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Sustainability in SMEs: Motives, Barriers, and Challenges of Environmental Management Systems Certification

University

School of Business, Economics & Law

University of Gothenburg

Graduate School

Supervisor

Mikael Cäker

Authors

Stjepan Dodik

Suliman Karahman

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University of Gothenburg

School of Business, Economics and Law

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Stjepan Dodik Suliman Karahman

Abstract

This study aims to understand how SMEs in Sweden perceive the pre- and post-implementation motives of Environmental Management Systems (EMS) certificates through understanding motives for adopting EMS certificates for the first time and understanding motives for maintaining the certificates. Moreover, the study also aims to understand the barriers and challenges of EMS certificates in order to identify reasons that prevent SMEs from adopting certificates. Institutional pressures (coercive, mimetic, normative) may have an influence over the implementation, or it could be a decision by the company in hope of marketing and publicity benefits among others. The chosen methodology was a qualitative method, semi-structured interviews in specific. The method is most suitable for the research questions in this paper taking into consideration both the advantages and disadvantages of the method. Contrary to previous research we find that the environmental focus is the main reason for the implementation of EMS certificates in the studied companies along with normative pressure. No coercive pressures were experienced by the companies to adopt certificates, however other motives such as marketing effect, monetary benefits, and improved control system were part of the motives. The main barriers and challenges as discussed based on the findings were high maintenance cost of certificates, increased bureaucracy processes, extensive documentation, and stressful audits. In relation to previous literature, this study contributes to the literature on SMEs and integrated control systems but in a Swedish setting which could be considered as research on an understudied area. The study affirms previous research in some cases and brings different views that were not discussed before in the field on different instances. One conclusion would be that EMS certificates contribute towards improved integrated control systems over time.

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1. Introduction and Purpose

In this chapter the issue of sustainability in SMEs and the tools used to manage it are discussed, where this chapter will serve as a background for the studied issue and secondly, the purpose of the study and how it will be conducted will be explained.

Over the past two decades, the importance of sustainability has increased dramatically where individuals, governments, and organizations aspire to live and lead greener lives, strive to be more environmentally efficient, and be more socially and financially responsible (Lozano & Garcia, 2020). The reasons behind this interest in sustainability could be attributed to the change in the norms and the values of societies resulting in the institutionalization of these norms and values and being taken as standards and laws that the members of societies need to follow and abide by (Lozano & Garcia, 2020). Therefore, businesses are expected to act within the norms and rules in order to stay legitimate, and in this case, they are expected to act sustainably and in an environmentally, socially, and financially responsible way (Deegan & Unerman, 2011). These commitments are materialized in goals provided by the United Nations, such as the Sustainability Development Goals (SDGs) (United Nations, 2015). As organizations change their behaviors and objectives, the management of these organizations is expected to optimize and innovate in their control systems to plan, capture, and measure the indicators of the SDGs in order to meet their social contract with the stakeholders of the company and society. Hence, this study is mainly concerned with the motives, and challenges of EMS certificates in SMEs as explained in the remainder of this section.

Management control systems aim to constantly check that the organization is using its resources effectively to achieve its goals (Anthony, 1965; Kloot, 1997). We can assume that the traditional control systems are concerned with the objective of being a successful player in the market or profitability, however, as new norms and values are institutionalized in society, the company's norms and values change as well. Therefore, the company may need to change its objectives accordingly (to address society's new demands) in order to stay legitimate. In this instance, organizational change is expected to be in alignment with the sustainable development goals (SDGs). Businesses are expected to adjust their management control systems by integrating sustainability controls to measure the indicators of their SDGs commitment in order to meet their

social contract with the stakeholders and society, as inspired by the principal-agent relationship (Jensen & Meckling, 1976), where the agent is bound to fulfill their social contract with the principle. One possible solution for aligning SDGs and financial goals is by implementing Environmental Management Systems (EMS), or Integrated Management Control Systems (IMCS) which aim to integrate controls for both objectives, profitability, and corporate responsibility.

Sustainability practices in Small and Medium-Sized Enterprises (SMEs) are understudied according to Tsvetkova et al. (2020), hence they are interesting to study due to this reason and others. Firstly, SMEs have a great negative impact on the environment (Kearins et al., 2010) as they contribute to the most pollution in Europe. Secondly, their magnitude in the business domain, since SMEs constitute 99% of all businesses in Europe and employ two-thirds of the population (European Commission., n.d.a). Finally, due to the lack of research in the domain of management control systems and sustainability control systems in SMEs, wherein the management control field, the focus is put on large firms rather than SMEs. This is possibly due to the uniqueness of SMEs' characteristics which results in less sophisticated control systems (Kruis et al., 2016). However, Johnstone (2021) suggests that SMEs control for environmental aspects is mainly driven by compliance reasons. The owner-manager view on sustainability is also important to consider since the SME owner's views on sustainability will be reflected in the company's values, and in most cases, the goals of the company will conflict as suggested by Kiefhaber et al. (2018) that is, a conflict between sustainability goals and other goals (e.g., Financial).

Businesses that integrate sustainability efforts in their business, in general, use a wide array of tools and control systems to control for their social responsibility. However, they either have a certified EMS or choose not to be certified and in that case, they would have a non-certified dynamic control system. What we refer to as a certified EMS is a control system that is certified by a standards issuer such as International Organization for Standardization (ISO) and EU Commission which is considered as a standard that could be implemented in order to achieve its goals (e.g., ISO 14001, EMAS) along with their basic control system. However, a dynamic control system is a customized control system that is different for each company based on its unique characteristics and environment (e.g., internally generated control system) and is not

influenced by a certificate. In this study, we will focus on two EMS certificate for formal sustainability controls, ISO 14001 and Eco-Management and Audit Scheme (EMAS), which would include the motives behind the implementation and the barriers that could prevent other SMEs from implementing certificates. This would contribute to the research on management control systems in terms of sustainability in SMEs. One of the dynamic tools used by certified and non-certified companies is the sustainability balanced scorecard by Hansen and Schaltegger (2016, 2018) which capitalizes on the original balanced scorecard concept by Kaplan and Norton (1992, 1996).

Environmental management systems (EMS) certificates are often positively linked with eco-innovation and sustainable development goals achievement (Rennings et al., 2006; Ferenhof et al., 2014) as they are considered motivational for eco-innovation in firms. For instance, the main motives behind implementing ISO 14001 as discussed by Carrillo-Labella et al. (2020) are compliance (environmental regulation), demands from the market, and genuine interest in achieving better financial and environmental performance. However, according to Heras-Saizarbitoria et al. (2020), An EMS certification such as ISO 14001 and EMAS is usually adopted as a response to institutional pressures on organizations only and not for genuine improvements on their environmental performance, as in some cases organizations adopt these standards and commit to the bare minimum requirements in order to keep this “organizational degree” and impress the shareholders, while in reality the EMS is disconnected from the internal processes. (Heras-Saizarbitoria, 2020). This argument raises doubts on whether companies are greening or greenwashing. Testa et al. (2018) suggest that greenwashing is possible due to pressure from stakeholders. This is particularly interesting in an SME setting since in comparison with large-sized firms, the external pressures for sustainability practices are lower and the adoption of sustainability-related practices are motivated internally according to Cantele et al. (2020). However, as mentioned before, Johnstone (2021) suggests that compliance is the main reason for SMEs to adopt EMS. Therefore, it is important to understand the motives of our studied companies for implementing EMS certificates, while illustrating the barriers and challenges of certificates implementation in SMEs.

Even though standardized tools such as ISO 14001 and EMAS often help to improve compliance or financial performance and are effective externally, the internal sustainability work is often

shadowed by the external work (Heras-Saizarbitoria et al., 2020). The difference between EMS certificates and non-certified dynamic systems is that they are favourable in different ways. Working dynamically with sustainability within an organization (non-certification) can help toward an integrated MCS system. Internal communication within the firm is a major factor towards a successful integration of control systems for sustainability according to Beusch et al. (2021). The authors present that a dedicated CEO can help to reach out the importance of sustainability within an organization by having active communication with managers. However, the effectiveness of a dynamic control system externally is questioned, since in a dynamic setting external reporting is voluntary while for the EMAS certificate it is mandatory (Kubicka et al., 2021).

The benefits from engaging in EMS standards vary depending on the characteristics of the firm and its industry. According to Carrillo-Labella et al. (2020), implementing any EMS standard within a business could potentially lead to greater sales and commercial results. The authors are however clear in their research that they cannot present a direct relationship between EMS standards and a positive effect on the financials. Besides the possible internal benefits with EMS, external benefits with the standards seem to be present. In some cases, the implementation of EMS standards leads towards a positive effect externally where both nature and humanity are kept protected (Ikram et al., 2019). This is further affirmed by Gecevska et al. (2016) that discuss the same benefit where the authors argue that EMS standards benefit both society and the environment as a whole. The authors suggest that implementing EMS can influence sustainable development which can lead towards benefiting the firm itself, organizations, and the environment. Even though EMS standards are bringing positivity internally and externally, there are also challenges with the standards such as costs, complexity, and so forth (Kubicka et al., 2021).

Previous studies on both the global and European levels (Ikram et al., 2019; Kubicka et al., 2021) have presented empirics that show various benefits, both internal and external, by implementing EMS standards such as EMAS or ISO 14001, and dynamic systems. Even though this research area is explored globally, it is still relevant to be studied in Sweden, firstly, because of its connections towards sustainability and environmental efficiency, secondly, the research area of SMEs in Sweden is currently understudied. Previous EMS research in SMEs with other

orientations has been made in Sweden (Ammenberg et al., 1999; Ammenberg & Hjelm. 2003; Halila & Tell, 2013). These studies have focused on areas including joint group EMS certifications and the synergies created by the collaboration between SMEs and universities regarding certification of ISO 14001. As an extension to that, the potential benefits of implementing EMS tools or dynamic tools have not been studied in Sweden either with the exception of Johnstone (2021). Finally, the uniqueness of Sweden and Scandinavian countries compared to other countries is of valuable importance. Hence, the Swedish context is interesting to study due to the following additional reasons. First of all, The Swedish/Scandinavian management style is different from other countries where in Sweden the management is characterized by flat hierarchy, easy communications, and empowerment, (Nordic Council of Ministers, 2018). Secondly, the focus on environmental efforts and sustainability could be seen as a very important aspect in Scandinavian countries compared to their counterparts. As Sweden in specific was the first country in the world to pass an act in favour of protecting the environment in 1967, (Swedish Institute, 2021). And finally, the number of Swedish companies in the EMAS public registry (EMAS certified companies) is relatively low, which is around 20 companies, while the number of certified companies in Austria is more than 1000, (European Commission, n.d.b). Therefore, due to the aforementioned reasons, a study of EMS certificates and IMCS would possibly result in valuable contribution towards understanding the field in Sweden better taking into consideration the uniqueness of Sweden's management style, their high focus on the environment, and the lack of certifications compared to other European countries.

Currently, SMEs in Sweden are using either ISO 14001, EMAS, or a dynamic system towards sustainability control, and it would be interesting to investigate motives, barriers, and challenges within SMEs in Sweden, where a focus is put on comparing firms that use different sustainability controls (Certified and non-certified). Since we established before that EMS certificates are expected to offer a variable number of benefits (internal and external), it would be insightful to understand the perception of the studied businesses' management on the experienced benefits of such EMS standards that materialized after the implementation, which would be considered as motives for maintaining the certificate.

In summary, Sustainability and environmental efforts in SMEs are of significant importance. EMS certification is a tool used to manage the organization's environmental efforts and this area of research is understudied, especially in Sweden. It is our belief that a proper understanding of certifications in SMEs would enrich the literature on sustainability in SMEs and highlight the motives, benefits and challenges of certification in this setting. Hence, the purpose of this study is to explore the motives (motives for adoption and motives for maintenance), barriers, and challenges of EMS certificates and compare them with non-certification status (Dynamic tools). Accomplishing such a study would contribute towards new empirical research on an understudied geographical area within the current field and then compare the findings with previous studies from other geographical areas. Moreover, accomplishing the study would contribute to enriching the literature on sustainability in SMEs and integrated management control systems in SMEs.

Therefore, we suggest the following research questions:

1. *How EMS certificates are motivated in SMEs?*
2. *How certification barriers & challenges are perceived by the management?*

Through interviewing management employees of certified and non-certified companies we aim to collect the empirical data that would relate to the motives, barriers and challenges of certificates. Pre- and Post-implementation motives are considered mainly from companies that are certified, however the barriers and challenges of certification are considered from both certified and non-certified companies. The choice of collecting data from a non-certified company is to understand what prevents this company and SMEs in general from being certified, and secondly, to understand the available options/substitutes for certification that could be used to manage sustainability and environmental efforts. The aid of theories/theoretical frameworks is needed to put the empirical data into perspective. In this case, institutional theory is used to understand the aforementioned motives, and other frameworks such as Simons' levers of control are used to understand the control systems in place and how they are formulated/modified.

