosing the reality of the current situation.

Table 2: Description of the method of analysis in accordance with the data required.

Data required (Table 1)	Method of analysis
Literature on EC and ELC	<p>Background Analysis</p> <p>Qualitative: Literature was consulted, on the topics of EC and ELC, as well as documented motivations for becoming certified.</p>
Information on current practices and incentives to promote ELC	<p>Background Analysis Opinion Analysis Grounded-Theory Approach</p> <p>Qualitative: Interviews with ELF and the local government gave insight into the current practices and incentives that are used to promote ELC adoption.</p>
Information from businesses with ELC	<p>Opinion Analysis Grounded-Theory Approach</p> <p>Qualitative: An analysis was conducted with regards to the motivations for why these businesses chose to become certified.</p>
Information from businesses without ELC	<p>Opinion Analysis Grounded-Theory Approach</p> <p>Qualitative: An analysis was conducted with regards to the motivations for why these businesses chose not to become certified.</p>
Information from businesses that have previously had ELC	<p>Opinion Analysis Grounded-Theory Approach</p> <p>Qualitative: An analysis was conducted with regards to the motivations for why these businesses chose to let their certification expire.</p>
Results from analysis of earlier sub-questions (valid for both SQ6 and SQ7)	<p>Grounded-Theory Approach</p> <p>Qualitative: The previously obtained data was evaluated in a comparative manner.</p>
All obtained data thus far	<p>Grounded-Theory Approach</p> <p>Qualitative: The previously obtained data was evaluated, and a diagnosis was provided, thus answering the main research question.</p>

3.3.2 – Process for Gathering and Analysing Literature

To gather relevant literature for the initial step of the research project, a variety of databases were consulted, the most important ones being Scopus (a database provided by Elsevier) and Oria (a database provided by the University of Oslo). The focus of the literature search¹¹ was to locate studies discussing topics such as “Eco-Lighthouse”, as well as “Environmental Management Systems” and “Environmental Certification” in general, and what “motivations” businesses had to pursue such initiatives. However, because “Eco-Lighthouse” yielded relatively few results in the main databases consulted, Google Scholar and even Google were used to locate additional studies, providing some earlier master’s and PhD theses on the subject. Furthermore, the websites of ELF and RK were used as sources of information, and even the interviewed certified businesses’ websites were inspected for matters relating to ELC.

3.3.3 – Research Strategy

Following the information presented in tables 1 and 2, Figure 2 visualizes the systematic approach taken during the analytical process.

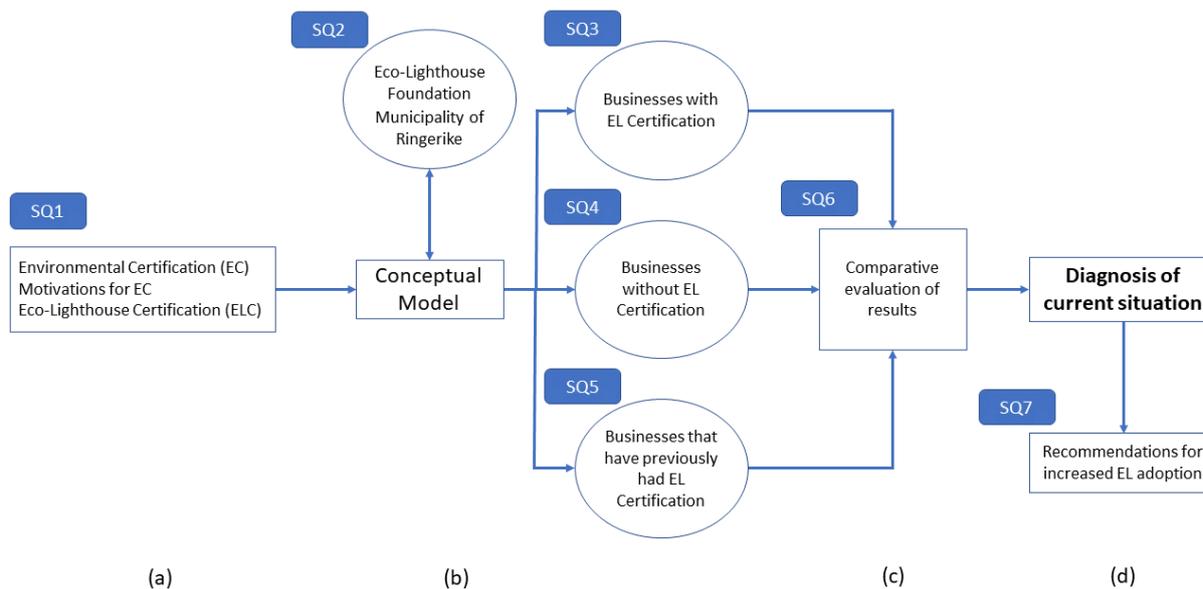


Figure 2: The research strategy.

A description of the step-by-step approach in the research strategy above is as follows:

- a) The initial step (SQ1) required a qualitative literature search into the concept of EC, as well as an in-depth look at and explanation of the ELC. Furthermore, as the core concept in the research project, the documented motivations for adopting EC and ELC, as presented in earlier literature, had to be studied and described.
- b) This step is divided into two segments.
 - i. The first segment deals with the Eco-Lighthouse Foundation (ELF) and the municipality of Ringerike (RK). Interviews were carried out with these stakeholders as part of the preliminary research process (SQ2), and the findings obtained from these

¹¹ Note that all searches were carried out in both English and Norwegian.

interviews were utilized to fine-tune the conceptual model and the interview guide that was utilized when interviewing the various businesses.

- ii. The second segment consists of three parallel paths, dealing with the in-depth interviews that were carried out with the various businesses, with each path corresponding to one research sub-question (SQ3-5), and one classification (see Section 1.5). Here, the conceptual model was utilized to create semi-structured interview guides.
- c) Subsequently, the findings from the previous step were combined and evaluated, based on the conceptual model, to identify the distinct characteristics of the various business classifications, and to determine potential similarities or isolated occurrences with respect to motivations for ELC (SQ6).
- d) Following the previous step, the current situation could be diagnosed, and potential strategies for increasing EL adoption among businesses could be assessed (SQ7), thus providing an answer to the main research question.

Furthermore, the concepts constituting step (a) in Figure 2 are defined as follows:

- **Environmental Certification (EC):** A certification that businesses can obtain to signal their environmental commitment externally and internally. Certification requires that the business makes a strategic management decision to improve their environmental performance, generally by installing some degree of Environmental Management System (EMS).
- **Motivations for EC:** The motivations that cause businesses to adopt EC. This is the core concept of the research project. Different businesses provide different reasoning for why they choose to become certified, and such reasons include, but are not limited to, competitive advantage, economic gain, stakeholder pressure, etc. Through an investigation into literature on the matter, several motivational aspects were identified (Section 2.4).
- **Eco-Lighthouse Certification (ELC):** The most widely adopted environmental certification scheme in Norway, based on ISO 14001, and recognized by the EU as a valid substitute for EMAS in public procurement processes.

3.3.4 – Analytical Framework

Figure 3 provides a visualization of the analytical framework for this research project. It illustrates how the motivational aspects identified in Section 2.4 were utilized during the research, as a means for developing the interview guides (Section 3.4), but also for the subsequent analysis process. The arrows within the conceptual model segment illustrate the (simplified) causal relationships that arose from literature.

