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The role of Multi-Stakeholder Initiatives in Swedish apparel brands' Sustainable Supply Chain Management

Exploring the cases of: Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI) and Textile Exchange (TE)

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Abstract

This thesis aims to increase the understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM). Three MSIs that address environmental issues in apparel supply chains are explored as cases – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI), and Textile Exchange (TE), focusing on the perceptions of Swedish apparel brands. A qualitative research method was applied where data was collected by semi-structured interviews with Swedish apparel brands and representatives from MSIs, and additionally supplemented with information from respective MSI website. Nine Swedish apparel brands who are members of one or more of the three case MSIs participated in the study. A conceptual framework was developed as a synthesis of reviewed literature relating to SSCM, in addition to literature about MSIs from political science, business management, and environmental governance fields, and used when analysing the findings. The analysis indicates that participation in MSIs presents several benefits for apparel brands in their SSCM, and further reveal to be addressing some of the previously identified barriers in existing literature for the adoption/advancement in SSCM. Based on this, the conceptual framework is further developed indicating how MSIs might contribute to the reduction of some of the barriers pertaining to SSCM. Furthermore, the characteristics of the selected MSIs (SAC, STWI, and TE) as governance mechanisms to address environmental issues in textile and apparel industry, and their implications are discussed. Findings also reveal a movement of MSIs collaborating and joining other MSIs and forming new collective arrangements. The movement suggests a trend towards an increased harmonisation of standards and the prevention of counter productivity, while also indicating a potential privatisation of standards. It is recommended that future research investigates the implications of this movement.

Keywords: Environmental impacts, Sustainable supply chain management, Multi-stakeholder initiatives, Swedish apparel and textile industry

Executive Summary

Problem definition and research questions

Globally dispersed apparel and textile supply chains have been a cause of many of the most pressing environmental impacts, such as climate change, natural resource depletion and the release of hazardous chemicals. Apparel brands have increasingly come to be held responsible for environmental impacts along their supply chains – outside the boundary of their direct control. Managing globalised apparel supply chains poses challenges for apparel brands, given the magnitude of actors involved and accompanying complexities. The globalised production context also challenges national governments' ability to manage the associated impacts.

An increasing development of multi-stakeholder initiatives (MSIs) within the apparel industry can be observed, where various actors, such as industry, NGOs, academia, and sometimes government create voluntary partnerships to address common sustainability challenges. MSIs have attracted attention in the context of global supply chains and are considered to fill current governance gaps. They have also been noted by their collaborative approach as part of apparel brands' operational management strategies in sustainable supply chain management (SSCM). However, their effectiveness as governance mechanisms to address environmental issues in supply chains remains unclear. Little is also understood how companies perceive MSIs. More specifically, there is a knowledge gap regarding to what extent corporations employ MSIs, how they perceive them, and in what way corporations work with/within MSIs.

Addressing this knowledge gap within the Swedish apparel context makes it an interesting case, considering the Swedish government has taken measures to address the associated environmental impacts of the Swedish apparel industry, and has adopted the ambition to make Sweden a leader for a sustainable apparel sector. Considering the limited ability for the Swedish Government to manage environmental impacts in global production settings, voluntary industry efforts such as MSIs become relevant to investigate since they may present the potential to improve the associated environmental impacts.

This thesis aims to increase the understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM). This will be done by exploring three selected MSIs – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI) and Textile Exchange (TE), all of which address environmental challenges in apparel supply chains, and by examining the view of the Swedish apparel brands on the three MSIs.

The following questions are raised to guide the research:

1) *What are the characteristics of the selected MSIs?*
2) *How do apparel brands perceive the role of MSIs within SSCM?*
3) *Why or why not do apparel brands choose to participate in MSIs?*

Research design and methodology

To carry out the research, a qualitative research method was applied with a deductive approach, where concepts and knowledge from literature were identified prior to data collection. In connection to this, the concept of sustainable supply chain management (SSCM), stemming from the business management field was adopted. Concerning MSIs, literature from political and business management community, alongside research addressing environmental governance, were reviewed. The thesis employed a multiple-case study design to enable findings being contrasted. Data was collected through semi-structured interviews with apparel brands and MSI representatives, and supplemented by respective MSI website. Due to unavailability of Textile Exchange (TE) to participate in an interview, data was only collected from their website. Collected data was analysed against a conceptual framework developed by the author as a synthesis of reviewed literature to capture the SSCM context.

Nine Swedish apparel brands who are members of one or more of the three case MSIs have been interviewed as listed in Appendix 1.

Main Findings

Interviewed apparel brands are open to adopt collaboration through MSIs as an operational management practice in their SSCM when it comes to addressing environmental issues connected to the apparel industry. They perceive their participation in the selected MSIs – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI), and Textile Exchange (TE) to provide a set of different benefits:

- Through MSIs apparel brands can access information and knowledge to learn how to address certain environmental challenges;
- MSIs are a gathered source for high quality information to stay up to date about relevant industry/or sustainability updates, which saves time for apparel brands;
- The network of actors created in MSIs is perceived as beneficial for creating leverage through a collective action to increase potential of influence for environmental matter;
- Costs can be shared amongst MSI members to develop certain measures/systems/tools to address certain environmental challenges;
- MSI participation provides credibility towards stakeholders.

The findings related to the perceived benefits of MSI participation by interviewed apparel brands, reveal to address some of the barriers identified in existing literature suggested to hinder the adoption/advancement of SSCM. Such barriers relate to *size*, *cost*, *lack of knowledge/complexity* and *time*. Based on this, the conceptual framework is further developed to indicate the positive effects of MSIs in addressing hindrances to enhance SSCM (Figure 0-1.).

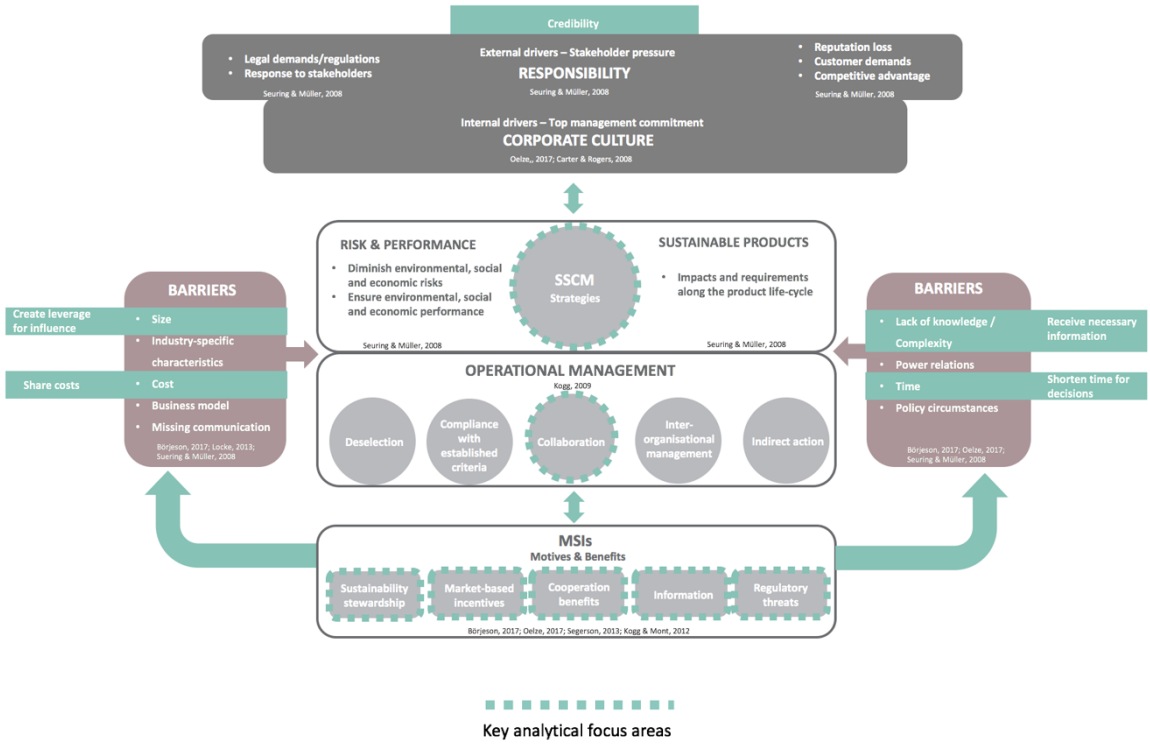

Figure 0-1. Framework illustrating the connections between MSIs in SSCM context

Source: Own elaboration

All three selected MSIs (SAC, STWI, and TE) develop certain measures to address environmental issues in textile supply chains, and their area of focus can be aligned with SSCM strategies identified in existing literature. Their characteristics as governance mechanisms for environmental issues in textile and apparel industry context and its implications are further identified and discussed. These relate to power asymmetries between member brands and additional member actors, and vulnerability of the MSI as an arrangement due to unstable financing. Findings additionally reveal a move where MSIs have started to collaborate and join other MSIs and/or create new collective arrangements, as means to create larger potential for increased output results for environmental improvements, but also as a way to be sustained. This suggests an increased move towards harmonisation of standards and prevention of counter productivity of overlapping initiatives.

Main conclusions and recommendations

Interviewed apparel brands perceive the role of MSIs to be important as means to progress their SSCM. However, considering how MSIs are designed, alongside the resources required to be a member, the engagement in/within MSIs may be hindered. Previously raised concerns within existing literature about power asymmetries and vulnerability due to unstable financing are empirically confirmed by this thesis. Regarding the MSI's governance potential to address environmental challenges within the apparel industry, it is suggested that how MSIs are designed is key in order to address the identified implications, and further research related to this is recommended. The identified movement of MSIs collaborating and joining other MSIs, may present increased potential for environmental improvements of the apparel industry. However, this may also present a move towards increased privatisation of standards with its own set of implications. Therefore, it is also recommended that future studies follow this development to assess the potential possibilities and challenges of this movement.

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Abbreviations

IIIEE = International Institute for Industrial and Environmental Economics

LCA = Life Cycle Assessment

MFF2 = Mistra Future Fashion Phase II

MSIs = Multi-stakeholder Initiatives

SAC = Sustainable Apparel Coalition

SSCM = Sustainable Supply Chain Management

STWI = Sweden Textile Water Initiative

TE = Textile Exchange

1 Introduction

One of the prominent discussions of modern society is about how to move towards sustainability – underpinned by the evolved understanding of environmental impacts, their global span and their effects over time. In the wake of industrialisation and increased globalised trade, it has become clear that human activity and pressures on the environment are closely interconnected (Folke, Biggs, Norström, Reyers & Rockström, 2016; Steffen et al., 2015; Rockström et al. 2009). Linked to this is also the view that the increased globalised impacts also present a new notion of global responsibility (Najam, Runnalls & Halle, 2010). However, assuming responsibility in an increased globalised world where interdependencies across environments, societies and economies are evident – presents complexities (Najam et al., 2010; Mena & Palazzo, 2012).

One of such industries where these complexities are evident is the apparel and textile sector – one of the first industries that entered a global setting (Dicken, 2011). The apparel industry has become an important sector in the global economy, valued at 1.3 trillion US dollars and employing more than 300 million people across the world (Ellen MacArthur Foundation, 2017). As one of the largest players in the economy, the environmental challenges that are facing the industry are correspondingly significant (Moorhouse & Moorhouse, 2017; Blissick, Dickson, Silverman & Cao, 2017). In the wake of globalisation, outsourcing production to developing countries to produce cheaper consumer goods has been a key feature of the apparel industry. As a result, apparel brands rarely own the production processes from fibre to finished garment. Instead, the reliance on geographically spread supply chains, comprising a multitude of suppliers and sub-suppliers has become the norm (Ashby, Smith & Shand, 2013; Caniato, Caridi, Crippa & Moretto, 2012).

Consequently, globally spread supply chains play a critical role in many of the most pressing environmental impacts, such as climate change, natural resource depletion and the release of hazardous chemicals (Börjeson, 2017; Searcy, 2017; Rockström et al., 2009). Not only are the apparel production processes environmentally demanding, but also the current production and consumption volumes are expected to increase as new consumers will enter the global economy (Ellen MacArthur Foundation, 2017).

During the last decades, the apparel sector has been under the spotlight of public concern (Jastram & Schneider, 2015). Resurfacing industry incidents affecting both social and environmental conditions have stirred public demand for apparel brands to take responsibility (Khurana & Richetti, 2016). This has given rise towards the business practice of sustainable supply chain management (SSCM), which can be understood as the strive towards implementing the dimensions of sustainability in the management of supply chains – i.e. environmental, social and economic considerations (Seuring & Müller, 2008). Consequently, apparel brands are faced with finding measures to handle associated sustainability issues outside the boundary of their direct control, in other words often beyond the first-tier of contractual garment supplier (Kogg, 2009).

Managing globalised apparel supply chains poses both coordination and control challenges, given the magnitude of actors involved (Jastram & Schneider, 2015). It also extends the traditional role of apparel brands – from economic responsibility, towards a new, often social role to address the associated environmental and social challenges (Scherer & Palazzo, 2011). Additionally, the globalised landscape also challenges national governments' ability to manage the associated impacts, which is further aggravated by the often limited environmental and social regulations in producing countries (Scherer & Palazzo, 2011).

As a result, it has become increasingly recognised that sustainability challenges can hardly be solved by any actor alone (Searcy, 2017). Van Tulder (2012) states "Most of the issues we face today are neither owned nor solved by any individual stakeholders anymore. With growing interdependence comes a growing need to search for collaborative approaches." (Van Tulder, 2012, p. 8). The recognition has given rise to so-called multi-stakeholder initiatives (MSIs), which are referred to as voluntary initiatives where collective partnerships are formed to address common sustainability challenges with various actors such as NGOs, industry, international organisations, and sometimes government (Rasche, 2012).

These types of arrangements have had an increasing development with actors in industry, including the apparel sector and within textile supply chain contexts. Examples of MSIs include the Better Cotton Initiative (BCI), Fair Labour Association (FLA), and the Zero Discharge of Hazardous Chemicals (ZDHC). The arrangements of MSIs range from focusing on creating stakeholder dialogue or learning platforms, to set social and/or environmental standards, and to monitor compliance and/or certify business practices (Mena & Palazzo, 2012). MSIs can be said to have come to address sustainability issues within industries as a way to fill global governance gaps in the absence of governmental regulations (Bauman-Pauly, Nolan & Heerden, 2017; Utting, 2002).

1.1 The Swedish apparel context

The total sales for the Swedish fashion industry[1] were SEK 305 billion in 2015, representing an increase of 15.3 percent from 2014. The annual increase is noted to be the largest since the start of industry measurements in 2011 (Sternö & Nilsén, 2016). Out of the total sales for 2015, 68% (SEK 207 billion) were earned on exports, while the remaining 32% (SEK 98 billion) on the Swedish domestic market. H&M, the largest Swedish fashion retailer, reached total sales of SEK 181 billion in 2015, of which 96% constituted exports. Excluding H&M from the total sales, the largest share of sales was generated by retail and wholesale actors (Sternö & Nilsén, 2016). According to a market survey conducted by Habit (as cited in Naturvårdsverket, 2016), 12 of the largest fashion retailers on the Swedish market include H&M, KappAhl, Lindex, Åhlens, RNB, Gina Tricot, Dressmann, MQ retail, IC Company, Gant, Stadium and Intersport. It is estimated that these companies represent 60% of the Swedish fashion retail market (Naturvårdsverket, 2016).

The majority of apparel and textiles sold on the Swedish market are produced in other countries (Naturvårdsverket, 2016). In 2014, the net inflow of apparel and textiles were 128 000 tonnes, corresponding to an annual consumption level of 13 kg per Swedish inhabitant. In turn, 72 000 tonnes of apparel and textiles can yearly be found as disposal waste, equal to an average annual resource waste of 7.6 kg per Swede (Naturvårdsverket, 2016). Furthermore, estimations show that 70% of climate impact from Swedish apparel consumption occur in producing countries (Roos, Sandin, Zamani and Peters, 2015).