2. Theoretical Framework

This chapter will list the most relevant theory related to EMS certification, the motives, barriers, challenges of certification, and integrated management control systems, and then conduct a brief literature review on the field, specifically focusing on SMEs.

2.1 Introduction

EMS certificates such as ISO 14001 and EMAS are adapted by companies due to a variety of reasons, these reasons are manifested in what we call motives for implementing EMS certificates. While implementing a certificate requires pre-implementation motives, the action of maintaining the certificates over time require possibly different motives, could be called post-implementation motives. Hence, the motives for implementation of EMS certificates for the first time might differ from motives for maintaining the certificates. Secondly, EMS certificates require certain commitments from the adopting company. These commitments could be seen in the form of barriers and challenges that arise from both the initial implementation of certificates and the maintenance of the certificates. Finally, the tools used by SMEs to control for sustainability efforts with and without certificates are interesting to study in order to understand the difference between certified and non-certified companies' control systems. This difference would possibly highlight some of the reasons for not adopting an EMS certificate.

2.2 Theory and Drivers:

This section will explore the relevant theory for our research question, which explains some of the motives for adapting EMS certificates and systems. First of all, the institutional theory and then other motives that are related but not limited to, financial gains, efficiency, and reputation.

2.2.1 Institutional Theory:

In their paper, DiMaggio and Powell (1983) explain that organizations face a variety of pressures from other organizations, governments, and society, where these institutional pressures lead organizations to eventually be homogeneous through three types of institutional isomorphism. Isomorphic pressures are coercive, mimetic, and normative. Coercive pressures generally stem from regulatory pressures, for instance, a new regulation or law that is mandatory to abide by.

Mimetic pressures are generally generated internally due to the uncertainty within the organization which leads to mimicking the successful players in the market (e.g., competitors), and normative pressures stem from the professionalism of companies that as a result follow professional guidelines in their respective industry. However, from a society point of view, all organizations are influenced by the society's institutional pressures and the organizations' own organizational institutionalized logics, our focus, in this case, is the society's institutional logics as a whole. One of the main institutional logics is the market logic/financial logic in which organizations embrace the goal of being profitable that is demanded by their stakeholders. Nevertheless, institutional logics could contradict each other, as the stakeholders' demands may not always be in harmony. For instance, while the stakeholders expect the company to be a successful player in the market, society and other external actors (e.g., NGOs) demand that the company be environmentally efficient, in this case, a sustainability logic. This logic may clash with the market logic and eventually, the company will have to conduct a trade-off between these two logics in their responses.

Wijethilake et al, (2017) identify institutional pressures for sustainability (IPS) and study how companies respond to their pressures following Oliver's (1991) framework for strategic responses and find that responses include compromise, avoidance, and manipulation. The authors find that companies use management control systems to actively respond to IPS, and not only to comply with them. Hence it would be interesting to understand how the implementation of EMS certificates are motivated, especially in SMEs since they are the focus of this study and see if such implementation is considered as a response from the management towards IPS. On a different note, in their study on Chinese companies, Zhu et al. (2013) studied the international and domestic pressures for implementing ISO 14001 and found that companies are more responsive to international institutional pressures than domestic pressures since, in this case, the ISO 14001 certificate was a requirement by the international suppliers in order to show that they are environmentally efficient. The authors recommend that governments should encourage the implementation of certificates such as ISO 9000 and ISO 14001 since these certificates would not only help companies perform better financially, but also environmentally. Daddi et al. (2017) explain that low external institutional pressures could be attributed as one of the reasons for not implementing EMS certificates in small firms. Moreover, the authors explain that ISO 14001 is more popular than EMAS due to ISO 14001 being a minimum requirement on a global level and

its motivation as a response to external pressures. On the other hand, Daddi et al. (2016) find that mimetic and normative pressures as drivers of EMS certificates adoption are more efficient in producing environmental innovation and improvement than when the adoption is forced by coercive pressures. Thus, we can conclude that the motives for the adoption of standards have an impact on the perceived benefits as supported by Álvarez-García and del RíoRama (2016).

2.2.2 EMS Certificates Adoption Drivers/Motives

Motivational factors that influence SMEs to adopt EMS into their business processes are various. In some cases, firms aim to improve their competitiveness and corporate performance (Ikram et al., 2019), while in other situations firms become certified because of their environmental passion (Kubicka et al., 2021). There are also cases where firms seek to improve environmental routines and documentation and where those components serve as drivers behind their adoption of ISO 14001 (Granly & Welo, 2014). Cases where firms adopt EMS for the sake of their environmental care and continuous work with sustainability, connected to emissions and energy, are getting more usual. Besides the competitiveness and the environment as driving factors, customers and their demands are yet other motivating factors that influence SMEs of adopting EMS certificates (Fonseca, 2015; Martins & Fonseca, 2018; Perez-Sanchez et al., 2003). All ISO 14001 certified SMEs participating in the study of Granly and Welo (2014) expressed that customer demand is the decisive driver behind the adoption. The customer demand and its connection to EMS adoption varies and is not always consistent, which is exemplified with the Eco-Lighthouse certificate. Only 1 out of 4 Eco-Lighthouse certified firms in the study expressed customer demand as a driver. Customers or customer demand as a driver of EMS adoption is further affirmed by Massoud et al. (2010). Firms in Asia adopt the ISO 14001 standard because they foresee a future where customers from Europe will require it. In addition to that, Massoud et al. (2010) argues that there is an ongoing international trend where companies avoid business relations with firms that are not certified. Despite the previous discussion of customer demand and its correlation with EMS adoption, Testa et al. (2018) do not agree with the arguments of Granly and Welo (2014) and Massoud et al. (2010). Their statistical findings show that customer pressure does not have any effect on organizations and their motivation towards adoption of EMS.

In summary, firms implement integrated control systems in general to control for sustainability along with financial measures due to the societal pressure towards being sustainable and environmentally efficient. However, the adaptation of EMS certificates, such as ISO 14001 and EMAS, could be explained by pressures from the outside too (Society, customers, etc.) or by financial gains expectations from the EMS certificate. Later in the study we will try to signal which motive is found more in our studied companies. We keep in mind that the two motives could be found at the same time, and that the pre-implementation motives could differ from post-implementation motives.

2.3 Literature Review

In this section we will provide a literature review of the studied EMS certificates (ISO 14001, and EMAS) and the dynamic tools that could be used regardless of certification. As the title suggest, this section is a look back at previous research in the studied domain. While there is a lack of research in Sweden on the topic, other national studies will be used to give an idea on what has been found in other countries. Findings from Sweden are especially valuable since, as mentioned before, Sweden is different in its management style, environmental focus, and the low number of EMAS certified companies.

2.3.1 ISO 14001

The ISO 14001 standard is a sustainability tool that is used worldwide with the purpose of minimizing pollution in the environment while fulfilling appropriate laws. Furthermore, the standard emphasizes continuous improvement of current processes related to the environment within firms and organizations (Fonseca, 2015; ISO 14001:2015, 2015). Besides running a profitable business, firm owners today emphasize the importance of the Triple Bottom Line concept (Elkington, 2018) according to Fonseca (2015). The focus today is not only to be profitable and focus on the economic situation but rather to be successful in social and environmental matters as well. ISO 14001 promotes this argument, and the standard gives a clear explanation that a balance between the “three pillars” (environment, social, economic) is required to not compromise the future generations and their needs while meeting the needs of the current generation.

Except for the three pillars discussed previously, the certificate of ISO 14001 has shown to be effective when working with risk management which have been proven to be minimized (Morrow & Rondinelli, 2002). Furthermore, the tool has shown to be effective in decentralizing information throughout corporations. The environmental related questions that belong to the environmental pillar, have in some cases been easier to communicate to employees by standardizing environmental data collection (Morrow & Rondinelli, 2002). The competitive advantage by using EMS is somehow questioned since some authors argue that there is an advantage (Ikram et al., 2019) while others mention the opposite (Morrow & Rondinelli, 2002). Besides a competitive advantage, Ikram et al. (2019) mentions that firms that do adopt EMS certificates into their control system do have a better corporate performance than their peers that do not adopt EMS certificates. Besides an effect on competitiveness and corporate performance, the authors discuss other parameters in relation to the implementations of EMS certificates. Corporate business and strengthened corporate processes are other positive outcomes. Improved corporate sustainability as a result of an implementation of EMS certificates is something that could be expected and is the reality in many firms (Ikram et al., 2019).

Benefits from implementing EMS in corporations are many and the motivations behind engaging in EMS vary depending on the firm and its characteristics. There are firms that implement EMS because they want to take a bigger environmental responsibility, including continuous work with energy, emissions, and raw materials. There are other firms that strive towards a better knowledge of ecology within their organizations which in some ways are related to what has been previously discussed (Kubicka et al., 2021). However, companies encounter barriers while implementing EMS certificates. Such as, the preparation of relevant documents relating to the certificates and time investment are two major challenges that firms encounter (Kubicka et al., 2021). The barriers and challenges of certification, cost for example, are in many cases outnumbered by the benefits. In addition to what has been discussed already, the compliance work relating to regulations and an increasing trust from the society are other internal and external benefits that are also present (Kubicka et al., 2021).

2.3.2 Eco-Management & Audit Scheme (EMAS)

Like ISO 14001, EMAS is a management tool that helps firms and organizations to improve their environmental performance (European Commission, n.d.c). EMAS is for all organizations that want to contribute towards a greener society regardless of the industry of the organization. The tool itself focuses on performance, credibility, and transparency. Regarding performance, EMAS helps organizations that voluntarily comply with EMAS to improve their environmental work and reduce their negative environmental impact. When it comes to credibility, EMAS is verified by a third party which clarifies its independence and therefore makes it credible. The European Commission (2022) further mentions that it is easier for organizations that already comply with ISO 14001 to level up to EMAS. Finally, EMAS helps organizations to be transparent in their environmental work since environmental information is publicly available for both external and internal individuals of the firm (European Commission, 2022).

Morrow and Rondinelli (2002) discussed multiple motivating factors behind the implementation of EMS certificates, and more exactly EMAS, in a study on German firms in general. Motivating factors such as better usage of energy sources, improvements of company image, environmental documentation, better environmental performance, and motivating employees. The SMEs within the energy and gas industry that was a part of their interview sample in their research had mostly the same motivating factors but differed somewhat in priorities. The results of Morrow and Rondinelli (2002) showed that SMEs within the energy and gas industry in Germany used EMAS primarily for documentation and improved regulation and compliance, while also increasing the effectiveness of their daily operations.

In their study, Kubicka et al. (2021) investigated EMAS and motivating factors behind the implementation as well. Most of the responding organizations answered that striving to become a more competitive company with a better company image was the main motivating indicator. Secondly, the willingness to improve principles of sustainable development within the organization with the help of EMAS was the second most answered. Regarding difficulties encountered with the implementation of EMAS, Kubicka et al. (2021) presented that most firms had difficulty with the preparation of documentation and knowledge. Time investments related to the implementation was another difficulty. Benefits internally, were mostly that it helped the

organization to succeed with compliance and regulations. Externally, a better image of the company was the dominating finding of external benefits with EMAS. However, regarding the costs of EMAS, the findings indicate that companies spent the most on annual fees and audits costs.

With a lot more respondents than Morrow and Rondinelli (2002) and with the help of a survey, Merli et al. (2016) investigated the same research area in Italian organizations. According to the authors, Italy as a country had the most registered and EMS certified organizations (around 1000) among all European countries. From those approximately 1000 certified organizations, Merli et al. (2016) managed to receive more than 500 answers, where the majority is represented by SMEs. The main purpose of the study was to understand the main drivers behind the adoption of EMAS, benefits, and challenges that come with it. The answers of the different areas and questions differed somewhat since Merli et al. (2016) divided the organizations in public and private. The public organizations focused on the strategic work with EMAS which in this case was to improve the image of the firm and better the relationship to external clients and stakeholders. Private organizations were more motivated to gain economic benefits with the certificate and reach out to possible investors for financing. Both sectors mentioned costs related to both certificates, consultancy, and different analyses as challenges with EMAS. Therefore, it can be stated that the arguments of the answers in the article of Kubicka et al. (2021) are affirmed by the answers in the article of Merli et al. (2016), which leads to the fact that EMAS certification costs have a considerable effect on SMEs.

2.3.3 Comparison

Both multinational and national organizations adopt environmental management systems (EMS) where a lot are certified by standards of ISO 14001 and EMAS. All criteria within ISO 14001 are covered in EMAS where EMAS is more extended and brings more benefits (Kubicka et al., 2021).