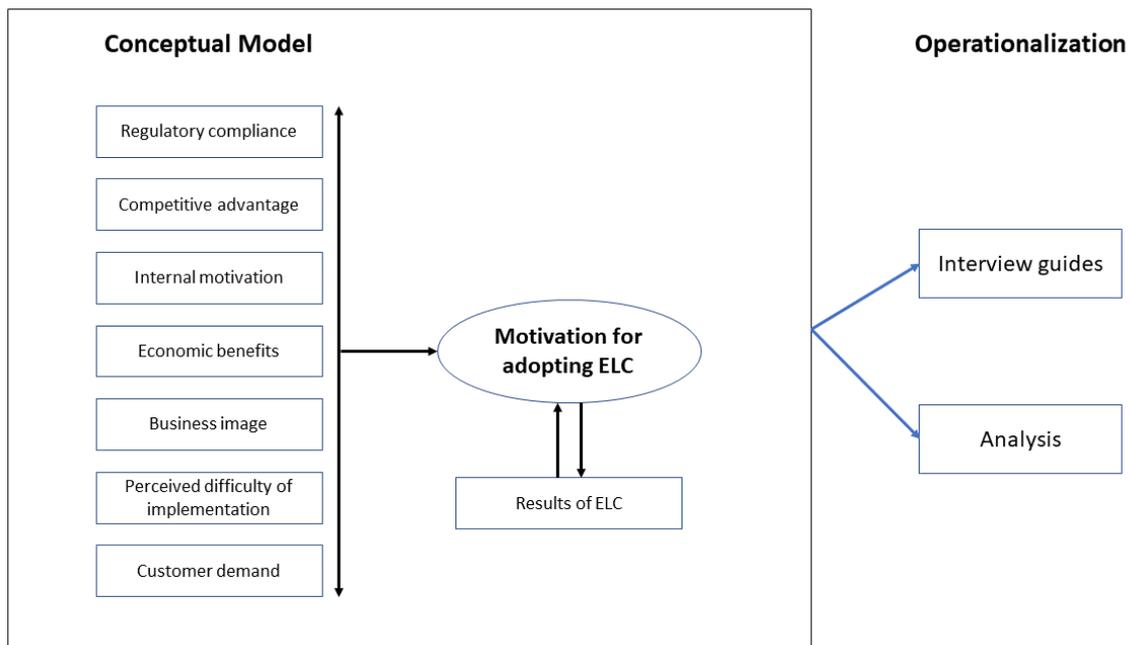


Figure 3: The analytical framework.

3.3.5 – Grounded Theory Method

Charmaz (2014) describes Grounded Theory as methods consisting of “systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories from the data themselves”, and such an approach was utilized to process the qualitative data that was collected during this research project. To summarize, this meant that the conducted interviews were transcribed verbatim, and the transcripts were subsequently processed and coded (line-by-line and segment-by-segment) to initiate the analytical process.

In accordance with the Grounded Theory method, the coding process made extensive use of coding for actions (by using gerunds¹²), by either directly using the content within a segment, or by assigning a meaning through interpreting the content. This, as stated by Charmaz (2014) allows the researcher to interact with the data and study each fragment closely. Meanwhile, there was a continuous process of comparative analysis between data and codes, both within individual cases, but also between separate cases within and across the various case classifications. Effectively, this meant that consecutive interviews were improved as a result of the increasing analytical understanding of the already collected data. Following the initial coding process, a focused review process took place, and certain codes were found to be recurring among the various cases, culminating in the selection of several codes that were used for further analysis.

Note that the method was not used to fully develop a theory, but rather to provide a foundation for a comparative analysis of the collected data with theories and findings from earlier studies. Ultimately, the developed codes proved useful for this purpose.

3.3.6 – Tools for Data Processing

To maintain a structured overview of the relatively large number of businesses consulted, as well as process the non-numeric, qualitative data, computer software was found to be helpful.

¹² In English, a gerund is the “-ing” form of a verb. E.g. Describing, experiencing, stating, etc...

- A comprehensive spreadsheet was used to keep track of the businesses and their classifications, contact and interview status, and whether their respective interviews had been transcribed and otherwise processed.
- To simplify the process of organizing, coding and analysing the large quantities of non-numeric, qualitative data obtained from the interviews, the software package *NVivo 12* was used. This was very helpful as it provided a great overview when creating codes, as well as allowing for quick and advantageous cross-examinations of codes, cases, categories, etcetera.

3.4 – Interview Guides and Interview Process

To obtain in-depth relevant data, and to steer the interviews and keep them on topic, it was decided that the interviews would be semi-structured. Thus, pre-structured (Verschuren & Doorewaard, 2010) interview guides were created, to ensure that each interview would cover the same (or similar) questions, although it allowed for improvised follow-up questions whenever it was appropriate and convenient to do so. The interview guides that were used with the various businesses can be found in Appendix A. It should be noted that the questions within are not directly adapted from literature, other than that they are inspired by earlier theses and studies presented in the literature review, with emphasis on ELC. However, considerable thought went into developing the questions to ensure they would produce useful data, without becoming too encumbered with details nor leading. The motivational aspects identified in Section 2.4 were not directly operationalized with separate questions, although the questions were overall developed to provide insight into all of them. Therefore, whereas some of the questions are clearer on which aspects they address (e.g. Q2A.2, about the certification process, addresses the “Perceived difficulty of implementation”), most of the questions were intended to probe into several of the aspects.

Essentially, the interview guides have three sections, one for introductory remarks and one for closing, with a middle section in which EL was the topic in focus:

- Section 1 – Introduction
 - The purpose of this section was to get a general overview of the business, such as their customer base, their current activities with respect to environmental performance, and whether they experienced pressure from customers on the matter. The other purpose was to create a relaxed setting for a fruitful conversation.
- Section 2 – About Eco-Lighthouse
 - This section aimed to assess the interviewee’s (and by extension the business’s) knowledge and perception of the ELC scheme. Broadly, the questions within this section could be divided into several categories; such as knowledge and perceptions of the ELC scheme; motivations for whether they became certified or not; their activities with respect to environmental performance; the outcome associated with ELC; as well as their future plans regarding the certification.
- Section 3 – Closing Remarks
 - The closing section intended to inquire about the business’s plans with respect to their environmental performance, as well as what would incentivize them to improve themselves. Furthermore, the interviewee was presented the opportunity to voice their own suggestions on how other businesses could be motivated for certification. Lastly, it was interesting to hear their opinion on what the municipality could (or should) do to encourage ELC.

For all interviews, it was critical that the correct personnel were interviewed. Therefore, when contacting the businesses, the first thing to do was to get in touch with the person in charge of environmental performance (and ELC) for the business, thus ensuring that the interview would be carried out with those with authority on the matter. In all cases, the interviewee was requested to sign a consent form regarding how the obtained information could be utilized.

Ultimately, the interviews that were conducted over the course of the research project can be divided into three types:

- Short phone-interview: Some businesses agreed to very brief (e.g. 5 minutes) phone-interviews. In these, the prepared interview guides were too elaborate, and the interview content was improvised based on the guides.
- Short in-person interviews: Some businesses agreed to very brief (e.g. 5 minutes) conversations during the working day. In these, the prepared interview guides were too elaborate, and the interview content was improvised based on the guides.
- Long in-person interviews: Some businesses agreed to in-depth interviews (e.g. 45 minutes). In these cases, the interview guides were used to steer the conversations.

