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Sustainable certifications in the public procurement by municipalities of IT-products

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Abstract

There are many different approaches to combat sustainability challenges, one of them being the use of certifications. The purpose of this thesis is to gain an understanding of the motives to include sustainability in public procurement, with focus on sustainable certifications. The study is delimited to IT-products for public schools, and the report is a case study where evidence has been gathered through interviews with seven of the 290 municipalities of Sweden. The interviews were semi-structured and they were conducted using a funnel structure with three main themes; *Purchasing of IT-products for public schools*, *Sustainability in public procurement* and *Sustainable certifications*. The data from the interviews were then summarized and analyzed using different theoretical models and our contribution with this thesis is to be of help to companies wanting to sell to municipalities, as well as give an insight into what is being done and what needs to be done within public procurement.

The findings suggest that sustainability certifications are important, to some degree, in the procurement process. Most municipalities use different certification schemes to obtain criteria for sustainability to use as demands in their public procurement, but did not necessarily put demands on the certification itself. Motives behind sustainability were mostly political and the larger municipalities in our study showed a relationship to defensive reporting, due to the fact that higher authorities demand a sustainability focus because they might feel that the municipalities have failed on their own. A few of the municipalities stood out from the crowd and showed signs of altruistic behavior, and therefore an evident relationship to imitative diffusion. This suggests that personal engagement from employees is a possible determining factor behind the drivers to sustainability. Looking to the future, we found that most municipalities are positive to using sustainability certifications, but collaborations between public actors in Sweden are required in order for this to happen.

Key words: Sustainability, Public procurement, Eco-label, Certification, Municipality

Preface

We would like to thank all of our respondents for helping us with our study and for interesting interviews. We would also like to thank them for encouraging us to continue within the field of sustainability. Thank you as well to all of our opponents who have helped us in group discussions and giving constructive criticisms and good advice during the course of the study.

Elin Olsson

Moa Glansén

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Definitions

Third-party certification

A certification is a measure of which a third party shows that enough trust has been obtained and that a product, process or service correspond to a standard or another regulation.

(Nationalencyklopedin, n.d.)

Eco-label

An eco-label is *“an official symbol that shows that a product has been designed to do less harm to the environment than similar products”* (Cambridge dictionary, n.d.).

This does not necessarily means that is has been accredited by a third party.

ISO 14001

ISO 14000 is a collection name of standards that include environmental management, including ISO 14001. Together, the standards are an environmental management system. When the system has been implemented it can be used as base for third-party certification. (Swedish Standard Institute, n.d.)

ISO 9001

ISO 9000 is a collection name of various standards which includes aspects of quality management. ISO 9001 is the only standard in the collection that a company can be certified to. (International Organization for Standardization, n.d.)

TCO Certified

TCO Certified is a sustainable third-party certification for IT-products. This certification is characterized by the extensive demands from a life cycle perspective. (TCO Certified, n.d.)

The Nordic Swan Eco-label

The Nordic Swan is a sustainable third-party certification (Svanen, n.d. a). This certification is the official eco-label of Nordic countries (Svanen, n.d. b).

EU-eco label

The EU-eco label is a sustainable third-party certification (Svanen, n.d. c). This is the official eco-label of the EU (Svanen, n.d. b).

Energy star

Energy star is a U.S. government-backed certification for energy efficiency (Energy Star, n.d.).

LOU

The Swedish law of public procurement.

LUF

The Swedish law of public procurement in the utilities sector.

Red municipality

A municipality that holds a majority of locals voting for red parties, i.e. Vänsterpartiet, Socialdemokraterna, and Miljöpartiet, in the latest election of 2014. (Valmyndigheten, 2014)

Blue municipality

A municipality that holds a majority of locals voting for blue parties, i.e. Centerpartiet, Liberalerna, Moderaterna, and Kristdemokraterna, in the latest election of 2014. (Valmyndigheten, 2014)

1. Introduction

1.1 Background

For the past decade, climate change and sustainability has risen as an increasingly important aspect of consumption and lifestyles. A growing number of reports state that human behavior needs to change, both on a corporate and individual level, in order to keep the environmental changes from becoming devastating (WWF, 2018). This has in turn created a higher demand on today's companies where sustainability needs to be a priority. In 2016, a new requirement came from the Swedish Government, stating that companies have to engage in sustainability reporting (Regeringskansliet, 2016).

As a result of this, eco-labels have increased in popularity and gained importance in consumption (Horne, 2009). Today's consumers are faced with an infinite choice of sustainable certifications and there are currently 464 eco-labels in 25 industry sectors registered at the Ecolabel Index, which is the largest global directory of eco-labels (Ecolabel Index, 2018). Studies show that third-party certification is providing customers with trust which results in reliable quality signals. However, these signals and their characteristics are closely linked to the production process which is hidden to outside observers, such as consumers or other stakeholders. It is in this context that eco-labels and certifications play an important role, since they are able to guarantee the inspections within the production process which consumers are unable to perform (Jahn, Schramm & Spiller, 2005). Studies regarding attitude towards sustainable certifications show that consumers do respond positively to eco-labels, assuming that they recognize and trust the label. However, most consumers are unaffected by these certifications in the actual buying decision (Solér, 2018).

Municipalities are an important customer for many private companies in Sweden. Billions are spent each year in so called public procurements where the municipalities act as a consumer, in regards to everything from upkeep of public parks to helping provide funding for Swedish schools (Företagande, 2009). This has resulted in that the municipalities of Sweden play an important role through their public procurement, in the sustainability work of the entire country. In the fall of 2017, the Swedish government decided on a national strategy for digitalization of the school system. The process of creating an action plan is supposed to start

in the spring of 2018, and will be conducted by the organization “Swedish Association of Local Authorities and Regions” (SKL) (SKL, 2018 b). The strategy extends to 2022 and has three focus areas: *digital competence, equal access and use* and *research and follow-up of digitalization’s opportunities*. SKL state that digitalization and its’ opportunities is an important part of a democratic society (ibid) and because of this new strategy, it can be assumed that the focus on IT-procurement as well as the quantity of products purchased will increase in the near future. With more focus on this type of procurement, guidelines and purchasing strategies which include sustainability objectives, are highly relevant.

The base on which municipalities make their decision is partly decided by the Swedish procurement laws, which state that the base of evaluation can be one of three principles; the best relationship between price and quality, cost or, price (Upphandlingsmyndigheten 2017 h). The authority in question is free to choose whichever base for evaluation that they seem fit, and all of the base criteria can include sustainability (Upphandlingsmyndigheten 2017 c). Apart from this, the authority can choose any allocation criteria they think is appropriate, depending on the procurement, with the criterion that it has to have a clear connection to what is being purchased (Upphandlingsmyndigheten, 2017 c).

The base criteria can include environmental demands and life cycle costing, meaning that the public authority seeks to choose the most energy- and cost efficient solution (Upphandlingsmyndigheten, 2017 f). According to Lundberg and Marklund (2018) it is possible to address several environmental objectives in the procurement auction, which is often the case in practice. The ambition could be to achieve more than one objective by simply requiring one particular environmental requirement (ibid).

1.2 Problem statement

“Buyer demand for third party certification provides greater incentive for brands and manufacturers to not only certify their products, but also improve the overall environmental and social aspects of their business” – Ragnar Unge, CEO of Ecolabelling Sweden (Svanen, 2016 d).

Government controlled businesses procures goods and services worth over 600 billion SEK every year, corresponding to one fifth of Sweden’s gross domestic product

(Upphandlingsmyndigheten, 2017 g). In 2016, municipalities in Sweden spent 38,4 billion SEK in the education sector (ibid), where a part of this were procurements made for the 4 007 public Swedish schools (Skolverket, 2017), making the actions of municipalities important in terms of sustainable purchasing. A problem is that the Swedish procurement authorities' support for sustainable public purchases is not in line with the expectations of municipalities, country councils, and regions (SKL, 2018 c). According to a recent study by "Miljöinstitutet IVL" conducted on behalf of SKL, where the issue is investigated, many of the sustainable requirements are outdated and not ambitious enough to contribute to a sustainable development (ibid).

In 2014, the EU commission decided on new directives for public procurement which led to three new procurement directives; a classic directive, a providing directive, and a concession directive (Upphandlingsmyndigheten, 2017 e). Since the Swedish laws of public procurement are largely built on EU laws, the new directives entailed a cease of the LOU and the LUF, and a formation of new laws that took effect on the 1st of January 2017 (ibid). According to a study by Ecolabelling Sweden et al. (2016) the new EU-directive made it possible for public procurers to, for instance, put specific demands on third-party certification in the procurement process which was difficult to do before (ibid).

The Swedish government has also implemented a national procurement strategy to better and develop public procurement processes (Upphandlingsmyndigheten 2017 d), and one of the seven goals is to conduct a responsible public procurement with regards to the environment. The government's aim is that Sweden will be a role model in the field of sustainable public procurement. They encourage government controlled businesses to include environmental aspects in the procurement process and they advocate for a life cycle perspective of the product, where one takes in to account everything from raw material extraction to scrapping of the product (Upphandlingsmyndigheten, 2018 i). Assuming these new directives have been successfully implemented, the pressure on companies to meet the sustainability demands should have increased. However, a successful implementation is not guaranteed.