In the last couple of years, the Swedish Government has taken steps to evaluate the environmental challenges connected to the Swedish apparel and textile industry[2], with aspiration to make Sweden a leader in sustainable fashion connected to production and consumption aspects (Skog, 2017). In 2014, the Swedish Government commissioned the Swedish Environmental Protection Agency to investigate and propose measures for a more sustainable Swedish textile and apparel industry (M2014/1901/Ke). In their investigation, the Swedish

[1] Including actors engaged in the manufacture and trade of: apparel, shoes, textiles, bags, and accessories (Sternö & Nilsén, 2016).

[2] More can be read in the report put together by Naturvårdsverket (2016).

Environmental Protection Agency notes that the largest environmental impacts of Swedish apparel industry are connected to the production stages of textile supply chains, also referred to as upstream activities[3], where large amounts of raw materials, water, chemicals and energy are used – causing discharges to water and emissions to air, affecting the global climate, environmental quality and human health (Naturvårdsverket, 2016). However, due to the global span of textile production, the Swedish Environmental Protection Agency states that the Swedish Government is in no position to introduce regulations directed towards production aspects in other countries. Instead, the opportunity to influence production-related matters lies in industry-wide targets and partnerships, based on the voluntary involvement of Swedish apparel industry[4] (Naturvårdsverket, 2016).

1.2 Problem definition

The rapid increase of MSIs over the last two decades has stirred research interest of the phenomena, in particular from environmental, political and business management research communities. A number of scholars debate that MSIs constitute a new mechanism of governance in global context, due to their intensifying role in global standard setting (Scherer & Palazzo, 2011; O'Rourke, 2006). The political science community has been interested in researching MSIs from a legitimacy perspective, since these constellations have come to constitute a rule-making institution (see Mena & Palazzo, 2012; Rasche, 2012; Vogel; 2008 Bäckstrand, 2006). In addition, researchers have also been concerned with the effectiveness of MSIs, understood as the problem-solving ability of MSIs as governance mechanisms to address the sustainability issues they have set to solve. More specifically, whether MSIs have led to outcome improvements of the issues addressed (Pattberg & Widerberg, 2015; Pattberg, Chan & Biermann, 2012).

Scholars have varying opinions about MSIs as governance mechanisms. Proponents argue that MSIs arrangements have the potential to fill public governance gaps and multilateral priorities (Searcy, 2017; Chan & Pauw, 2014). Critics, on the other hand, underline the risk of MSIs as ineffective solutions due to their voluntary nature, highlighting the risk of standards not being accepted by participants if not incentivised or sanctioned (Jastram & Shneider, 2015). This has led scholars to comment on how to design MSIs in order to improve the effectiveness of MSIs as sustainability governance mechanisms (Pattberg & Widerberg, 2015; Chan & Pauw, 2014). However, given the rise of MSIs in different settings and the actors involved, Vogel (2008) acknowledges that few MSIs have been studied in greater depth. More specifically, Vogel (2008) notes the limited research on the reasons of establishment, and in what way and how well MSIs are functioning in practice.

Linked to this, researchers from the managerial research community pay attention to the increased relevance of MSIs in the context of global supply chains as mechanisms to address negative environmental and social impacts connected to current practices (Searcy, 2017; Jastram & Sheider, 2015; Mena & Palazzo, 2012). MSIs have been considered as advancements or complements to traditional corporate self-regulation constituting supplier code of conducts and audits (Lund-Thomsen & Lindgren, 2014; Locke, Amengual & Mangla, 2009; Utting, 2002). In connection to this, scholars also pay attention to the collaborative aspects MSIs constitute between various industry actors to address sustainability issues collectively (Lund-Thomsen & Lindgren, 2014; Hyatt & Johnson, 2017). In regards to the apparel industry, researchers note MSIs and their collaborative approach as part of apparel brands' operational management strategies in sustainable supply chain management (SSCM) practices (Oelze, 2017; Börjeson,

[3] Upstream activities constitute the supplier side of the supply chain connected to the production phase (see figure 2-1.)

[4] Sweden has also the ability to influence through the EU and on international level (Naturvårdsverket, 2016)

2017; Kogg & Mont, 2012; Kogg, 2009). However, even though MSIs have been acknowledged in SSCM, little is still understood of corporation's perspective of MSIs. More specifically, we have limited knowledge related to what extent corporations employ MSIs, how they perceive them, and in what way corporations are working with/within MSIs (Lund-Thomsen & Lindgreen, 2014). Considering this, some studies have raised concerns that the corporate engagement in MSIs is merely a way for global brands to prevent damage to their reputation, and/or as a way to increase the power of private interests in global or industry settings (Locke, 2013).

The aforementioned literature discussion indicates that there is limited knowledge about MSIs in the context of corporate SSCM practices. Considering the major environmental impacts connected to the production stages of globally dispersed textile supply chains, alongside the limited ability of national regulation in global production contexts, it becomes of value to study voluntary actions taken by industry actors through the establishment of MSIs, as these arrangements have the potential to work as governance mechanisms to improve the environmental performance of the textile industry.

Addressing the identified knowledge gap in the Swedish apparel industry context makes it an interesting case, considering the Swedish Government has taken measures to address the environmental challenges of the sector, in addition to adopting the ambition to make Sweden a leader in sustainable apparel and textile industry. Furthermore, Swedish apparel brands have been participating in various MSIs, and some brands have been members in MSIs from their initial establishment. This suggests that relevant knowledge could be collected from Swedish apparel brands' perspective about MSIs in connection to SSCM.

Adopting this approach becomes of value for a wide array of actors. It is of relevance for policy makers in Sweden, as it will provide insights to how Swedish apparel brands operate, and in turn indicate the potentials of MSIs as measures for environmental industry improvements. Since some MSIs can include governmental actors, understanding these arrangements within the textile industry, becomes of value if governmental participation as a measure for influence ought to be considered. Furthermore, from an academic standpoint, the phenomena of MSIs needs further understanding considering their reason for establishment, issues addressed, and the need to understand their meaning in SSCM. This will add knowledge to the research within industry-specific MSIs in the apparel industry context.

1.3 Aim and Research questions

The aim of this thesis is to increase the understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM). This will be done by exploring three selected MSIs – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI) and Textile Exchange (TE), all of which address environmental challenges in apparel supply chains, and by examining the view of the Swedish apparel brands on the three MSIs.

To fulfil the aim of the study, the following research questions are raised:

4) *What are the characteristics of the selected MSIs?*
5) *How do apparel brands perceive the role of MSIs within SSCM?*
6) *Why or why not do apparel brands choose to participate in MSIs?*

The research questions are explored through the concept of SSCM, which stems from the business management field. Adopting this concept becomes relevant given the intended focus of practitioner's perspective this thesis is concerned with. MSIs will be conceptualised within

literature related to SSCM addressed by political and business management community, alongside research concerning environmental governance.

1.4 Limitations and scope

The scope of this thesis is delimited to the Swedish apparel sector, more specifically Swedish apparel brands' view on multi-stakeholder initiatives (MSIs). The relevance of the chosen scope as introduced under 1.1 and 1.2, is connected to the increased focus of Sweden and its governmental ambition towards a sustainable apparel and textile industry. Therefore, industry efforts that take place in textile supply chain settings to address environmental concerns become relevant to understand.

Considering the practitioners' perspective of the thesis, focus is placed on Swedish apparel brands' perceptions, motives and experiences of partaking in the selected MSIs. Interviews conducted with representatives of the MSIs (SAC, STWI and TE) focused on the characteristics of the selected MSIs, such as the design of the arrangement. Taking this into account, this thesis does not attempt to assess the effectiveness of environmental improvement achieved by the MSIs per se. Evaluating effectiveness of MSIs counter to business-as-usual can be very problematic to do in practice (see Segerson, 2013). Only perceptions of experienced effectiveness are discussed.

The thesis does not include suppliers' view of the selected MSIs. This is indeed a limitation as this could give valuable insights and further deepen the understanding of MSIs as a phenomenon. However, considering the focus on Swedish apparel brands combined with the resources that would be needed to perform this in practice, this choice was deliberately made. Moreover, while the thesis uses the expression of sustainability, which comprises the triple bottom line of economic, environmental and social dimensions, the focus of this thesis is on environmental and economic dimensions. That is not to be said that societal issues are of less relevance.

Furthermore, only sustainability representatives from the apparel brands were included in the interviews as they had been the ones responsible for the work related within selected MSIs. This could be seen as a limitation since the decision of partaking in a new activity such as a MSI often involves a wider range of people within an organisation, including the top management team.

1.5 Ethical considerations

This thesis is developed as a contribution to a larger research project guided by researchers from the International Institute for Industrial and Environmental Economics (IIIEE) based on their participation in the Swedish research programme, Mistra Future Fashion, Phase II (MFF2). The research programme MFF2 is in its second phase and stretches from 2015 until 2019. Research focus is placed on a sustainable development of the Swedish fashion industry, where guiding principles involve improving environmental performance of the industry and strengthening the global competitiveness (see Mistra Future Fashion, n.d.; IIIEE, n.d.). This thesis is specifically focused to contribute to the research under the Supply Chain Theme that IIIEE researchers are partaking in. However, this particular research has been led by the author of the thesis.

Interviewees of this thesis were contacted via email by the author where they were asked for their voluntary participation in the conducted study. The email outlined the background and purpose of the thesis. Explanation of the contribution of research for the MFF2 programme via IIIEE's participation in the programme was further provided. It was also stated that if anything should be unclear more information would be offered. Before each interview was conducted, the background and purpose was explained once more and details about how the

study would be conducted was given. Participants were also asked if they wished any more clarification of the thesis and research. Furthermore, they were asked about their preference of anonymity and asked for permission to audio record the interview.

All recorded interviews have been saved on the computer hardware and have not been stored on any online platform. All interview transcripts have furthermore been given a code to avoid personal details to be saved with the data. The codes for each participant have been saved separately. Prior to the publication, interviewees were sent content for their approval to assure that all information from the interviews had been interpreted correctly.

1.6 Audience

This thesis is written for the completion of the Master Programme in Environmental Management and Policy from the IIIEE, Lund University. It will be made publically available via the Lund University portal. As indicated above, the result is intended to contribute to further research within the IIIEE for the research project MFF2. Moreover, the results are of value for practitioners such as MSIs, brands and policymakers, alongside scholars alike who are interested in gaining insights on how Swedish apparel brands are perceiving MSIs and how MSIs are employed in brands' SSCM.

1.7 Disposition

Chapter 1 introduces the current situation and characteristics of the identified problem, and delineates into a problem definition. Based on identified problem and research gap, aim and research question are presented to guide the thesis. Scope of the research is set and limitations are identified, and ethical consideration and intended audience described.

Chapter 2 presents relevant literature in relation to the identified thesis aim. It includes analysis of literature and locates intended research within the context of existing academic literature. The literature review results in a conceptual framework for the analysis of research results.

Chapter 3 discusses the method used to conduct this research to provide transparency and guidance. It answers questions of how, what, why and when information was collected and how the collected information was analysed. It also provides a methodological reflection.

Chapter 4 presents findings related to MSIs characteristics, summarising the main data collected from conducted interviews and primary data sources.

Chapter 5 provides the empirical findings of Swedish apparel brands' perceptions of MSIs and the role of them in brands' SSCM.

In *Chapter 6* the main findings that are analysed and discussed against research questions, literature and the developed conceptual framework.

Chapter 7 presents the main conclusions that can be drawn from the findings and answers the initial purpose and research questions of the research project. The contributions of the thesis are presented, and future research areas are suggested.

2 Literature review and conceptual framework

The literature review aims to present characteristics of the apparel industry relevant to this thesis and locate intended research within the context of existing academic literature. Focus is placed on exploring existing research that enables the understanding of the role of multi-stakeholder initiatives (MSIs) in sustainable supply chain management (SSCM). It begins by providing an overview of the empirical context and development of literature about supply chain management with the focus of sustainability aspects. Managerial efforts and challenges from practitioners' standpoint are additionally explored. It then proceeds to explore the emergence of MSIs to further identify MSIs within SSCM. It also presents previously identified motives of corporate participation in MSIs. The literature review concludes with a synthesis of what has been reviewed from literature which serves at a conceptual framework developed by the author of this thesis.

2.1 Environmental challenges in apparel supply chains

Several environmental impacts can be connected to the textile industry as a whole and to the different life-cycle stages of textiles (see Figure 2-1.) including natural resource depletion, biodiversity loss, climate change, pollution and the release of hazardous chemicals (Börjeson, 2017; Roos, 2016). Textile production stages are considered to be the most environmentally demanding (Naturvårdsverket, 2016), characterised by a large amount of different processes that are intensive in water, energy and chemical input (Roos, 2016). Roos et al. (2015) find in their life-cycle assessment study that 70% of climate impact from Swedish apparel consumption arise from the production phase (42% fabric production, 17% fibre production and 11% garment production).

The current industry praxis of globalised outsourced production processes also exacerbates the environmental challenges due to different natural environmental conditions and the often limited environmental regulations in producing countries (Roos, 2016). Regarding the extensive water use in the textile industry, the largest impacts arise from conventional cotton cultivation and production processes such as dyeing and finishing of textiles, referred to as wet processes[5]. The water footprint for one kilogram of cotton on a global average is about 10 000-20 000 litres. The yearly total water use only for dyeing and finishing is estimated to be five trillion litres of water, which is equivalent to two million Olympic sized swimming pools. All of these cause negative impacts for the producing regions which often include countries such as China, India and Bangladesh – regions that already experience heavy water stress (Maxwell, McAndrew & Ryan, 2015).

Not only is the extensive water use problematic, but so is also water pollution from factories missing wastewater treatment technologies. Estimations show that 20% of the global industrial water pollution can be linked to the production processes of textiles with negative consequences on the aquatic ecosystem and local communities who depend on the resources (Ellen MacArthur Foundation, 2017). The use of chemicals in the textile industry is often considered to be extensive, which poses both health and environmental risks. Not all chemicals are hazardous, but hazardous chemicals can usually be found in all the different stages of textile

[5] Wet processes are production stages of textiles that involve different manufacturing processes that include the use of water, chemicals and energy for the treatment of textile fibres and fabric. More information about wet processes, its stages and environmental concerns can be read about in Saxena, Raja and Arputharaj (2017).

life cycle, many of which are classified as allergenic, carcinogenic, hormone disturbing and negative for the environment if leaked (Börjeson, 2017).

Moreover, the distant location of apparel production presents increased emissions from transports (Caniato et al. 2012). Climate impacts also arise from the energy use which is largely fossil fuel based in the production and agricultural stages (Börjeson, 2017). Additionally, consumers' means of transport to and from retailers as well as laundry habits adds to the climate impact, which can be larger or smaller depending on the local context (Roos, 2016).

The environmental concerns are also connected to the current production and consumption levels. According to The Fiber Year (n.d.) 103 million metric tonnes of new fibres were put on the market in 2017, dividing this to the current world population of 7.6 billion, presents 13.5 kilograms per person and year. The large production volume inherently gives clues about the pressure on the global environment. It also signals the current state in which apparel products are produced and consumed, which has been attributed to follow a "take-make-waste" rationale (Hvass, 2015; Ellen MacArthur Foundation, 2017). The high volume of garments produced are reportedly only being used for a short period by consumers before being discarded (Ellen MacArthur Foundation, 2017). Thus, the current state of the apparel industry with existing production and consumption patterns represents substantial environmental challenges. Moreover, as consumption levels are expected to rise against a growing global population with new consumers entering the global economy, the magnitude of environmental impacts can become even larger (Ellen MacArthur Foundation, 2017).