Among the businesses that were interviewed, an overview of the type of interview conducted is provided in the following table.

Table 3: The type of interview conducted with each business classification.

Type of interview	Type of business		
	Class. 1	Class. 2	Class. 3
Short phone-interview	1		3
Short in-person interview	1		3
Long in-person interview	11	2	

Following the interviews, verbatim transcripts were composed and subsequently coded.

Note that separate (long) interview guides were used for the preliminary interviews with ELF and RK. These can be found, respectively, in Appendix B for ELF and Appendix C for RK.

3.5 – A Note on Research Limitations

With respect to the selection of relevant businesses, these limitations are properly explained in section 3.2.1. However, a note should be made regarding the interview process and the subsequent analysis. For one, the contents of the last interviews were influenced by the previously conducted interviews, and some questions and inquiries that were included in the end were not present in the beginning. Therefore, it is possible that some findings (i.e. codes) that were potentially significant may have been omitted from the presentation, due to insufficient data points.

Chapter 4 – Findings

In this chapter, the sub-questions (SQs) from Section 1.4 are systematically answered in separate sections, and the data collected over the course of the research period is presented. The findings are discussed in the context of the current SQ, as well as building upon the content of the preceding SQs.

4.1 – Assessment Criteria of Motivations

The first research sub-question (SQ1) was answered through an extensive literature search on the topic of ELC and motivations for EC in general, and the results of this culminated in the motivational aspects presented Section 2.4, and the analytical framework that was drawn up is illustrated in Figure 3 (Section 3.3.4). These bear repeating at this point in the thesis, and the motivational aspects are as follows:

- Regulatory compliance – To what extent is ELC required for regulatory compliance?
- Competitive advantage – Does ELC provide a competitive advantage?
- Internal motivation – Is internal motivation among employees enough for pursuing ELC?
- Economic benefits – What are the economic benefits of obtaining ELC?
- Business image – How does ELC affect the external image of a business?
- Perceived difficulty of implementation – Is the ELC process too challenging?
- Customer demand – Do customers require ELC (e.g. public vs private)?
- Results of ELC – Is there a reinforcing feedback effect of having ELC?

The motivational aspects listed above were ultimately used for the purpose of this research as criteria when assessing the motivations.

4.2 – ELC Practices and Incentives in Ringerike

To answer SQ2 regarding the current practices and incentives for ELC in Ringerike, interviews were carried out with ELF and RK. In addition to providing valuable data for answering the SQ, they also helped shape the semi-structured interview guides (Appendix A) that were to be used in the following interviews with the various businesses.

All sections in Chapter 4.2 stem from single interviews, in Section 4.2.1 with a senior advisor from ELF, and in Section 4.2.2 with a senior official in charge of climate and environment in the department of strategy and development from RK.

4.2.1 – Eco-Lighthouse Foundation (ELF)

Initially, ELF had to restrict themselves when marketing the ELC scheme, mainly due to budget constraints, although they state that their budget today allows for more focus in this area. At present, ELF is promoting the ELC scheme through advertisements on online platforms, and by providing seminars. Ideally, they wish that certified businesses promoted the certification of their own volition, and that this would be beneficial for both the businesses themselves, both through increased consumer awareness of the certification (and that they should frequent certified businesses), and by advertising themselves as environmentally conscious.

As for current practices for promoting the ELC scheme, they stress that it is highly dependent on the efforts of the local governments, and that the focus on ELC varies considerably. Some are actively promoting the certification scheme by, for example, acting as an inspiration by striving to certify their own institutions (schools, kindergartens, etc.), or by actively drawing attention (through public channels) to EMSs and ECs, thus increasing overall awareness. In Kristiansand (a municipality in Norway), local collaborative efforts aim to organize seminars to educate local businesses on why they should become certified. There also exist commercial organizations that actively promote the

certification, such as insurance providers, because increased environmental performance lowers the risk of unforeseen episodes, and sustainable tourism, because the tourism industry depends on a healthy environment that is appealing to tourists if they wish to provide their services. Despite these initiatives, however, there are no national programs in place to promote and incentivize the ELC scheme, except for the potential of demanding a certain environmental performance of actors through public procurement processes.

4.2.2 – The Municipality of Ringerike (RK)

RK is, as they call it, an “Eco-Lighthouse municipality”, meaning that they have an agreement with ELF and are obliged to carry out their role as the certifying body. However, although it was quickly made clear that ELC had been a topic of discussion internally in the municipality for a long while, it had not been prioritized when it came to implementation. Furthermore, they indicated that they will be putting more focus on it going forward, and that they aim to certify their own institutions in the coming years. They hope that this will inspire other businesses to seek certification themselves, and they want to facilitate and make this process easier.

They also say that they wish to increasingly demand better environmental performance of participants in public procurement processes, potentially incentivizing ELC adoption among businesses. However, they point out that there are, currently, no legal requirements for businesses regarding environmental management, so they are limited in the extent to which they can require them to have ELC. Despite this, they further explain that the regional waste company, performing a public service on behalf of local governments, stipulates certain requirements for businesses regarding waste, so ELC might, in fact, be a way for businesses to ensure that they are regulatory compliant.

At present, they are not making any significant efforts to promote ELC towards businesses, and they admit that, so far, businesses that have been interested in the certification have reached out to the municipality to inquire about it, and not vice-versa. Even so, they make sure to involve themselves by organizing a diploma ceremony for businesses that become certified, and they plan to be more active in this regard in the future.

Generally, RK aims at expanding their activities to promote the ELC scheme towards businesses in the region, and they want to encourage businesses and help them become certified.

4.2.3 – Highlights of Interviews with ELF and RK

It is apparent that there are no national-scale programs or practices that aim to promote the ELC scheme among businesses in Norway. Despite this, there are some commercial organizations that try to incentivize their members to adopt ELC (for various reasons). Furthermore, as is emphasized by the interview with ELF, the local governments themselves are crucial when it comes to promoting the certification, and that the extent of these activities vary significantly depending on the region. In fact, the interview with RK makes clear that ELC, up to this point in time, has not been a priority for them, and it has therefore not been actively promoted or otherwise communicated in the region. However, they indicate that this will change going forward, and that they want to increase their promotional activities, as well as actively work to certify their own institutions. It should be noted that they are limited in the extent in which they can demand ELC from businesses, as there are no legal requirements in this respect, and they, as a local government, cannot be “favoring” certain businesses over others. The ELC scheme is also, at least at the time this research project was carried out, not very visible on the RK websites, and it must be intentionally searched for to be located.

4.3 – Businesses in Ringerike with/without ELC

Following the identification of motivational criteria to be used for assessing the motivations for ELC, the interviews with the selected businesses were carried out. The following sections aggregate the findings from these interviews and look at how the various businesses relate to the ELC scheme, as well as whether there are similarities between the defined certification classifications (Section 1.5). Sections 4.3.1, 4.3.2 and 4.3.3 present the findings for, respectively, businesses with ELC (SQ3), businesses without ELC (SQ4), and businesses that have previously had ELC (SQ5). Section 4.3.4 contains the findings that were found to be recurring among the different classifications.

Note that the selected codes stemming from the analysis process (presented in Appendix D) were not necessarily present for all businesses within or across classifications. This means, for example, that the code “Adopting ELC because the market requires it” (Appendix D.1) was not necessarily present for all the businesses with ELC. Furthermore, some of the codes may seem to be overlapping. However, it was determined that the presented codes were the most important to get an overview of the current situation. All the codes can be found in Appendix D, and the content in the following sections are based on those codes.