Kubicka et al. (2021) portray both similarities and differences between ISO 14001 and EMAS. In the case of EMAS, the European Parliament and Council which is a governmental organization, is the issuer of the tool. In contrast to EMAS, the International Organization for Standardization, which is a non-governmental body, is the issuer behind ISO 14001. Both tools have the same

main objective which is to improve and enhance environmental performance. For organizations that are tied to EMAS, they are obliged to report results towards external parties, while it is voluntary for ISO 14001.

Elements	EMAS	ISO 14001:2015
Type of issued organization:	Governmental	Non-governmental
Name of issued organization:	European Parliament and Council	International Organization for Standardization
Objective:	Environmental performance improvement	Environmental performance enhancement through EMS improvement
Range:	European	International
Nature:	Public regulation	Private standard
Main drivers to adopt EMS:	Internal motivation	Pressure of external stakeholders
Dialogue with external parties (and external reporting):	Mandatory	Voluntary
Official registration by authorities:	Publicly accessible register record (organization receives the registration number)	No official register
Audits:	Inspection of documents and visits in institutions carried out according to regulation. Evaluation of environmental performance improvement. Data from environmental statement needs validation.	No certification rules in standard (different standards for auditing and certification). Evaluation of EMS performance without specified frequency.
Environmental aspects:	Comprehensive initial environmental review of the current status of activities, products and services.	Requires only a procedure to identify environmental aspects. Initial review is recommended, but not required.

Figure 1. Differences between ISO 14001 and EMAS (Kubicka et al., 2021)

The main goal of both management tools is to promote a greener society by getting more involved in a daily process of environmental matters. Even if both tools are quite similar, there are some additional benefits with EMAS according to Kubicka et al. (2021). With EMAS the organization enters into a public register and larger companies are exempted from conducting energy audits of the organization. These are only two out of eight benefits that Kubicka et al. (2021) mentions in their article. Rest of the benefits according to the authors can be seen in the figure below.

The additional benefits of EMAS registration
• the entry in a publicly available register; • for large companies: the exemption from the obligation to conduct an energy audit of the enterprise (subject to additional conditions); • for public sector entities: the confirmation of the implementation of energy efficiency tasks; • the transparent data provided by the mandatory and verified statement of registered organization; • the increase in the organization's credibility thanks to the environmental declaration; • the improved stakeholder relationships; • the possibility of benchmarking in the field of environmental protection; • the exemption from the registration fee for entry in the database on products and packaging and on waste management.

Figure 2. Benefits of EMAS compared to ISO 14001 (Kubicka et al., 2021)

2.4 Dynamic Control Systems

Our definition of a dynamic control system is an environmental control system that is not certified. Since certification is practically the implementation of a set of standards on an existing integrated management control system to make sure it meets certain requirements. For instance, EMAS standards require mandatory external reporting while ISO 14001 does not, (Kubicka et al., 2021). The choice of integrating sustainability into management control systems is voluntary, hence our focus is on integrated dynamic control systems that account for both financial returns and social responsibility. In other words, any set of sustainability and traditional control tools that a company applies to achieve both financial and sustainability objectives. A few examples of a dynamic system could include adaptations from Hansen and Schaltegger (2016, 2018) sustainability balanced scorecard (SBSC), and Simons (1995) levers of control (LOC). Below, a definition and review of both concepts will be provided.

2.4.1 Simons' Levers of Control

A theoretical framework such as Simons' levers of control is useful to understand the existing control system in any company as we could categorize the tools in a system under different levers such as the belief system, boundary system, and the diagnostic and interactive systems. (Simons, 1995). Simons' levers of control are used in Kaplan and Norton's (1992, 1996) balanced scorecard which is a management tool that could be used in this domain. However, it is important to differentiate between the formal and informal controls as the former is concerned with the official rules (written) and guidelines the company uses to control its actions (Kreutzer

et al., 2016). On the other hand, informal controls are unofficial rules and guidelines and could be a result of the values of the company and its institutionalized norms.

Simons' LOC is considered as a framework for management control systems in general, however, sustainability controls could be integrated within the framework. The balanced scorecard of Kaplan and Norton (1992) was based on Simons' LOC and by extension, the SBSC of Hansen and Schaltegger (2016, 2018) is based on Simons' LOC. However, Simons LOC could be used to formulate a management control system on its own as Gond et al. (2012) attempted to do through their ideal type configurations to integrate sustainability into traditional management control systems, that is by integrating sustainability into Simons' LOC, which was then extended by Beusch et al. (2021) in a longitudinal study on a multinational company. Hence, we can see Simons' LOC as a framework that companies could potentially use to formulate their own strategy and control system.

Each of the four LOC has a distinct purpose for managers attempting to harness the natural value creation of employees. As figure 3 below shows, the business strategy of the firm is based upon these four LOC according to Simons (1995).

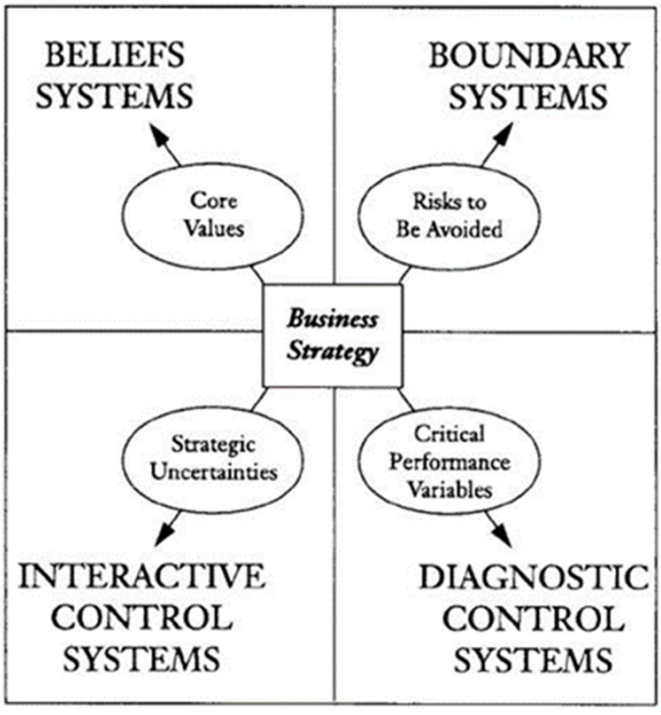

Figure 3. Simon's Levers of Control (Simons, 1995, p.157)

2.4.1.1 Beliefs Systems

Simons (1995) argues that all organizations from the beginning are created with a purpose. He explains that it is in the early stages, when organizations are created, that people within the organization create the purpose of the organization during interactions. It is seen as an explicit collection of definitions within a corporation, that managers later try to incorporate and that with time leads to the creation of policies, norms, and values. Belief systems help employees to get inspired by helping them to handle problems and solutions. In today's society, Simons (1995) explains that organizations and their businesses are more complex than before. Digitalization, new technology, artificial intelligence, new strategies, and continuous change within the different industries make it more demanding for employees to stick to the main purpose of the company. Businesses that are uncertain could end up following and copying strategies from other organizations. DiMaggio and Powell (1983) explain this as mimetic isomorphism where organizations mimic other organizations that they feel have a successful and profitable strategy. Furthermore, Simons (1995) mentions that this continuous societal change is positive given that employees can make something good out of it. The author explains that those that can handle big data and keep up with the pace are able to change and evaluate the norms and values within their organizations and contribute towards new beliefs systems.

2.4.1.2 Boundary Systems

Boundary systems aim to limit the opportunity-seeking behaviors of employees and business risks by setting limits and boundaries that should not be crossed, hence it constitutes the minimum standard that should be met. However, they also enable employees to do the right thing and avoid pressure or temptation with managers, specifying and enforcing rules of the game. Simons (1995) argues that employees generally are positive toward opportunities that they find within their organization and that can create added value for them. The boundary systems are often based in a way where managers set standards and policies of how things should be done. Even though this lever of control is considered as a negative system, it creates positivity within organizations. This is because managers then can organize decisions for employees and make them work in the best interest of the corporation. On the other hand, strategic boundaries could

also limit the research opportunities of the company overall, thus passing on possibly valuable opportunities.

2.4.1.3 Diagnostic Control Systems

Seen as the "backbone" of traditional management control according to Simons (1995), diagnostic control systems make sure to achieve ambitions for the future. In organizations, managers use those controls as formal information systems to help them supervise results from the operations and be able to improve and edit them according to standards. Simons (1995) presents three different elements that categorize diagnostic control systems *"... (1) the ability to measure the purpose of a process, (2) the existence of predetermined standards against which actual results can be compared, and (3) the ability to correct deviations from standards "(p 59).*

2.4.1.4 Interactive Control Systems

Interactive Control Systems enable employees to create by supporting opportunity identification and removing the fear of risk. This control system enables managers by establishing open organizational dialogue to encourage learning. According to Simons (1995), the focus within interactive control systems is to reach out the organization's strategy to all employees. Furthermore, it focuses on creating discussion within the organization to make the employees more competent and mature. Simons (1995) mentions that discussions and curiosity often lead to a more innovation-friendly workplace where employees more often have their say.

Even though sustainability has become an increasingly important matter and question lately, there is still a lack of empirical research where sustainability management integrated with management control is investigated (Maas et al., 2016). Johnstone (2021) explains that the engagement of non-managerial employees is crucial towards succeeding with corporate social responsibility. The author argues that managers in SMEs should involve employees in the development of internal EMS. According to Johnstone (2021), all employees should be included in the continuous development of the EMS where employees should have the possibility to have their say and be innovative. This is in line with the interactive control system and affirms to a large extent Simons (1995) interpretation. The interactive control system focuses on open dialogue within the organization and allows the employees to be innovative.

2.4.2 Sustainability Balanced Scorecard (SBSC):

Management control system (MCS) tools focused on sustainability is an area that is quite unresearched and that is getting more known with time, especially in SMEs (Falle et al., 2016). Kaplan and Norton (1992) were two of the pioneers within strategic management control tools and introduced the balanced scorecard (BSC) that has been used worldwide by organizations. In the area of sustainability, the balanced scorecard has been adjusted and used as a sustainability balanced scorecard (SBSC). In their article, Hansen and Schaltegger (2016) implement sustainable and environmental values into the BSC which enables managers to understand and integrate sustainability with MCS in organizations.

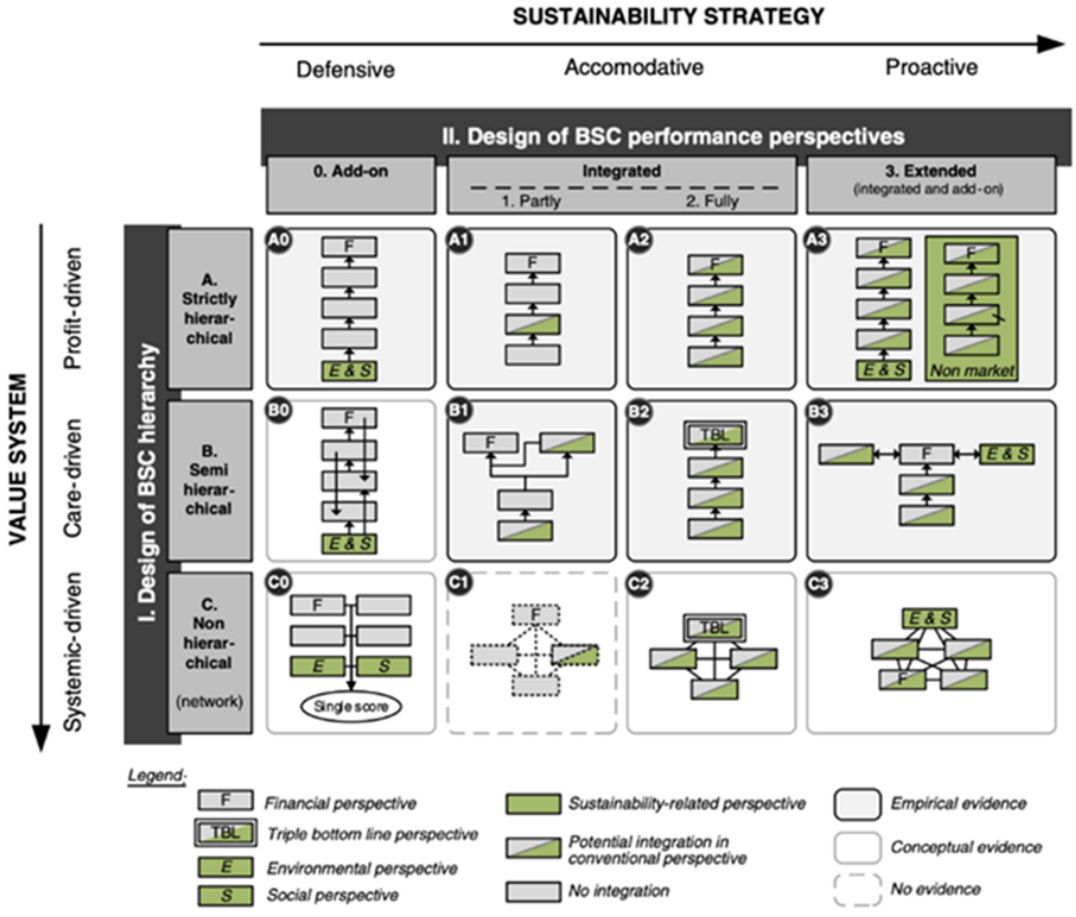

Figure 4: Sustainability Balanced Scorecard (Hansen and Schaltegger, 2016)

There is a wide range of how companies use the SBSC depending on which strategy they prefer. In figure 4, the value system on the Y-axis and the sustainability strategy on the X-axis are two areas that decide how the SBSC is used. Hansen and Schaltegger (2016) explain that some organizations implement SBSC where the main goal is to set up strategic sustainability goals, while others do it to gain legitimacy from the society. Deegan and Unerman (2011) explain that many companies with a non-environmental business engage in sustainability-related reporting and work to gain legitimacy from stakeholders. The SBSC differs from the BSC of Kaplan and Norton (1992) in that it recognizes sustainability-related objectives. Furthermore, the SBSC makes it possible for managers to adopt a Triple Bottom Line (Elkington, 2018) framework where both economic, environmental, and social values are integrated with the MCS. In summary, the SBSC is a flexible tool and gives organizations multiple choices of deciding how they want to proceed with their sustainability work.