In order to understand how these new changes in public procurement affects companies, as well as to understand the role of public procurement in the sustainability work of Sweden, it is important to understand how the purchasing process in the public context works. The procurement process consists of numerous phases, including; preparations and specifications,

publication of a contract notice, tender offers, evaluation of the tenderer, decision of the victor of the procurement, appeal, and contract (Företagarna, n.d; Jansson & Norin, n.d.). A majority of procurement processes by public authorities follow the same pattern as a response to the *acquis*. The needs and the requirements that are demanded by the procurer are formulated in a specification where it is also stated what are to be purchased together with terms and qualification for the public procurer (Jansson & Norin, n.d.).

The procurer is obligated to create a publication of a contract notice in order to give all suppliers an opportunity to provide a tender offer. The purpose of a publication of a contract notice is to create market competition, and to give all potential suppliers an opportunity to participate by leaving a tender offer (Jansson & Norin, n.d.). The tender offers have to be left within a fixed time frame, determined by the procurer and when the time frame has expired, the procurer has to evaluate the tenderers (*ibid*). The procurer is obliged to discard any tender offer or supplier that does not meet the requirements written in the contract notice (*ibid*). Through an evaluation of a tenderer, the public procurer has the opportunity to exclude any supplier that, for certain reasons, is inappropriate (Företagarna, n.d.). Further, they also have the opportunity to assure or to control that the tenderer or the tender seeker has the capability to meet the public procurers needs (*ibid*).

By the time that the procurer has evaluated all tender offers, they decide on a victor of the procurement. The decision together with a motivation has to be sent to all suppliers that left a tender offer and it is common that the victor is the one that has fulfilled all requirements and that has been able to offer the lowest price. Critique towards procurements of lowest price has increased and it has therefore been common to establish so called value models. Several values are used in the models in order to generate positions in the phase of evaluation, either alone or in a combination with price. If a procurer has deviated from the *acquis*, any supplier has the opportunity to demand an appeal of the procurement. The authority and the assigned supplier will enter into contract if an appeal is not done before an expired deadline. (Jansson & Norin, n.d.)

A report by the Swedish procurement authority¹ on the environmental impact of computers, recommends using sustainable certifications as a tool in the procurement process, to help the procurer choose the product with the least negative impact (Upphandlingsmyndigheten, 2015 a). Among others, the report mentions EU energy star, TCO Certified and the EU Ecolabel (ibid). As previously mentioned, there are an infinite number of certifications schemes available, which demands a very high knowledge level from the procurer in order to be able to discriminate between them. This was highlighted in 2016, when a number of sustainability organizations² in Sweden published a case study examining sustainability in public procurement. It concluded that among other factors, lack of knowledge was a major contributor to the absence of sustainability focus in the procurement process. This lack of knowledge was often related to the complexity of for example environmental criteria, and the authors conclude that using third-party certification is an effective way to overcome this information gap (Ecolabelling Sweden et al., 2016). As third-party certifications are based on established processes, by using them, authorities can assure that the money spent on procurement supports environmentally responsible and sustainable products (ibid.).

Certifying a company's, product or service can be quite expensive, as certifications do cost money (Clay, 2013). This means that companies need to have both the ability and incentive to obtain certifications for their products. Since the guidelines regarding what demands municipalities were allowed to put on their suppliers have been somewhat diffuse and the ability to exclude suppliers has not been made clear, the new EU-directives could work as incentives for companies to engage in sustainability to avoid being excluded from the procurement process. In order for this to be true, however, procurers need to take advantage of the fact that they are allowed to discriminate between suppliers on the basis of e.g. certifications.

Obtaining certifications can often lead to an increase in sales prices since the products need to bear the cost of the certification. Because of this, public procurers need to be willing to pay a price premium in order for sustainability objectives to be included for companies, and for them to obtain certifications. It is our perception that this difficulty has led to a barrier between the municipalities and companies, where companies feel they are not getting a return

¹ An organization meant to provide support and knowledge when it comes to public procurement of goods and services

² Ecolabelling Sweden, TCO Development, Fair Trade Sweden, MSC, the Association for Nature Conservation, KRAV, New Wave Group, 2050 Consulting AB

on their investment, and municipalities do not clearly express a willingness to pay a price premium for certified products.

In the procurement process for public schools, we view municipalities as consumers, due to that the products are being bought and used in order to fulfill the obligation the municipalities have towards their inhabitants to provide them with an education.

1.3 Purpose statement and research questions

The purpose of this study is to gain an understanding of the motives to include sustainability in public procurement, with focus on sustainable certifications. More specifically, we will answer the following research questions:

- Are sustainable certifications important in the procurement process of IT-products for municipalities?
- Why and how do municipalities choose to include sustainability in their public procurement of IT-products?

1.4 Delimitations

Due to the scope of our study a few limitations have been necessary to make. Since there is no possibility, due to the scope of our study, to conduct interviews with all of Sweden's 290 municipalities, we chose to limit our range to 10 municipalities and select these in a manner to get a fair distribution with respect to geographical location, size and political standpoint.

Even though the procurement process made by municipalities extends far beyond IT and public schools, a delimitation on this area is necessary. Thus, the focus of our study will be on the procurement of IT-products in the Swedish public school sector.

2. Literature review

2.1 Previous research

The concept “sustainable development” is about good social-life conditions without society and human existence depleting the functions of the ecosystem. The UN-report “Our Common Future” (also known as the Brundtland report) was published in the late 80s and it established that sustainable development is a development that satisfies the needs of today without jeopardizing the next generations opportunity to satisfy their needs. This concept has become a general principle for the work of the UN, and an overall goal for Swedish politics. (Nordh, 2018)

One way to contribute to sustainable development, is through the use of sustainability certifications. Jahn, Schramm and Spiller (2005) state that there are a great number of customers that are demanding a certificate, which leads to the fact that manufacturers are under increasing pressure to become certified. This argument is strengthened by the fact that suppliers often view certifications as externally forced obligations rather than as intrinsically motivated quality management systems (Beck & Walgenbach, 2003).

Brach, Walsh and Shaw (2018) studied the barriers to purchasing sustainably; information asymmetry and sustainable product choice, risk and sustainable product choice, and labelling sustainability. Their findings were that consumers express lower purchase intentions for sustainable than for conventional products, third-party certification on a sustainable product reduces the risk associated to that product, and that third-party certifications function like brands in that they reduce consumers’ perceived performance and financial risk, only when consumers identify them as credible. The authors conclude that third-party certification can work as an effective mean for overcoming information asymmetries between producers and consumers in the market. (Brach, Walsh, and Shaw, 2018)

Research has also been conducted on sustainable IT, or more specifically the term “Green Computing”. Green computing is a practice that covers the computing lifecycle, from cradle to grave. In an article published in 2012, it was identified that the trends of Green Computing are towards a more efficient use of resources. In the article, future trends for Green

Computing are identified, where certification is seen as one of them. It is argued that the future certifications will, together with recommendations and government regulations, put more pressure on merchants to use green technology and reduce the impacts on the environment. (Soomro & Sarwar, 2012)

In the field of public procurement and sustainability certifications, Ecolabelling Sweden et al. (2016) published a study on the opportunities for green public procurement (GPP) where the main focus lies on the challenges of green fabric procurement. The study concludes that since the implementation of the new EU-directive from 2014, it is possible to demand certain third-party certifications in relation to the public procurement process. Further, the study proposes solutions and ways forward from the existing barriers of GPP. It is said that there should be a better application and a clarification of the Swedish public procurement act. It is also claimed that third-party certifications are a part of the solution since they have a vast potential to improve and clarify the demand positions in public procurement processes (Ecolabelling Sweden et al., 2016).

2.2 Isomorphistic mechanisms

Shabana, Buchholtz and Carroll (2017) establishes a three-stage model of how isomorphistic mechanisms have formed corporate social responsibility (CSR) reporting practices over time. The stages are defensive reporting, proactive reporting, and imitative diffusion. The model also shows that that the stages are dependent on time and intensity of influence. (Shabana, Buchholtz & Carroll, 2017)

The first stage, called defensive reporting, is characterized by companies failing to meet stakeholder expectations due to a lack in firm performance, and reporting is done in order to close the gap between expectations and performance (Shabana, Buchholtz & Carroll, 2017). In this stage, coercive isomorphism is dominating (ibid). The coercive mechanisms are driven by two types of sources of pressures to conform; organizations on which the firm depends on and society in general (Mizruchi & Fein, 1999). Shabana, Buchholtz and Carroll (2017) argues that both types of pressure are operated on firms in the first stage.

The second stage, called proactive reporting, is characterized by the knowledge of CSR reporting being spread and that the practice of CSR reporting becomes normatively

sanctioned, meaning that other organizations look to it as a possible new opportunity for realizing the firm's goals (Shabana, Buchholtz & Carroll, 2017). The stage of proactive reporting is dominated by normative isomorphism which includes that training networks and universities present material to managers who develop similar perspectives and come to perceive the practice to be normatively sanctioned (Shabana, Buchholtz & Carroll, 2017; DiMaggio & Powell, 1983). In turn, these managers communicate with others in their network about this new opportunity and consequently approach CSR reporting from a goal-oriented perspective (ibid).