4.3.1 – Classification 1: Businesses with ELC

In total, 13 businesses were consulted. As the interview process started, it was clear already after a few interviews with certified businesses (see Table 4 in Appendix D.1 for the codes) that the general opinion of ELC was positive, and that, despite a few perceived challenges and hurdles, it was generally accepted and appreciated by the businesses. For instance, they seemed to agree that the ELC was relatively easy to get started with and to implement, even though their preconception had been that doing so would require an immense amount of work. This attitude had quickly changed once they began the process, and in retrospect they admit that ELC was less difficult than initially anticipated. Furthermore, even though some of the requirements for ELC were initially perceived as bureaucratic and unnecessary, their retrospective opinion is that the process was educational and useful, and that adopting ELC is, ultimately, rewarding. This is in line with the finding of Westermann (2012), when they found that the advantages of ELC seemed to outweigh the disadvantages. Interestingly, although the businesses acknowledge that getting started with ELC can incur significant costs, they believe the fees associated with the ELC scheme itself (e.g. annual fee) are insignificant.

Overall, the certified businesses seemed to agree that having ELC counted positive for their external image and their reputation, and that having it provided them with a competitive advantage. It should be noted, however, that the businesses that reported it as a competitive advantage typically concern themselves with large-scale customers (e.g. public procurement or large construction projects), supporting what Skorstad (2015) and Solberg (2013) found regarding motivations for ELC, and that their small-scale customers (e.g. residential) do not inquire about the certification. In fact, several businesses expressed their wish for ELC to be made even more visible in the public sphere, and that RK could be more demanding in their procurement processes. To assess the relevance of Gaustad’s (2011) findings in kindergartens in Oslo, some certified educational institutions were also interviewed here. These institutions, who do not perceive customers in the same way as for instance a construction firm, reported that their student body was increasingly concerned about environmental matters, and ELC was a useful tool for them to communicate their commitment out towards their students. Likewise, the other businesses also utilized ELC in their promotional efforts, albeit some used it more actively than others. In fact, upon probing all the certified businesses’ websites for ELC (not only the ones that were interviewed), it was found that 7 (24%) businesses had the ELC visible on their front page, and 10 (34%) of the certified businesses did not advertise ELC anywhere on their website. Thus, there is an untapped potential in using the ELC more efficiently for

promotional matters. As an interesting side-note, businesses were very unaware of other businesses in the region that were certified, and they could rarely mention even 1 or 2 other businesses with certification. Despite this, several businesses were reportedly willing to share their experiences with respect to ELC with others, and explain why they saw a benefit in having it.

As for the motivations that caused them to seek ELC, there is some variation. For one, an important motivation for ELC was market demand, as earlier documented by Granly and Welo (2014). Not for ELC specifically, but ELC, being widely known in Norway and with industry-specific criteria, made it an obvious choice for businesses (1) that seek to improve their environmental performance, and (2) to acquire a “proof” that carries some weight. In fact, the businesses expressed appreciation because they can send their ELC to customers and suppliers instead of having to compile data on their environmental performance on a case-by-case basis. Some even go as far as to using their ELC to try to influence suppliers and get them to increase their environmental performance. Furthermore, the businesses tend to agree that their day-to-day operations had been improved following ELC, in some instances because the certification had forced them to obtain a better overview of their business, which had uncovered opportunities to improve their routines and procedures, and through better resource management. Moreover, a recurring remark was that the management had some interest in environmental matters, and that they typically initiated the ELC process, although other personnel became increasingly environmental conscious following the certification (who proceeded to influence others outside the workplace). However, this observation was accompanied by acknowledging that ELC cannot be implemented through managerial drive alone, and that motivated employees are essential. In some cases, the initial pursuit of ELC started with a personal interest of the manager in both ELC and environmental performance, supporting what Gaustad (2011) found regarding internal motivations for ELC when interviewing personnel in kindergartens. Because ELC has not been a priority for RK (Section 4.2.3), it would seem as if personal motivation for the scheme has been essential, and that the market has positively contributed as well.

To summarize, the certified businesses generally view ELC as being rewarding, with positive effects on daily operations, although they acknowledge that the start-up phase can incur significant costs. They seem to believe that ELC provides them with a competitive advantage, but they wish that ELC was more visible in the public sphere and that it was made even more important in the market. Interestingly, even though they agree that ELC counts positive for their external image and their reputation, some businesses are not advertising their ELC on their websites. They also acknowledge that managerial drive is not enough for implementing ELC, and that motivated employees are essential for successful implementation.

4.3.2 – Classification 2: Businesses without ELC

It would be expected that businesses without ELC would have a more neutral attitude towards the scheme, which seems to be the case judging by the two interviews that were conducted (for the codes see Table 5 in appendix D.2). Whereas they do agree that environmental performance is important, and that they would like to use less resources and to reduce their ecological footprint, their approach to doing so does not necessarily involve ELC. Furthermore, they are of the opinion that implementing ELC would require a lot of work, and it carries with it a significant cost. In contrast to the certified businesses, they, although they speak fondly of increasing their environmental performance, do not seem to assign a high degree of importance to undertaking any significant changes to their internal systems to prioritize it. Thus, environmental performance seems to come secondary to what is considered “normal” operations, and it would appear as if there is a lack of internal motivation. If ELC (or any EMS) were to be enforced upon them, a lack of receptiveness

would therefore likely result in poor integration with currently existing management systems, and the effect would be debatable.

They do believe that adopting ELC would be positive for the business's image, and that it would catalyse an increasing environmental consciousness among employees. Contradictorily, they simultaneously state that adopting ELC would not cause any significant changes internally in the business, being either an indication of a strong confidence in their current internal systems, or suggesting a misconception of what ELC would require of them. Nonetheless, they deem market demand to be an important motivation, and they would seek to adopt ELC if they saw that their competitors did so as well, or if customers were to begin demanding it of them. However, they state that they do not at present feel pressured to do so, and neither they have been contacted by the municipality regarding ELC. In fact, any exploration of the scheme stems from personal curiosity.

4.2.3 – Classification 3: Businesses that have previously had ELC

In the 6 interviews with these businesses (see Table 6 in Appendix D.3 for the codes), although they were brief, a commonality was the negative perception of the ELC scheme. In one case, as is to be expected from time to time, ELC was simply found to not be the ideal choice, as some sectors (e.g. shopping malls, construction) have even more specified certification schemes. However, a recurring understanding was that implementing and working with the ELC scheme required a lot of work, and it was difficult to keep up with the requirements that it had. It should be noted that half of the businesses of this classification were clothing stores in a mall, and they typically have few employees and a busy schedule, and that ELC (or any EMS) might not be ideal in this situation. On the other hand, another (certified) mall-business reportedly receive a checklist from their ELC manager at their central headquarters, and thought this was a convenient way to accommodate the ELC requirements at their branch.

Generally, they view the ELC scheme as unrewarding and irrelevant, with customers seeming as if they do not really care (or even know) about ELC. In fact, an important reason for not continuing with the ELC scheme was that customers were not requiring it. Thus, they do not seem to get any value out of having the ELC, which is, of course, imperative for commercial businesses. Furthermore, some of the businesses were dismayed when confronted with the cost of the ELC. However, to exaggerate this, one business reported that they had believed the certification to be free, which is an obvious example of where the ELC information process has failed. Nonetheless, they all believe that they are managing their environmental performance just fine despite no longer having the ELC. Whether this is true is debateable, as the lack of any performance indicators or continuous reporting makes it difficult to validate such claims.