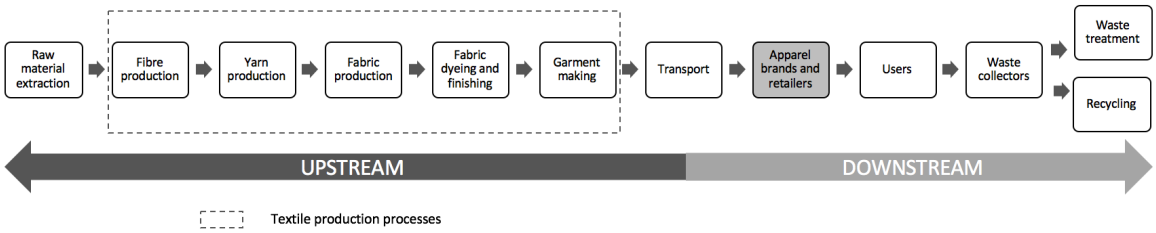

Figure 2-1. A generic and simplified apparel product chain.

An apparel product chain constitutes of different stages and processes and can be used to demonstrate the whole journey of a garment, through a life-cycle perspective from fibre to end-of-life (Kogg, 2009). It should be noted that transport is occurring between most of the stages. Each of the stages comprise different environmental impacts, some of which have been indicated in the above text.

Source: Adapted from Roos (2016)

2.2 Apparel supply chains

A supply chain can be defined as a "network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and service in the hands of the ultimate customer" (Christopher, 2016, p. 13). The starting point of a supply chain is often considered from the focal organisation of interest, which according to Kogg's (2009) definition, means the company whose perspective one is interested in understanding out of the whole network of actors. In this case, the apparel brand's perspective. Since apparel brands rarely own any of the textile production processes that are shown in the above illustration (Figure 2-1.), each stage is then often performed by a multitude of different actors such as farmers, ginners, traders, spinners, mills, manufacturers

and agents that are globally spread, often in regions different from each other (Börjeson & Boström, 2018; Kogg, 2009). As a result, a supply chain constitutes a magnitude of different suppliers, sub-suppliers and contractors.

Considering that an apparel brand offers a large variety of garments made with different materials, trimmings and functions – the number of actors and networks within the supply chain significantly increases. It is not uncommon for an apparel brand to have hundreds of first-tier suppliers (Kogg & Mont, 2012). Considering this, the total number of actors including sub-suppliers and contractors easily becomes extensive – extending to several tiers along the chain (Kogg & Mont, 2012). Figure 2-2. below provides a simplified illustration of a supply chain of an apparel brand only selling garments made out of cotton.

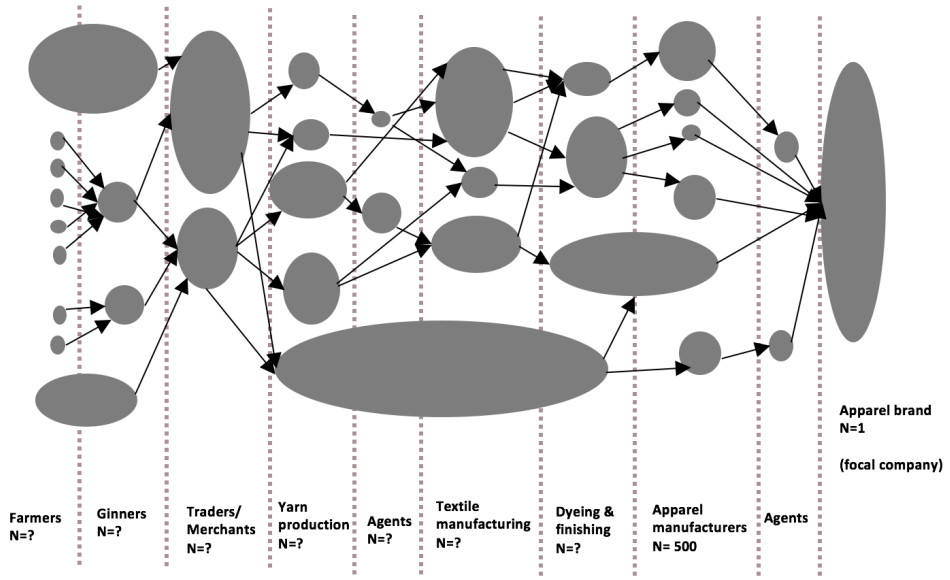

Figure 2-2. A simplified illustration of how a cotton supply chain may look like for an apparel brand

The size of the circles implies the size of the actors in the supply chain, while some of the overlapping circles demonstrate vertically integrated factories/processes. All the links showcase the connections and flows between the supply chain actors and the focal brand (Kogg, 2009).

Source: Adapted from Kogg (2009)

Although the illustration of a cotton supply chain only presents a simplified reality, it already gives hints about the complexity found in many apparel supply chains. The complexity arises from conditions such as the number of actors, geographic locations, change of actors, and the relationship among actors (Kogg, 2009). Apparel supply chains are often considered to be very long and complex in their nature (Kumar, Agraval, Wang & Chen, 2017). Apparel supply chains can therefore be considered complex structures dispersed around a number of different geographical locations and actors.

2.3 Supply chain management

Supply chain management (SCM) started to develop as a management philosophy, corporate practice and research field in the 1980s as an answer to the increased shift and entailing complexities of outsourced business functions in global contexts (Hugos, 2006; Lummus &

Vokurka, 1999; Mentzer et al. 2001). Although scholars have given a variety of SCM definitions throughout the years, a generally agreed definition is given by Mentzer et al. (2001) who defines SCM as "the systemic, strategic coordination of the traditional business functions and the tactics across these business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole" (Mentzer et al., 2001, p. 18). As seen in this definition, the management of a supply chain is connected to the focal company perspective and is associated with practices that aim to influence the performance of the supply chain to achieve desired results (Giunipero, Hooker, Joseph-Matthews, Yoon & Brudvig 2008). Mentzer et al. (2001) further underlines that the philosophy of SCM involves a system perspective of the whole chain including its different flows (e.g. products, information), a strategic cooperative approach for intra- and inter-organisational coordination, and a focus on customer value creation.

A fundamental theme within research is SCM as a strategic activity for corporations to achieve a competitive advantage. The notion being that, in order for companies to stay competitive they must enhance supply chain efficiency and responsiveness to fast evolving consumer markets and demands (Giunipero et al. 2008; Lummus & Vokurka, 1999). Several scholars have put forth that corporations compete based on their supply chain configuration rather than their own independent organisation (Gold, Seuring & Beske, 2009; Lambert & Cooper, 2000). However recently, Lambert and Enz (2017) acknowledged that this may be incorrect as many buying firms purchase from the same suppliers, arguing that SCM is rather about relationship management and the corporations that succeed best at this will have an advantage.

2.4 Sustainable supply chain management

Building on the concept of SCM, its traditional economic focus has been extended to include environmental and social considerations, under the term sustainable supply chain management (SSCM). SSCM is commonly defined as integrating the triple bottom line approach in SCM (Chkanikova, 2012; Carter & Rogers, 2008). The central idea of SSCM is for brand-owning corporations to take account for sustainability issues in their whole supply chain. Additionally, connected to the system-perspective of SCM, the life-cycle approach of products accompanies the sustainability approach (Seuring & Müller, 2008).

Since brand-owning companies have globally dispersed supply chains, the focus during the last several decades has been on finding ways to manage sustainability issues in supply chains. Seuring and Müller (2008) based on their literature review on SSCM, distinguish SSCM into two main corporate strategies: "supplier management for risk and performance" and "supply chain management for sustainable products". Risk management is by the same authors referred to as managing or reducing environmental, social and economic risks in supply chains. It is further seen as a central theme for brand-owning corporations, as sustainability issues encountered may lead to a loss of reputation, and as a result potentially harm the economic performance of the brand (Seuring & Müller, 2008). Performance based aspects, on the other hand, constitute how the dimensions of sustainability interlink. The authors report that performance-based aspects related to sustainability are often considered as win-win situations in literature. An example is cost savings due to reduced packaging waste (Carter & Rogers, 2008). Additionally, they are also connected to suppliers' sustainability performance. Meanwhile the focus on sustainable products is associated with assessing impacts and requirements along product life-cycles, as means to create customer value and achieving a competitive advantage in the market (Seuring & Müller, 2008).

Additionally, Carter and Rogers (2008) identify four key features for corporations' implementation of SSCM. They argue that, (1) corporate strategy needs to be aligned with sustainability ambitions, underlining the importance of integration; (2) the internal corporate culture needs to be influenced by sustainability consideration and integrated into the core values of a company; (3) the company needs to have the ability to recognise, plan and adapt to environmental, social and economic risks in both upstream and downstream directions in supply chains; and (4) the company needs to focus on transparency, where corporations need to engage in stakeholder dialogue in a transparent manner as a way to keep legitimacy and build reputation. However, Carter & Rogers (2008) note that the environmental and social dimensions in relation to economic aspects may not always be in balance. Preuss (2005) based on his empirical evidence report that economic priorities continue to be at centre in corporations, while Seuring and Müller (2008) additionally identify that trade-offs between sustainability dimensions are repeatedly reported. Based on this situation, Carter and Rogers (2008) argue that in those cases where the dimensions of sustainability are not in harmony, it is of essence to learn from those situations as a way to continuously ensure improvements. Carter and Rogers (2008) further argue that "true sustainability occurs at the intersection of all three areas – environmental, social, and economic – and includes multiple activities (e.g. activities in the aggregate) where an organisation explicitly and comprehensively incorporates social, environmental, and economic goals in developing strategic vision and long-term strategic objectives" (Carter & Rogers, 2008, p. 371).

Another central theme within the literature in both SCM and SSCM discourses is the argument of increased long-term collaborative buyer-supplier partnerships as managerial tactics to achieve a competitive advantage, and as a prerequisite for implementing sustainability ambitions (Chkanikova, 2012; Gold, et al. 2009; Giunipero et al. 2008; Preuss, 2005). This notion represents a move from the traditional "arm's length" short-term contracting buyer-supplier relationships. Scholars argue that collaborative partnerships potentially contribute to benefits such as risk and cost reduction, access to information and improved productivity (Cao, Vonderembse, Zhang & Ragu-Nathan, 2010). From the economic perspective supplier relationship-building is put forth to increase effectiveness of SCM by the increased integration of practices between buyer and supplier. Gold et al. (2010) argues that the performance of firms is essentially reliant on the quality of cooperation with direct partners and in turn how these partners cooperate with their partners. From a sustainability perspective, Gold et al. (2010) stated that cooperation is important as sustainability ambitions are dependent on extended requirements.

However, Cox (2004) has long argued that the power dimension within the integrative and long-term collaborative SCM literature is undermined. Based on his evidence, he argues that a collaborative and integrative approaches often need a clear buyer dominance throughout the whole supply chain. He highlights that there is a power dimension that needs to be considered within the supply chain networks where the connected actors often operate individually based on their own motives and agenda (Cox, 2004). This situation has also previously been empirically found in the study of Faria & Wensley (2002), that similarly to Cox (2004) also argue that the power dimension is undermined in the SCM literature. This debate suggests added complexity to the SCM discourse and may present implications to the operational implementation of the triple bottom line approach. Referring back to Figure 2-2., considering the different sizes of actors in the simplified cotton supply chain, when applying Cox's (2004) rationale, it would mean that even if the focal brand is a large organisation, other actors in the supply chain may also be large with significant power of influence. Faria & Wensley (2002) further adds that the collaborative partnership may only be seen as collaborative from the focal company or even the researcher's perspective and not supplier's. Giunipero et al. (2008) further

acknowledges a gap in SSCM literature, where most of the reviewed literature is focused on the direct buyer-supplier relationship and not the dynamics of the whole supply chain, which ultimately could explain the limited acknowledgement of power dimensions.

Locke et al. (2009) additionally discuss that collaborative supplier partnerships are rather sector specific. The authors provide the example of sectors such as electronics, where they highlight that because suppliers in Asia increasingly have advanced their sector competencies, they have developed more collaborative partnerships with their buyers. Whereas in the apparel industry, the authors report a different situation based on the encountered industry characteristics. First of all, apparel suppliers do not seem as dependent on individual brands for their business (Locke et al. 2009). Kogg (2009) reports the same situation: while interviewing one of H&M's suppliers she found that even if the supplier would face the situation of losing H&M as a customer, the supplier would not have problems to find another apparel brand to produce for. Locke et al. (2009) additionally underlines that there is also an uncertainty connected to the order placement from apparel brands, as orders are season-based. Thus, for a supplier there is no assurance that apparel brands will place an order next season. Considering this, Locke et al., (2009) argues that it is uncertain whether apparel brands have the leverage to influence their suppliers to adopt more sustainable practices. The authors further argue that, given this situation it becomes unclear whose behaviour of involved actors, such as apparel brands, auditors, and suppliers that should be pushed for change.

More recent SSCM literature debates that there is currently no established mechanism that determines sustainability level of performance in supply chains. Searcy (2017) stresses the fact that the term sustainability and what it means in the context of supply chains remains undefined. Linked to this debate, O'Rourke (2014) stresses that there are limitations in current science and practical tools available for decision-makers within corporations when it comes to sustainability decisions. This further adds on managerial complexity, alongside the increased globalisation and changing economic trends which have created highly complex supply chains (Ashby et al. 2013). The encountered complexity when it comes to SSCM is a reoccurring theme within the literature. Style, Shoenberger & Galvez-Martoz (2012) discuss that due to the nature of sustainability itself being a complex and long-term challenge, there is a demand for lasting action with coordination and collaboration at centre with stakeholders in order to develop necessary management methods within supply chain context.

2.4.1 Demand for responsibility in apparel supply chains as a driver for sustainable supply chain management

Corporations may adopt SSCM due to different reasons, but the drivers are often connected to external stakeholder pressure for increased corporate responsibility, or as a way for a corporation to achieve a competitive advantage (Seuring & Müller, 2008). Seuring and Müller (2008) identify common drivers to be legal demands or regulations, stakeholder pressures, risk of reputational loss, customer demands, and/or the strive towards competitive advantage. With regards to the apparel industry, the pressure on apparel brands to adopt responsibility for their supply chains has historically been pushed by NGOs, as various industry incidents affecting both the environment and social aspects have been encountered throughout the years (Khurana & Richetti, 2018). One of such early cases were the reported sweatshop conditions in supply chains of Nike and Levis Strauss in the 1990s, which often is referred to as the starting point on the development of supplier code of conducts in the apparel sector (Khurana & Richetti 2016; Baumann-Pauly et al. 2017). As a result, throughout the years, apparel brands have increasingly been held responsible for environmental and social performance of their suppliers (Seuring & Müller, 2008).

Börjeson & Boström (2018) further expand on the responsibility discourse in connection to the apparel industry with special focus on chemical related challenges. The authors adopt the concept of reflexive responsibility. As the name suggests, the authors argue that due to the globally complex supply chain constellations, alongside the uncertainty and complexity sustainability decisions pose, apparel brands need to constantly adapt and reassess decisions. Thereof the name reflexive responsibility. Börjeson (2017) highlight that the concept of reflexivity assumes that with uncertainty, knowledge continuously evolves and needs to be accounted for. The author therefore suggests this to be seen as an opportunity for apparel brands as a way to manage the uncertainty that comes with handling sustainability issues in apparel supply chains (Börjeson, 2017).

2.4.2 Operational practices for sustainable supply chain management within the apparel industry

Building on the pressure for apparel brands to take responsibility for their supply chains, Kogg (2009) took a practitioner's standpoint to investigate how apparel brands address the sustainability requirements/expectations that are demanded from various stakeholders. In one of her cases, she investigated H&M and found that the apparel retailer employed several operational management practices as a way to address sustainability issues in supply chains. Some of the practices included:

- Supplier code of conducts for environmental and social aspects, with audits as means of control/verification.
- Restricted chemical lists as a measure to control levels of usage of specified chemicals in produced garments, with chemical tests of garments as means for control/verification.
- In order to influence supplier compliance with set criteria, two key strategies were identified:
    - Threat with sanctions if suppliers fail to meet set criteria
    - Training programmes for suppliers to support them to handle related issues in their own operations.
- Third-party standards/certification/verification methods, such as Organic Exchange for organically certified cotton.
- Production offices in producing countries as a way to more easily manage production related aspects as well as environmental performance.
- Supplier evaluation/grading based on environmental and social criteria.