2.5 Theoretical Framework Utilization

By having research questions that combines both motives, barriers, and challenges, using a combined theoretical framework helps to get a deeper understanding from the interviews. The institutional theory exemplifies through both mimetic, coercive, and normative isomorphism how external pressure can affect the other part (DiMaggio & Powell, 1983). Using institutional pressure as a framework therefore helps to discuss and understand the perception of the respondents regarding external pressure that is related to EMS certification. External pressure in this case which is both related to customers, the industry, and competitors. Same goes for the environmental part where the theory helps to concretize if there is an external pressure that affects the environmental work of the SMEs in the sample. Simon's levers of control (1995) do on the other hand bring a wide scope that makes it easier to compare MC between those that are certified with the third firm that is not. With the LoC it is possible to distinguish the empirics between the firms and understand the motives behind their MCS. The barriers and challenges that each firm faces by either being certified or not is easier understood and can be related to research mentioned in the literature review. As a complement to institutional theory and LoC, the literature review together with the SBSC (Hansen & Schaltegger, 2016) improves the understanding of both the motives, barriers, and challenges that are present in the SMEs.

3. Methodology

3.1 Research Design

This study investigates how EMS certificates are motivated in SMEs and how certification barriers & challenges are perceived by the management. The focus lies on SMEs in Sweden, which for the moment lacks previous research. The nature of our research questions are of a socio-economic nature since it is related to both sustainability and financial aspects. Secondly, our question requires an understanding of the studied companies' management perception of EMS certificates in relation to motives, post-implementation benefits and barriers. Since our research questions require the study of feelings, ideas, thoughts, emotions, and language use, interviews are preferred in this setting. Additionally, certain advantages of qualitative research compared with quantitative research are suitable for our question and those would mainly be. First of all, the opportunity to identify more than initial responses as in an interview follow-up questions could be asked if necessary. Secondly, through observation the researcher could identify non-verbal communication that wouldn't be observed using a survey, and finally, the involvement of the participants is much greater in interviews compared to surveys.

Hence, the choice was made to proceed with a qualitative method inspired by other researchers that conducted research in the same field using qualitative studies (Johnstone, 2021; Kubicka et al., 2021; Morrow & Rondinelli, 2002).

Previous research within management control related to sustainability tools have been focusing on benefits of using EMS. Moreover, researchers that have conducted qualitative studies in this field have presented both differences and similarities between EMAS and ISO 14001 and pros and cons (Morrow & Rondinelli, 2002; Merli et al., 2016). Due to the art of the study, having two research questions formulated by *how*, doing a case study was seen as most applicable. Furthermore, researchers have previously (Scapens, 1990) advocated case studies within the management accounting research since it leaves room for flexibility during the research. Therefore, the case study approach will help to connect theory with empirics and contribute with a better understanding of the research topic.

According to Bryman and Bell (2017), qualitative methods are more convenient and common to use when the aim of the study is to answer a research question expressed as *how*. The research questions of the study "*How EMS certificates are motivated in SMEs, and how certification barriers & challenges are perceived by the management?"* leads to only using one relevant type of method, qualitative one with case study focus. Qualitative method, including interviews, was from our perspective seen as most applicable since it resulted in material of empirical art that helped to interpret the research questions in conformity with Silverman (2015). The interviews of the 3 firms consisting of previous work and subjective experiences were major factors towards a deeper understanding of the pre and post implementation motivating factors.

As supported by Bryman and Bell (2017) interviews have various limitations as it could be considered a time consuming process, the results of the interviews could be influenced by the researchers' bias, creates data that is difficult to present, and it relies on the experience of the researchers. We acknowledge the limitations of qualitative research overall, and semi-structured interviews in specific, hence when conducting the interviews the limitations of the method were considered. Interviews do consume time and effort, however as explained before, semi-structured interviews as a method is the most suitable method for our research questions hence the interviews were focused and on point when it came to the topics that were discussed. This focus was a result of preparations that we as researchers did before conducting the interviews. Secondly, in regards to the researchers' bias limitation, as authors our goal from the study was to understand more about EMS certifications and did not have any assumptions that would influence the process. However to tackle this limitation, we made sure that the questions that were asked in the interviews were unbiased through asking questions that are simple and does not favour one side or the other (in this case certification and non-certification) as recommended by Sekaran and Bougie (2016). The purpose of the questions was purely to gain knowledge from the thoughts and experiences of the respondents. Moreover, all of the three studied companies are anonymous in this study, hence the goal is not to draw conclusions that would favour one company over another.

In the study, SMEs are defined according to the EU Recommendation 2003/361 where the size of the company is defined according to the number of employees and total assets. For small firms, the interval is 10-49 employees while for medium firms it is 50-249. Regarding the total assets,

the interval for small companies is 20-100 million (SEK) and 100- 430 for medium-sized companies. The intended sample of companies is three, as at least one of them will need to have ISO 14001 certification, one with EMAS certification, and one company with a dynamic control system in place.

3.2 Collaboration

This study has been made in collaboration with three different companies. Company A is located in Malmö and operates in the carpenter industry. The firm is responsible for the whole process which includes delivering new carpets, bringing the old ones to the site where they are cleaned and controlled with environmentally friendly operations, and then in the end delivered back to the client when it is time to change carpets again. They had a reported turnover of MSEK 43 in 2020 and 32 registered employees. Company A is certified with both ISO 14001 and EMAS.

Company B is located in Kilafors, Sweden. This firm operates within the chemical industry and has a wide range of customers such as ceramics, oil, detergents, leather and so forth. Their core business is to manufacture and supply functional chemicals to the industries mentioned above. In 2020, company B had a reported turnover of MSEK 190 and 15 registered employees. Company B is certified with both ISO 14001 and EMAS.

Company C is like Company A located in Malmö and is operating within the leasing industry. This firm is not certified with neither EMAS nor ISO 14001, instead works with sustainability in a dynamic way. Their business is focused on corporate customers where they offer different vehicles on leasing. Company C had a total turnover of MSEK 310 in 2020 and 20 registered employees.

The reasons behind choosing those firms specifically were multiple. First, all of them are SMEs which is one of the criteria in the sample of the study. Second, all three companies are situated in Sweden. The geographical location plays an integral role as well since the study is trying to contribute with new empirical findings in the Swedish area. Furthermore, company A and B were interesting because of their EMS certificates. ISO 14001 and EMAS is implemented by both companies A and B and makes them interesting to study since they can contribute with primary data regarding pre and post implementation motivational factors and challenges of

certificates. Contrary to company A and B, company C is a non-certified firm that is not certified with either ISO 14001 or EMAS. However, company C is relevant since the SME is located in Sweden and helps towards understanding why SMEs do not seek certification through certification barriers of EMS. Additionally, the firm works with sustainability in a dynamic way which makes it possible to compare company C with company A and B.

3.3 Collection & Analysis of Data

3.3.1 Primary Data

The data used in this study was gathered through semi-structured interviews. The interviews helped to get a broad picture of the company, the respondent, and answers to the research question itself. The interviews were brought down into four different parts, inspired by Bryman and Bell (2017). Dividing the interviews in different sections, can lead towards more insightful and qualitative information about the firm and the respondent according to the authors. First, the focus was put on an intro and background. This made it easier for the respondents to relax and gave them the possibility to present themselves and their experience. In the second part, the certificate/dynamic tool that the respondents firm uses was discussed. Here the respondents were given the chance to talk broadly about the tool and how it is used by themselves and what they generally think about it. The third part was the main part which focused on motivations behind the implementation of EMS certificates and dynamic tools, and also expected and potential benefits. Here, the respondent had the possibility to come up with more detailed answers regarding both motivational factors and post implementation benefits. In the last part, the future for the company, tools, and the respondent was discussed. The respondents were asked how the future may look regarding the tools being used within the company, challenges ahead, and what it can bring the company in the future. Only primary data was used throughout the study.

3.3.2 Data Analysis

In the data analysis, guidance was followed by the literature on business research by Collis and Hussey (2021). Before all gathered data was analyzed, the recorded interviews were transcribed during and after the interviews with the help of taped recording. All data was then processed and analyzed as in a thematic data analysis which Collis and Hussey (2021) discusses. The insights

and impressions from the interviews were first noted and written down which enabled us to reflect upon the empirics as a first step. Secondly, the coding of all the gathered data began. Notes were made by both authors individually from the transcripts and recordings. Coded data in this case helped to highlight key word and relevant information that was mentioned several times throughout the interviews. Examples mentioned by Olsson (2011) are things mentioned in the interviews that are similar to previous research or studies, things that were repeated by the respondents in more than one question, explanations or words mentioned by multiple respondents. “Environment”, “motives”, “challenges”, “external pressure” and “benefits” were some of the codes that were recalled from the interviews. When the coding was finished, the codes were discussed and analyzed of how many times they were mentioned and if any specific seemed to be more significant. This discussion made it possible to make a sort of rank among the codes and decide the relevancy of them. In the end, the previous decisions made it possible to detect different themes that the codes belonged to and in that sense made it easier to proceed with the empirical results.

Analyzing qualitative data in research is however not unproblematic which Collis and Hussey (2021) mentions. The problem according to the authors is that there are no clear instructions of how qualitative data should be analyzed. Coding and thematic analysis which has been used in this study is advocated by Bryman and Bell (2017) since it leaves room for flexibility and makes it easier for the authors to make the transition towards the next chapters.

3.3.3 Respondents and Interviews

The figure below summarizes descriptive information about the interviews and the characteristics of them. All interviews were held digitally through either Zoom or Microsoft Teams. The interviews were held in English except one that was a hybrid between English and Swedish.

Firm	Role of the Respondents	Country	Firm Size	Interview Date	Duration
Company A	Founder & CEO	Sweden	Small	11th of March	37 Min
Company A	Customer Service & Administration	Sweden	Small	28th of March	35 Min
Company A	Sales Director	Sweden	Small	6th of April	38 Min
Company B	Plant Manager	Sweden	Small	21st of March	41 Min
Company B	Logistics & Production Manager	Sweden	Small	21st of March	41 Min
Company B	Sales Director	Sweden	Small	23rd of March	39 Min
Company C	CFO	Sweden	Small	30th of March	42 Min
Company C	CEO	Sweden	Small	5th of April	41 Min
Company C	Operations Manager	Sweden	Small	12th of April	47 Min

Figure 5: Respondents table.

As can be seen in figure 5, three firms in total were interviewed where the majority of the respondents belonged to the management. As previously mentioned, company A and B are certified while company C is non-certified. All firms participating are located in Sweden and are SMEs regarding firm size. The interviews were conducted between 11th of March and 12th of April, and the average duration of the interview was 40 minutes.

3.4 Quality of the Study

The quality of a study can be evaluated through validity according to Bryman and Bell (2017). More specifically, validity can be seen as a measure of how much empirics and the theory in a study overlap. This study contains nine interviews, including personnel from three different companies. The number of interviews and companies that the study consists of could be seen as relatively low and which therefore could affect the validity of the study. However, all firms participating in the study have been active for more than three decades. The norms, policies and visions within those firms are perceived as very clear and stable from the interviews. Those factors could contribute towards a more credible perception of the empirical findings in the study. Furthermore, the majority of the respondents belong to the management of their firm which further could develop the credibility of the study.