4.3.4 – Cross-Classification Comparison

In addition to each classification showing unique characteristics, the interviews also uncovered similarities (see

Table 7 in Appendix D.4 for the codes) A positive trait for all the interviewed businesses is that they are managing their waste streams, although this is because the garbage collection companies have certain minimum requirements with regards to source-separation if they are to collect their waste. However, it should be noted that the certified businesses are doing it more systematically, making efforts to document their routines for waste management and source-separate into more fractions (e.g. batteries, glass, metal), as well as gaining greater overview of their waste streams. In fact, some can report economic gains as a result of more efficient waste management. Furthermore, everyone interviewed seems to agree that seeing positive results of implementing environmental measures is an important motivation to even further increase environmental performance. However, they also acknowledge that they need to see the economic benefits of choosing environmentally friendly solutions, and that the cost-benefit limitations of such solutions are important criteria in the decision-making process.

As for the matter of market demand for ELC, there is a distinction between large projects (public procurement, land development) and private customers (residential, consumers). A recurring problem is that private customers do not typically inquire about ELC, and they seem to value cost more than business' environmental performance. Furthermore, even though many of the businesses participate in public procurement processes, they do so indirectly, meaning that they are sub-contractors who are hired by a general contractor. In this case, it is up to the general contractor to decide whether they want their sub-contractors to have ELC, and even decide to what extent they want to prioritize sub-contractors' environmental performance. The result of this is that the demand for ELC (and environmental performance) can vary immensely between projects, and the ELC is not perceived as beneficial or even necessary in some cases. There is, obviously, a potential for improvement here, and environmental performance could be made increasingly important in tendering processes. Lacking significant market demand, internal motivation arises as an important factor for pursuing ELC.

Generally, businesses indicate that they wish to increase their environmental performance, and everyone tends to agree that the management is concerned about it to some extent. However, judging by the lack of initiatives aiming to improve it, it is difficult to discern, in some cases, whether this is based on a genuine motivation to be better, or if it is a matter of presenting themselves in a positive light. Interestingly, certified and uncertified businesses both view ELC as overall positive for the business, and that ELC by itself does not have any negative effects, although previously certified businesses perceived it more negatively. However, this could be a result of the short interviews failing to uncover any (if at all) positive perceptions in these cases.

The effect of size is important to consider, and it came up in several interviews. For the uncertified (and previously certified) businesses, it was often mentioned that implementing ELC would be challenging because they were a small organization. Of course, this is a valid concern, but it may be interlinked with a misconception of what the requirements of ELC actually are. For the certified businesses, size was never viewed as a significant obstacle, and these businesses range in size from less than nine employees to more than 400. In some cases, having fewer employees meant that it was easier to activate them, and to instil a sense of ownership of the process. However, they also stressed that it was challenging if essential personnel became ill or if they left the business, as critical knowledge (but also motivation) of ELC might become lost. If one individual in the business is responsible for the ELC scheme, a lack of knowledge-transfer procedures will have consequences if that individual decides to leave. Recall also that the certified businesses initially anticipated, although they admitted they were erroneous, a high workload, which indicates that there is room for improvement when communicating the burdens of the ELC scheme to businesses. In conclusion,

even though Cassels et al. (2011) reported that SMEs could struggle with implementing EMSs due to lack of resources (e.g. size), it would seem that the interviewed ELC businesses, at present, do not consider size to be a significant issue for them. However, it is possible that some businesses that have previously been certified lost their ELC-motivated personnel, resulting in them losing interest in ELC.

4.4 – Alignment of Stakeholders’ Perceptions of the ELC Scheme

Following the sub-questions answered above, it is possible to get an overview of whether the stakeholders (ELF, RK, businesses) are aligned with respect to the ELC scheme (SQ 6). As for ELF and RK, it is made clear that the local government is assigned a critical role in promoting and facilitating ELC adoption among businesses. For the businesses, more importantly, it is unmistakable that they have different perceptions of the ELC scheme. Certified businesses are more positive towards the scheme, but they also admit that it might appear daunting to businesses that are unfamiliar with it. Nonetheless, everyone acknowledges that becoming certified may induce some positive effects, although it is difficult for uncertified businesses, because they lack experience with ELC, to precisely identify what these effects would be. With respect to market demand, all businesses experience it differently, and some can therefore attribute more value to ELC than others. Furthermore, some consider ELC to be expensive, whereas others view the cost as insignificant and symbolic.

Ultimately, owing to the varying perceptions of the ELC scheme among the consulted stakeholders (e.g. uncertified businesses view it as challenging due to size, whereas certified businesses say that size is not a significant barrier) it is possible to say that the perceptions of the ELC scheme do not seem to be aligned according to the interviewees’ opinions. Thus, there is a potential for making efforts to properly and precisely convey the purpose of ELC and what is required from it.

4.5 – ELC Adoption Opportunities in Ringerike

With what is presented in the preceding sections, it is possible to provide an answer to SQ 7. As an addition to the other questions, it was determined that it could be useful to inquire about what the businesses themselves saw as ways to improve the ELC scheme. This is important both to incentivize more businesses to seek out the certification, but also to maintain a high retention rate among businesses that are already certified. A recurring issue, among certified and previously certified businesses, was that they experienced ELF and RK as being indifferent to them once they had the certification. For instance, even though there were occasional newsletters from ELF, there was no significant interaction with them in between certification periods (i.e. every 3 years). As for RK, businesses (of all classifications) had very rarely been contacted by them regarding the ELC scheme, and any initiative with respect to ELC was because of personal interest. Thus, although they were not able to precisely define how, businesses agreed that ELF and RK could interact more with them regarding ELC, if not only to make them “feel appreciated” and valued for being environmentally conscious. One idea that arose was the creation of an “umbrella” association in which all businesses with ELC could be included, which could then be used for promotional matters, as well as increasing the awareness of ELC businesses among the businesses themselves. Seeing as several businesses reported a willingness to share their experiences with ELC, such an initiative could be beneficial.

Furthermore, the communicative flow might require to be improved, as, depending on whether the researcher asked certified or uncertified businesses, the perceptions of ELC differs importantly. For instance, there is an important difference in the perceived workload and difficulty of changing internal systems and complying with the ELC requirements. Moreover, and this is potentially more important for commercial businesses, the potential benefits of adopting ELC can be more clearly conveyed, as it is difficult to incentivize internal transformation in businesses if it is not made clear

how they will benefit from it. This goes hand-in-hand with whether ELC is considered to give a competitive advantage, and ELF and RK could make efforts in educating the public on why environmental performance is important. This is not to say that ELC, specifically, must be promoted, but rather that environmental performance as a concept can be made clear, so that private customers will, through knowledge of it, start demanding more from the businesses that provide them with goods and services. In one of the interviews, the interviewee expressed a desire to, in a private setting, classify stores that strove for excellent environmental performance, but they admitted that it is incredibly difficult to do so because this information is not readily available.