These operational practices showcase the importance of the apparel brand to be able to control and verify sustainability aspects in their supply chain (Kogg, 2009). Kumar et al. (2017) further notes that in order for apparel brands to make responsible claims towards for example stakeholders and the market, they need to adapt measures that enable them to obtain information from upstream activities.

Based on the empirical evidence in her study, Kogg (2009) further developed a framework on the operational management of SSCM (Figure 2-3.). Her findings suggest that apparel brands may take different approaches to address sustainability issues depending on the specific needs of the focal apparel brand and what is currently available as a method (e.g. certification or labelling scheme) for achieving wanted results. For example, apparel brands have the option of deselection when it comes to suppliers or materials that are not in line with sought sustainability ambition. Furthermore, if there is already a method available to achieve wanted sustainability results, the apparel brand may choose to take a direct approach and comply with

already established criteria. Whereas, in circumstances where there is limited or missing methods for a certain ambition, the focal brand may choose to take the direct approach of influencing its suppliers and/or establish own internal methods. In addition, a brand may also choose to collaborate horizontally, meaning cooperating with other brands and/or other external actors (Kogg, 2009). In a later study by Kogg and Mont (2012) it is further acknowledged that a focal brand may engage with multi-stakeholder initiatives (MSIs) as a way to collaboratively address sustainability issues in supply chains.

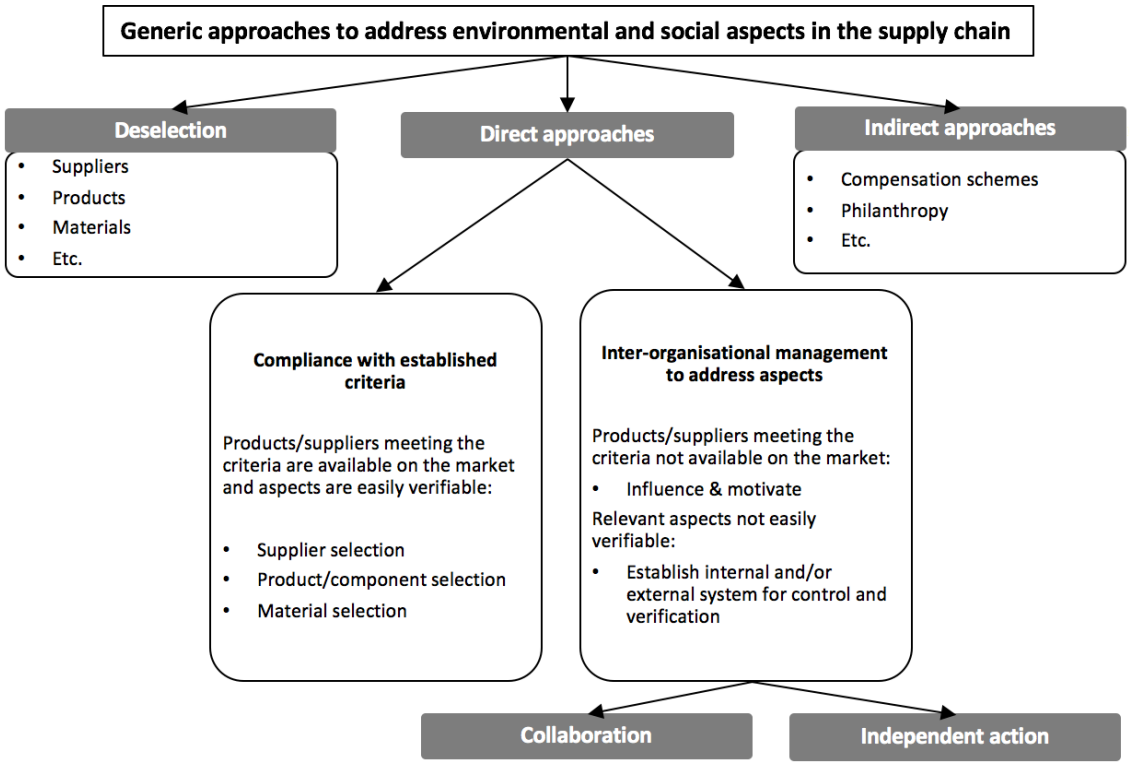

Figure 2-3. Framework presenting operational approaches apparel brands may take to address sustainability issues in their upstream supply chain.

Source: Adapted from Kogg (2009) and Kogg and Mont (2012)

In connection to Kogg's (2009) findings, Börjeson and Boström (2018) also find that apparel brands may adopt different practices when addressing sustainability issues on operational level. They further debate that measures may be taken upstream towards suppliers and beyond first-tier of suppliers, as well as through horizontally collaborative forms of cooperation through MSIs or with other brands. However, they noted that collaboration with other brands was done merely for knowledge-exchange when developing restricted chemical lists rather than in the form of mutual efforts towards SSCM (Börjeson & Boström, 2018).

2.4.3 Managerial barriers for the adoption of sustainable supply chain management

With the entailing complexity of managing sustainability challenges in globally spread apparel supply chains, several authors report encountered managerial barriers facing apparel brands in their efforts at SSCM. Seuring and Müller (2008) note that identifying barriers towards SSCM adoption are relevant in order to know what is hindering the advancement towards SSCM.

Suering & Müller further identify barriers to be: (1) higher costs for SSCM implementation, (2) coordination effort and complexity, and (3) insufficient or missing communication in the supply chain. Additionally, Börjeson (2017) identifies the following managerial barriers and challenges for apparel brands to advance practices towards SSCM based on seven circumstances:

(1) *Size:* Smaller apparel brands perceive it as a struggle to influence suppliers to adopt more sustainable practices. This encountered circumstance builds on the perception that larger apparel brands have more leverage and potential to influence suppliers by their ability to place larger orders.
(2) *Industry-related characteristics:* The apparel industry at large is characterised by keeping costs and prices down, which undermine SSCM investments, as economic principles are often prioritised. Customers are price-sensitive and not always willing to pay more whether or not the garment is more sustainable.
(3) *Business model:* The way the supply chain is organised and strategies that are employed by the focal brand affects the ability for SSCM. A frequent change of suppliers undermines the opportunity to implement sustainability strategies in supply chains.
(4) *Power relations:* There are power dimensions between actors in the supply chain network that complicate the focal apparel brand's ability to influence towards SSCM. Each actor is focusing on independent strategies that may undermine the ability for sustainability implementation throughout the supply chain.
(5) *Policy circumstances:* Limited regulation in producing countries may hinder apparel brands' ability to enforce certain requirements.
(6) *Lack of knowledge:* Limited knowledge about environmental implications, for example with chemical risks, of both buyer and supplier may hinder the ability to make certain decisions.
(7) *Time;* The fast pace of fashion may hinder the ability to capture opportunities for SSCM. For example, it may take a long time before a supplier can substitute certain chemicals.

Some of these perceived barriers are found by other scholars as well. Connected to barriers related to industry-related characteristics and time identified by Börjeson (2017), Locke (2013) highlights that apparel brands often strive to push down prices and demand short lead times on garments, which as a consequence often undermines sustainability efforts. Furthermore, findings of Oezle (2017) also support empirical results of Börjeson (2017). Oelze (2017) finds that the size of the focal apparel brand is perceived as a barrier, alongside the absence of regulation which hinders the motivations of suppliers to engage or advance sustainability efforts. Additionally, the economic pressure to stay competitive for apparel brands is also perceived as a barrier, together with an experienced lack of knowledge and uncertainty related to sustainability questions, which may hinder the ability to address sustainability issues more effectively (Oelze, 2017). Moreover, Oelze (2017) also acknowledges that the commitment on the management level and internal culture within apparel brands is also a central aspect when in the effort of SSCM practices.

2.5 Defining multi-stakeholder initiatives and governance

Multi-stakeholder initiatives (MSIs) started to emerge in the global political arena in the 1990s, with roots in the United Nations (UN) global governance system (Pattberg et al. 2012). The first conference to request engagement from various stakeholders incorporating private, civil and public actors to address sustainable development issues was during the UN conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 (Pattberg et al. 2012; Hemmati, 2002; UN Earth Summit, n.d.). The central role of MSIs in global community and

environmental governance contexts continues and extends with the development of UN's Sustainability Development Goals (SDGs) (Folke et al., 2016; Pattberg & Widerberg, 2016). Since the 1990s MSIs as arrangements have spread in numbers, issues addressed and contexts in which they exist (Baumann-Pauly et al. 2017, Hemmati, 2002). The apparel sector is one of such contexts where industry-specifc MSIs have emerged.

Though absent of a commonly agreed definition, MSIs are generally labelled as arrangements comprising a broad array of stakeholders such as corporations, NGOs, academia and sometimes government that come together on a voluntary basis to "define, implement, and enforce rules that direct corporations' behaviour with regard to social and environmental issues" (Rasche, 2012, p. 683). Researchers often describe that MSIs take form to fill governmental regulation gaps, more specifically where neither nation states or intergovernmental bodies are able or willing to regulate (Bauman-Pauly et al., 2017; Jastram & Schneider, 2015; Rasche, 2012). Political scientists have labelled MSIs as self-regulatory mechanisms that constitute private (Locke, 2013) or voluntary governance (Vogel, 2008). Baumann-Pauly et al. (2017) highlight that MSI arrangements in their collective constellation of actors constitute politics in networks where corporate behaviour becomes influenced by the array of involved stakeholders. The constellation of MSIs as an arrangement comprising various stakeholders has been considered to constitute collaborative governance (Rasche, 2012). Given the global perspective in which supply chains operate and the increasing corporate influence in these settings, MSIs are also often referred to as constituting global governance (Moog, et al. 2014; Sherer & Palazzo, 2011, O'Rourke, 2006).

As can be noticed the term governance itself is widely used to describe a variety of settings in which MSIs influence or constitute social steering (Weale, 2010). Young (1999) (as cited in Demas & Yound, 2009) define the term governance as a "social function centred on efforts to steer societies or human groups away from collectively undesirable outcomes […] and toward socially desirable outcomes […]" (Demas & Young, 2009, p. 6). Within environmental governance literature, governance represents the change in policy making over the last decades, representing the de-concentration of governmental authority and the increased move towards the legitimacy of non-state stakeholders (e.g. businesses and NGOs) in making decisions (Weale, 2010). Another feature is also the responsibility of non-state actors to take action (Weale, 2010). The term thus represents the wide array of stakeholders who are involved in the process of social steering (governing), which is not solely tied to the governmental institution (Weale, 2010). Mena and Palazzo (2012) further note that initiatives or arrangements constituting governance have not only been labelled as MSIs within literature, but rather been given a variety of names, such as transnational private regulation, public-private partnerships, and global action networks. The variations used by scholars suggests there is no clear label for the change in governance approach, making it difficult to assess their meaning and their definition.

2.5.1 Varying multi-stakeholder arrangements

Multi-stakeholder initiatives (MSIs) largely differ from each other in their design, structure and mechanisms they constitute in terms of governance structure, stakeholder inclusion, targeted sectors, administration of enforcement (Jastram & Shneider, 2015), monitoring and verification processes, consequences of non-compliance and societal issues covered and addressed (B-Turcotte, Bellefuille & den Hond, 2007). Baumann-Pauly et al. (2017) discuss and categorise MSI differences into (1) variations in form, regarding governance structure and participating stakeholder; (2) variations in scope with differences in addressed social or environmental issues as well as specific countries or industries; and (3) variations in performed functions where some MSIs focus on creating a dialogue for learning amongst stakeholders to

exchange experiences, while others develop standards with enforcement mechanisms or certification schemes. Based on the functions Mena and Palazzo (2012) categories MSIs into four different characteristics:

(1) MSI types that create learning platforms where stakeholders can share best-practices to enhance learning from each other and/or signal engagement (e.g. UN Global Compact).
(2) MSI types that design behavioural standards, for instance by developing guidelines, recommendations, and code of conducts.
(3) MSI types that design compliance mechanisms to ensure rules are followed, by auditing for instance. These types often include a third-party accreditor.
(4) MSI types that develop and offer certifications and labels for compliance (e.g. Forest Stewardship Council).

Mena and Palazzo (2012) further stress that not all initiatives have rule-setting characteristics, referring to the MSIs that are categorised into the first type that rather focus on dialogue and learning activities. As can be seen, there is a large variety amongst the different MSIs which have evolved during the last decades, and a commonly agreed typology is missing in the literature (Baumann-Pauly et al., 2017). However, Mena and Palazzo (2012) highlight that despite the variations there is one common aspect amongst MSIs, namely being that they are the outcome of stakeholder collaborations of at least two actors of either of the governments, corporations, and/or civil society.

2.6 Multi-stakeholder initiatives for sustainable supply chain management and their implications

More recent definitions of MSIs also account for the evolution of MSIs in supply chains. Hyatt and Johnson (2016) define MSIs in supply chains as "sites of institutional and organisational change, as structural mechanisms by which varied actors from different sectors (business, civil society, and government) set about achieving shared agendas of change that have evolved beyond the traditional boundaries of the sustainability movement" (Hyatt and Johnson 2016, p. 2). Collective action and collaboration among various stakeholders is a common denominator.

The emergence of MSIs and the collaborative characteristics they constitute have led scholars to define it as a new paradigm in global supply chains. Lund-Thomsen and Lindgreen (2014) label it as a "cooperation-based paradigm". In essence, MSIs often advocate that brand-owners take an active role to facilitate learning opportunities and improvements for sustainability issues that are being addressed. As with SSCM, the rationale behind MSIs within supply chain context often builds on long-term buyer-supplier relationships, where focus is often placed on capacity building. In other words, the emphasis on providing opportunities for suppliers, for example through technical expertise and management systems that improve environmental performance or social conditions. Fundamentally, it is about creating a business case for suppliers to engage in improved sustainability practices (Lund-Thomsen & Lindgreen, 2014; Locke, 2013).

However, scholars remain critical of the practical abilities to achieve structural changes in existing power relationships through MSIs due to existing market characteristics and industry practices in the apparel industry. The apparel industry is increasingly competitive, with consumer demands on low prices and speed to market. This results in conflicting demands from apparel brands on suppliers, where the pressure for lower prices and faster deliveries is

combined with the demand for high quality products (Lund-Thomsen & Lindgreen 2014; Locke et al. 2009). Such conflicting demands create conditions that often tend to undermine the potential for sustainability improvements (Locke, 2013). Another reason highlighted is the frequently missing voices of upstream actors in MSI arrangements, such as suppliers, workers and local communities in producing countries. The lack of these voices could risk shaping governance imbalances and undermining the change of current structures (Lund-Thomsen & Lindgreen, 2014). Alongside this, Lund-Thomsen and Lindgreen (2014) highlight that MSIs in SSCM risk to only become occasional pilot projects rather than creating structural changes.

Empirical studies report varying results of MSIs. Tighe (2016) examined the perception and practical implication of six different MSIs addressing social aspects for workers in apparel factories in Dhaka, Bangladesh, such as the Ethical Trading Initiative (ETI), the Fair Labour Association (FLA), and the Business Social Compliance Initiative (BSCI). He took the perspective of upstream actors in apparel factories to investigate the effects of examined MSIs. His findings demonstrate imbalances of the implementation of MSIs in apparel factories, with limited effects on workers' well-being. Tighe (2016) reports power constraints, where he encountered that apparel brands and factory managers have the power to influence the conditions of MSIs conditions applied, while workers did not seem get the opportunity to be engaged. He also noticed the hierarchical structure in examined factories to be hindering the implementation of MSIs. Furthermore, his interviews indicated that factory managers had limited knowledge about the MSIs and their actual purpose which is to improve the well-being of workers. Instead, factory managers viewed them as an another requirement of ethical codes to meet in order to be able to produce for specific apparel brands.