Lastly, in the third stage, called imitative diffusion, the defensive reporters together with the proactive reporters create a critical mass of reporters that reaches a threshold (Shabana, Buchholtz & Carroll, 2017). At this threshold, the potential reporters become increasingly likely to identify the net benefits of CSR reporting as surpassing the net costs (ibid). Further, the managers are faced with uncertainty and they therefore tend to shape their organizations after others in the related environment who are considered to be successful (Shabana, Buchholtz & Carroll, 2017; DiMaggio & Powell, 1983). Shabana, Buchholtz and Carroll (2017) conclude that in this stage, CSR reporting is not done from a goal-oriented perspective, but rather from a desire to be dependable with firms that the manager identifies to be peers or wishes to identify with as peers, thus the mechanism that drives this stage is mimetic isomorphism.

The study also identifies the determining factors of CSR reporting for each stage. The determining factors in the stage of defensive reporting are hazardous industry membership, participation in conversional business issues, and stakeholder concerns. The stage of proactive reporting is determined by advertising intensity, media coverage, and stakeholder strengths. Lastly, the stage of imitative reporting is determined by size and internationalization. (Shabana, Buchholtz & Carroll, 2017)

2.3 Green public procurement

The European Commission states that there is a need for Green Public Procurement (GPP) and that they introduced GPP in order to make concrete actions in minimizing damage to the environment at the same time as maintaining an economic equilibrium (European Commission, 2017). Green Public Procurement is defined as purchasing processes by which

public authorities procure products with a reduced environmental impact and that are perfect substitutes in all other dimensions (Lundberg & Marklund, 2018).

According to Lundberg and Marklund (2018) GPP is implemented by public authorities by including environmental concerns when assigning contracts to private suppliers. The mechanism of assigning contracts is competitive tendering and the environmental concerns could be expressed as environmental criteria on the potential supplier, the production process, or on the supply of a good, service or public work. It is possible to include several environmental requirements or objectives within the same procurement auction, and it is often the case in practice. The aim could be to achieve more than one objective by agreeing on one single environmental criteria. For example, a criteria might be that delivered food must meet certain requirements of organic production, which in turn might be expressed as asking for a specific labeling of organic products. (Lundberg & Marklund, 2018)

Lundberg and Marklund (2018) claims that the existence of market failures, such as negative externalities and overuse of public goods, motivates the use of environmental policies. The purpose of policies is, in these cases, to correct the failures and to balance the relationship between benefits and costs. The balance includes seemingly environmental objectives (the benefits) effective policy measures to accomplish the objectives (the costs) in order to maximize welfare with respect to social, environmental, and economic sustainability. (Lundberg & Marklund, 2018)

Further, the more severe the criteria, the costlier it will be for the supplier if they want to participate in the procurement auction, but at the same time there will be a greater scope for reduced emissions. The adjustment cost that the suppliers will have to realize, such as investments in greener technologies, will eventually be reflected in the bids. Hence, the public sector will have to pay an environmental price premium. The more stringent the environmental criteria the authority require, the higher the premium will be. The study also draws attention to the fact that a price premium might contribute to GPP not being an effective environmental policy instrument, which in turn is linked to the procuring authority's budget and conflicting requirements. If a procuring authority has a fixed budget to run its operations, the stringent environmental criteria will be related to opportunity costs. (Lundberg & Marklund, 2018)

Lundberg, Marklund and Strömbäck (2015) establishes that it is crucial that the specification of environmental criteria take place with respect to defined environmental objectives and that it goes beyond the environmental standard of the technology of polluting firms in a GPP policy. It is also vital that suppliers find it advantageous to submit a bid and decide to adjust their product in accordance to the GPP criteria. Therefore, the authors state the importance of public authorities understanding how GPP affects potential suppliers and their willingness to participate in procurements, in order to be effective. (Lundberg, Marklund & Strömbäck, 2015)

2.4 Measures of certifications

In order for a customer to determine a product's environmental impact one has to make great efforts to find the information, if it is available at all. This is one reason why the growth of differentiated green product markets has evolved during the last decade. Darnall, Hyunjung and Vázquez-Brust (2016) mentions that firms are reluctant to produce or expand their products of eco-friendly products if there is no market mechanism to discriminate their products from those that are made by traditional production methods. Thus, eco-labels are information-based policies and programs that are aimed to address these sorts of information asymmetries by supplying information to consumers about a product's environmental impact. The eco-labels are also reducing the consumer uncertainty concerning the validity of their green purchases. (Darnall, Hyunjung & Vázquez-Brust, 2016)

Darnall, Hyunjung and Vázquez-Brust (2016) conclude that as the importance of eco-labels has increased across the world, so has the consumer's skepticism about whether eco-labels truly are a credible signal of a product's superior environmental characteristics. They argue that this distrust can prevent companies from using eco-labels as it most likely will not affect the consumer's decision to purchase the product. As a response to this, third-party certification might reduce the consumer's distrust of eco-labels. The authors' findings show that the use and intentions to use eco-labels are correlated to the trust of environmental information sources and the external assurance of eco-label claims. The results also show that individual attitudes and contextual factors help rationalize consumers purchasing assessments and improves consumers' perceived control over their green consumption behavior. Parallels to the claim is drawn to the fact that consumers seem to discriminate among the sort of environmental information they receive, depending on their trust or skepticism of the

information source. Thus, consumers are conserving their cognitive energy when making decisions and passively undertake that information follows the social expectations. (Darnall, Hyunjung & Vázquez-Brust, 2016)

2.5 Certificates as organizational degrees

Brunsson et. al (2012) assess the phenomenon of standards and standardizations from the perspective of organization studies. It is claimed that three aspects stand out in the study; the standardization of organizations, standardization by organization and standardization as a form of organization. It is concluded that that organizations are affected by standards since all of the activities within the organization are potentially regulated by one or many standards. Secondly, most standards are produced by organizations and can therefore be viewed as products or outputs from that organization. Thirdly, it is concluded that standards are a form of organizing societies of today, and it is argued that because of that standardization *is* organization. (Brunsson et. al, 2012)

Brunsson et. al (2012) draws attention to the dynamic aspects of standardizations, or more specifically, the dynamic process. It is argued that the dynamics related to the standardization of organizations are of translation and adjustment. The translation process is a two-way process since the standards are being translated into specific practices, which in turn are translated back into the general categories of the standard. The translation process is done in order to demonstrate to politicians, customers, auditors, or any other observer, that the adopter follows the standard. (Brunsson et. al, 2012)

The adjustment process is rooted in that third parties may put pressure on adopters in order to ensure compliance, even though adopting a standard is voluntary. This pressure ascends when a standard has become enough institutionalized that its adoption is taken for granted. When organizations show that they are unwilling to apply a standard or if its application indicates complication, the pressure between the theoretically voluntary but practically binding adoption of a standard often result in dynamics of decoupling between talk and action. Thus, the adopter standardizes its operation but does not operate the standard. (Brunsson et. al, 2012)

The same subject has been analyzed by Boiral (2012) who tries to comprehend the symbolic aspects of the process of obtaining and preparing for ISO certificates by examining the different perspectives of the Degree Purchasing Syndrome (DPS). DPS essentially means that many students choose to study at university level in order to acquire a degree rather than obtaining new knowledge or skills. DPS is used to draw parallels between students' behavior and the process of ISO certification. (Boiral, 2012)

It is evaluated how well and to which extent the criteria for the ISO-audits are fulfilled by companies. It is claimed that the presented image and rationality which are surrounding the ISO standards and the audits can be disconnected from the real organizational practices and learning, thus, presenting a reassuring façade that hides the actual uncertainties of the organization. (Boiral, 2012)

Several links between the DPS theory in education and the DPS Theory in ISO certifications was found (see Appendix 1) where it is, for instance, concluded that the main motivators for ISO certification are market and institutional pressures (Boiral, 2012). Brunsson et. al (2012) further analyzes the dynamics related to standardizations by organizations are of two types of tension. The first type is a result from the interfere between the efficiency of the standard-setting process and participation in the process. In order to produce standards quickly, organizations have to reduce participation in the process of standard-setting to a few parties or to parties with compatible interests and ideas. The second type of tension is rooted in the potential friction between the role of participants as experts and s representatives of interest groups. It is claimed that the various interests that exist at the same time within standard-setting bodies can lead to conflicts between the representatives of different groups. The dynamics that arise from this scene can at length produce standards that represent a faulty or fragile compromise between the representatives rather than a solution that represent an expert judgement (Brunsson et. al, 2012).