It is also important to note that RK can “lead by example”, and that they can incentivize businesses to adopt ELC if they endeavour to get their own institutions certified. Doing so will send a powerful signal to businesses that ELC is something that RK prioritizes, and that being certified will be more important going forward. Furthermore, as it came up in one interview, it is crucial that RK exerts their authority as a supervising body, and that those businesses that are negligent with their environmental performance (with respect to laws and regulations) are penalized for doing so. At present, the interviewee indicated that RK did not do this properly, and it is discouraging for businesses that strive to comply with the legal framework if they see that competitors are able to get away with neglecting their responsibilities. For instance, the interviewee was able to point to competing businesses that kept costs low by improperly managing waste and HSE¹³ matters, and that they themselves, being certified, “suffered” because a lack of supervision meant that their interest in environmental performance, in fact, became a competitive disadvantage. To encourage ELC adoption among businesses, it would therefore be beneficial if those that are disregarding the legal framework were dealt with.

¹³ Health-Safety-Environment

Chapter 5 – Conclusions

With a foundation built on the findings with respect to the sub-questions, as presented in Chapter 4, the overarching research question presented in Section 1.4 could be answered. For now, it is possible to assemble the information and assess how businesses in Ringerike can be motivated for the ELC scheme.

The certified businesses appreciate the systematic approach of ELC, and that ELC is, in fact, a way for them to become regulatory compliant. Whereas prior to becoming certified they may have been lacking in some areas with regards to e.g. documenting their routines or properly managing their waste, the certification has helped improve these aspects. The fact that ELC provides such benefits can definitely be properly communicated when promoting the scheme. However, as some businesses are dismayed by the fact that competitors can get away with neglecting their environmental responsibilities (i.e. not being regulatory complaint), RK could assist by increasingly exerting their authority as a supervising body to pursue those businesses who are not abiding by regulations. This could change the view that some businesses have regarding the regulatory compliance required by ELC being a disadvantage. RK can also, to drive ELC adoption among commercial businesses, “lead by example” and certify their own institutions, as well as being more appreciative of the businesses that are certified, for example by making the information regarding certified businesses in the region visible on their websites. In fact, ELC businesses can be used to promote the “green” image of the municipality.

Furthermore, as RK themselves highlighted as an area for improvement, RK can increasingly demand better environmental performance from participants in public procurement processes, and, as it was found by Solberg (2013), this could act as an important motivation for businesses to seek certification. In fact, in this case, this would result in the certified businesses gaining a competitive advantage over uncertified businesses, ultimately resulting in an economic benefit, because they would get access to more projects. The importance of potential economic gains should not be underestimated, and this research project found, much like Granly and Welo (2014), that this is an essential motivation for businesses to seek ELC.

In addition to this focus on what RK can do to incentivize ELC adoption, it is important to note that the certified businesses themselves could influence the market, especially when it comes to using the ELC scheme when promoting themselves. As mentioned earlier, only 24% of the certified businesses in the region displayed ELC on their front page¹⁴, and 34% made no mention of ELC at all. As for the rest, to see that the business had ELC required making an active effort to look for it. Thus, the businesses themselves can become more proficient in advertising that they are, in fact, certified. By doing so, they would catalyse several effects, such as improving their external image and reputation towards customers, but also by increasing the public awareness of the certification scheme, as well as cultivating a market demand for such certifications in general. They could gain a lot by actively using the certification when promoting themselves, instead of, as is the case for many, becoming certified and “hiding” it away somewhere deep in their websites.

Lastly, lest we forget the mismatch in perceptions regarding the workload associated with ELC, the amount of work, and the difficulty of said work, can possibly be more effectively communicated towards businesses, to provide a more realistic perception of the difficulty of implementation. Presently, some businesses begin with ELC while anticipating that it will be immensely difficult, only to find out in retrospect that “it was easier than I thought”. Therefore, internal motivation is what

¹⁴ Although the impact of this varied, as whereas some only had a small logo at the bottom, others had it in a permanent sidebar, making it visible even if you went to other sub-pages on the site.

will differentiate those that choose ELC and those who reject it. How, exactly, to increase the internal motivation of businesses, as was deemed important by Ytterås (2015), will not be explained here. However, a good start could be to properly convey the difficulty of becoming certified, as some perceive ELC to be unreasonably difficult. Furthermore, emphasis could be put on other positive effects of becoming certified, such as the increasing environmental consciousness among employees, the economic benefits of properly documenting and managing waste, and that, as reported by Solevåg (2010), there will be less absence due to illness.

In conclusion, this research project has identified misalignments in how the ELC scheme is perceived by businesses (e.g. potential benefits, workload), and that the market differs widely in the extent to which it demands ELC, and some segments are more demanding than others. To answer the main research question presented in Section 1.4 on how to motivate more businesses to pursue ELC and to increase the retention rate, it is essential that misconceptions are shattered, and that the market is educated on why they should care about ELC, as well as communicating the internal benefits (e.g. employee awareness, cost-saving) that the certified businesses reportedly experience. Ultimately, the attitudes towards the ELC scheme can be improved, and ELC may be made a mark of honour, one which businesses take pride in, instead of viewing as chore.

5.1 – Recommendations for Further Research

As a last addition to the thesis, the following are some suggestions for areas where further studies can be endeavoured. For one, as stated in the interview with ELF, the degree of activity with respect to ELC varies among the municipalities in Norway. Considering the crucial role of the local government in the ELC scheme, it is important to understand how they, too, can be motivated and encouraged to participate in the scheme. Furthermore, because there is no consistency in certified businesses' inclusion of ELC in their promotional activities, it is intriguing to consider how to they can become more competent in using it when advertising themselves, as well as the market effect of doing this. Lastly, it could be interesting to assess how certified businesses can be activated and utilized to motivate other businesses for the ELC scheme.

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Appendices

Appendix A – Interview Guides (Businesses)

Section 1 – Introductory Questions

Q1.1: What is the trade of the business?

Q1.2: What is your role in the business?

Q1.3: Who are your customers?

- E.g. public institutions vs consumers

Q1.4: At present, how is the business dealing with its environmental responsibilities?

- **Why is the business taking these measures?**

Q1.5: Are you experiencing pressure from customers to be more environmentally responsible?

- If yes, **in what way?**
- If yes, **how are you accommodating this?**

Section 2A – About Eco-Lighthouse (Businesses with ELC)

Question Question

Category

<i>Eco-Lighthouse</i>	Q2A.1: How would you describe the Eco-Lighthouse scheme? <ul style="list-style-type: none"> • Can they describe it in their own words?
	Q2A.2: How would you describe the certification process? <ul style="list-style-type: none"> • Were there any challenges?
<i>Motivation</i>	Q2A.3: Why did you choose to become an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. who took the initiative?
	Q2A.4: What was the most important reason for becoming an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. environmental vs economic benefits
<i>Activities</i>	Q2A.5: What environmental measures did you take prior to becoming an Eco-Lighthouse? <ul style="list-style-type: none"> • Why did you stop there?
	Q2A.6: What environmental measures are you taking now that you are an Eco-Lighthouse? <ul style="list-style-type: none"> • Were these measures required for the certification, or were they implemented for other reasons?
<i>Outcome</i>	Q2A.7: Has the certification had any positive effects on the business? <ul style="list-style-type: none"> • If yes, what effects?
	Q2A.8: Has the certification had any negative effects on the business? <ul style="list-style-type: none"> • If yes, what effects?
	Q2A.9: How has the certification affected the employees in the business? <ul style="list-style-type: none"> • E.g. a shift in employee attitude.
	Q2A.10: How has the certification affected customer relations? <ul style="list-style-type: none"> • E.g. more/fewer customers.
	Q2A.11: How has the certification affected the economic situation of the business? <ul style="list-style-type: none"> • E.g. higher revenue.
	Q2A.12: Are you actively using the certification when promoting the business? <ul style="list-style-type: none"> • If yes, in what way? • If no, why not?