3.5 Selection of Theoretical Framework and Literature Study

Regarding the theoretical framework, both Simons' levers of control (LoC) (Simons, 1995) and institutional theory were used. As the LoC is being wide in scope, it helped to easier understand

the choice of control system for each of the three participating firms in the study. Furthermore, the study focuses on legitimacy and sustainability in relation to EMS. Both legitimacy and sustainability can be discussed and explained from an institutional point of view since both areas in various ways are related to the theory. Therefore, the institutional theory was chosen since it was easy to connect the theory to the research topic and in that way keep an active discussion.

When conducting our literature study, keywords such as EMS, EMAS, ISO 14001, SMEs, benefits, drivers, motives, and challenges were used in different combinations. Additionally, to find relevant articles with valuable insights, the search was filtered by only focusing on peer-reviewed articles from journals. The search itself was conducted through Google Scholar, Scopus, and Gothenburg University's online library where it is possible to filter when searching for articles. Furthermore, articles being published recently and with relatively high number of citations were of higher interest due to the freshness in time and popularity. There was also a go-through of the articles, by going through the abstract, introduction, and conclusion, it helped to create an overall view of what each article could contribute with and if it was seen as relevant towards our study.

4. Empirical Findings

In this chapter, the empirical results from the interviews are presented. Firstly, the motives behind implementing an EMS certificate for the first time and motives for maintaining the certificate (company A and B), along with some insight from company C related to the aforementioned motives. Secondly, the empirical findings related to barriers, challenges, and drawbacks that could prevent non-certified companies from adopting an EMS certificate are presented. Finally, tools used in the integrated systems are presented.

4.1 Pre- & Post-Implementation Motives of EMS Certificates

The motives behind working certified with EMAS, ISO 14001 or both were quite similar for both company A and B. Most of the respondents within company A and B had the same vision about the certificates regarding its motives and perceived benefits. Shortly explained, the respondents mentioned that EMS is a tool that helps firms towards a sustainable business process while financials are kept improved.

4.1.1 Environmental Focus

In the first interview the CEO and founder of company A expressed different motivational factors regarding the firm's choice of implementing ISO 14001 and EMAS where an "environmental focus" and "societal good" were two of the themes:

> *We implemented EMAS and ISO 14001 because of our environmental focus and because we thought it was a good thing to integrate within our MCS. ISO 14001 helps us to manage everything regarding environmental impacts and other things within our organization.* *CEO - Company A*

During the interview, the CEO stated that the company does not have any institutional pressure from either society, clients, or competitors. Instead, he mentioned that the pressure comes from "Mother Nature" while the firm tries to do a good thing for its customers. This statement is somewhat approved by the fact that the firm got certified with both EMAS and ISO 14001 back in 1999, which could be seen as relatively early within businesses and even more early within the private sector. Regarding EMAS, the CEO explained that the tool requires a public report which

makes it possible for the firm to show its business process and results to the society. It helps the firm to be transparent with their environmental work and to show which actions they take towards a sustainable operation. The transparency is something that the CEO emphasized a lot when he mentioned that the goal of the firm is to be 100 % transparent. The comment of the CEO regarding the clients as being a motivational factor behind the certification and how the customers perceive the firm, was the following:

> *It helps us. Most important for the customers is to get a carpet that they like, think is good, creates purpose, collects dirt, and creates a good environment for them.*
>
> *CEO - Company A*

Besides the transparency and the environmental focus, there are additional motives in company A that explains their motives behind the certificates. The Customer Service & Administrative representative in company A argued that the certificates help the company to be selected by customers that have similar goals and environmental focus.

> *Getting customers that have the same goals and ambitions as we do, to choose us and because we have the certificates. When we choose suppliers, we choose those with certificates, and therefore the customers with certificates often choose us since our ambitions and goals are the same.* *Customer Service & Administrative - Company A*

This may mean a gain in customers (Explored later), but also means that only organizations with similar mindset will be selected to cooperate with, and certification is one way to signal that mindset.

The answers of both the CEO and the Customer Service & Administrative representative in company A regarding its motives of working certified was approved by the Sales Director in company A. The Sales Director was the CEO in one of company A's subsidiaries, but after the acquisition became Sales Director at company A. When being asked why he thinks company A implemented ISO 14001 and EMAS, his answer signaled the environmental focus as well:

> *I think it is first because we as a company want to be a pioneer within our industry, the carpet industry. The financials do come second here. We prioritize and take decisions*

daily by focusing on sustainability and the environment, the financials come second, period. *Sales Director - Company A*

The response of the Sales Director implies that company A has an agenda where profit is not always seen as top priority and where sustainability and CSR is highly valued. The decision-making process within company A is somewhat dependent upon the focus of making a better environment and being competitive in their business area.

The respondents from company B also highlighted that the environmental focus is one of the main drivers for implementing the ISO 14001 and EMAS certificates where both the plant manager and the production manager state that the environment is something they care about.

We are a Swedish company, and we want to show that we care and are working for the environment so we can show the authorities that we are working with EMAS and everything we do we want to do better, so it is a good thing to work with EMAS.

Plant manager – Company B

We are a small company situated in a small town, and what we do here at work influences our own lives and the environment we are living in, so it is a good reason why we implement EMAS. *Logistics & Production manager – Company B*

The plant manager of company B continued to explain that the EMAS certificate is more than a certificate to them, however it is now rooted in the company and its DNA.

[EMAS] reflects on everything we do, as we try to do better and so on. So, it now feels more than a document, it is in our DNA since we work with it all the time in everything we do. *Plant manager – Company B*

4.1.2 External Pressures

The Plant Manager of company B explained that to his knowledge the company implemented the EMAS certification due to pressures from customers and because it is a good thing to do:

> *The management wanted to have EMAS because the customers would want us to have it and it can show the customers that we are environmentally friendly, especially since we work in the chemical industry, hence it is good to show that we care about the environment.* *Plant Manager – Company B*

The sales director confirmed that the external stakeholders of the company, especially the customers are one of the factors to take into consideration. The customers are more demanding when it comes to environmental focus and are always asking for more certifications.

> *We constantly get questions from customers where a lot of them now require us to be certified. Therefore, this continuous sustainability focus [from the customers] requires us as a firm to keep up with the updates and the society to be able to please the customer and care about the environment as well.* *Sales Director – Company B*

Company A on the other hand stated that they did not experience any coercive pressures towards implementing ISO 14001 and EMAS as well, while the pressure may have been of a normative nature.

> *The pressure is mother nature I would say. And also try to do a good thing for our customers. We do not have any pressure from any authorities or so.* *CEO – Company A*

4.1.3 Financial Gains

Besides the motives for implementing an EMS certificate for the first time in company A and B, the respondents also discussed and explained their view upon post-implementation motives for maintaining the status of being certified with a certain sustainability tool.

Improved financials were a common factor that was discussed where it was explained that for example reduction of energy or water helped the firms to improve their profits.

While delivering clean and sustainable carpets for its customers, the firm makes savings that strengthens its finances. When being asked about the financials and how they would be affected by the certificates the CEO answered:

> *Our environmental focus has been a part of our business model since 1997 when we installed our first water recycling system. We are already in the recycle business, where we have a circular business-model where we use the carpets for many years. We have always done everything we can to minimize the environmental impact. Financially, that's savings if you use less energy or chemicals, which often leads to economic savings.*
>
> *CEO - Company A*

The Customer Service & Administrative manager of company A also implied that the financials are improved due to the continuous improvements and cost efficiency of the certificates, while at the same time delivering on sustainability aspects such as less emissions:

> *The financials go hand in hand with the sustainable part, to be profitable. Majority of our environmental goals contribute to less costs and less emissions and less environmental effects. Recycling water helps us to save money since we do not have to buy as much water to also heat up. With our cars and their transports, we try to have as effective routes as possible for each delivery to decrease the emissions.*
>
> *Customer Service & Administrative - Company A*

Both answers demonstrate that their environmental ambitions and daily goals, which are connected to the certificates, helps them to increase their efficiency and savings. These savings are however measured continually where statistics are noticed and followed up. Their sustainability work is done through a system called "VLS" that is integrated with the Balanced Scorecard which company A partly uses as MCS. The first one of them is mainly focusing on the certificates and the environmental related questions, while the latter one is used for the numbers and financials. The Customer Service & Administrative respondent was asked if company A has a system that they use to track their consumption and if it in that case makes it beneficial. The answer was the following:

We notice the water consumption each day and put in the statistics weekly. Therefore, we have a good insight if something rockets in consumption. If that happens, we try to find the reason behind it. We also have BSC meetings where we go through the numbers and consumption of water, electricity, gas, routes, kilowatts/carpets and so forth. With the help of the BSC, we can compare the numbers of how close we are to our goals.

Customer Service & Administrative - Company A

As the answer above portrays, the continuous statistical focus together with the BSC helps the firm to be updated regarding how much energy it uses. Which helps in identifying ways to improve.

This is also applicable in the case of company B where the logistics and production manager explained that their main experienced benefit from certification is the energy reduction. Here is the answer of the plant manager when asked about the main benefits of certifications:

I would say the energy, we want to save energy and electricity and it is good to save since it costs a lot. [Certificates] help us to monitor and measure electricity through the yearly report of EMAS so we can see that we are doing better every year, so it gives us motivation that we should carry on and improve our numbers every year. --- and we try to be more efficient as we move forward.

Logistics & Production Manager - Company B

The plant manager also confirmed that cost efficiency is one of the main motives as the prices of their products will be affected by the cost savings that materialize from the certificates.

You can see the effect on the price, since if we use more energy, the product is going to cost too much so we make the product much cheaper because we save on energy. That makes us sell more and be more efficient. Cost efficiency. If you can reduce the cost, you can lower the price and sell more. *Plant manager – Company B*

4.1.4 Marketing tool

The certificates as a marketing tool was also mentioned by many of the respondents. The CEO in company A added that EMS certificates have a reputational effect on the company and works as a marketing tool for attracting new customers:

> *It is a good thing that gives us publicity, and the customers and employees like it. Most important for the customer is the purpose of the carpet and the service, so the certificates are only add-ons. For some customers it is more important with environmental focus when they choose a supplier. Around 20% of our customers think about the certificate and environmental factors before choosing their supplier, in this case us.*
>
> *CEO - Company A*

Moreover, sometimes publicity is experienced because of the certificates, but that is mainly due to the certificates' focus on the environment. The CEO explained that the company has had articles coverage before due to their environmental efforts.

> *Our environmental work is giving our main business more credibility and gives us extra attention many times. We have had a lot of articles [Coverage] and there is a lot of interest in what we do.* *CEO - Company A*

The answer of the CEO shows that the certificates help the firm to attract customers, especially those with the same ambitions and values. Besides the certificates, their business-model, which is partly built upon sustainability, has been with the firm for some while. Therefore, the environmental part has become integrated into their MCS and has with time made it profitable for the firm. Moreover, an improved reputation and publicity was experienced.

Company B expressed as well that a good reputation and transparency with external entities are experienced as a result of being certified, which is mainly by showcasing that they work with the environment in a systematic way.

> *[External entities] can see that we are organized, and we work with the environment, so it gives us a good reputation. And it makes us more transparent with them. --- Showing that*

we are certified with ISO and EMAS shows that we are a structured company and have everything in order, so it is a good sign. *Plant manager - Company B*

The Logistics & Production Manager explained that customers may not always be sensitive towards environmental efforts, which depends on the size of the customer, as small customers are more affected by the price than the environmental efforts of company B.

When the customer chooses who they are going to buy from, the price is the most important, but it depends on the customer also, for a small business the EMAS doesn't matter that much but if it is a big business, it matters more.

Logistics & Production Manager - Company B

That is also highlighted by company A where not all the customers think about the environmental efforts of the company before choosing them as a supplier.

Around 20% of our customers think about the certificate and environmental factors before choosing their supplier, in this case us. *CEO - Company A*

4.1.5 Other Motives

Based on previous experience the operations manager of company C agrees that being certified with ISO 14001 for instance has an impact on the company's environmental approach, that is, the company will have to set new targets and try to actively achieve them continuously. Since the audit will check if the company is innovating enough in their environmental targets and then if the targets were not met, the company needs to explain why. Which is something the operations manager of non-certified company C agrees with.

I think we would be more actively looking for new targets. If you have the ISO 14001 certificate you need to do it, since the audit will check if you are actively working with the environment. *Operations Manager - Company C*

Better CSR efforts was one of the goals of both company A and B when they chose to be certified where we can see that from many of the quotes above in the earlier sections. It is also important to highlight that a systematic way or working with the environment is also one of the motives that could be considered as a sub motive, which is also exemplified in the earlier data.

4.2 Barriers and Challenges of EMS Certificates

To the contrary of company A and B, company C did not have any EMS certifications, neither ISO 14001 nor EMAS. The control system in place is closest in characteristics to the BSC and the SBSC. However, there is a belief in the management team that working with sustainability dynamically (without being certified) might be more convenient due to many reasons. Moreover, EMS certifications have drawbacks and challenges that are relevant to consider in order to get a realistic holistic view on them. Hence, this section will be used to explore the three companies' view on EMS certifications in terms of barriers and challenges. Especially the views of company C, since it is interesting to understand the reasons that would prevent SMEs from being certified.