2.6 Implementation theory

The Swedish author Lennart Lundquist (1992) also wrote a theory of implementation. The author claims that in order for an implementation process to be successful, three factors need to be achieved: *want*, *be able to* and *understand*. To *want* is about how willing an actor is to execute a policy. Lundquist (1992) argues that there are several reasons as to why an

individual is willing or unwilling to act. Even though a worker understands what should be done, the implementation will not be successful unless he or she wants to act according to the policy. To *be able to* implement a policy is about whether or not an individual has the actual power to see a policy through. Power can be both the knowledge possessed by the individual as well as influence an ability. To *understand* a policy is also an important part of the implementation process. Lundquist (1992) state that it is crucial for a successful implementation that the individual understands what is expected from him or her in terms of executing the policy. Otherwise, the day-to-day work activities have no connection to the policy, rendering it unsuccessful in practice. The author also states that many times, legislation, policies or directives can be difficult to understand due to the difficulty of language used in the texts. (Lundquist, 1992)

2.7 Summary

With background to the previous research in the field, it can be concluded that a study on the demands created by municipalities, regarding sustainability on IT-products is relevant and a field that has not yet been examined. Previous research does exist regarding sustainability of IT-products, however, certifications have not been included in this research. This in spite of the fact that scholars such as Soomro and Sarwar (2012) identified certification as a future trend. Green public procurement has also been a field of research, but only in other industries, such as the fabrics and foodstuff industry. Thus, neither certifications nor green public procurement of IT-products has been studied, a gap we intend to fill.

The theory of isomorphism by Shabana, Buchholtz and Carroll together with the underlying ideas by DiMaggio and Powell will be used to analyze our empirical result from a perspective of why the respondent, and the municipality they represent, choose to include sustainability in their procurement processes.

The theory by Darnall, Hyunjung and Vázquez-Brust will help us answer as well as analyse the question of why municipalities choose to include sustainability in their procurement processes. The theory will help us analyze this question deeper as well, from a certification perspective. Further, the theories by Brunsson et. al and Boiral will help us understand the reasoning behind using or not using certifications. More specifically, it will help us see how

the future might look like within procurement processes. The theory by Brunsson et. al. will also help us understand how the standardizations are affecting the procurement process.

The theories by Lundberg and Marklund together with Lundberg, Marklund and Strömbäck will help us analyze the reasoning behind why municipalities do not put demands on certifications in public procurement process. Further, it will also help us understand the reason for why firms do not choose to certify their products.

Lastly, the reasoning behind implementation theory by Lundquist will help us analyze the differences in the respondents' answers. We saw a need to use theories that could explain why responses differed since it was clear that other factors besides size and political standpoint were important in explaining differences.

3. Method

3.1 Method approach and design

This report is a case study where evidence was gathered from interviews and analyzed with the theoretical frameworks presented above. A case study is often used when examining a delimited group of people or organizations (Patel & Davidson, 2014). Our population was all of the 290 Swedish municipalities as of March 2018 and the aim was to get a diverse sample of 10 municipalities which were based on three factors in the following order; size of the municipality, political standpoint, and geographical location. Our result is not generalizable, partly because we do not have a large enough sample, and partly since we only have interviewed one individual within a municipality.

Using a case study is appropriate when the questions regarding “how?” and “why?” are used, which is consistent with the nature of the questions in our interview guide for this study (Patel & Davidson, 2014). Research in the area of sustainable certifications of IT-products in relation to public procurement is relatively new, which was also a reason for why we chose to do a case study instead of, for example, an observational study. When research is lacking, a case study is appropriate according to Rowley (2002).

Our study has been of a qualitative nature, where we conducted personal interviews with 7 different municipalities. Our aim was to understand the importance of sustainability and sustainable certifications as well as reasons behind it, and this type of structure is best suited for learning about motives behind the answers given and can provide valuable information which was not anticipated by the interviewer from the start (Oxfam, 2012). According to Dörnyei (2007), using interviews as a research tool can be beneficial as the interviewer can rephrase questions if the informant does not understand, which can ensure that more accurate data is obtained.

3.2 Sample

When choosing our sample of municipalities to include in our study, we wanted a mixture of size and political standpoint, where the responses would not be the same due to a similarity in these factors. Our starting point was a compilation of municipalities by SKL (2017 a), which divided the cities into groups based on size. The different groups were:

- Category A
 - A1 Large cities: Municipalities with at least 200 000 inhabitants where no less than 200 000 people lives in the most densely built-up area.
 - A2: A commuting municipality where at least 40% of the resident population commutes to a large city.
- Category B
 - B3 Big cities: Municipalities with no less than 50 000 inhabitants where no less than 40 000 people lives in the most densely built-up area.
- Category C
 - C6 Small cities: Municipalities with no less than 15 000 inhabitants, but no more than 40 000 in the most densely built-up area. (SKL, 2017 a).

In the B3 category none of the municipalities were blue, in this case we chose two geographical locations which were separate from each other, as well as choosing one municipality which was divided quite equally in terms of red and blue votes as of the election 2014. All of the A1³ cities were red. We then chose three municipalities from category A2, from the same three counties as the A1 cities, but with the opposite political standpoint.

The aim was to interview one A2 municipality close to each of the A1 municipalities, but with a blue political standpoint. This in order to compare to the three A1 municipalities which are all red. However, all A2 municipalities declined to participate or were non-responsive. This is further discussed in “Non-response analysis”.

	Political standpoint	Participation response	Position of respondent	Personal interest in sustainability
A1a	Red	Yes	Head of unit at department of digitalization, procurement and Contracts	No
A1b	Red	Yes	President of the municipality's purchasing and procurement board	No

³ The A1 category consists only of Stockholm, Gothenburg and Malmö

A1c	Red	Yes	Sustainable coordinator	Yes
A2	Blue	No		
B3a	Red	Yes	Head of procurement	No
B3b	Equal votes	Yes	Procurer	No
C6a	Red	Yes	Procurer	No
C6b	Blue	Yes	Procurer	Yes

3.3 Interviews

3.3.1 Execution

Once we identified which municipalities to include in our study, we sent out an invitation to participate in our study, via email (Appendix 3). We contacted the purchasing function within each municipality, which later directed us to the contact they thought were best suited to answer our questions. When conducting our interviews, a funnel structure was chosen, where we started by posing open questions and then narrowing it down. We chose this because first, we wanted the informant to feel comfortable within each subject and to be able to speak freely about it to understand different emotions behind the answers (Appendix 2). Second, we wanted to be able to ask probing, more specific questions once the person felt more secure within the field of question. This is recommended when the goal is to make the informant motivated and involved. (Patel & Davidson, 2014)

Our interviews were semi-structured, where we had topics and questions prepared but the respondent could talk freely and where the follow-up questions could differ from interview to interview. We had three different themes that we discussed during our interviews, which took around 20 minutes. We began the interviews by explaining the purpose of our study, that we were going to record them and also that the respondent would be completely anonymous. At the end of each interview, we summarized and talked broadly about the work that the respondent thought needed to be done for the future and we gave him or her the ability to add information that they felt had been left out during the interview. All of the respondents were positive both to our interviews and our study, and they clearly stated that they felt we were studying something very important and were happy to contribute.

3.3.2 Three themes

We chose three themes that we wanted to discuss during our interviews. The idea was that it would be easier to construct the interview guide as a funnel structure, using themes to clearly guide the respondent from the broad view of IT-products and sustainability, to the narrow field of sustainability certifications for IT-products. Our themes were; *purchasing of IT-products for public schools*, *sustainability in public procurement* and *sustainable certifications*. We also want to point out that these themes were used solely for the purpose of structuring our interviews, and were not used for presenting or analyzing the results.

The first theme regarding IT-products for public schools, was a broad theme with concrete questions designed to let the respondent get comfortable in the interview setting (Kvale & Brinkmann, 2014), as well as give us an understanding of what type of IT-products are most often purchased for public schools. We were interested in knowing this since each certification has different criteria regarding for instance, smartphones, laptops, computer screens and routers. The next theme of sustainability, broadened the subject and allowed the respondent to define sustainability themselves and what it meant to them in their municipality. A broad theme also allowed us to ask follow-up questions which provided us with answers of viewpoints we might not have expected to get. (Kvale & Brinkmann, 2014)

The final theme narrowed it down to the area of sustainability certifications, which was what we were originally interested in and why we chose to conduct this study. It was also the most difficult theme with regards to individual knowledge of our respondents as well as how we had to pose questions in order for them not to be leading, and to still be easy for the respondent to understand. It was therefore important for us that the respondent had already had the chance to speak about sustainability in general and what was being done, in order for them to be honest about knowledge regarding sustainable certifications, and not trying to prove themselves (Kvale & Brinkmann, 2014).

3.4 Data analysis

The interviews were transcribed, after consent by the informants, by having both authors listen to the recorded material from the interviews, which was then compiled in writing. This was done as it allows a more systematic examination of what people say. It also helps to counter claims that our analysis have been influenced by our values or biases (Harvard

University, n.d.). The transcribed material was then compared between the authors to make sure that all of the material had been put in writing.

The next step was to summarize the transcriptions and we were thorough in choosing to exclude answers given to leading questions, in order for our result and analysis to be unbiased (Kvale & Brinkmann, 2014). Since our interview guide did include broad questions about sustainability, the respondent could answer freely and thereby give us information interesting to the field of research, but that was not related to our purpose. Therefore, we excluded this information in our study as well.