Pattberg & Widerberg (2016) did a study where they assessed 340 MSIs addressing environmental governance issues. The authors set to investigate their performance, and evaluated them based on their publically stated goals compared with their actual activities and outputs based on their self-reporting. They found limited performance of MSIs as a result. Out of the total amount of initiatives, 24% were found to meet what they stated publically. The rest of the initiatives were found to have varying results; 38% of the MSIs demonstrated no activities at all, 26% of MSIs did not equal stated ambitions, and 12% met some of the stated ambitions.

Jastram & Klingenberg (2018) explored MSIs taking the case of United Nations Global Compact, where they focused on investigating outcome effectiveness of the MSI within a wide set of corporations. In contrast to studies indicating limited effectiveness of MSIs, they found that corporations seemed to use the Global Compact as a supply management tool to handle risks in supply chains, where corporations reported that they would end business with suppliers that would go against any of the guiding principles (Jastram & Klingenberg, 2018).

One of the MSIs that has been researched from various scholars is the Forest Stewardship Council (FSC). Pattberg (2005) argues FSC to be an MSI that points towards an effective and innovative arrangement. This argument is underpinned by three identified circumstances. (1) The governance set up, which has included equal voices between downstream and upstream actors, and prevented economic interests; (2) stringent FSC standards have been set, and (3) the evident integration or harmonisation of the private standard with policies of governments and international organisations. However, there are later studies and scholars who paint another picture of the FSC. Moog et al. (2014) argue that despite the success with the internal arrangement of the MSI, the FSC has failed to be effective at solving the addressed issue of tropical deforestation and create a structural change of commercial forestry practices.

Pattberg & Widerberg (2016) highlight that even though MSIs generally are publically perceived as positive contributions towards change for addressed issues, the actual implications remain uncertain. Little is yet understood about the role of MSIs in supply chains and their effectiveness as arrangements and as improved sustainability outcomes (Lund-Thomsen & Lindgreen, 2014; Kogg & Mont, 2012). Hemmati (2002) has from early on commented that MSIs are not a solution to all problems, highlighting that MSIs should be rather seen as a tool which may be useful in certain situations. Demas & Young (2009) furthermore discuss that MSIs in their form and emergence as an alternative governance approach may take time before they can be judged, as learnings need to be made. Additionally, due to the many uncertainties about MSIs critical points are raised in regards to the arrangements.

Martens (2007) provides critical considerations of MSIs by highlighting possible implications. He suggests that the arrangement of MSIs may expand the power of global brands, where they can develop even more influence over the market and global political settings. Furthermore, Martens (2007) brings up the risk of MSIs being ineffective due to financial challenges, since they are often solely dependent on the voluntary participation of actors. In addition, he also notes that sustainability issues addressed through MSIs may risk not to focus on the most important governance gaps. Issues that are more easily solved may be addressed, instead of trying to solve the underlying structures causing the issues. Linked to this O'Rourke (2006) brings up the critique of MSIs being seen as "elite regulation" system designed to protect global brands, instead of solving the actual environmental or social issues addressed. Locke et al. (2013) also brings up the potential participation in MSIs as a way for global brands to protect their reputation. Additionally, Jastram & Schneider (2015) raise concern with the voluntary approach of MSIs meaning that it may reduce the leverage to create a change for addressed issues, if members do not adopt the standards or if the change is not encouraged by incentives.

2.6.1 Corporate motives for participation in multi-stakeholder initiatives

Even though there have been critical voices raised towards the motives of corporate engagement in MSIs, Lundsgaarde (2017) notes that corporate motives in relation to MSI participation have received little attention in research. However, there are studies that have provided some insights into the matter. Segerson (2013) identifies why companies may choose to participate in MSIs. His categorisation below has been complemented with further motives found in relevant studies:

Sustainability stewardship: These motives relate to the perceived benefits of adopting practices that enable sustainability improvements. This relates to corporations who want to be perceived as leaders within the sustainability field as a way to improve industry practices (Segerson, 2013).

Market-based incentives: These motives can be connected to the pressure of stakeholders on companies to address sustainability issues, alongside the private corporate benefits of adopting more sustainable practices as a way to meet consumer demands for more sustainable products, or improve brand image by being identified with certain standards (Segerson, 2013). Additionally, Kogg & Mont (2012) also note, that corporate motives of MSI engagement may be relevant in situations where several brands face the external pressure or expectation to address a specific sustainability problem.

Cooperation benefits: Firms may benefit from working together to address sustainability issues, which largely depend on the perceived benefits of a cooperation as well as current market circumstances (Segerson, 2013). For example, cooperation may create more leverage for corporations to enforce demands on suppliers (Börjeson, 2017). Additionally, cooperating on

sustainability issues may also lead to saved resources for corporations, compared with if a corporation would address the same issue independently (Oelze, 2017; Kogg & Mont, 2012).

Information: Obtaining needed information efficiently may be a reason why companies choose to engage within MSIs. The participation may provide useful information for the focal brand and provide benefits for example to do with cost savings and knowledge for uncertain complex decision that can contribute to sustainability improvements or lead to easier monitoring or enforcement (Segerson, 2013). This motive can also be connected to Börjeson's (2017) respectively Oelze's (2018) identification of collaboration as a way to exchange knowledge about sustainability challenges.

Regulatory threats: if companies see the possible consequence of legislative measures, they may rather engage in voluntary programs as a way to find solutions themselves rather than being faced with regulation (Segerson, 2013).

2.7 Conceptual framework as synthesis of reviewed literature

A conceptual framework (Figure 2-4.) has been developed as a synthesis of reviewed literature accounting for the research that is relevant for the aim of the thesis, which is to increase the understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM). It follows Maxwell's (2005) suggestion about developing conceptual frameworks based on previous research that helps to support the understanding of the phenomena being studied. It draws on the following identified themes about SSCM in existing research:

- *Responsibility* – Seuring & Müller (2008) identify external drivers for corporations to adopt SSCM based on stakeholder pressures for corporate responsibility. These stakeholder pressures or incentives relate to legal demands/regulations, response to stakeholders, reputation loss, customer demands and/or competitive advantage.

- *Corporate culture* – Carter and Rogers (2008) and Oelze (2017) suggest internal corporate culture as key when it comes to the level of SSCM adoption by corporations, including how sustainability is integrated in business strategy and long-term strategic objectives, alongside core values of the corporation. In connection to this, top management commitment is also identified as key.

- *Sustainable supply chain management – (SSCM) strategies* – Seuring & Müller (2008) identify two main SSCM strategies: (1) managing sustainability risks and performance of supply chains, and (2) strategies for sustainable products.

- *Operational management* – Kogg (2009) identifies managerial approaches performed in practice by corporations when adopting SSCM. Kogg (2009) further suggests corporations may take several different approaches to address sustainability matters. *Collaboration* is identified as an approach to address environmental or social issues horizontally with other brands or actors or through MSIs.

- *Multi-stakeholder initiatives (MSIs), motives and benefits* – Segerson (2013) identifies a set of motives and benefits for corporations to participate within MSIs. These motives and benefits are supplemented by studies by Börjeson (2017), Oelze (2017), and Kogg and Mont (2012).

- *Challenges* – Börjeson (2017) suggests a set of challenges that may hinder corporations to adopt or advance SSCM, which have been enriched by relevant studies from Seuring & Müller (2008), Locke (2013) and Oelze (2017).

The purpose of the conceptual framework developed by the author (Figure 2-4.) is to provide an *analytical tool* for the empirical findings of this study. It should be noted that the analytical focus of this study is placed on *collaboration* as an operational management approach within SSCM through the participation in MSIs, even though the conceptual framework accounts for a broader picture of SSCM. This broader picture including external and internal drivers for the adoption of SSCM, alongside barriers for the adoption/advancement in SSCM, and additional operational managerial approaches, are all included in order to understand the role of MSIs within SSCM context. Dashed lines in Figure 2-4. Highlight the analytical focus of the conceptual framework that this thesis is concerned with.

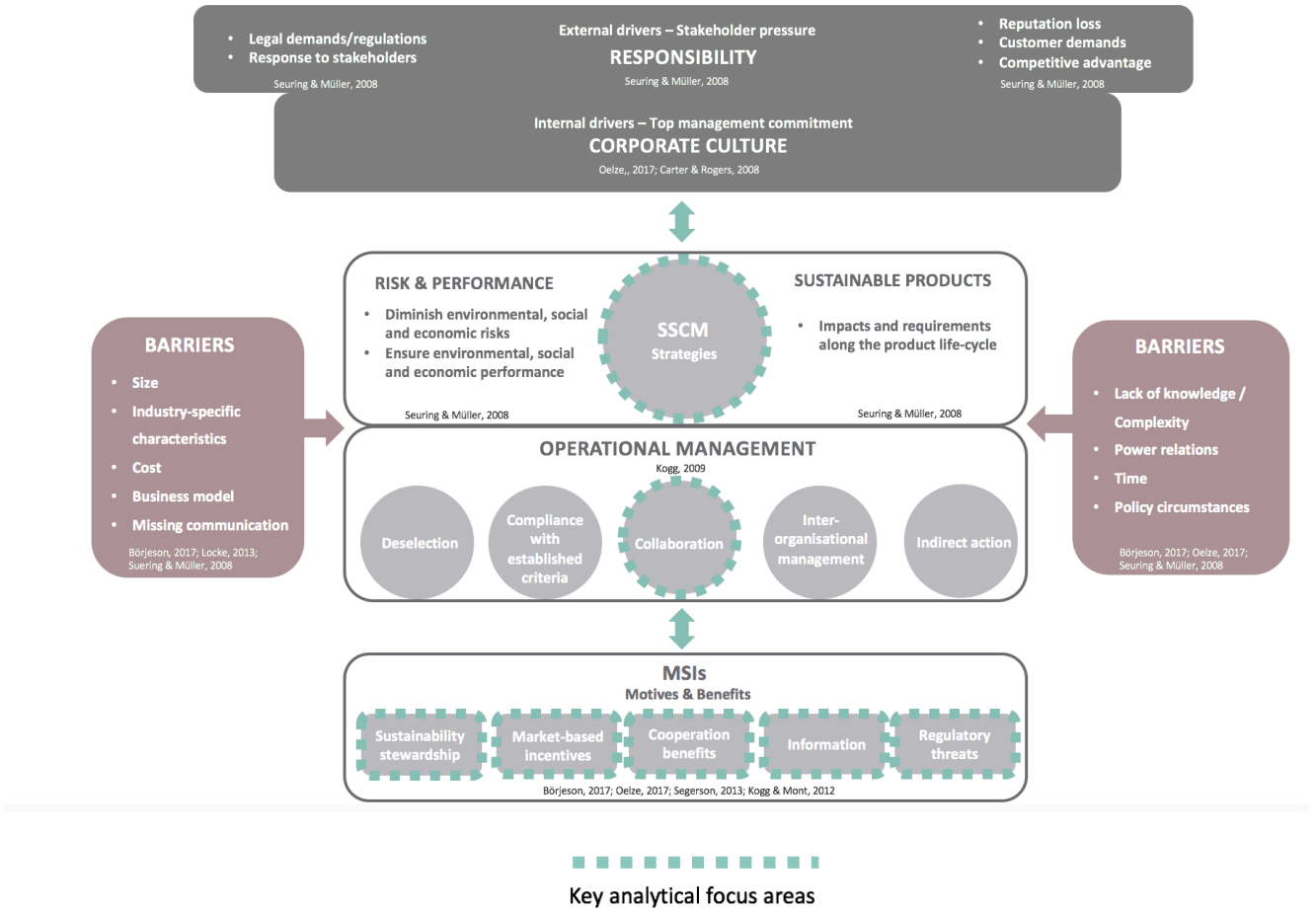

Figure 2-4. Conceptual framework as a synthesis of reviewed literature and analytical tool for understanding the role of MSIs within SSCM context. Dashed lines highlight the key analytical focus areas of this thesis.

Source: Own elaboration

3 Methodology

The purpose of this chapter is to provide details about the research design of this thesis to allow clarity and transparency. It explains the method for case selection, collection of data and how it was analysed. The chapter ends with a reflection of the previous experience of the author and on the methodology.

3.1 Research design

Based on the identified need for an increased understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM), a qualitative research method was applied with a deductive approach, where concepts and theories were identified prior to empirical data collection. The reason for taking a qualitative method was motivated by the need for a deeper understanding of perceptions and motives of Swedish apparel brands. Qualitative research methods are generally recommended in research projects where explorative and deepening of understanding is needed (Bryman & Bell, 2011).

The thesis further employed a multiple-case study design, which enabled to contrast findings between the cases and explore underlying reasons (Bryman & Bell, 2011). The design was considered to provide better understanding on the role of MSIs in SSCM when perceptions from the participating apparel brands could be contrasted. Another benefit of choosing a multiple-case study design is that it allows better theory building as evidence can be collected from several cases (Bryman & Bell, 2011). Yin (2014) further recommends the case study design when "How?" and/or "Why?" questions are guiding the research to understand a specific phenomenon and its circumstances.

Figure 3-1. shows the research method applied and an overview of what data has been collected to answer the guiding research questions of this thesis.

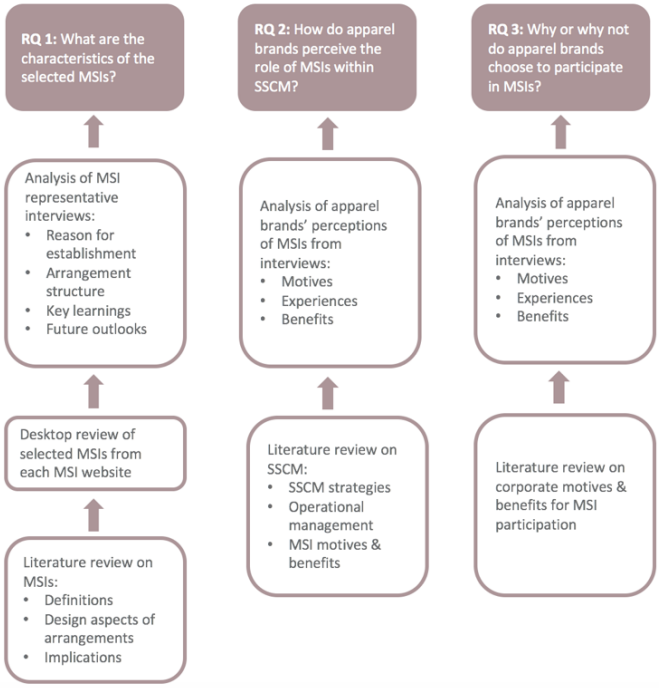

Figure 3-1. Applied research method

Source: Own elaboration

3.2 Case selection

The amount of cases to include in a multiple-case study remains to be decided depending on the aim of the study (Yin, 2014). In this case it was important to gain several perspectives across different initiatives but also from participating brands in different apparel sectors and of different sizes. This was central to gain a deeper understanding of various MSIs and apparel brands' perceptions, but at the same time not lose the depth by focusing on the three selected MSIs.

The multiple-case design incorporated a twofold selection process: (1) the selection of MSI cases, and (2) the selection of Swedish apparel brands as cases. MSIs were chosen based on the following criteria:

- MSIs that address environmental challenges in apparel supply chains
- MSIs that Swedish fashion brands participate in
- MSIs that are widely established in the industry, guided by:
    - Duration of establishment (at least five years)
    - Participation of leading apparel brands

The rationale behind the selection criteria was based on the interest of researching initiatives that address environmental problems in apparel supply chains. More specifically, addressing upstream production stages of textile supply chains where the largest environmental impacts have been referred to occur (see section 1.1 & 2.1). The selection of MSIs was also guided by how long the MSI has been active, where the duration of at least five years was considered in order to ensure enough experience. Furthermore, MSIs that included the participation of leading Swedish apparel brands were considered. Other studies have employed a similar approach for case selection where MSIs have been selected based on the presence of influential brands as an argument for larger potential of transformative power to create a change in the sector (see Baumann-Pauly et al. 2017).