One of the main reasons for not having a certificate at company C was that there is no pressure on the company to have it. Neither an internal pressure nor external, we can see this in many of the responses by the company representatives where they mention that there is no demand for it as it is not an absolute need. On the other hand, it might have been due to lack of awareness or as simply as "no one brought it up". The CEO of company C accredited that SMEs do not get certified due to the lack of awareness among other reasons (discussed later). While the operations manager was aware of the certificates, he thought that being certified is not a necessity for the business to succeed, which is something the CFO of the company agrees with:

> *In the situation that [company C] is in today, I would say it is merely from a sales perspective. If customers demand that we need to fulfill ISO 14001 then yes. Often it is a demand from the public sector. E.g., a tender requirement. [My former employer] took this decision as a commercial one for those tenders. For SMEs in general, I think basically because they don't know what it means. The first time I got in contact with ISO was ISO 9000 and it was about quality ----- But I think ISO 14001 is easier to get and easier to maintain if you have an office, I would say it is not difficult, but you need to have the basic controls in place which is key.* *Operations Manager - Company C*

The CFO on the other hand explained that the lack of certification could be due to a lack of demand or pressure towards being certified, but also potentially a lack of certificate awareness.

It is just that no one has brought it up I would say. So, there is no demand for it. because I think this is something that should be driven bottom up, and if that's not possible then top down. But in our case, there is neither the will nor ambition from the top or the bottom, and that it could be as easy as that no one knows what it is and the benefits of it.

CFO - Company C

Other reasons for not being certified could result from the management's perception that certificates are costly, require active work to maintain them which could be spent on profit generating activities, along with other reasons such as the size of the company, and bad experiences with certificates in the past. While the CEO signified the role of the company's resources.

For small and medium enterprises, it has something to do with resources and cost benefit. So there's work that goes into being Certified. And that has to adapt into something that benefits the company. In something that is as tangible as it's worth the effort.

CEO – Company C

As the implementation of the certificate should make sense from a cost/benefit perspective. At the same time the CEO signaled a lack of faith in certifications in general. Since they would stress the employees of the certified company for one full day, for instance, "to clean things up" and then the next day everything is back to normal. Hence, no change due to being certified:

I worked for [an ISO certified company] and I remember that once a year at the time [The auditors] came, the entire business was on the back of the heels cleaning up. [The auditors] came, left, and everything was back to normal. This, this was just one of those experiences where you say, OK, we spend one day every year cleaning up, making sure that everything is according to the certified measures that we need to do. And then once they're gone --- you are back to normal. So I don't think any of the employees really supported the initiatives. For us it was just one day of stress. ---- It has to make sense throughout the company, from many perspectives to add value to the organization.

CEO - Company C

The state of growth and the size of the company was also mentioned as one of the barriers where the allocation of resources is also considered. The CFO of company C thought that size could be a factor since the focus in small companies should be on growth. The conveyed belief here is that certification could hinder growth.

> *I think the volume of [company C] is one of the main reasons we don't consider certifications. For us we should build and grow first. --- and hopefully we can still do the work without having the certificate.* *CFO - Company C*

All of the managers in company C agreed that integrating sustainability in the company's MCS is necessary, but as we can identify from the findings, they had different thoughts on certifications. However, they all believe that controlling for sustainability aspects is key:

> *I would say that controlling for sustainability within their [SMEs] control system is absolutely necessary, but the certificate I think it would depend on the company itself and what pressures they face. However, not having a control system that controls for environmental aspects is a no go, it is not acceptable. Consumers today expect that you are working with the environment, hence you need to control for it. However, going all the way to have a certificate is the extra step. I don't think it is kind of necessary, but a documented way of reporting environmental aspects is necessary*
>
> *Operations Manager - Company C*

In summary, opting for a certificate could be affected by pressures from external parties such as the government or it could be a requirement from customers, e.g., government tenders. In other instances, it could be incentivized by the company's state of being stock listed compared to private and group-owned companies as the CEO of company C expresses. The CEO also viewed EMS certificates as marketing tools:

> *Being a stock-listed company, you need to have these certificates – when you go to the factory of [a car manufacturer] they are Certified — so let's say all these hygiene factors are in place. But if I have [company C] was my own company. Would I spend a huge amount of money and effort for getting a certificate that doesn't bring any value to my*

organization besides the fact that I now have a marketing certificate to put on my email and website? No. *CEO - Company C*

Many challenges from getting certified by ISO 14001 and EMAS were highlighted by companies A and B as well, and other possible challenges were raised by company C. These challenges also serve as barriers that prevent SMEs from implementing a certificate.

Working with sustainability dynamically is a necessity according to company C, however, being certified is not. Since being certified requires companies to achieve minimum criteria in order to maintain a certificate, and secondly as mentioned before in this chapter it requires costs and efforts from the company and its employees. As the CFO of company C mentioned, certification could help SMEs that do not already have a systematic control system that is detailed and consistent over time, however, for SMEs that do have it, a certificate is not key:

I guess one of the drawbacks is the work that you have to do to keep the certificate and then really have your steps detailed so you really know what you are doing and that's what I say about having a systematic way of doing things. You should know what you are doing and why we are doing it. And I think for many companies that systematic way of doing things is not in. *CFO – Company C*

Even though both company A and B are certified and are working with ISO 14001 and EMAS, there were implications with the certificates in some of the answers. The Sales Director in company A stressed the importance of the employees' attitude towards working certified:

My personal perception is that this is a consultancy product. If I look at consultancy products and what you can do with them, all MCS work with a structure. The challenge is to get all on board to work with it actively. If you have employees that are not motivated to work with it, it will be a major challenge. If you instead have ambitious employees that wants to actively work with it, it will be beneficial for the company.

Sales Director - Company A

The statement of the Sales Director implies that it is not always bright, but there are also barriers and challenges. Given that all employees are "on board" and work with the certificate actively,

positive outcomes can be reached. The Sales Director explained that it can become a challenge of using it if the employees are not motivated and if there is too much bureaucracy involved:

> *I am generally quite critical regarding questions about environment and sustainability since there is a lot of populism about it where you work in detail and forget about the bigger picture. --- Personally, I think you need to be committed towards sustainability and environment as a person and company if you plan to work with EMS. If you are not committed as a company or employee, the certificate ends up as a burden and you only have it for the sake of the stamp. In the end it loses its trustworthiness within the firm.*
>
> *Sales Director - Company A*

As the Sales Director describes, the commitment is crucial towards success of working with EMS. In the end it could end up being a tool that a firm only has for the sake of the stamp. In company B, the Sales Director had a similar view regarding the focus of "the bigger picture". According to him, working dynamically with major environmental questions and getting rid of certification fees and documentation could be a way to go:

> *It sounds like you are crazy when the Plant Manager goes through the document each year regarding the goals and if we have reached them. Goals regarding savings of water or reducing the waste, to be honest I think that we would have worked with these questions regardless of EMAS. But EMAS makes it more exact and concrete. Maybe we should try to only keep the good parts of EMAS and get rid of all the documentation that takes time, which makes it possible to work with the things that we care about most.*
>
> *Sales Director - Company B*

As the Sales Director explains, the firm would have probably been working with environmental related questions either way, regardless of the certificate. What the Sales Director implies in his answer above is that by working with sustainability dynamically, given that there is a serious focus on major environmental questions, firms can avoid the yearly certification fee for the certificate and also get rid of mandatory documents and policies that come with it, which means less bureaucracy. When asked if working certified has become too much bureaucratic, the Sales Director answered:

Sort of, in some ways yes. The focus is put on following standards, rules, regulations, and policies that are connected to those certificates which is of course important and necessary for the tool to work. But sometimes the focus is put too much on those things and the focus is lost on the most important thing, the environmental related questions. In that sense it can be seen as bureaucratic where "the bigger picture" is lost in some way.

Sales Director - Company B

Finally, the plant manager and the logistic manager of company B acknowledged that it is costly and time consuming to maintain the certificates, however they would rather keep it since the benefits of having the certificate outweigh the challenges.

We don't have any special cost, other than the cost of certification, but we save it on energy and other efficiency due to our work with the environment. I find it hard to see it other than helping us. *Plant Manager – Company B*

We work with the certificate, and it takes some time, but it is time well spent

Logistics & Production Manager - Company B

4.3 The Integrated Control Systems

Working with sustainability while being certified or not is a legitimizing factor. All three companies value sustainability and try to actively improve their environmental approach. However, the three companies use different tools in order to control for financial and sustainability aspects.

As we can see from the previous section, company A integrated system consisted of two tools, BSC, and VLS. They are both used to monitor and control the environmental aspects, such as water and energy consumption. However, VLS is used solely for EMAS:

We have had the BSC from the beginning and [then] implemented a new system, called VLS. We use both integrally where we use the BSC for the numbers and VLS for EMAS, ISO14001, policies, and other environmental related questions. --- With the help of the BSC, we can compare the numbers of how close we are to our goals.

Customer Service & Administrative - Company A

The interviewees of company B mentioned that they used the documents and forms provided by EMAS in order to produce their EMAS annual report along with other documents for the environmental report. The company also has ISO 14001, hence more documents are used to check for ISO 14001 checks. The energy and waste etc., that is accounted for is then allocated over the product through their control system:

> *We have the yearly document of the EMAS report and the environmental report. --- We have a goal for the environment and the quality overall, for example, we have goals related to how much electricity and oil we use and how much garbage we send out of the plant, which is divided by the products that we produce.*
>
> *Plant Manager – Company B*

Company C on the other hand is not certified, however, they still include sustainability controls in their system. These controls are checks for specific targets which then are tracked through Key Performance Indicators (KPIs). All three managers in company C spoke about the dependence on KPIs in the controls system and how the results should be reviewed constantly on a monthly/quarterly/yearly basis. Since company C is part of a group, they report their financial and environmental numbers to the group on a monthly basis, hence their control system is also affected by the requirements of the group. The documents used are all locally generated, hence they are low-tech and are changed manually when new requirements arrive:

> *For some time, we had KPIs for electric and hybrid vehicles, but now from this year [2022] we started to report and measure CO2 on the total fleet.*
>
> *I would say [our control system] is quite static, but [the requirements from the group] change and it makes a lot of work when they do. I mean when they change it, it gives us issues because we have to rethink the way we report, to capture what they want us to report. It is more low-tech for us. Then we have to create new tools to capture the data.*
>
> *CFO – Company C*

5. Discussion

The results from the interviews are analyzed together with previous research that has been presented in the previous chapters of the study. The fifth chapter starts with a discussion regarding the motivational factors of EMS adoption, both pre-implementation and post-implementation. Secondly, there is a discussion about the challenges of working certified, and what barriers businesses face when they try to get certified. And finally, a discussion related to the management control systems in the studied SMEs. The following figure summarizes the findings.

	Certification		Non-Certification
	ISO 14001	EMAS	Dynamic tools
Motives	1. Environmental focus 2. Low pressure from the customers 3. Marketing Tool/Publicity (Attraction of new customers) 4. Improved Reputation/improved company image 5. Improved Financials/Efficiency gains 6. Better Corporate performance (Environmental) 7. Improved integrated control system (Better control) 8. Environmental welfare		1. Environmental focus 2. Pressure from the group 3. Flexibility in choosing an environmental goal and its period 4. Limited improvements in corporate performance 5. Evasion of high certificate maintenance costs 6. Environmental welfare
Barriers & Challenges	1. Due to the high focus on continuous goals improvements the main challenge is the high maintenance cost that includes: Annual fees (Certificate fees) Annual costs to improve the control system Annual costs to maintain a satisfactory goal achievement Considerable organizational effort 2. Bureaucratic process 3. Stressful audits		1. Lack of publicity/Reputational benefit 2. Less innovative in terms of continuous environmental goals improvements 3. Minimum monitoring of Environmental KPIs (Depends on the group's requirements only)
Additional Differences	1. ISO 14001 is more popular in Sweden due to awareness rather than competence 2. No new major differences between ISO 14001 and EMAS		

Figure 6. Summary of the findings

5.1 Motivational Factors

From the empirical findings, we can identify two types of motivational factors related to EMS certificates. First of all, the pre-implementation motives, which could be described as the motives towards implementing EMS certificates for the first time. Secondly, post-implementation motives for EMS certificates, which could be described as the motives towards maintaining the certificate over time. This could be exemplified by the benefits that the companies experience as a result of certification. Hence this section will be split into pre- and post-implementation motives to differentiate between the two categories of motives, however, some of the motives may be considered as both pre- and post-implementation motives.