Open coding was then used to analyze the material as well, meaning that one reflects gathered material through phrases or words (Denscombe, 2014). Using the open coding, we then looked to see if there were any clear patterns in the material which could be considered relevant for answering our research questions. When looking for patterns, the recorded material was used to settle any differences in interpretations by us as authors. In the final stages of collecting material, we saw signs of theoretical saturation, meaning that we reached a point where the answers given by the respondents followed a clear pattern (Denscombe, 2014). We felt that further collection of data would not have contributed to a deeper analysis due to the fact that many answers tended to be very much alike. These indications of theoretical saturation were also apparent in the reasoning by the informants, which also tended to be the somewhat the same and repetitive. This method of data analysis was also how we identified what quotes we felt gave a good summarization or made a clear point in the interviews, and these were used to present our empirical findings.

3.5 Quality and ethics of interviews

We have conducted interviews with individuals, where questions could be seen as an invasion of privacy in relation to time required and level of sensitivity (Cohen, Manion & Morison, 2007). Therefore, it was important that we maintained a high standard of ethical consideration throughout our collection, compilation and analyzation of data.

Consent is a very important aspect of interviews, as the informant needs to be aware that his or her answers will be published, and that our result will be based on the information that they give us (Kvale & Brinkmann, 2014). Consent was therefore required at a very early stage, and

the meaning of our study was carefully explained in order to assure that it was understood by the respondent. Confidentiality for us, meant that we had to inform the respondent about what would happen to the information that he or she gave us after our interview. Confidentiality can also mean offering the respondent anonymity (Kvale & Brinkmann, 2014), which is something we did in our study to get as truthful responses as possible. We also informed our respondents that all interview material would be destroyed upon completion and publication of the study.

Consequences of a qualitative study in our case, refers to the need to address any possible risks as well as benefits for the respondent. This included our ability to identify as well as inform the participant about the consequences of their participation, not only for them personally but for the municipality that they represent. This was a challenge as the data we received was not predictable and therefore hard to inform the respondent on beforehand (Kvale & Brinkmann, 2014). What we discovered, was that most municipalities wanted the topics that were to be discussed beforehand, due to the fact that the responsibilities of the four areas: sustainability, procurement, IT and public schools were divided between several parties within the organization. Therefore, the person we interviewed in each municipality wanted to gather all necessary information before the interview, to be able to answer all our questions.

The researcher's role is about how we as researchers need to be aware of the power we have regarding the data that is gathered. Ultimately, we have had the ability to present the information in whatever way we want and it was important that this would be done in a representative and correct way not to distort the informant's opinions or answers. It was also important in terms of validity, reliability and transparency. (Kvale & Brinkmann, 2014)

3.6 Methodological and theoretical discussion

The theoretical frameworks were based on both first and secondary sources gathered from scientific articles, websites, and lectures. When evaluating the theories and the facts, a critical assessment of the sources has been made. Since sustainability and sustainability matters are widely discussed and the definitions often differ, we have tried to use sources that are up to date and where we could assume that the same general definition of sustainability is used in the analysis. We have also assured, by doing a background check, that the author is trustworthy in terms of education and previous research. In order to assure that the source was

accurate we mainly used published material from scientific journals and therefore could assume that the sources are reviewed.

When one has access to previously gathered information and data from previous research, using a quantitative method such as one of statistical design is appropriate. An advantage of doing so is that the conclusions which can be drawn on statistical data are often generalizable for the entire population and not just the sample (Esaiasson, Gilljam, Oscarsson & Wängnerud, 2017). At first, we considered using a quantitative method, to be able to review all of Sweden's 290 municipalities, and draw generalizable conclusions. We quickly found however, that the data on the subject was not sufficient enough, and to conduct our own survey would be too time consuming for the scope of the work. Instead, we choose a qualitative approach where we produce our own data.

As authors, we have worked in a consistent manner when delivering information, to assure that it is relevant, credible and as neutral as possible. Discussions during the course of the study were held to assure that this was complied with. As researchers, we recognize that we cannot be completely unbiased. Our own backgrounds and rationalizations have been influencing our analysis, therefore we recognize that this cannot remain completely neutral. This has been done through several reviews of our recordings as well as having transcribed the interviews in order to produce an accurate summarization of the main points that were made during our discussion with each of our respondents, which is recommended by Berg (2007).

We would like to highlight that although we spoke to relevant employees within each municipality, all of our informants had different knowledge within the field of IT, procurement and sustainability. Most often, different departments within the municipality work together on questions relating to public procurement of IT-products for public schools. Therefore, we acknowledge the fact that there might be internal directives or information that has been left out of the study.

When studying theoretical frameworks for public procurement, solely Swedish regulation and laws have been used as these areas are regulated at country level and therefore differ depending on the geographical context in which they appear. We have also assumed that the theoretical findings from one certification scheme can be applied to the psychology of other

certification schemes as well, with support from Brach, Walsh & Shaw (2018) who state that due to the high intensity of different sustainability certifications, consumers have difficulty distinguishing between different certifications. Therefore, the psychological behavior behind one certification, can be applied to other certifications as well, since consumers might not tell them apart (Brach, Walsh & Shaw 2018).

3.6.1 Non-response analysis

Once we started to make contact with different municipalities to get them to participate in our study, we noticed difficulties in getting any municipality from the A2 category to participate. None of the A2 municipalities close to Stockholm wanted to participate at all. The A2 municipalities close to Gothenburg and Malmö wanted to participate, but said that they have the same routines and requirements as Gothenburg and Malmö, respectively, when it came to public procurement procedures. Therefore, they said that they could not contribute with relevant information to our study, and declined to participate. Due to this non-response from the A2 municipalities, we chose to limit the study to the remaining seven informants.

Since there were three municipalities in the A1 category, we chose to include three from the A2 category as well, in order to compare the results in relation to political standpoint. From the B3 and C6 category, one red and one blue/ equal votes municipality were chosen, in order to compare these as well. Therefore, when the A2 municipalities declined to participate in our study, we did not chose to include another municipality from the B3 and C6 category. Doing so would only have affected our ability to compare in relation to political standpoint, since it would no longer be one of each.

4. Results

A summary of our result from the interviews will be introduced below. The chapter is finalized by a summary where the most important parts from the interviews are presented. A column of personal engagement is included in the table, and this part has been assessed by us regarding how involved and engaged the informants were on the subject of sustainability.

4.1 A1 category

In this category, we will summarize answers from the three largest cities in Sweden; Stockholm, Gothenburg and Malmö. These are all red municipalities as of the latest election 2014.

4.1.1 Summary of responses from municipalities with a red political standpoint

Computers and tablets are among the IT-products most frequently procured for public schools within the A1 municipalities. The products purchased are mainly for the use of students and none of the municipalities buy second hand products in order to be able to offer each student the same quality and performance of the products.

It is also emphasized that the reason for working the way that they do in regards to purchasing used products for the public schools within their municipality is due to political decisions that state that they should operate in this manner.

Sustainability is a clear priority within public procurement for the A1 municipalities. How sustainability is integrated into the procurement processes differs a bit between the municipalities. One of the A1 participants' state that;

“(...) we did a risk analysis of the product categories where there are the most risks in regards to, for example human rights or environmental damage, and IT-products is a very important group in terms of risks” (our translation)

Furthermore, the same municipality managed to receive TCO Certified computers in a public procurement made a few years ago. One of the motives for obtaining these certified computers was the fact that children were the intended user. Another A1 respondent said that

within their municipality, they focused on conflict minerals which are required in the production of for example computers and cell phones. Their goal is therefore to identify in which products these conflict minerals have been used, and try to avoid purchasing these products. The same municipality also put demands on computer screens meeting the demands of TCO Certified, as well as a general demand on IT-products meeting the requirements for TCO Certified, but not necessarily the certification itself. The third A1 respondent referred to a specific document used in public procurement of IT-products which, among other things, state that all products that fall within the category that can be certified by the “EU energy star” need to meet these requirements. It is not required however, that the product be marked with the certification, but simply that it meets the same requirements.

The reasons behind demanding sustainability seemed to be mostly political. EU-directive or Swedish directives are used, sometimes to create their own policies to use in public procurement.

“The new EU-directive from 2014, made it clear that public actors are allowed to take social- and environmental factors into consideration in public procurement. Or that you’re supposed to” (our translation)

One of the municipalities state that it has been difficult at times to pursue sustainability within different product categories, since it has not been clear what measures could be taken. Due to the directive, this has become easier. The municipality clearly expressed that they want to pursue sustainability, and that they hope that public actors will become better at working together to achieve this.

“TCO Certified” and “EU-energy star” are the two certifications mentioned most often in all of the interviews. Within the A1 category, all of the respondents had some knowledge of different sustainable certifications for IT-products. They all stated that in the cases where a certification can be applied in the procurement of new products, the demands are more often than not that the product meet the requirements of the certification, but not necessarily that it has have obtained the actual certification. This is often the case since the municipalities sometimes ask for some of the requirements of a certification, but not all.

“TCO Certified meets our requirements as it takes into account both chemical content and social behavior, and it is part of our goal as we strive for products in all areas to be TCO Certified. Unfortunately, it is not fair to always set these requirements. Obviously, companies cannot answer to those standards since we do not see so many TCO Certified products on the market” (our translation)

Two out of the three municipalities were very positive to using sustainable certifications for IT-products as a requirement. This was due to the fact that municipality personnel do not have to check up on the products, instead this is done by a third party. One of the two respondents who was positive to certifications said that there is a risk that the products would become more expensive if they had to be certified, since the certifications are costly. This could mean that the certified products become too expensive for some of the procurers.