Furthermore, the selected MSIs address different upstream production challenges in textile supply chains, which allowed to expand the knowledge and breadth of industry MSIs. The Sustainable Apparel Coalition (SAC) develops the Higg index (see section 4.1.3) as a way to benchmark apparel brands' sustainability efforts in supply chains covering various environmental issues across supply chain stages, and as a way to drive change towards industry improvements. The Sweden Textile Water Initiative (STWI) is focused on the water-related challenges in apparel production processes – related to: water and energy use, and water pollution. The Textile Exchange (TE) focuses on finding more sustainable materials for the apparel industry.

With regards to the selection of Swedish apparel brands as cases of this thesis. The first step included identifying which Swedish apparel brands participated in which of the selected MSIs. In total 21 Swedish apparel brands were identified as members in the selected MSIs, these were all contacted and asked to participate in the study. Due to the period of the study being over the summer, the availability of apparel brands was limited. The final sample of apparel brands became nine. Their membership in the selected MSIs varied, which allowed to explore reasons to why brands have chosen to participate in certain initiatives and not in others. This enabled further contrasting and understanding of MSIs as a phenomenon more deeply.

The final sample included a variety of apparel brands in terms to their size, sectors and price segments they operate within. The diversity of participating apparel brands enabled further

contrast, valuable for the understanding of MSIs and their role. The full list of the participating brands and the timings of the interviews can be found in Appendix 1.

Table 3-1. below, provides how many of the participating brands of this thesis were members of the selected MSIs in contrast to the total number of Swedish apparel brand members, alongside the total number of stakeholder members in the selected MSIs.

Table 3-1. Style 'Number of participating brands in selected MSIs

MSI	**Number of participating Swedish apparel brands**	**Total number of participating actors (apparel brands, home textile brands, manufacturers, NGOs, and other additional actors)**
Sustainable Apparel Coalition (SAC)	3 / 3	234 https://apparelcoalition.org/members/
Sweden Water Textile Initiative (STWI)	8 / 18	29 http://stwi.se/members/
Textile Exchange (TE)	4 / 6	289 https://textileexchange.org/members/

Source: Own elaboration

3.3 Collection of data

3.3.1 Desktop review and literature review

Prior to the case selection an initial desktop review was conducted on publically available information from websites of Swedish apparel brands and MSIs. This was done in order to find information on which MSIs Swedish apparel brands participate in, and as a way to find information about various MSIs and environmental issues addressed. Additionally, public reports from MSI websites and annual reports from apparel brands were reviewed to complement the information need. Once the cases were chosen, primary data about MSIs were collected from websites and publically available reports. This data was used to complement conducted interviews with MSI representatives in order to answer the first research question related to the characteristics of the chosen MSIs.

Once the scope of the thesis was decided, a literature review focused on the apparel industry context with SCM, SSCM and MSI was conducted. Search words to find relevant literature included: *sustainability/environmental challenges; SCM; SSCM; MSI; Private-Public partnerships; voluntary standards; transnational private governance; in the fashion/textile/apparel industry/sector.* Not all the reviewed literature specifically targeted the apparel industry, but was still relevant for the context and contribution to understanding the research problem being studied. Databases used to find relevant studies, included *LUB search*, *Google Scholar* and *Research Gate*. Additional books were also included to provide relevant knowledge.

3.3.2 Semi-structured interviews

In line with the approach of this thesis, semi-structured interviews were conducted in order to collect necessary data. Semi-structured interviews provided the benefit of having a general set of standardised questions that guided the interviews, while at the same time allowed flexibility and room for additional questions about topics that occurred during the interviews (Bryman & Bell, 2011).

The focus of data collection was placed on respondents' opinions to explore perceptions of MSIs and their role in apparel brands' SSCM. The participating respondents from each apparel brand included representatives working with sustainability questions. This allowed to get their expertise as they were the ones responsible within their organisation to work with the selected MSIs. Questions to apparel brands focused on exploring the context in which they operate related to environmental challenges and supply chain management, besides perceptions and motivations for engaging with/within MSIs. Sample of more specific questions that were asked can be found in Appendix 3.

Participating respondents from the selected MSIs included relevant representatives from each MSI. From Sweden Textile Water Initiative (STWI) the director was interviewed, and from Sustainable Apparel Coalition (SAC) a representative from the Swedish School of Textiles, in Borås, Sweden, was included. The Swedish School of Textiles is an academic member of SAC, and their role is to provide neutral role in the SAC arrangement. They furthermore work with Swedish apparel brands to help them with SAC Higg Index tools. Questions to MSI representatives targeted the background of establishment of respective MSI, their design as arrangements, learnings that have been made by organising these arrangements, and additionally progresses and challenges with each MSI. Specific questions that were asked to MSI representatives are included in Appendix 4. Due to unavailability, an interview with Textile Exchange (TE) was not possible. In this case, primary data from TE website served as source of the MSI characteristics.

Participants in the study were all contacted by the author by email. Contact details to all respondents were found through corporate websites, in majority of the cases email addresses were collected by calling apparel brand's customer service. The initial email to all respondents asked for their participation and outlined the focus and aim of the study. Prior to conducted interviews respondents were vocally introduced to the study and asked if they had any questions for clarifications. All respondents were also asked about their preference of anonymity in the study, and asked for permission of audio recording. All but one interviews were audio recorded. For the interview not recorded due to the preference of the respondent, detailed notes were taken throughout the interview and written out directly after the interview to capture the context as accurately as possible. All respondents were also assured that they would be able to review results draft relevant to their interviews for their approval prior to publication in order to ensure that the author understood the answers correctly. Additionally, all interviews but one were conducted in Swedish.

3.4 Analysis of data

All conducted interviews were transcribed and carefully read to find emerging topics that were written down. The entire set of topics was summarised, and similar topics were grouped together. Topics were then organised into themes and compared against literature and the developed conceptual framework that was used as an analytical tool (Figure 2-4.). However, not only predetermined themes were accounted for. Given the need for increased understanding of MSIs within SSCM, it was important to also take note of emerging themes

which not necessarily were found in identified existing literature. Care was taken not to favour any of the perceptions or motives that were occurring, and emphasis was placed on presenting full array of findings, including findings that differed from the themes. As already mentioned, all respective findings from each apparel brand and MSIs were sent to the respondents for checking in order to ensure that interpretations were correct. This measure was also taken to assure that all respondents were fine with the information before being published, and as a way to confirm for which details that could be made publically available, such as brand names and respondents' names. This was done in order to respect the privacy of the respondents. These type of measures are in line with Creswell (2014) when it comes to the analysis of data.

3.5 Author's previous experience

With qualitative research the researcher automatically becomes a necessary instrument to convey the study and interpret findings. Given the interpretative characteristics of qualitative research, it becomes important to be transparent about the author's previous background, values, and past experiences that may shape how understandings are applied in the study. It is considered important to provide a reflection of potential biases the author brings to the conducted study (Creswell, 2014).

The author of this study has previous educational background in Textile Management from the Swedish School of Textiles, alongside previous work experience as an Assistant Buyer within the apparel industry. It should be noted that previous professional background has not been in any of the participating apparel brands in this study, nor has it been related to any of the selected MSIs. The representative from SAC within this study has been a lecturer in one of the courses in the educational programme. However, the course had no relation to the topic being studied in this thesis. Thus it does not create any conflicting interests.

Considering past experience, and current undertaking of a Master Programme in Environmental Management and Policy, the author is not unbiased on this topic. The author believes in the importance of corporate engagement in sustainable practices and hopes for increased action by corporations. However, with previous experience and as a student of enrolled Master Programme, the author has an understanding of the corporate challenges it entails.

The author was aware of the personal beliefs throughout the study and made sure to question interpretations in order to avoid favouring any specific findings or portraying a specific picture. While complete objectivity is impossible, the author has acted in good faith.

3.6 Methodological reflection

Qualitative research has several limitations due to its interpretative characteristics and the nature of the research where depth rather than breadth is targeted. Thereof qualitative approaches are often criticised for being too subjective and difficult to replicate. Critique is also placed on the problems with generalisability and a lack of transparency of applied measures and processes by qualitative researchers about decisions made along the study period and how findings were arrived at (Bryman & Bell, 2011). Considering the qualitative approach of this study, there was no aim to generalise the findings to the entire population (apparel brands), instead focus was rather placed on comparing the knowledge gained with existing literature, deepen the knowledge of the case context, alongside enabling conceptual theory building. The below strategies were taken to increase the validity and reliability of the study, which are recommended by Creswell (2014) and Bryman and Bell (2011):

Validity strategies:

- Transcripts and findings from conducted interviews were sent out to each specific respondent to ensure that the correct interpretations had been made.
- Focus was placed on providing thick descriptions of findings, in order to assure depth and level of detail for the increased understanding of the phenomenon.
- Emphasis was placed on presenting the full array of findings, including contrary findings to assure valid results.
- A reflection of the author's potential bias to the study has been provided in order to provide transparency and honesty.

Reliability strategies:

- Complete records are kept of the whole research process, including notes and interview transcripts in an organised and manageable manner.
- The applied methodology has been clearly described, where effort has been put on providing details and transparency as to how the study was conducted, how cases were selected and what the author did to arrive at the findings of the study.
- Interview questions are provided to ensure transparency; they can be found in Appendix 3 and 4.
- Sources are cited and included in the bibliography for reference.

4 Multi-stakeholder initiative characteristics

This chapter presents the characteristics of each of the addressed multi-stakeholder initiatives (MSIs) – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI) and Textile Exchange (TE). MSI findings related to SAC and STWI have been derived from semi-structured interviews with MSI representatives, and supplemented with primary data mainly from respective MSI website. TE findings have solely been derived from their website, which presents limits to the depth of findings. Emphasis has been placed on understanding the background of establishment, the workings of the arrangements, key learnings of each initiative and future outlooks and ambitions. Unless otherwise stated, presented findings are derived from the conducted interviews held with the academic representative of SAC and the director of STWI, except for TE which only includes website sources. The section starts with presenting the characteristics of the SAC, followed by the STWI and the TE.

4.1 Sustainable Apparel Coalition

The Sustainable Apparel Coalition (SAC) was established in 2009 and represents a partnership amongst a variety of global actors in the textile industry, including over 200 members comprising brands, manufacturers and other partners such as NGOs, industry associations, academia and governments (SAC, n.d.-a). The SAC focuses on establishing a standardised method for environmental and social impact assessments for the industry through the development of the Higg Index, which includes a set of tools and performance scores for apparel, textiles and footwear. The Higg Index aims to work as a benchmark for the sustainability performance of brands, manufacturing facilities and products, as well as enabling opportunities for sustainability improvements (SAC, n.d.-b). All member brands of the SAC commit to the goal of full transparency by 2020, presenting the phase when the Higg Index and the sustainability performance scores of participating brands will be made public (SAC, n.d.-c).

4.1.1 Background

The formation of SAC was initiated by Walmart and Patagonia when they came together to write a joint letter, asking CEOs of leading apparel brands to unite for the establishment of a common industry system for measuring sustainability. In the letter, envisioned benefits of a collective industry action included the opportunity to save resources by avoiding numerous individual efforts to be developed, build consumer trust for sustainability claims through a standardised system, and the ability to shape policy and create industry standards for measuring sustainability, before any governmental action. The initiating step of Walmart and Patagonia has been referred as a bold move, without knowing the reactions of competing brands and whether they would be open to share their upstream supply chain with their competitors, and ultimately with the public. However, the proposition gained interest, and during 2010-2011 initial brands joined to begin the collaborative work on the Higg Index and the official formation of SAC (SAC, n.d.-d).

4.1.2 The development of the Higg Index tools

One of the guiding principles of the SAC has been to build on already developed efforts. The initial work of the Higg Index meant applying an already existing "Eco-index" initiated by the Outdoor Industry Association, and the application of Nike's material index (SAC, n.d.-d). Since then, the development of the Higg Index and the tools established have gone through several phases of improvements and continue to be a work-in-progress.

To drive the development of the Higg Index and its tools forward, members of the SAC work in different task teams based on their own preference. Member brands can become active in teams connected to specific parts of the Higg Index, for example the Material Sustainability Index or Facilities Environment Module (see Figure 4-1.). Member brands can also choose how involved they would like to be and to what extent they wish to shape the Higg Index and its tools, by participating in any of the member team levels presented below.

- **The Core Team:** This team includes member brands that are most involved in the development of the Higg Index and its tools. They drive the development, and have the possibility to decide and align standards collectively with participating brands involved in the same module. The Core Teams for every module consist of around eight brand representatives. These brand representatives are often employed by their brands specifically for the purpose of developing the Higg Index tools.
- **The Extended Team:** These member brands are testing and evaluating tools suggested by the Core Team and providing feedback. This group also involves additional members such as academia, NGOs and governmental agencies who respectively are giving their input and expertise for the evaluation of Higg Index tools suggested by the Core Team.
- **The Reference Team:** Member brands within this group have no intention to influence the development of the Higg Index tools. They often test the tools for their own purpose and might only apply some of the tools. Members within this team may further choose to participate in this group to learn more about the SAC and the Higg Index, while also benefitting from the access to the network and SAC dialogue, that often includes relevant industry updates such as updates about relevant laws and regulations affecting the industry.

4.1.3 The Higg Index tools

The Higg Index constitutes a set of different tools that aim to mirror the stages of the textile supply chain of brands and provide a standardised index score for their environmental and social performance. The Higg Index tools work as a self-assessment scheme for the industry, where brands and suppliers fill in their data, which is a combination of qualitative and quantitative information. Verification of data are made by brands and by SAC through audits in factories. The tools are developed around three main modules: Higg product tools, Higg facility tools, and Higg brand tools. The tools are partly based on life cycle assessments (LCA)[6] in order to provide a holistic perspective of environmental impacts, in addition to adopted environmental and social indicators of performance. The Higg Index tools are presented in Figure 4-1. and further explained in section below.

[6] Life cycle assessment (LCA) is a tool within environmental management to evaluate environmental impacts of, for example a product or service, usually accounting for the whole life cycle aspect. More can be read about the principles of LCA in Zbinski, Stavenuiter, Kozlowska and van de Coevering (2006), and with application to the apparel and textile context in Roos, Zamani, Peters and Svanström (2017).