5.1.1 Environmental Focus

The environmental focus was emphasized by several of the respondents, and especially those from company A and B, as one of their main drivers behind their certification. This is consistent with the analysis of Kubicka et al. (2021) and Granly and Welo (2014), who both explain how SMEs that are implementing EMS into their operations have environmental related matters as one of their main drivers behind their certification. The respondents mentioned that their environmental-related work often is quite ambitious regardless of their firm size, verifying the results from Kubicka et al. (2021) which illustrated that 60 % of the SMEs in their study implemented ISO 14001 because of their ambition of working with business processes tied to the environment. This ambitious work is exemplified by the CEO in company A which stated that his company has always done everything they can to minimize the impact on the environment. Furthermore, the CEO explained that the main reasons behind the implementation of both EMAS and ISO 14001 were because of their environmental focus and their ambition of integrating the EMS with their MCS which partly consists of the BSC.

The focus on the environment from a firm perspective was further discussed by the Sales and Customer Administrative in company A who described how the firm manages to track consumption of water better with the help of the statistics that is connected to both EMAS and ISO 14001. Furthermore, she illustrated that because of the EMS, the firm can easily adjust its consumption and find out why it “rockets” with the help of the two tools. Therefore, the environment proves to be one of the drivers once again since the statistics in this case are

correlated with the environment. In company B, the reasoning was quite similar, where the Plant and Logistics managers expressed that they, as a Swedish company, want to show the authorities and the society that they care about the environment and want to influence the environment in their neighborhood in the best possible ways. This underlines the findings from both Morrow and Rondinelli (2002) and Carrillo-Labella et al. (2020). The environment as a driver behind choosing the ISO 14001 standard is in many cases explained by the fact that the tool is created as a system where statistics are easily displayed (Morrow & Rondinelli, 2002). The tool is constructed to make it possible to monitor and measure environmental records, creating possibilities of enhancing negative environmental effects.

Certificates not only benefit the certified companies but also the society as a whole. Since the companies are required to actively work with the environment, improving their environmental approach and goals continuously, the companies will, for example, try to use less resources, reduce their emissions, and use renewable energy. This would mean benefits to society as a whole. Reducing the footprint of the business is the main reason for implementing these certificates.

The environmental focus could be categorized as both pre- and post-implementation motive for certification since the environmental focus, as shown from the findings, is one of the core values of the studied companies, which would most likely continue to exist in the future.

5.1.2 External Pressures

External pressure such as institutional or customer pressure as potential drivers for implementation of EMS were familiar factors for the respondents. As confirmed by Daddi et al. (2016) institutional pressures affect the implementation of EMS certificates however the type of pressure is different between companies. Some firms are certified due to a coercive pressure which in many cases ends up as a formal tool that does not fulfill its intended purpose. The researchers explain that mimetic pressure from institutions also drives firms into EMS implementation, but in a better way than coercive (Daddi et al., 2016). In this case, firms are encouraged towards practical processes that include the environment while at the same time taking inspiration from other firms in the same business. These findings are partly supported by Zhu et al. (2013) that are insisting on the fact that pressure from institutions influence EMS

implementations in corporations. Besides the correlation of institutional pressure and ISO 14001, they also find a link between institutional pressure and ISO 9000. The reason behind this correlation is partly because of the potential of attracting customers. Findings from both Daddi et al. (2016) and Zhu et al. (2013) are affirmed to a small extent by the respondents and their view on external pressures. The CEO and the two other respondents in company A made it clear that, to their understanding, coercive pressures were not one of the drivers behind their implementation of either ISO 14001 or EMAS. Instead, they explained that the pressure came from the environment itself and their customers, however implementing a certificate for the customer and the environment could be considered a form of normative pressure where the company strives to uphold a high degree of professionalism within their industry. Their main driver is their customers who they try to satisfy where a majority of the customer base shares the same values and policies regarding the environment. This affirms to some extent the explanation of Zhu et al. (2013) where attracting customers in relation to outside pressure is discussed.

Coercive pressures from the outside were not present in company B's case either. The Sales Director in company B did however mention that one of the main drivers of implementing EMS in his previous company but also at company B were the customers. A lot of pressure came from the sales department that pushed for the certification with the goal of attracting customers. Therefore, normative pressures could be identified in this case as well. EMS certificates adoption brought popularity and attracted customers after the implementation and continued to do so until now according to the Sales Director. Customers as a main driver of EMS adoption according to company A and B, validates the research from both Granly and Welo (2014) and Massoud et al. (2010), as the results in both studies showed strong significance between customers and EMS adoption. Nevertheless, one could argue the results of being delusive because of the timespan and because the correlation has been denied by other researchers (Testa et al., 2018), but at the same time there is research that backs up the correlation as well (Martins & Fonseca, 2018; Salim et al., 2018).

Delving into this phenomenon as a non-certified SME that works with sustainability dynamically, the reasoning is not the same. In company C's case, there is no pressure from either institution or customers regarding certification according to the CFO. The structure of firm C and the industry that they operate in are two factors that probably affect the external pressures. One is

that the firm is operating within the leasing industry, making it relatively distanced from the sustainability and environment. Secondly, the firm is a subsidiary to a multinational firm which makes company C very limited in which actions, goals, and decisions they can take. The CFO did mention pressure that comes from the group regarding terms and goals. Some of them are related to reporting KPIs that are further connected to sustainability and environment. Additionally, the Operations Manager expressed that customer pressure could occur towards EMS certification if company C would choose to participate in governmental tenders for instance. In that case, the previously discussed correlation between customer demand and EMS adoption (Granly & Welo, 2014; Massoud et al., 2010) would be considered as correct, and it would also be considered as a normative pressure, not coercive.

The experienced normative pressure in these cases stem from the professionalism of the studied companies where they try to meet the highest standards when it comes to the environment, and this is closely related to their environmental focus. These pressures again are motives towards both implementing EMS certificates for the first time and towards maintaining the certificates over time, hence a pre- and post-implementation motives. It is important to note that the industry each of the companies operate in has an effect on the pressures they experience, as both companies A and B work partly or fully with chemicals hence there is a certain expectation from them towards being more transparent regarding their environmental work in comparison with company C which is a financial service provider.

5.1.3 Financial Gains

Besides environment and external pressure as drivers of EMS adoption, EMS and its effect on a firm's financials is another driver that the respondents discussed. As a result of implementing EMS, the financials got improved and became the leading driver behind the EMS in company A. All three respondents in company A did however underline that environment comes first. Even though EMS-related business operations sometimes are not economically beneficial, they are insisted on if it results in an environmental win for the company. The connection between environment and financials related to EMS, especially the financials, possibly could be related to the findings of Merli et al. (2016) regarding economic savings in relation to adoption of EMS certificates. Economic drivers are shown to be crucial behind the adoption of EMS in both

private and public companies. Drivers such as savings of raw materials, savings of energy, and other drivers are presented by Merli et al. (2016).

Nevertheless, the definition of economic savings or financials as being potential drivers of EMS adoption is not always defined the same in research. Striving for reduction of energy, raw materials and emissions which is directly tied with financials, was the top driver in the article of Kubicka et al. (2021). These findings affirm both the findings of Merli et al. (2016) and also meet the argumentation of the representatives in company B. In their discussion, company B are similar since they have discussed energy savings and material reduction. Even though company B expressed the environment and customers as the motivational factors of their EMS adoption, they also mentioned that their financials were directly affected by their engagement of working with ISO 14001 and EMAS. The two certificates have helped company B to reduce electricity costs, reduce energy, and reduce their use of material. Company A as well discussed benefits materializing from the certificates, these benefits were especially related to cost reductions through efficiencies in the processes. Which is consistent with Ikram et al. (2019) where companies improve their corporate performance when they implement an EMS certificate.

The positive financial improvements which the EMS has contributed for company A and B, has made financials an additional driver for the companies to maintain the EMS certificates over the years as the costs of certification are partly or fully covered by the certificate monetary benefits. The improved financials factor is considered a motive for EMS certificates as affirmed by Kubicka et al. (2021) and Merli et al. (2016). However, we differentiate that the improved financials factor is a post-implementation motive, i.e., a motive to maintain the certificate after the implementation more than a pre-implementation motive. That is due to the fact that efficiencies and cost reductions need time to materialize on an incremental basis and may not materialize for all companies, since this could be related to the industry the company operates in. For instance, companies A and B depend on energy and chemicals in their core business. Hence, any reduction in the consumption of these two main business elements would be considered a direct cost reduction. For company C, this was a concern as the CFO mentioned that a certificate such as ISO 14001 is more suitable for factories due to the cost reductions we mentioned earlier. The operations manager of company C also confirmed what the CFO thought. Keeping that in mind, we can affirm Carrillo-Labella et al. (2020) findings that there is a relationship between

EMS certification and improved financials, however the relationship we find is of direct nature compared to the indirect relationship that Carrillo-Labella et al. (2020) found in their research, however this could be contingent on the studied industries as explained above.

5.1.4 Marketing Tool

One of the main benefits from the certificates were better company image and improved reputation which is aligned with the review of Boiral et al. (2017). The companies who are EMAS certified are added to a public registry that could be accessed by anyone hence it helps in promoting the certified company's efforts (European Commission, 2022). Which is also confirmed by company A and B as the managers of the companies agree that the certificates are viewed as marketing tools, hence they give the companies publicity. The CEO of company A mentioned that their company was featured in many articles due to being certified with ISO 14001 and EMAS.

A better image was also the most common answer from an external point of view according to Kubicka et al. (2021) as well as gaining the society's trust. A better reputation for SMEs may not be as important as it is for large companies, however it is still one of the main reasons for implementing and maintaining a certificate.

Secondly, attracting new customers since the certificates are used as a marketing tool the certificates attract new customers. Especially customers who value CSR efforts. In some cases, certification could be a requirement in order to be a supplier, for instance governmental tenders. Certificates also help in maintaining existing customers especially the customers that fall under the large category. We could identify that large companies are more sensitive towards what their suppliers do in a CSR manner compared to small companies. This could be attributed to the magnitude of the pressure these companies could have on their suppliers. Improved transparency is one of the benefits as Kubicka et al. (2021) discussed, this could be directly related to the gain of customers since it contributes towards improving the relationship with the stakeholders.

The marketing effect of certificates could be categorized as a post- and pre-implementation motive for EMS certificates. Especially if this effect materializes and contributes to the

company’s customer base and image improvement which in the case of the studied companies, it did.

5.1.5 Other Motives

Better CSR efforts. In order to maintain the certificates, certified companies need to maintain minimum standards annually. In the case of ISO 14001, continuous improvements are one of the key requirements for maintaining the certificate where the ISO auditors would check if the company applied new environmental goals and if they were achieved and why. According to our empirical data, companies need to be actively working with environmental aspects in order to stay certified, hence we can conclude that being certified and continuously maintaining that status will lead to more CSR efforts which is confirmed by Ikram et al. (2019). As a result of the continuous improvement of goals, a continuously improved control system would be needed in order to document and monitor new KPIs. The improved control system could be viewed as a motive towards implementation since continuous improvement is mandatory and is not a matter of choice, but also these improvements make the control system more costly to maintain as discussed later. Better CSR efforts and documentation/control system could be considered as both pre- and post-implementation motives.

Finally, compliance with regulations as suggested by the literature review. Certificates are designed to help with compliance with regulations where the processes are more streamlined and efficient according to Fonseca (2015), however our data does not provide enough insight into this topic.

5.2 Barriers and Challenges of EMS Certificates

Certificates may not be welcomed by all SMEs due to multiple reasons. First, the annual cost that is needed to maintain the certificate. Second, the employee's time and efforts to comply with the certificate’s requirements. Third, a lack of pressure from the outside which confirms Zhu et al. (2013) view that companies are more responsive to pressures especially international pressures when it comes to certificates. Daddi et al.(2017) confirms that a lack of pressure is one of the main reasons for not implementing EMS certificates.

However, the benefit of working dynamically is that the company could relieve itself from the stressful audit that the CEO of company C mentioned and exempt themselves from the monetary and effort costs. That is if the dynamic control system is as efficient, or close to the efficiency of the certificates. In this study, company C was very efficient in the environmental reporting and monitoring of certain KPIs, however they did not enjoy any of the reputational benefits as company A and B. The main goal of both ISO 14001 and EMAS is a greener society (Kubicka et al., 2021). The goal of a dynamic control system that includes sustainability aspects such as the SBSC is also a greener society, however the results from implementing these two systems (Standardized and Dynamic) cannot be the same. The success of the dynamic system in company C could be attributed to being part of a bigger group that demands certain KPIs to be tracked and reported on a monthly basis. Company C only reports the necessary information to the group, hence no other environmental KPIs are maintained or tracked. On the other hand company A is not group-owned and still they have both ISO 14001 and EMAS even though they did not face any coercive pressures as explained before. Hence, it is a matter of belief in the certificates in the first place, and secondly, small companies do not face the same pressures to implement EMS certificates as large companies which is aligned with Gonzalez et al. (2008).