“My hope is that you could start using third party certifications, and as I understand from the latest directive, there is also greater opportunity to make specific requirements for specific certifications in the procurement process. Before this new directive, you were very nervous about it” (our translation)

The municipality that was less positive to using sustainable certifications as a requirement, also pointed out that many times they put demands on some of the requirements behind the certification, but not all of them.

“It’s the legal situation there, which does not make it easy to demand a certain certification. It’s a bit more difficult than you might think” (our translation)

Sustainable certifications are not crucial in the decision making process according to the respondent. Sometimes, specific sustainability requirements are demanded of the tenderers to be able to make a tender offer. In these cases, the requirements are absolute demands.

4.2 A2 category

In this category, the aim was to interview one A2 municipality close to Stockholm, one close to Gothenburg and one close to Malmö. We wanted all three of the A2 municipalities to be of blue political standpoint, in order to compare to the three A1 municipalities which are all red.

However, all A2 municipalities close to Stockholm, declined to take part in our study and gave no reason as to why. The A2 municipalities we contacted that were close to Gothenburg and Malmö, declined to take part in our study due to the fact that they followed the requirements and procedures that Gothenburg and Malmö used in their public procurement processes.

4.3 B3 category

4.3.1 Summary of the response from the municipality with a red political standpoint

The most common IT-products purchased within the municipality are computers and tablets. They do not see to options of purchasing second hand products within the IT-segment, with the exception of re-charged color cartridges for printers. When asked how sustainability is taken into account in public procurement of products for schools, the respondent says:

“(...) there is no legal definition of what sustainability is, which makes it up to the viewer to interpret himself which makes the question difficult to answer” (our translation)

The respondent continues by declaring that sustainability is very important to the municipality in question, and demands for different sustainability requirements are often included in publications of contract notices.

TCO Certified was identified as one of the certifications that the municipality used in their public procurement. However, the respondent stated that they did not always put demands on the certification itself, but on the criteria behind the certification.. The respondent also stated that EU eco label and the Nordic swan ecolabel were common in the municipality’s public procurement processes.

Sustainability certifications could be a deciding factor in the public procurement process. However, the respondent made it clear that it was mostly in cases when the supplier could not meet the demands, rather than the municipality discriminating against those who did not possess a certification. According to the respondent, there are not enough products on the market that can meet the demands set by certification schemes.

“There was no supplier who met even half of the demands we had” (our translation)

When asked about the future, the respondent emphasized the need for public actors to drive change, in order for something to happen. However, the respondent also stated that it will be important that the change happens in a pace which allows suppliers to keep up, to create a successful transformation into a more sustainable future.

4.3.2 Summary of the response from the municipality with equal votes as per the election of 2014

The municipality is mainly procuring computers and tablets to the public schools. There are only new products that are being procured but the informant does not see a problem with purchasing second hand ones, as long as the guarantee is the same. The municipality is taking sustainability into consideration when procuring IT-products to their public schools.

“We have a political decision and we are working on a new policy with focus on sustainability, specifically with sustainable procurement. (...). It contains a program for green procurement, a chemical plan, electronic products that are covered by the chemical plan, and preschools and schools are a priority.” (our translation)

Sustainability issues are important for the municipality because it originates from political decisions. Furthermore, the municipality is aware of the certifications that exist but they do not put demands on any specific certification.

4.4 C6 category

4.4.1 Summary of the response from the municipality with a red political standpoint

Computers are the most common purchase made for the schools in the municipality, and the informant tells us that they have never looked into purchasing second hand products, only new ones. The respondent was aware that the public procurement authority did recommend buying second hand products when this was possible. The respondent did not however, know why the municipality did not do this.

The municipality does take sustainability into account when establishing the criteria that tenderers need to fulfill. These criteria as well as the guidelines and goals that are set by the municipality are based on Swedish legislation as well as EU-directives. The municipality also works in accordance with the recommendations by the public procurement authority.

The informant did know about a few certifications, such as TCO-certified, Energy Star, and the Nordic Swan Eco-label. In relation to this, the informant claims that price does not always have to be the conclusive factor in the procurement process.

“It is important with an analysis of the market and the needs, in order to put the right demands. It also depends on what budget they have to follow, etcetera. If they have an upper limit, the question will be what kinds of sustainable demands one can put, since it often is a bit more expensive. Even so, it can be worth it in the long run.” (our translation)

The claim of that price does not always have to be a conclusive factor is completed by an example;

“Energy Star was a compulsory requirement in the latest procurement. Therefore, one can say that it was decisive, otherwise they would not be qualified. Other times it (certifications) can bring added value.” (our translation)

Regarding the municipality’s work with sustainable procurement, the informant says;

“One wishes that more could be done in the field of sustainability. At the same time it is something that has come very strongly the last two to three years. Also within the field of procurement, which is why I think that many are working with it, and the new law said that we should put these demands if it is possible. (..) I attended a course this fall, which aimed to teach us about what kind of demands one can require with the new directives, but it is actually not that simple. It is pretty hard.” (our translation)

4.4.2 Summary of the response from the municipality with a blue political standpoint

This municipality was the one who seemed mostly driven by values rather than directives and legislation.

The main IT-products that are procured for public schools by this municipality are computers and tablets, and the informant claims that the main focus always lies on the good “business deal”. The informant tells us that they want to challenge the laws, directives and recommendations.

“The procurement law is a law that is quite hard to understand, and it is said that you have to challenge the law and not only think inside the square box, just because you shall strive for a good business deal” (our translation)

The municipality does not procure used products since they have to be in good condition the full time a student goes to school. It is claimed that second hand products could be a possibility if a supplier could put some kind of guarantee on the products, which is difficult since the municipality purchase large volumes. In addition to this, all students have to have the same quality of their education tools, which is harder to guarantee when purchasing second hand products.

To the question how the municipality take sustainability into consideration when they procure IT-products to the public school, the informant answers,

“Previously, we have looked at the sustainability goals of Upphandlingsmyndigheten, which we have expressed that we shall follow. The goals are on different levels, but on the computer side they are so weak that all suppliers have passed. Then one might wonder what purpose there is to demand them?” (our translation)

Furthermore, the informant tells us about how they have restructured their processes:

“We have previously looked at products that are, for example, Energy Star-certified. They (the computers) that are found in the index are, in fact, some kind of guarantee, qualitatively. We changed our way of thinking a bit on the most recent procurement,

where we purchased mobile phones. We have our own sustainability goals in our municipality, and there are also the national sustainability goals, so we sat and pondered a bit how we could use them and get the suppliers to work according to our goals.” (our translation)

The sustainable way of thinking is not something that comes from directives, but rather something that comes from the municipality’s own values. It is important for the municipality to create a sustainable world for future generations.

“It (sustainability) is an issue which is a priority since we want our children to grow up in a good environment, also when their children grow up.” (our translation)

Certifications are seen as a label of quality and the informant mentions that TCO Certified is a certification that the municipality sees on some products. However, it is said that there is a lack of demand for products certified according to TCO Certified on the market, and the informant tells us that if the municipality was to put demand on this certification, there would not be any supplier who could fulfill it. Even so, the informant has a positive outlook on the future.

“One has to begin somewhere, which is why we took our own sustainability goals and asked questions where the suppliers could answer how they work and which effects they have. I think that if everyone would work in a similar manner, it could raise interest with suppliers and they could begin to understand that it is an important issue and something that is interesting to work with. It will probably lead to more establishment of certifications in the future.” (our translation)

Regarding certification, it is established that Energy-Star is the most common, which also holds a broad index.

4.5 Summary

	Main product of procurement	Reasons for including sustainability	Demands on certifications	How to demand certifications	Personal engagement
A1a	Computers & Tablets	Political pressure	TCO Certified & EU-Energy Star	Put demands that meets the requirements of a certification	No
A1b	Computers & Tablets	Political pressure	TCO Certified & EU-Energy Star	Put demands on some requirements of a certification	No
A1c	Computers & Tablets	Due to high risk	TCO Certified & EU-Energy Star	Put demands that meets the requirements of a certification	Yes
B3 red	Computers & Tablets	Political pressure	EU-Eco Label, The Nordic Swan Eco Label, TCO certified	Put demands on some requirements of a certification	No
B3 equal	Computers & Tablets	Political pressure	No demand	No demand	No
C6a red	Computers & Tablets	Political pressure	TCO Certified, EU-Energy Star, ISO	Sometimes by putting full demand on a specific certification, and sometimes by requirements of a certification	No
C6 blue	Computers & Tablets	Values	EU-Energy Star	Put demands that meets the requirements of a certification	No

5. Analysis

In this section, we seek to answer our research questions as well as interpret and analyze the result from our interviews. This will be done with a starting point in our theoretical frameworks. We will also try to look ahead and see what challenges, changes and opportunities we see based on the interviews we have conducted.

The result of the interviews show that sustainability is important in the procurement process and that certifications are a helpful starting point for creating the actual publication of a contract notice. However, very few municipalities put specific demands on a certain certification. A common strategy for implementing sustainability in the procurement process is to look at the criteria for a specific certification and then create demands based on them. Most municipalities view certifications positively. Some thought that they are a sign of quality, and some concluded that certifications facilitate the procurement process since the municipality does not have to inspect the product afterwards. Instead, this is done by a third-party organization, thus decreasing the amount of knowledge the procurer needs to have in order to make sustainable purchases.