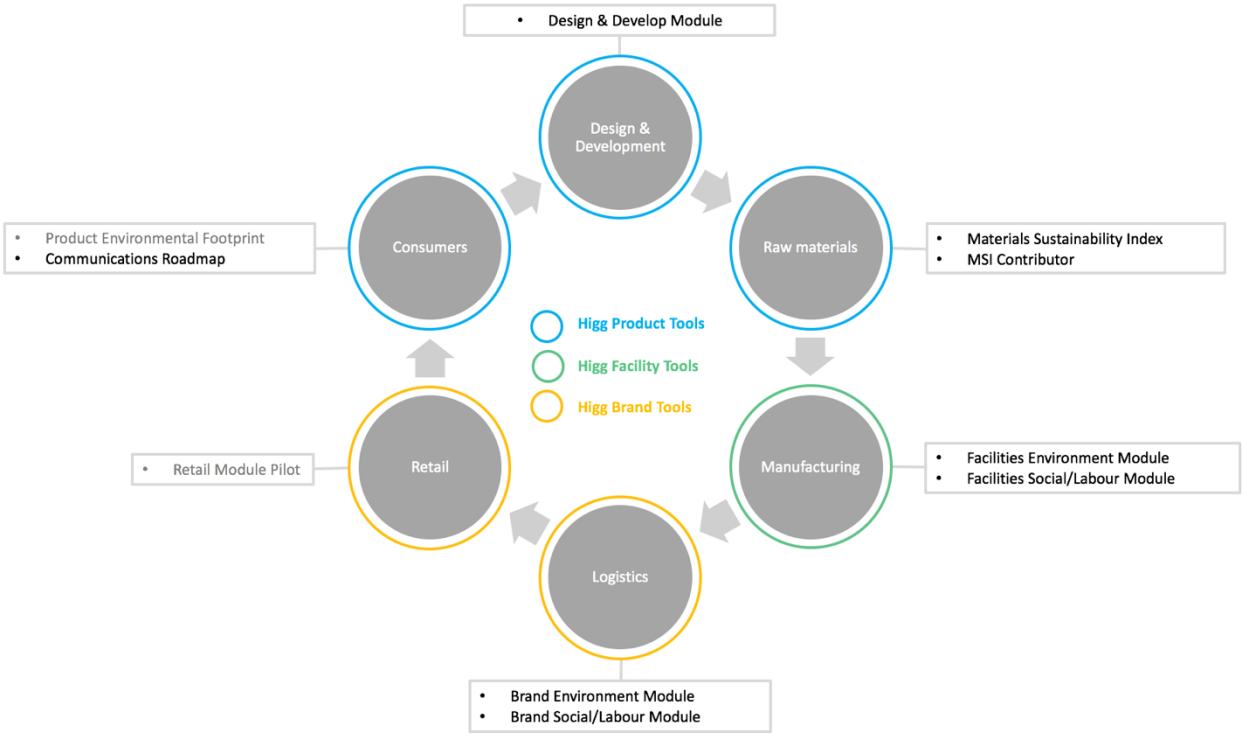

Figure 4-1. Overview of Higg Index tools

Source: Adapted from SAC (2016)

Higg Index Product Tools

Raw Materials:

- *Materials Sustainability Index:* Constitutes a material library and provides a tool that scores the result of materials' environmental impact based on life cycle assessment (LCA) data from cradle-to-gate, accounting for the impacts from extraction/production of raw materials, through to the manufacture and finishing of the material. It accounts for the impacts just before the material is ready to be assembled into a complete product. The tool aims to provide designers with a basis for creating more sustainable apparel (SAC, 2016; SAC, n.d-e).
- *MSI Contributor:* A tool that enables material production data to be submitted from members for review and as a basis for the continual development of the scoring of different materials' impacts (SAC, 2016).

Design & Development:

- *Design & Development Module:* A preliminary tool that addresses design aspects of products. In the future this tool will be merged with the Product Environmental Footprint tool (introduced below). It will then be based on the whole LCA of products, including manufacturing, consumer use, and end of use. The tool aims to be used early in the design process and enable designers and developers make informed decisions regarding different design scenarios and their environmental impacts (SAC, 2016).

Consumers:

- *Product Environmental Footprint:* An upcoming tool that will constitute the Design & Development Module and become the foundation for the external communication to consumers of environmental impacts of products. Adopting a full product life cycle approach, the tool aims to enable member brands to measure environmental impacts through LCAs in a time-saving manner, and share those outcomes with consumers through a labeling scheme. This module is partly developed through a pilot project with the European Commission's Single Market for Green Products Initiative[7] (SAC, n.d-f).
- *Communications Roadmap:* Communication toolkits that are under development to support members as they become more transparent. They aim to provide guidance for score publication and assistance with communication of environmental and social impacts to consumers.

Higg Index Facility Tools

Manufacturing:

- *Facilities Environment Module (FEM):* This module addresses the production stages of textile supply chains by measuring the environmental performance of individual factories, and aims to be applicable for any supplier tier. It includes the following indicators: environmental management systems, energy use, greenhouse gas emissions, water use, wastewater, emissions to air, waste management, and chemical use and management. The tool aims to provide a base for member brands and manufacturers to get insight and work for environmental improvements (SAC, n.d.-g).
- *Facilities Social/Labour Module (FSLM):* A module focused on supporting safety and fairness of social and labour conditions in globally spread factories. Its purpose is to enable a measurement tool of social impacts, and address the effectiveness of social management programmes (SAC, n.d.-g).

Higg Index Brand and Retail Tools

Logistics:

- *Brand Environment Module:* Intends to support brands and retailers to address their environmental management policies and practices. It includes the following focus areas: material sourcing, product design, manufacturing, packaging, distribution, care and repair, and end-of-use programmes (SAC, n.d.-h).
- *Brand Social/Labour Module:* Aims to support brands and retailers to address their social impact and corporate policies both internally and externally in supply chains. It includes the following focus areas: internal workplace standards, performance, monitoring and continuous improvement of social and labour performance management in supply chains, community engagement, and transparency with stakeholders (SAC, n.d.-h).

[7] http://ec.europa.eu/environment/eussd/smgp/index.htm

Retail:

- *Retail Module Pilot:* An upcoming module under development that intends to enable performance scores of retailers to be measured and benchmarked against other retailers. It will also become possible for retailers to share their scores with other members as a way to create partnerships and sharing of learnings (SAC, n.d.-i).

4.1.4 Members, their role and arrangement structure

The SAC constitutes a variety of stakeholders that are categorised into the following member groups:

- Corporate (e.g. brands, retailers, suppliers, recyclers)
- Affiliate (e.g. trade associations, certifiers)
- NGO, Academic and Government (e.g. non-profits, non-governmental organisations universities, governments, government agencies)

As indicated previously under 4.2.2, all partners have their role within SAC and collaborate/provide their input for the industry based on their expertise and perspective for the development of the Higg Index. Academic partners are expected to have a neutral role in all task teams. In other words, not to take any specific side of the industry partners within SAC. NGOs and governmental organisations alike, provide their inputs based on their specific expertise and perspective. The final decision about the Higg Index tools, after receiving all inputs from various members within involved task teams is by large taken by the Core Team of brands driving the development of Higg Index (as introduced in section 4.1.2). All member partners furthermore have the eligibility to sit on Board of Directors with voting rights for critical SAC decisions.

Membership fees are based on annual revenue for Corporate and Affiliate members, while NGOs and academics have a smaller annual fees and governments and governmental agencies have their membership for free. Brands and retailers with a revenue less than 500 million USD can access the Higg Index tools without becoming a complete SAC member, while non-member suppliers may also access the Higg Index by paying a considerably smaller annual fee (SAC, n.d.-j).

4.1.5 Key learnings

Developing a single measure of sustainability for the industry with the industry is a challenging task. The SAC needs to balance various member demands, make tools manageable and relatively user-friendly, but still sophisticated enough to capture various environmental and social impacts in supply chains. The whole procedure involves aligning industry towards a common standard, and the process of developing Higg Index tools includes the input of various members within the SAC, which has its implications. One aspect is that the more parties that are involved in the development by providing their input, the longer process it involves. Furthermore, member brands have varying sustainability ambitions which affects the outcome of the Higg Index tools and ultimately how they are shaped. One example of this included the decision about transparency in supply chains, where some member brands pushed for transparency to at least tier four in the supply chain, while others wanted full transparency to tier one. Another example was when durability of apparel was to be decided, referring to the quality aspects of garments and how long they should be designed to last. Different opinions about this were put forth: some brands aimed for a garment durability of five years, while other brands wanted less than two years as it opposed their business model. In the end,

the question about durability was decided not to be given any Higg Index score, instead garment durability was developed as a recommendation within the Higg Index suite of tools.

4.1.6 Future outlooks

The 2020 vision of SAC is for the Higg Index to become a globally trusted industry standard for measuring and improving sustainability, to offer full transparency and accountability through products' life cycle, while also enable consumers to choose products based on trusted sustainability information. The SAC and the Higg Index is built on the assumption that the development of a common system and the increased access to data about sustainability performance is going to result in more sustainable decisions by the industry. The transparency focus on sustainability performance is intended as a measure to avoid "greenwashing", in addition to advancements in sustainability.

If the vision will be realised and the assumption proven to be true, remains to be seen. At the moment, the Higg Index tools are not yet fully established. In addition, member brands adopt the Higg Index tools at varying levels. It also remains to be seen whether member brands continue to be members until 2020 when the Higg Index becomes transparent for the public, if they are going to strive towards yearly improvements of their impacts, and whether the Higg Index will benefit upstream actors.

Another focus area of the SAC is in the future to move away from supplier audits. The idea from start has been to create a common standard in order to reduce varying industry demands on suppliers, and the so called audit fatigue it has created. As a first move, the idea is to move away from the situation where each individual brand performs audits by their suppliers, as this is seen as an ineffective method, where a lot of attention is placed on finding problems, instead of solutions. A commonly developed standard, is believed to increase the effectiveness and the ability for factories to improve their sustainability performance. In the future, the effort is placed on replacing traditional audits with technical solutions, for example with the potential use of sensors in manufacturing facilities, and the possible adaption of blockchain technology.

4.2 Sweden Textile Water Initiative

Founded in 2010, the Sweden Textile Water initiative (STWI) is a partnership between 29 Nordic apparel and textile brands, and the Stockholm International Water Institute (SIWI) – a not-for-profit foundation focused at providing support for strengthening water governance. SIWI is a Swedish-based policy institute specialised in questions related to water in both national and global contexts (SIWI, n.d.). SIWI as the host organisation, together with all member brands, constitute STWI with the joint ambition to contribute to water management improvements in textile supply chains – focusing on water, chemicals and energy efficiencies (STWI, n.d.-a.; STWI, n.d.-b.)

4.2.1 Background

The reason for the establishment of STWI goes back to Renée Andersson, who at that time the sustainability manager for the Swedish retail brand Indiska. After years of concentrating on social issues and the development of code of conducts, addressing the water and chemical issues further upstream in the brand's textile supply chain became the next step. In an interview with Renée Andersson conducted by STWI (n.d.-c), she explains the journey on this matter, which led her to initiate a research project and educate herself in India on textile wet processes, in addition to Indian environmental laws and regulations. During the period 2006-2010, she approached the brand's suppliers in India trying to encourage them to choose subcontractors with more sophisticated water treatment plants. After individual attempts on the matter, came

the recognition that this was too complex, and that a joint industry effort was needed. Based on her previous experience of successful cooperation with other Swedish apparel brands concerning social issues in textile supply chains, the idea to do the same for this issue emerged. However, no one at Indiska had the necessary knowledge about water-related questions. This led Indiska to initiate contact with SIWI. SIWI in turn, welcomed the idea of a collaboration. This was also the first time a company had approached SIWI with this type of a request (STWI, n.d.-c). The next step included the process of inviting a large number of industry brands to join, presenting the early start of STWI.

4.2.2 The development of the arrangement

After several brands came on board, it was decided that they start a collective dialogue and learning process on the related questions, as no one had the specific expertise in the addressed challenges. The initial step included the collective development of common guidelines for an improved water use in the textile industry, which required a two-year period and five working groups with brand representatives, experts from SIWI, environmental organisations and universities.

Once STWI's common guidelines were established in 2012, member brands had the aspiration to continue the network of partners that had been established. The idea was to create a reliable platform where the exchange of knowledge would lead to a greater understanding of the water-related issues facing the textile industry, and additionally could provide measures to address them.

As a next step, three member brands – Indiska, KappAhl and Lindex – decided to apply for funding from the Swedish International Development Cooperation Agency (SIDA)[8] in order to initiate a pilot project and test the application of the developed guidelines with their suppliers in India. The results of the project were positive, which led to the effort to continue to work with projects and scale them to a global level. Apart from India, also China, Bangladesh, Turkey and Ethiopia became focus areas for STWI-projects. As a result, over 370 factories have been part of the projects between the period 2012-2017.

4.2.3 The workings of the projects

STWI-projects are built around the concept that member brands nominate their suppliers to engage in STWI-projects and make sure that the communication between brands' suppliers and STWI is established and maintained. The suppliers of relevance for STWI-projects include those who have wet processing stages in their factories[9]. Interested suppliers then undertake to cooperate with STWI for a 12-month period. Local technical consultants perform a baseline assessment of the factory on water-related aspects and look for improvement opportunities, which are then applied during the 12-month period. During this time STWI also arranges workshops and learning opportunities for factory managers and workers in the involved factories for increased water, chemical and energy efficiencies in textile production. After the project period, a final assessment is performed, checking parameters of improvements related to savings of water, reduction of chemicals and energy, investments made by factories, returns on investments, and cost savings made by factories. Involved member brands in STWI-

[8] SIDA is a Swedish government agency with the mission to reduce poverty in the world (Sida, n.d).

[9] Wet processes are production stages of textiles involving different manufacturing processes that include the use of water, chemicals and energy for the treatment of textile fibres and fabric. More information about wet processes and its stages and environmental concerns can be read about in Saxena, Raja and Arputharaj (2017).

projects then receive a report with achieved results, which can be used internally and/or in external communication.

4.2.4 The structure of the arrangement

The STWI is run around the cycle of activities that are planned and performed through a collectively established agenda by its members. All member brands are additionally part of the SIWI network, representing an international team of experts on water-related questions. SIWI, in turn, has a steering committee that is responsible for the continual development of the STWI, and participates when STWI-project results are presented. All member brands have equal status within the STWI and its activities and select representatives for the steering committee. Any decision that is taken within STWI is voted by its members.

Participating brands of the STWI have the option of being involved in projects by nominating their suppliers, or solely being a supporting member by joining the dialogue and meetings that are usually held five times per year. All participating brands pay an annual fee based on their revenues, while the involvement in projects constitutes additional fees for both brands and their suppliers. All STWI-projects have so far been co-funded by SIDA. There are no specific requirements to become a member brand of the STWI, the only requirement is to pay the member fee.

In member meetings, work-related focus areas are discussed, information about STWI-projects are provided, alongside updates about technical, political and legislative matters in relevant areas. Additionally, workshops are held based on the interest of member brands with guest speakers presenting relevant information that member brands find useful.

4.2.5 Key learnings

The specific focus of STWI on water-related issues in textile supply chains has proven to be a challenge, as only suppliers that have wet processing technologies have been of relevance for the STWI-projects. These are often sub-suppliers to brands' contractual first-tier supplier, if not vertically integrated factories[10]. As a result, it has been difficult to get suppliers on board for the STWI-projects. Apparel brands' relationship with suppliers is partly given as a reason, considering it has been uncommon to have this type of dialogue where apparel brands urge suppliers to improve their production processes. In order to move towards this type of dialogue, it is believed that trust-building needs to be improved in buyer-supplier relationships.

Moreover, there is an encountered difference between how active different member brands are within STWI, in terms of how much they invest in STWI projects. The difference is said to be dependent on the type of support brands have from their top management level, and what budget they have received for their sustainability-related work. The overall experience is that the willingness or priority of member brands to invest money in STWI projects has been limited. It is believed that the result of involving over 370 factories up until 2017, would not have been possible without the co-funding from SIDA.

Additionally, even though 370 factories have been involved in the projects during the five-year period, the outcome results are perceived as limited. There is hope that STWI contributes to a

[10] Vertically integrated factories, are factories that have the production set up to perform several stages of textile manufacturing stages (Kogg, 2009). In this context, including first tier suppliers who also have wet process manufacturing stages in their factories.

positive change for a more sustainable water, chemical and energy use in textile production processes, and that the initiative represents a starting point for an increased change. However, it is believed that in order for the outcome results to excel, brands need to prioritise financial investments in STWI projects.

4.2.6 Future outlooks

The last year of STWI has been uncertain, with regard to what direction the initiative should take and whether it should be continued. A new direction of the initiative has been discussed and under the progress during this period. It is recognised, that in order for the STWI to be sustained it needs to be scaled up and include not only Nordic but also international brands. In order for this to happen, a new way of working is needed. The STWI is therefore looking into a new platform-based service that would replace the current structure. The idea is that STWI would become an online-platform, built around a range of service offerings. It would further offer the ability for relevant actors to team up for STWI-projects, including suppliers, technical consultants and brands. Instead of membership meetings, this online-platform would be developed as a "pay-as-you-go", where different services could be purchased based on the specific needs. This structure would also enable suppliers to sign up without the need of having to have a member brand, which currently has been the situation. With this new potential approach, it is believed that STWI could support local technical consultants in producing countries, help factories improve their environmental performance, and assist international brands to address water-related issues in textile production processes. It is believed that the demand for this type of expertise and service will increase in the coming years.