Besides costs, time and pressure, bureaucracy and audits are two other challenges perceived by the SMEs personnel. Employees working with ISO 14001, EMAS or both can sometimes lose the focus of the main goal (environment). According to the Sales Director in company B, the EMS work can sometimes become too bureaucratic where focus and time is spent on doing paperwork, administrative work, and other additional tasks that come with the certificates. Instead of focusing on the “bigger picture”, focus is shifted on things that are less important. Which could be argued to be against the Swedish management style that is characterized with low-bureaucracy, and easy communication. Furthermore, the yearly audits that are made by an independent third party on each company and its goals is perceived as demanding sometimes, according to respondents from both company A and B. The Customer Service and Administrative representative from company A stressed this and explained that there is additional work to be done when the audit is around the corner. The respondents are however not alone regarding their perceptions of the challenges that come with the certificates. Both time and costs are explained as difficulties in the research of Kubicka et al. (2021) and in that sense affirms what has been said during the interviews regarding time and costs as challenges.

Knowledge problems and teaching the employees how the certifications work are also mentioned and could affirm the bureaucracy point of the Sales Director in company B since those tasks are time consuming and do not contribute to the environment directly.

A benefit of the dynamic control system is that the company is not required to follow specific indicators but is free to choose and account for and communicate the indicators that they see fit. In the case of company C the Co2 emissions of the company's fleet is measured, as well as the Co2 emissions of the customers fleets. On the other hand, a drawback of the dynamic system is that there is no obligation to do more. Company C could suffice with having the two-measure mentioned before, and secondly their goals are also group inspired. If company C was certified, then they would be required to create new goals or improve on the old ones continuously, which in turn means new indicators will have to be created and tracked over time. However, this also means that the cost of maintaining the certificates will increase overtime, as excessive documentation will be needed. Since the more comprehensive the control system becomes, to accommodate new objectives, the more expensive it will be to maintain.

5.3 Integrated Control Systems

We could see from previous literature, which discussed integrated control systems, that the SBSC of Hansen and Schaltegger (2016, 2018) is a popular tool used by companies in order to accommodate sustainability aspects with financial aspects. We could identify a similar trend with our own studied companies.

Both companies A and C used SBSC in their integrated system. First of all, from the interview with an Administrative from company A we can identify that the company used a BSC to control for financial aspects. Moreover, the EMAS certification is controlled for with a supplement tool to the BSC, hence this added tool (VLS) could be considered a part of a SBSC (Hansen & Schaltegger, 2016, 2018) along with the BSC, since they are used together and complement each other. On the other hand, VLS was implemented only when the company got certified with an EMS. Hence, the addition to the BSC was only pressured when the certificate was implemented which meant more controls and tools were needed. This is also confirmed by previous literature that elaborate on the excessive documentation needed by the certificates. (Kubicka et al., 2021).

Company C integrates sustainability based on demands and pressures from its stakeholders. Even though it was not certified, company C still tracked sustainability KPIs along with other financial KPIs, the system is closest to a SBSC due to the connectedness between the KPIs and since they are measured within the same system. According to the CFO, the pressures company C face in terms of the reporting comes from the group only and if the reporting requirements were to change then that would mean a lot of efforts should be put into adapting the new requirements and creating new KPIs which is not easy to do. If company C were to be certified with an EMS, we could assume that they would adjust their environmental goals as a result, but also would adjust their controlling system through adding new KPIs to capture and monitor new sustainability aspects that were not tracked before. On the other hand, the empirical data from company B was not sufficient to draw similar conclusions.

In summary, Company A used a new system called VLS and an addition to their BSC to accommodate EMAS. Hence, we could say that certificates could motivate companies to adopt SBSC or other dynamic control systems in order to maintain them and not lose the certificate. Company C uses SBSC in the form of KPIs, the more requirements they get for sustainability, the more KPIs they will add. Certificates make companies adjust their goals and as a result they will need a better control system. We could identify from the empirics that one of the requirements of maintaining an EMS certificate is active improvements in the company's environmental approach. Given that the certified companies will actively update their goals over time in order to maintain the certificate, this will create more controls, more KPI tracking, and more documentation. This could be an issue in the long run, since it will increase the cost of maintenance of the certificate, but also this will result in a more improved and comprehensive control system overall that captures and monitors a wide array of aspects that were not accounted for before certification. This is confirmed by Granly and Welo (2014).

From a Simons' (1995) levers of control point of view we can identify differences in the belief systems between the studied companies. While all companies seek a successful profitable business financially, the focus on sustainability varies between the three studied companies. Company A could be seen as the leader in this regard as they hold sustainability on par with financial gain, and in some instances above financial gain according to our empirical data.

Even with no high pressures from the outside, company A actively seeks to align their financial and sustainability goals through certification with ISO 14001 and EMAS. Their belief system represented in their core values that were communicated through the interviews helped to create a commitment from the employees of the company to uphold environmental aspects. This involvement from the employees in turn helps in creating an interactive control system which enables the employees to create and support opportunities for improvements. Company A's environmental focus is due to the shared values within the company that advocate for environmental improvements, however, it could also be explained from an industry point of view where chemicals are used, and quality controls on chemicals are common.

Company B signified the importance of sustainability and environmental objectives which is also clear in their core values, however, the purpose from implementing EMS certificates was to improve their image (since they too work with chemicals) and to enjoy monetary benefits that materialize from cost reductions according to the empirics. Moreover, the involvement of employees in improving and creating opportunities for environmental enhancements was limited. Hence, their control system would fall under the traditional diagnostic control system which tends to be systematic and formal, helping the managers in monitoring the results of the operations in comparison with standards.

Company C's control system could also be categorized as a diagnostic control system which is clear from the CFO's statements regarding the systematic reporting of very specific KPIs, this could be explained by the pressure they face from their group when it comes to specific KPIs reporting. When it comes to certification, there was a clear message from the management that certification should make sense financially as well as environmentally in order to be considered. Finally, a fair comparison between the three companies in terms of certification could be hard to achieve due to the difference in their industries as the chemicals industry could be in the spotlight to a larger extent than the leasing industry which is mainly a financial service industry.

6. Conclusion, Contributions, Limitations and Future Research

This chapter will summarize the findings and clearly answer the research questions in the conclusion section, then the contributions of the study are listed and briefly discussed, and finally the limitations of the study are addressed and recommendations for future research are provided.

6.1 Conclusion

The purpose of this study is to enhance the understanding of EMS certificates as a tool towards a sustainable future in an SME setting. This is done through enhancing the understanding of what possible drivers SMEs have regarding EMS adoption and maintenance, including both pre- and post-implementation motives. Furthermore, the barriers and challenges of EMS certificates are discussed in order to gain a holistic view on EMS certificates in a Swedish SMEs context. The study is of a comparative nature where two EMS certified companies are compared with each other and with a non-certified company. Two research questions are investigated:

- How are EMS certificates motivated in SMEs?
- How are the barriers and challenges of certificates perceived by management?

The study manages to answer the research questions using the rich empirical data that was collected. First of all, the study establishes the importance of sustainability and environmental efforts in SMEs and introduces certificates as one possible solution towards managing sustainability and environmental welfare.

Secondly, how are EMS certificates motivated in SMEs?

According to the findings and analysis, SMEs motivate the implementation and maintenance of EMS certificates mainly due to their environmental focus and experienced institutional pressures. The marketing effect that certificates have is another attraction of EMS certificates where the certificates are used to enhance the organization's image, attract new customers, and gain publicity. The main post-implementation motive of EMS certificates is the improved financials as a result of certificates adoption, the certificates are proven to provide the organization with the needed drive towards efficiency and cost reductions on a continuous basis. The improved

financials are considered a post-implementation motive since the materialization of such benefits could be contingent on time and the organization's industry, hence this motive may not exist in some industries. Improved control system is another motive for certification due to the demanding nature of the certificates, the control system will require active enhancements to be as comprehensive as possible. Finally, better CSR and environmental efforts are motives of certification as the goal behind certification is sustainability and environmental welfare and our findings suggest that there is no doubt that certification is a huge commitment towards a better future.

Finally, how are the barriers and challenges of certificates perceived by management?

The findings in this thesis shows that both time and costs are the main challenges that are present within SMEs in Sweden. The certificates are found to be time consuming and crave a lot of dedication which both company A and B argued. Regarding the costs, representatives in company A and B mentioned that they did not identify it as a challenge (ability to pay), but they did mention that there surely are SMEs that do not have the economics to pay for the certificates and in that sense would face it as a barrier and one of the main constraints. The needed knowledge and commitment from employees were further mentioned as challenges, where if they were not present the certification would turn into a mere document that would not serve its purpose. Moreover, certification costs may increase over time as certification is demanding continuous improvements, namely on the goals and the control system, which would possibly mean more efforts and cost of maintenance. Bureaucracy is another constraint of certification where extensive documentation is needed to maintain the certificates. It is argued that the organization could lose sight of the main goal as a result of bureaucracy and focus on documentation which is not in line with the Swedish management style.

6.2 Contributions

The contributions of the study can be sorted into several findings. Firstly, the study has brought new qualitative information of drivers and motives that are related to EMS adoption and maintenance in SMEs in Sweden. Previous research in Sweden has been made where both EMS and SMEs together have been discussed (Ammenberg et al., 1999; Ammenberg & Hjelm, 2003; Halila & Tell, 2013). However, those articles have not focused on pre- and post-implementation

motives of EMS certificates as main orientation. This study contributes and adds up new qualitative information that covers the Swedish area but also SMEs as firm size.

Secondly, the thesis contributes with a comparison of EMAS in Sweden compared to other countries in Europe. Sweden has less than 20 EMAS certified SMEs while Austria for example has more than 1000 (European Commission, n.d.b). The empirical evidence showed that firms, SMEs particularly, are not familiar with EMAS, compared to ISO 14001, which could be a possible reason behind the difference of EMAS certified SMEs in Sweden compared to other countries. Especially since the companies in our study praised the EMAS certificate and found it more favourable than ISO 14001 in one instance, hence the popularity issue of EMAS is not due to incompetence.

Thirdly, the study shows that there is a direct positive correlation between EMS adoption and improved finances. This relation was experienced by the two EMS certified companies. Our findings affirm Carrillo-Labella et al. (2020) findings that there is a relation, however the relation is a direct one contrary to Carrillo-Labella et al. (2020) findings.

Moreover, the study contributes with new insights to the EMS field, specifically oriented to Sweden as geographical location. Previous studies (Johnstone, 2021; Carrillo-Labella et al., 2020) have implied that compliance is the driver behind EMS adoption. Our study however shows that the management's genuine responsibility towards the environment instead of compliance is the main motivating factor along with normative pressure. Regardless of any coercive pressures which in this case did not exist.

Finally, our study finds a clear link between improved integrated control systems and EMS certification. Since certifications require continuous improvements in environmental goals which creates the need for more holistic control systems, otherwise the certificate would be lost. This contributes directly to the literature on integrated management control systems.

6.3 Limitations

A limitation in qualitative studies is that the actual sample does not represent the whole industry or the firm size. In this study, there were three firms participating in total which is relatively low.

Therefore, the results from the study hardly represent each of the three different industries. Another limitation that is important to highlight is the motivation of adopting EMS in company A and B. In company A, as explained in the empirics, both ISO 14001 and EMAS were implemented during the 90's. Therefore, the reliability of the answers that relate to pre-implementation motives could be questioned. In this case, the CEO of company A, which was also the first respondent, happened to be both the CEO and the founder of company A. Therefore, the CEO has the best insight into the company and the primary data in this case could be seen as reliable. In company B, the management has changed during the time, but the core values are the same as from the beginning, where environment is the core value as explained by the respondents. Nevertheless, the empirical findings that relate to pre-implementation motives could be questioned since they depend on two things. The memory of company A's founder and the knowledge of company B's interviewees about events that occurred a long time ago.

Moreover, It is hard to generalize our findings on all SMEs in Sweden due two reasons, first of all, the industries of the studied companies do not represent all the SMEs in Sweden. Secondly, the unique characteristics of SMEs make it harder to generalize the results as supported by Kruis et al. (2016)

6.4 Future Research

The topic of EMS certificates and the motives and challenges that comes with it has been shown as an area that is still quite unresearched in Sweden when it comes to SMEs. The study has provided results and insight where the improved finances as a motive for EMS certification has been presented. Therefore, it would be interesting to conduct a research that more in depth investigates how the finances are improved, where the respondents are given the possibilities to discuss how the records of accounting are affected. Moreover, studying a specific industry would be more appropriate in order to obtain a holistic view on the industry.

The findings suggest that EMS certification is a potential driver of MCS innovation, however it would be insightful to verify this conclusion with the focus put mainly on the MCS improvements that resulted from certification, it is also important to consider the increase in the cost of maintenance if applicable.

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