Darnall, Hyunjung and Vázquez-Brust (2016) state that third-party certification can help overcome information asymmetries, which is in line with the information from our interviews. The authors also conclude that it takes a lot of energy to distinguish between different certifications, which is in such a case, actually phasing out the benefits of using certifications as you are no longer able to avoid that process. This could therefore be another reason for why municipalities do not choose to demand certifications.

Each municipality do in fact have a positive image of certifications, but the problem seems to be that it is hard to put specific demands on a certain certification. The new EU-directive has made it easier for municipalities to demand certain certifications and to exclude suppliers who do not meet their demands (Ecolabelling Sweden et al., 2016). According to our results, the big problem is that companies do not meet the sustainability demands made by the municipalities, leaving them with no other option than to focus on certain criteria behind the certification instead.

The lack of supply of certified products could be explained by the findings of Lundberg and Marklund (2018). They highlighted that it is common for municipalities to include environmental criteria and objectives in the contract notice and throughout the procurement process. They also stated that the more stringent the criteria or objective is, the costlier it will be for a supplier to participate in the auction. A certification can therefore be said almost always to be a stringent criterion, since it includes several requirements which need to be fully met. Since companies are driven by profit, it can be assumed that one of the main contributors as to why they do not meet the sustainability demands are due to them being costly for them to achieve. In order for the certification not to threaten the company's profit, the municipalities would have to pay a price premium reflecting their will to purchase sustainably. This situation is problematic, as our results point to the fact that municipalities might not be willing to invest the necessary resources which would ultimately lead to companies achieving certifications.

Boiral (2012) claims that the main motivators for certifications are market and institutional pressures. According to this research, the solution should therefore be tougher requirements. This was also discussed by a few of the respondents, with the conclusion that municipalities should be tougher on suppliers. If this would be the case, it would increase the institutional pressure and therefore also any company's motivation for certifying their products. Not doing so, would then risk them being excluded from the procurement process.

Another reason as to why municipalities mostly choose some of the criteria behind the certification, instead of certification itself, could be explained using the findings by Brunsson et al. (2012). The authors claim that it is common for standardized, or in this case certified, companies to become decoupled since they only standardize their operation but fail to operate the standard. The same ideas are stressed by Boiral (2012) who claims that standards might be used as a reassuring facade that hides the uncertainties of the organization. This could mean that even though a municipality could find a company who could provide these certified products, it could not be guaranteed that the company wholly operates according to the certification scheme. This would then be attributed to the phenomenon of decoupling, where even though they have the certification, the company is doing the bare minimum to keep the label on their products.

The problem of decoupling in this case, is mostly related to sustainability in general. The municipality believes they are investing in sustainability by purchasing certified products from a company which is seemingly taking responsibility for their negative environmental burden. However, if the company's actions are decoupled from the certified products they provide to the municipality, it can mean that they minimized costs in other areas of the business where they instead worsened their negative environmental effects. The certified products in that case, simply even out the negative externalities imposed someplace else within the business, making the net contribution to sustainability much smaller. To avoid encountering decoupled companies in the procurement process, municipalities might instead be able to ensure at least a small contribution to lessening the environmental burden of their purchased products.

In order to gain a deeper understanding regarding the problems discussed above, it is interesting as well as important to understand why and how municipalities include sustainability in the public procurement of IT-products. The collected information from our interviews show that municipalities include sustainability and, to some degree, sustainable certifications in their procurement processes. The responses to why they choose to include sustainability and sustainable certification do however differ.

Our result show that the larger municipalities engage in sustainability since higher authorities put demands on it, which could be related to defensive reporting forces as described by Shabana, Buchholtz and Carroll (2017). This stage, according to the authors is characterized by companies failing to meet expectations. In this case however, it can be argued that higher authorities demand a sustainability focus, because they feel the municipalities have failed on their own. Therefore, they include sustainability as a defensive mechanism, driven by coercive forces. The coercive forces in turn, can originate from other organizations on which the municipality is dependent upon and from society in general.

The municipality is clearly dependent on the Swedish government for example, who ultimately have the deciding power over the municipalities actions. Of course, all municipalities are driven by coercive forces as they have to follow legislation, but there can be other coercive factors involved as well. The larger municipalities probably has greater pressure to act in a way which is accepted by the Swedish government and the inhabitants of Sweden. These municipalities are probably more likely to be under the scrutiny of the media

as well, which increases the pressure on them to act according to official directives and policies.

Our results also show a relationship to the second stage of the results presented by Shabana, Buchholtz and Carroll (2017). The actions of establishing a sustainability committee or a responsible person for sustainability issues are mainly done since it is common among other firms and municipalities, it has become normatively sanctioned. This stage also stress that organizations look to reporting, as a possible way to realize the firm's goals. Even though municipalities do not report in the same way companies do, the reporting aspect could be replaced in this context with the use of certification schemes. The municipalities goal, is to meet demands by legislature, higher authorities and society in terms of sustainability focus, and they can use certification schemes as an opportunity to reach these goals.

Furthermore, the municipalities who declined to participate stated that they follow the same directives and policies as the largest municipalities. This could be due to imitations by norms, where the largest municipalities define what directives and policies to follow, and the nearby municipalities develop these similar perspectives of what needs to be done, because they view the largest municipalities as trustworthy and norm setting.

A few of the municipalities, stood out from the crowd in regards for drivers and motivators. These municipalities showed signs of altruistic behavior and emphasized both the ability and importance to challenge legislature. The altruistic tendencies were displayed by e.g. expressing that sustainability is a priority for the sake of future generations. This statement shows a connection to the imitative diffusion stage (Shabana, Buchholts & Carroll, 2017), since it embraces that sustainability is something they *want* to engage in rather than something they *have* to engage in. The municipalities views sustainability as a benefit rather than a cost. This suggests that personal engagement from employees is a possible determining factor behind the drivers to sustainability.

A reason as to why answers from the respondents and motives for including sustainability differ between municipalities, could lie in how information is received and processed. This led us in the direction of implementation theory (Lundquist, 1992). Information, in our case, refers mainly to; guidelines from the Swedish procurement authority, EU directives on

procurement and sustainability as well as the Swedish government's policies for procurement and sustainability.

Looking at the interviews from the perspective of implementation theory and the three factors necessary for a successful implementation process, an explanation for why responses tend to differ can be given. To *want* to execute policies and guidelines was something we found all of the respondents did. None of the respondents showed any kind of resistance to act according to directives, and they all recognized the importance of including sustainability in public procurement of IT-products for public schools. None of the municipalities showed any signs of having trouble to *understand* the directives and guidelines provided. Most of the respondents were aware of what the guidelines and recommendations as well as directives and legislation say, but in some cases they choose to act differently due to other factors than not being able to *understand*.

To be able to implement policies is more difficult to analyze. As mentioned earlier IT, procurement for schools, and sustainability are often three separate areas where no single person is responsible for all three aspects. Since we only interviewed one person from each municipality, we did not get a clear image of how able the municipality as an entity is to implement the sustainability policies. This also has to do with budget constraints and other more urgent issues municipalities have to tackle, such as an increase in immigration and how this should be handled. We also saw difficulty within the municipalities where the respondent showed less knowledge of sustainability and sustainability certifications, as suggested by Ecolabelling Sweden et al. (2016), and knowledge can be concluded to be a barrier to the factor *be able to* in relation to implementation of policy.

An interesting observation worth noting, was that a majority of the municipalities show signs of becoming decoupled as suggested by Brunsson et al. (2012). They speak of formal structures such as directives and policies straight from the government or EU and of how these set the basic requirements and how these are used to both advertise and accept tender offers from different suppliers. However, they have seemingly more knowledge of how the municipality works according to each policy or directive, than what the actual policy/directive says. Practice and theory does not seem to always match. It can be interpreted that they have a clear image of working towards a country specific agenda, without connecting each activity to the actual formal documents.

Even though a lot of focus is put on sustainability in Sweden compared to other countries, it still seems to be something that by most people is seen as quite intangible and difficult to conceptualize. This seems to be true for companies as well, and even though third-party certifications can help concretize the problems we are facing, they seem unwilling to invest the necessary resources to become certified. A possible solution to this problem was suggested by some of the respondents, which expressed the desire that public actors in Sweden, such as municipalities, should come together and discuss these issues and come up with demands that everyone put on suppliers. Otherwise, the incentive for suppliers to get involved in sustainability and certifications are not strong enough. This is strengthened by the fact that according to Beck and Walgenbach (2003), suppliers often view certifications as something forced on them, rather than something they want to do.

The fact that incentives are not strong enough for companies to engage in sustainability, and sustainability certifications, is something municipalities can contribute to changing. Through institutional pressure as presented by Boiral (2012), municipalities can use their power to set limitations, goals and restrictions which encourage social and ecological responsibility. A simple way for companies to act responsibly is through the use of sustainable certifications, which provide a clear goal for them to work towards. For this change to happen, common directives from the municipalities of Sweden need to be a priority. We do not state that using sustainability certifications is a solution to the problem, but as Brach, Walsh and Shaw (2018) state, it can be a way to reduce information asymmetries and to make it easier for municipalities to put the same sustainability demands on suppliers, regardless of the difference in knowledge.