<i>Future plans</i>	Q2A.13: Will you seek recertification when the current one expires? <ul style="list-style-type: none"> • If yes, why? • If no, why not? • If no, what would it take for you to consider it?
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Section 2B – About Eco-Lighthouse (Businesses without ELC)

Question Question

Category

<i>Activities</i>	Q2B.1: How does the business work with environment and sustainability? Q2B.2: Do you spend much time working on improving your environmental performance? Q2B.3: Do you have strict routines and procedures, and documentation? <ul style="list-style-type: none"> • E.g. waste management, energy-use. Q2B.4: How are employees' attitudes towards environment and sustainability? Q2B.5: How are you communicating your environmental performance externally? <ul style="list-style-type: none"> • E.g. advertisement, flyers. Q2B.6: Do customers ever inquire about your environmental performance?
<i>Eco-Lighthouse</i>	Q2B.7: Are you familiar with the concept of "environmental certification"? <ul style="list-style-type: none"> • If yes, how would you explain it? • If no, briefly elaborate. Q2B.8: Are you familiar with the Eco-Lighthouse certification scheme? <ul style="list-style-type: none"> • If yes, how would you describe the scheme? • If no, briefly elaborate.
<i>Motivation</i>	Q2B.9: What is the reason that you are not an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. lack of knowledge, no incentives. Q2B.10: How do you think being an Eco-Lighthouse would affect the business? Q2B.11: What positive effects do you think being an Eco-Lighthouse would have on the business? Q2B.12: What negative effects do you think being an Eco-Lighthouse would have on the business? Q2B.13: What would incentivize you to become an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. subsidies, consumer pressure, regulations.
<i>Future plans</i>	Q2B.14: Do you wish to become an Eco-Lighthouse in the future? <ul style="list-style-type: none"> • If yes, why? • If no, why not?

Section 2C – About Eco-Lighthouse (Businesses that have previously had ELC)

Question Question

Category

<i>Eco-Lighthouse</i>	Q2C.1: How would you describe the Eco-Lighthouse scheme? <ul style="list-style-type: none"> • Can they describe it in their own words? Q2C.2: How would you describe the certification process? <ul style="list-style-type: none"> • Were there any challenges?
<i>Motivation</i>	Q2C.3: Why did you choose to become an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. who took the initiative? Q2C.4: What was the most important reason for becoming an Eco-Lighthouse? <ul style="list-style-type: none"> • E.g. environmental vs economic benefits

	Q2C.5: Why did you choose not to become recertified when the certification expired?
<i>Activities</i>	Q2C.6: What environmental measures did you take prior to becoming an Eco-Lighthouse? <ul style="list-style-type: none"> • Why did you stop there?
	Q2C.7: What environmental measures did you add when you became an Eco-Lighthouse? <ul style="list-style-type: none"> • Were these measures required for the certification, or were they implemented for other reasons?
	Q2C.8: What environmental measures are you taking now that you are no longer an Eco-Lighthouse?
<i>Outcome</i>	Q2C.9: Has the certification had any positive effects on the business? <ul style="list-style-type: none"> • If yes, what effects?
	Q2C.10: Has the certification had any negative effects on the business? <ul style="list-style-type: none"> • If yes, what effects?
	Q2C.11: How did the certification affect the employees in the business? <ul style="list-style-type: none"> • E.g. a shift in employee attitude.
	Q2C.12: How did the certification affect customer relations? <ul style="list-style-type: none"> • E.g. more/fewer customers.
	Q2C.13: How did the certification affect the economic situation of the business? <ul style="list-style-type: none"> • E.g. higher revenue.
	Q2C.14: Did you actively use the certification when promoting the business? <ul style="list-style-type: none"> • If yes, in what way? • If no, why not?
<i>Future plans</i>	Q2C.15: What would it take for you to consider becoming recertified?

Section 3 – Closing Remarks

Q3.1: Are you planning to improve your environmental performance in the future?

- If yes, **in what way?**
- If no, **why not?**

Q3.2: What would incentivize you to increase your environmental performance?

- E.g. subsidies, consumer pressure, regulations.

Q3.3: Do you have any suggestions for how this business can increase its environmental performance?

Q3.4: Do you have any suggestions for how other businesses can be motivated to become Eco-Lighthouses?

Q3.5: What can the municipality do to motivate businesses to become Eco-Lighthouses?

Q3.6: Is there some additional information you would like to add?

Appendix B – Interview Guide (Eco-Lighthouse Foundation)

Section 1 – Introductory Questions

Q1.1: What is Eco-Lighthouse?

Q1.2: What is your role in the Eco-Lighthouse Foundation?

Q1.3: What are the ambitions of Eco-Lighthouse Foundation?

Section 2 – Eco-Lighthouse (General)

Q2.1: How does Eco-Lighthouse Foundation collaborate with municipalities?

Q2.2: How do you promote Eco-Lighthouse Certification towards businesses?

Q2.3: What is your focus when promoting Eco-Lighthouse Certification towards businesses?

- E.g. environmental vs economic benefits

Q2.4: Does there exist incentives/supporting schemes for businesses that want to obtain Eco-Lighthouse Certification?

- If yes, **which?**
- If yes, **how** are these communicated towards businesses?
- **Are you working to develop any?**

Q2.5: What incentives/supporting schemes exist for businesses that do not participate in public procurement processes (exempt from the law on public procurement)?

Q2.6: Besides businesses, is Eco-Lighthouse being promoted towards consumers?

- If yes, **how?**
- If no, **why not?**

Q2.7: Have you conducted any studies on how consumers relate to Eco-Lighthouse?

- If yes, **which?**
- If no, **why not?**

Q2.8: What are your thoughts on promoting Eco-Lighthouse towards consumers?

Section 3 – Eco-Lighthouse (within Ringerike)

Q3.1: How does the Eco-Lighthouse Foundation collaborate with the municipality of Ringerike?

Q3.2: Does the municipality of Ringerike have any unique incentives/supporting schemes for businesses that wish to obtain Eco-Lighthouse Certification?

- If yes, **which?**

Section 4 – Closing Remarks

Q4.1: Do you have any suggestions for how businesses in Ringerike can become motivated to obtain Eco-Lighthouse Certification?

Q4.2: Can you elaborate on any experiences with Eco-Lighthouse in Ringerike?

Q4.3: Is there some additional information you would like to add?

Appendix C – Interview Guide (The Municipality of Ringerike)

Section 1 – Introductory Questions

Q1.1: What is your role in Ringerike?

Q1.2: How is Ringerike organized?

Q1.3: Who in Ringerike is responsible for environmental performance?

Q1.4: How does Ringerike work with environmental performance?

Q1.5: What is Ringerike’s motivation for working with environmental performance?

Q1.6: What ambitions does Ringerike have with respect to environmental performance?

Q1.7: What environmental requirements does Ringerike demand of their suppliers of products and services?

- E.g. law on public procurement

Section 2 – The Eco-Lighthouse Certification Scheme

Q2.1: Are you familiar with Eco-Lighthouse?

- If yes, can you elaborate on what you know?
- If yes, what are your thoughts on Eco-Lighthouse?