6. Conclusion

The purpose of this study has been to examine whether or not third-party sustainability certifications are important in the procurement process of IT-products for public schools. We also looked in to why and how municipalities choose to include sustainability in their public procurement of IT-products.

The result of our study shows that in general, sustainable certifications for IT-products are considered in the procurement process for Swedish public schools, but they do not have substantial influence on the purchase decision. Instead, sustainability aspects both connected and unrelated to third-party certifications are considered, and price is indeed one of the most important factors when it comes to decision making. Today, authorities urge the municipalities to put more focus on sustainable solutions, and to exclude suppliers who cannot meet certain demands. The problem arises as the municipalities claim that a majority of companies can not meet the demands. Also worth noting, is that municipalities have to be prepared to pay a price premium for certified products, which they do not seem willing to do.

A possible solution for the problem would be that municipalities make a joint effort, to exercise their exclusion rights, put tougher demands and in that way force incentives for companies. This would be implemented in public procurement through a standardized process, where the best supplier is chosen in relation to the priority of demands put in the tender offer.

Our result also show that certifications are not demanded as a requirement in the procurement process. Instead, the municipalities are studying the criteria of a certification and placing demands on these instead of the actual label. Furthermore, the study shows that there is a problem with the number of certificates on the market, which places high demands on procurers to understand what the different certificate stands for. At the same time, the number of third-party certifications makes it difficult for municipalities to decide whether or not the demands behind the certifications are enough, in relation to the municipalities goals. We also saw that the attitude towards third-party certifications were positive, since the knowledge level demanded from the municipalities decreases, as they do not have to see to it that the demands have been met, instead this is done by an accredited third-party.

The motives to include sustainability in the public procurement process differed to some extent between the municipalities. Directives and legislation are of course, a driving factor, but personal engagement in the field of sustainability within the municipalities were also important. The more personal engagement, the more altruistic motives were behind the sustainability focus. Larger municipalities also tended to display a sustainability focus driven by coercive forces from higher authorities and society, possibly due to the fact that they might be under more scrutiny than smaller municipalities.

We found that answers tended to differ due to how information is received by the individuals who work within the municipality as well. This was connected to implementation theory, where responses were analyzed based on three factors; *to want*, *to be able* and *to understand*. We found that one of these factors, *to be able*, was where the implementation process differed most between municipalities. Barriers here included difference in knowledge, budget constraints and lack of collaboration both within the municipality and in relation to others.

In conclusion, sustainability certifications are important for municipalities to some extent in their procurement process of IT-products. Even though it might not be possible to find suppliers who can offer certified products, it is many times a priority. When this is not possible to achieve, municipalities often try to put demands on some of the criteria behind the certification instead. The reason for including sustainability is mainly legislation and directives, but to what degree they are implemented depends on personal engagement of the employees and a genuine desire to take responsibility for future generations. Furthermore, sustainability is included through that municipalities try to use suppliers which can achieve the highest possible sustainability standard in relation to price.

“One wishes that more consideration would be given to sustainability. At the same time, it (sustainability) is something which has emerged strongly in the past two-three years within the field of public procurement. So I believe that many municipalities are starting to include this more, and the new law stated that we should place these (sustainability) demands if possible” (our translation)

7. Recommendations for future research

After having conducted our study, we found that there are a few gaps in the research surrounding sustainable certifications in the public procurement process in general. Since sustainability is an important subject in today's ever-changing society, we believe that resources should be put on investigating ways to make a real change for future generations. We also believe that sustainable certifications are a good way to make it easier for actors both in the public and the private sector to place demands on social and environmental aspects of products and services. In order for this to truly be successful, we think countries need to come together and establish some kind of certification scheme which can be used across country borders and more attention needs to be given to the education of employees, companies and the general public on the meaning of different certifications and how they can and should be used. We recommend:

- To conduct a study about motives and barriers for sustainability which includes all of Sweden's 290 municipalities in order to establish what demands they have today, their individual attitudes and to investigate whether using sustainable certifications can indeed be a solution.
- To investigate whether or not companies can meet the demands of the sustainable certifications available today, or if those demands are unrealistic. There is no point in using certifications which only a handful of companies have the ability to fulfill.
- Examine whether using certifications, or using some of the criteria behind the certification, has the most positive effect on social and environmental well-being. If this is the case, we believe that a new certification should be created, using the demands most often put on suppliers and which they can meet.
- To question whether or not a collective, worldwide/ EU-wide certification is a possibility, considering each country's different conditions. If this possibility exists, it should also be investigated what criteria this certification could have in order to have a positive effect on social and environmental aspects. The bar needs to be set at a level which most companies can meet, not to discourage them but to encourage them to change.

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Appendix 1 DPS theory

Table I. (Continued)

	DPS Theory in Education	DPS Theory in ISO Certification
Passing exams/ audits	<p>Ceremonial character and predictability of many exams: duration, focus, types of questions, etc.</p> <p>The predictable aspects of certain exams reinforce the tendency toward procrastination, memorization, and superficial preparation</p> <p>Possibility of cheating in some exams</p>	<p>Ceremonial character and predictability of audits: duration, focus, conditions, checklists, types of questions, etc.</p> <p>The predictability of audits reinforces their superficial character, ease and procedure-oriented preparation</p> <p>Possibility of misleading the auditor</p>
Degree/ certificate acquisition and its consequences	<p>Celebrations after graduation</p> <p>Degree as an admission ticket to the labor market</p> <p>Sends a signal about students' supposed abilities that are not directly observable by employers</p>	<p>Celebrations after certification;</p> <p>Certification as an admission ticket to certain markets;</p> <p>Sends a signal about supposed organizational capabilities that are not directly observable by stakeholders</p>
Implications		
Possible conflicts of interest	<p>Students can choose among various teaching institutions that compete on price, quality, service, etc.</p> <p>Tuition is an important source of revenue and students tend to be viewed as customers who are likely to exert pressure on assignments, exams, duration of studies, requirements for graduation, etc.</p>	<p>Organizations can choose among various auditing firms competing on price, quality, service, etc.</p> <p>Certification fees are an important source of revenue for auditors. The customer-supplier relationship with certified organizations tends to call into question their independence and impartiality</p>
Consequences of the DPS trend	<p>Grade inflation</p> <p>Degree proliferation (MBA, etc.)</p> <p>Erosion of the value of certain degrees (credential inflation) and perception of unfairness among "good students"</p>	<p>Relative ease of obtaining certification</p> <p>ISO certification proliferation</p> <p>Erosion of the value of ISO certification detrimental to organizations that have integrated the standard</p>

(Source: Boiral, O. (2012). ISO certificates as Organizational Degrees? Beyond the Rational Myths of the Certification Process. *Sage Journals* 33 (5-6): 633-654.)

Appendix 2 Interview guide

Introduktion:

- Förklara syftet med studien
- Intervjun kommer att spelas in och materialet kommer därefter förstöras
- Informanten kommer förbli anonym

Personligt:

- Hur länge har du jobbat som x på y?
- Kan du berätta lite vad du gör som x på en daglig basis?

Tema 1: Upphandling av IT-produkter till kommunala skolor

- Vad för IT-produkter köper ni främst in till skolan i er kommun?
- Ser ni över alternativ om att köpa in begagnade produkter, eller köper ni endast nya?

Tema 2: Hållbarhet i offentlig upphandling

- Vad betyder hållbarhet för er i offentlig upphandling?
 - Varför efterfrågar ni x och y?
 - Varför är det viktigt för er?

Tema 3: Hållbarhetscertifieringar

- Känner du till några hållbarhetscertifieringar för IT-produkter?
- Finns det några hållbarhetscertifieringar som ni efterfrågar i högre grad?

Avslutande fråga

- Har du något ytterligare du vill tillägga?

Appendix 3 Invitation to join our study

Hej!

Vi är två tjejer som läser ekonomprogrammet på Handelshögskolan vid Göteborgs universitet. Vi genomför just nu vår kandidatuppsats och mailar dig för att fråga om du skulle kunna tänka dig vara en del av vårt arbete.

Vi planerar att undersöka hållbarhet, med inriktning på hållbarhetscertifieringar i den offentliga upphandlingsprocessen av IT-produkter för kommunala skolor. Vi har valt ut 10 kommuner i Sverige, av olika storlek, geografisk lokalisering och politisk ställning. Det vi hade velat ha din hjälp med är en kort intervju som tar ungefär 15-20 minuter över telefon där vi kommer att ställa frågor kring ämnet.

Vi kommer att spela in intervjuerna för att kunna transkribera dessa samt bearbeta materialet. Du kan givetvis svara anonymt om du vill, där din kommun endast nämns som(A1/A2/B3/C6) där vi delat in per storlek på kommun. Vi hade velat genomföra intervjun under vecka 17. Har du några frågor eller funderingar är du mer än välkommen att höra av dig till oss.

Kan du tänka dig hjälpa oss med vår uppsats?

Vänliga hälsningar,

Elin Olsson och Moa Glansén