Q2.2: What is the relationship between Ringerike and Eco-Lighthouse?

Q2.3: Does Ringerike demand environmental management systems from businesses in the region?

- If yes, what are the demands?
- If no, why not?

Q2.4: Does Ringerike actively promote Eco-Lighthouse Certification towards businesses in Ringerike?

- If yes, how?
- If no, why not?

Q2.5: Is Ringerike working to get businesses in Ringerike Eco-Lighthouse Certified?

- If yes, how?
- If no, why not?

Q2.6: Does Ringerike offer any incentives/supporting schemes to businesses that wish to obtain Eco-Lighthouse Certification?

- If yes, which?
- If yes, how are these communicated towards businesses?
- If no, are you planning to do so in the future?

Q2.7: What incentives/supporting schemes exist for businesses that do not participate in public procurement processes (exempt from the law on public procurement)?

Section 3 – Closing Remarks

Q3.1: Do you have any suggestions for how businesses in Ringerike can become motivated to obtain Eco-Lighthouse Certification?

Q3.2: Can you elaborate on any experiences with Eco-Lighthouse in Ringerike?

Q3.3: Is there some additional information you would like to add?

Appendix D – Selection of Codes from Analysis Process

The following sections and tables contain the selection of codes that were deemed important for further elaboration, and how these apply to the various businesses.

- Table 4 – Classification 1: Businesses with ELC
- Table 5 – Classification 2: Businesses without ELC
- Table 6 – Classification 3: Businesses that have previously had ELC

- Table 7 – Cross-Classification Analysis

Appendix D.1 – Classification 1: Businesses with ELC

Table 4: Selection of codes that were deemed important for further study, for businesses with ELC (Classification 1).

Classification 1: Businesses with ELC	
Apprehension of ELC	<i>Adopting ELC does not necessarily require a lot of work</i>
	<i>Thinking of the ELC system as logical and easy</i>
	<i>Having ELC is worth the work</i>
	<i>Experiencing ELC as less complicated than first anticipated</i>
	<i>Appreciating the systematic approach and coverage of ELC</i>
	<i>Going beyond what is required by ELC</i>
	<i>Experiencing ELC as rewarding</i>
Market	<i>Adopting ELC because the market requires it</i>
	<i>Having ELC gives a competitive advantage</i>
Business image	<i>Viewing ELC as positive for business image and reputation</i>
	<i>Actively using ELC when promoting the business</i>
	<i>Using ELC when promoting the business</i>
	<i>Using ELC as a sales point</i>
Personnel	<i>Adopting ELC requires motivated employees</i>
	<i>Environmental consciousness is increasing after we adopted ELC</i>
	<i>Employees are generally accepting of ELC</i>
Operations	<i>Operating more efficiently after adopting ELC</i>
	<i>Planning daily operations better after adopting ELC</i>
	<i>Wanting to use environmentally friendly modes of transportation</i>
	<i>Depending on third-party operator for own reporting</i>
	<i>Requesting documentation on suppliers' environmental performance</i>
	<i>Appreciating being able to send ELC to customers and suppliers</i>
	<i>Being able to influence suppliers</i>
Financial	<i>Finding cost of ELC to be insignificant</i>
	<i>Saving money through better resource management</i>
External Interaction	<i>Not knowing other businesses that have ELC</i>
	<i>Not interacting with the municipality after adopting ELC</i>
	<i>Willing to share experiences and motivate others for ELC</i>
	<i>Wishing that the advantages of having ELC were more visible</i>
	<i>ELC should be made more visible among customers and the public</i>

Appendix D.2 – Classification 2: Businesses without ELC

Table 5: Selection of codes that were deemed important for further study, for businesses without ELC (Classification 2).

Classification 2: Businesses without ELC	
Apprehension of ELC	<i>Adopting ELC would not change much in the business</i>
	<i>Believing that ELC requires a lot of work</i>

Business image	<i>Thinking that adopting ELC will be positive for the business's image</i>
Personnel	<i>Thinking that adopting ELC will increase the environmental consciousness among employees</i>
Operations	<i>Wanting to use less resources and reduce our footprint</i>
	<i>We are not spending much time thinking about our environmental performance</i>
	<i>Environmental performance is not prioritized</i>
External Interaction	<i>If other businesses adopted ELC, we would also try to do it</i>
	<i>We have not been contacted by the municipality regarding ELC</i>

Appendix D.3 – Classification 3: Businesses that have previously had ELC

Table 6: Selection of codes that were deemed important for further study, for businesses that have previously had ELC (Classification 3).

Classification 3: Businesses that have previously had ELC

Apprehension of ELC	<i>Experiencing ELC as unambitious</i>
	<i>Experiencing ELC as irrelevant</i>
	<i>Experiencing ELC as unrewarding</i>
	<i>ELC is not the best choice for us</i>
Operations	<i>Struggling to meet the requirements of ELC</i>
Financial	<i>Experiencing bewilderment when confronted with the cost of ELC</i>

Appendix D.4 – Cross-Classification Comparison

The following table displays the cross-classification responses and how some codes were identified across the various business classifications. For example, “Managing waste streams” was identified to be present for businesses within all three classifications, and “Wanting to increase environmental performance” was identified for businesses with ELC (Classification 1) and without ELC (Classification 2). Note that each code was not necessarily present for all businesses within a classification (See Section 3.5 for a comment on the issue of insignificant data points), but it was determined that the data allowed the code to be included, and that they provided valuable insight in the analysis.

Table 7: Selection of codes that were deemed important for further study, and how they apply to various businesses from a cross-classification perspective.

Cross-Classification Comparison Code	Certification Status (Classification)		
	Class. 1	Class. 2	Class. 3
<i>Managing waste streams</i>	X	X	X
<i>Seeing positive results of environmental measures is a motivation to increase environmental performance</i>	X	X	X
<i>Management is environmentally conscious</i>	X	X	X
<i>Needing to see economic benefits of choosing environmentally friendly solutions</i>	X	X	X
<i>Being an EL can require a lot of work</i>	X	X	X
<i>Maintaining routines without ELC</i>	X	X	X
<i>General contractors decide how much they want to prioritize sub-contractors' environmental performance</i>	X	X	X
<i>General contractors do not require sub-contractors to have ELC</i>	X	X	X
<i>Keeping up with the ELC requirements can take a lot of time</i>	X		X
<i>Desiring ELC as a status symbol</i>	X		X
<i>Wanting to increase environmental performance</i>	X	X	
<i>Viewing ELC as positive for the business</i>	X	X	
<i>ELC by itself does not have any negative effects</i>	X	X	
<i>Starting with ELC may incur significant costs</i>	X	X	
<i>Acknowledging the cost-benefit limitations of environmental measures</i>	X	X	
<i>Viewing ELC as a symbol of environmental commitment</i>	X	X	
<i>Customers are not inquiring about ELC</i>	X	X	
<i>Working to increase environmental consciousness among employees</i>	X	X	
<i>Market demand would incentivize us to pursue ELC</i>	X	X	
<i>Prioritizing daily operations over environmental performance</i>	X	X	
<i>Economy comes before environmental performance</i>	X	X	
<i>Managing without having ELC</i>		X	X
<i>Experiencing ELC as unrewarding and irrelevant</i>		X	X
<i>Customers value cost more than business' environmental performance</i>		X	X
<i>Not experiencing pressure from customers regarding EC</i>		X	X
<i>ELC is challenging because we are a small organization</i>		X	X