Connected to the new international ambition, STWI has additionally become a member of the Sustainable Apparel Coalition (SAC). It is recognised that SAC is the only forum that gathers as much as possible of the textile industry, and therefore becomes beneficial platform to look for trends, get insights into what other members are doing, meet all brands and join the textile industry dialogue in Europe and North America. Moreover, as an active member of the SAC it is believed that STWI can help to develop SAC and the Higg Index based on relevant expertise on water-related industry questions. STWI further sees the opportunity of incorporating the Higg Index into their own practices when improving suppliers' factory performance, by adopting Higg Index scoring to different textile water process improvements.

In addition to this, the STWI has been approached by the SAC to become a participant of a new industry initiative named Apparel Impacts Institute, at the moment including five other global initiatives, some of which include the Better Mill Initiative, Partnership for Cleaner Textile, and the International Finance Corporation from the World Bank Group specialised in textiles. The STWI sees the participation in this newly established initiative as an opportunity to increase the outcome results. Instead of 370 mills that have been included in STWI-projects so far, it is recognised that the ambition of 1000 factories per year needs to be realised to achieve a greater impact. However, the belief is that no single initiative can reach those numbers separately, and instead collaboration with other similar initiatives is needed. STWI sees collaborations as important when it comes to sustainability work within the textile industry. Many have started to work separately during the years, but it is recognised that, in order to advance impacts, collective global initiatives are needed as the textile industry problems are too big and challenging to be solved by any individual initiative.

4.3 Textile Exchange

Originally established as Organic Exchange in 2002, Textile Exchange (TE) has become a global non-profit organisation that together with its members, focuses on advancing the

development of more sustainable fibres and materials, integrity and standards, and responsible textile supply chains. The TE works as a platform to provide advice on best practices related to farming, materials, processing, traceability and end-of-life of products, for the purpose to reduce the textile industry's environmental impact related to water, soil, and air. The TE comprises of nearly 300 international member companies and organisations (TE, n.d.-a).

4.3.1 Background

Based on TE's original establishment as the Organic Exchange its focus from start was solely on organic cotton, providing the first organic cotton certification within the textile industry. From 2010, it then expanded its focus to include additional fibres to provide a broader material assortment for brands and retailers. Since the start, one of the central focuses of TE has been to develop material standards for the industry that provide both more ecologically and socially sound options. Today there are five different standards developed: The Organic Content Standard, the Recycled Claim Standard, the Global Recycled Standard, the Responsible Down Standard, and the Responsible Wool Standard (TE, n.d.-a).

4.3.2 Focus areas of the arrangement

TE is built around three core areas (1) Fibre and Materials, (2) Integrity and Standards, and (3) Responsible Supply Chain. It focuses on providing the knowledge and tools for the textile industry to enable more environmentally friendly choices for the core areas of focus (TE, n.d.-b). In the below section the focus areas are described.

Fibre and Materials

- **Material focuses:** TE focuses on a set of different materials, called "preferred materials", representing materials that are ecologically and socially more sound options. The material focuses include: Organic cotton, recycled polyester, biosynthetics, preferred man-made cellulosic fibres, preferred down, and preferred wool (TE, n.d.-c).

- **Preferred Fiber & Material Round Tables:** Based on the majority of the material focus areas, global stakeholder platforms are held annually to invite stakeholders to discussions and the development of the addressed materials. The Round Tables are commonly driven by established Working Groups, which includes group of members who collectively work on a specific area which they are driving, for example it can include the creation of a new material standard, for example Responsible Leather Initiative. The members in the Working Groups also often fund the projects. Furthermore, global stakeholder platforms are said to be open and inclusive to all with a shared interest in the topic. The TE furthermore, with connection to their Round Table platforms create an Innovation Lab for entrepreneurs to come up with new ideas (TE, n.d.-d).

- **The Preferred Fiber & Materials Benchmark:** Aims to provide support for member brands to incorporate more sustainable fibres and materials strategies into their business operations. It builds on self-assessment process of purchased annual fibres and materials by the industry. The collected information is then used to create a benchmark report to demonstrate the efforts by the industry, to enable comparison and progress within the textile industry, alongside the opportunity for transparent communication of member's performance to their stakeholders (TE, n.d.-e). Member brands may also commit to different material goals, which are also presented and communicated. For example, there is a Recycled Polyester Commitment where 59

brands have committed to increase their use of Recycled Polyester by at least 25 percent by 2020 (TE, n.d.-f).

- **Organic Cotton Sustainability Assessment Tool:** Enables a framework for assessing environmental, economic and social impacts of organic cotton agriculture. The tool also includes different impact assessment data on different sustainability themes (TE, n.d.-g).

Integrity and Standards

Constitutes a platform that includes an overview of TE standards, with all relevant documents, such as about the material standard itself, implementation manuals, scope certificates, and transaction certificates among others. In addition, an overview of certified manufacturers is provided, specifying which standard they are certified by. TE is the administrator for all the standards established, providing the guidance and revision of them. The entity such as the manufacturer providing a certain material standard is further third-party verified (TE, n.d.-h).

Responsible Supply Chain

TE is providing a consulting service to support brands to map out their textile supply chains from raw materials to final garment assembly, where TE focuses on providing tools for sourcing more sustainable materials and providing support in verification of those materials, alongside informing about best practices for supply chain management strategies (TE, n.d-i).

4.3.3 Membership and provided support

Members of the TE get access to experts working in the field of materials providing technical knowledge, networking opportunities, individual consulting service, material standards and support, and the access to industry reports and developed tools. What can be read from TE's website is that there are different member levels, categorised as: Friend, Supporter, Brand/Retailer, and Supply Network Partner with different yearly membership fees (TE, n.d.-k).

Overall, TE focuses on providing support and expertise for its members to enable informed decisions about more sustainable textile materials and assisting how sustainability features can be communicated towards consumers (TE, n.d.-l). Their support is at large built around industry needs. For example, in 2016 TE received the request from its members to better understand and address GMO contamination in organic cotton. Based on this request, the TE developed a member brief, webinar and a report to provide knowledge and understanding of the issue addressed. In addition, the TE also establishes various market reports on their material focus areas, reporting in global production, consumption, trends, alongside challenges and opportunities (TE, n.d.-l).

Members can also become involved in different Working Groups which involves collaborating with others on a specific task, for example a Working Group addressing Carbon In-setting in supply chains, which focuses on developing knowledge for the potential of brands' investment in their supply chain to reward sustainable behaviour, or within any of the material working groups (TE, n.d.-m).

Based from TE's website it can be understood that TE collaborates with other industry initiatives, and is part of the Sustainable Apparel Coalition (SAC) as well. TE also includes other initiatives within its members, including SAC and Better Cotton Initiative.

4.3.4 Collaboration and Aims of the Textile Exchange

What can be understood about TE's approach is that they focus on establishing partnerships and collaborations with actors within textile supply chains, and focus on collective impact, as a way to create leverage and action (TE, n.d.-a).

The TE's goals that are mentioned on their website are the following (TE, n.d.-a):

- "Embed sustainability into evolving business and supply chain strategies";
- "Make it easier for companies to adapt to changing opportunities and requirements in textile sustainability";
- "Ensure that actions taken toward sustainability result in real and meaningful change"

5 Apparel brands' perceptions of Multi-stakeholder initiatives

This chapter presents the findings of interviewed apparel brands' perceptions of multi-stakeholder initiatives (MSIs) with the focus to understand their role in brands' sustainable supply chain management (SSCM). The chapter starts with brands' perceptions of the selected MSIs – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI) and Textile Exchange (TE). Emphasis was placed on motives for participation, experiences of the initiative and benefits presented as members. The chapter ends with general perceptions of MSIs in order to deepen the understanding of their role in brands' SSCM. All findings are derived from conducted semi-structured interviews with participating apparel brands. For each initiative the member and non-member brands are identified.

5.1 Apparel brands' perception of the Sustainable Apparel Coalition

Member brands in the Sustainable Apparel Coalition (SAC) included three brands: *Brand A, B* and *C*. Non-member brands included six brands: *Brand D, E, F, G, H,* and *I*. The views of non-member brands are presented under a separate heading (5.1.6).

5.1.1 Motives for participation

The overall reason why interviewed apparel brands participate in the Sustainable Apparel Coalition (SAC) was driven by the aspiration to align industry requirements towards a common standard. *Brand A* as one of the early members of SAC, explained that the motivation behind the initial establishment of SAC has been based on the realisation that every brand within the textile industry sets their own individual requirements on suppliers. In addition, some use third-parties while others perform individual visits to follow up their code of conducts with suppliers and factories. *Brand A* further shared that the consequence of this is the experienced audit fatigue, creating a workload and frustration for suppliers, since most brands are asking for the same requirements just in different manners and according to different processes. Based on this, *Brand A* explained that SAC is about aligning industry supply chain requirements, ease the work for suppliers and about the development of a common language to be used throughout all supply chain actors. Similarly, *Brand B* explained that they are participating in SAC to support the creation of a common standard for the industry, so that all brands set and communicate the same requirements and use the same tools, in order to ease the work for suppliers but also consumers who would like to make informed purchase decisions. When asked about why *Brand C* chose to participate in SAC, they shared that they only have been members for a few weeks, and that it has been a long decision-making process of whether or not to join the initiative, taking over about a year and a half. *Brand C* explained that the reason for the uncertainty, has been connected to their own progress of their sustainability work where they felt that they have been making good progress and that they have a good strategy for the way forward. Yet, what created the interest for participation was the opportunity to collaborate with some of the world's leading brands to address sustainability issues. This was based on *Brand C's* realisation that the work progress related to social conditions in factories has been somewhat slow in the last couple of years, and that by participating in SAC a greater change can be perhaps achieved with the industry partners included.

5.1.2 Activities within the arrangement

The overall activities performed by interviewed brands within the SAC has varied during different time periods, and even though *Brand C* has just become an official member they have been participating in the SAC network prior to their membership. Since *Brand A* was one of the first member brands of the SAC, the initial activities included to form the arrangement and

invite brands and suppliers to join SAC. Since then, as the arrangement progressed into the establishment of various task teams, *Brand A* has been involved in almost all task teams where they have their staff experts on supply chains – working on developing the Higg Index tools. *Brand A* is also currently in the steering committee, in hope to influence the initiative in the right direction. For *Brand A* it is important to influence both the initiative and the industry on all different levels connected to their strategy of driving the change for sustainability for the industry. *Brand B* has previously been part of the Core Team (see 4.1.2 for team specifications) in Design & Development module, where the brand's designers have been involved in the process of developing the Higg Index tools. Apart from that, they have also provided feedback on the tools connected to the Higg brand module. As of now, they have chosen to be in the Reference Team as they are happy to use the tools as they are. However, the decision was also based on the workload that it requires to be involved in different SAC projects. *Brand B* shared that the more they are involved the more time they have to put into the projects, which easily becomes too much of a workload for their small brand team. *Brand C* indicated that they have decided to be part of the Core Team working within the Higg brand module related to both the environmental and social aspects of the tools (Brand Environment Module & Brand Social/Labour Module), and that they are in the process of organising SAC-related work internally. *Brand C* shared that taking on this role within SAC and being part of the team working on developing Higg Index tools presents benefits of the increased access to the network of actors involved and increased access to knowledge.

5.1.3 Practical application of the Higg Index tools

There is a variation to what extent interviewed apparel brands use the Higg Index tools, and how far brands have come in adapting their own internal work processes to the Higg Index. *Brand A* has implemented the Higg Index tools connected to all three modules (Higg product module, Higg brand module, and Higg facility module). They further have in-house developers and trainers certified by SAC to follow the work with SAC and support with trainings for internal staff and suppliers concerning Higg Index-related matters. When asked about the Higg facility module, and how willing suppliers were to adapt to the Higg Index, *Brand A* shared that it was initially a challenge, as any change of work is challenging. However, since more brands were asking for this by their suppliers, it became easier as at least the big suppliers realised that it was not only for *Brand A* but potentially for the whole industry. *Brand A* have also come to make the the Higg facility module compulsory for all their suppliers and use the tool as the main factory assessment tool. *Brand B* has started to use the Higg facility module with some of their suppliers, with the aim to introduce it to all their central suppliers. They further aim to use the Higg facility module as either a complimentary assessment mechanism in their supply chain management or as a way to replace audits. They also adopt additional modules, and indicated that the Higg product module contributes with fact-based information about different material choices, and allows an assessment of the sustainability performance of various materials through their Higg Index score. The Higg brand module helps them identify focus areas for sustainability improvements. Considering the short period *Brand C* has been members of the SAC, they plan to apply the Retail Module under Higg brand tools which includes the pilot test under two years, before the final tool is going to be established. They have further started to apply the Higg facility module.

5.1.4 Benefits and challenges of the membership

Being part of a large industry initiative as the SAC presents both benefits and challenges for the participating apparel brands interviewed. *Brand B* believes that the benefits of being participants of SAC is that it gives them the access to the tools of the future, that will enable a common sustainability language within the textile industry. The fact that a big portion of the

industry tries to agree on the tools to be used, is by *Brand B* seen as a meaningful step and something they hope will benefit both suppliers and customers. Another benefit put forth by *Brand B* is the involvement of many experts within SAC, focusing on taking a holistic action with regards to the whole textile industry. However, both *Brand B* and *Brand A* indicated that one of the main challenges of the SAC is the slow progress. The development of Higg Index tools involves the input from a variety of stakeholders, presenting challenges of how and whom the final decisions about the Higg Index is taken. However, *Brand B* also indicated that the slow progress is also connected to the realisation of the complexity when it comes to developing these type of tools that are supposed to assess sustainability aspects for a whole industry, as there are many parameters to consider. *Brand A* additionally described that it is challenging to reach agreement since the requirements and demands from various members differ. *Brand A* shared that they have a high ambition level when it comes to sustainability, but find it challenging to find other partners that have the same aspiration. Sometimes *Brand A* wants to do more, for example connected to circularity and renewable energy for the industry, but other brands may not be ready for that and rather want to focus on other areas. Since *Brand C* has had limited experience of being a participant of the SAC, they reflected that a potential challenge could be that the focus areas may not always be relevant for them or that they have come further in their sustainability work. This was based on their previous experience of participating in networks based in Europe and the US, and as in line with *Brand A* indicated the difference of sustainability ambition between international brands. However, *Brand C* also shared that if the collective agreement within SAC concerning what requirements the Higg Index tools include would not meet the ambition *Brand C* is striving for, they shared that they always have the opportunity to add higher ambition level as an addition in their own sustainability work/efforts.

5.1.5 Future expectations

The hopes for the interviewed SAC members is that the initiative will continue to be built on and developed in order to achieve the transparency goal of the SAC. *Brand A* hoped that the initiative will result in a system which allows sustainability communication on product level in a way that customers can understand, and allow comparison of sustainability performance between different brands. *Brand C* further shared that they hope that the Higg Index becomes an established way of working within the industry, and the hope for sustainability work to be progressed at a faster pace, since it is the results of improvements that are wanted and needed. *Brand B* added that SAC will need to take measures and work hard to achieve what they set to be achieved, and therefore hoped that SAC will establish all of the tools so that they can be implemented in brands' processes.

5.1.6 The perspectives of non-members

Most of the non-member brands interviewed mentioned that they have been in contact with SAC and that they have chosen to follow the development, as they might be interested of becoming members in the future. The main reason for not becoming members was connected to the needed resources a membership would require, both in terms of work and time, but also financial resources. Most brands expressed the membership of SAC to be expensive. Some brands also mentioned that they want to wait for the SAC to progress in order to be able to more easily assess the potential benefits of a membership. Another perspective raised by *Brand D* and *Brand E* was that Higg Index tools are not fully relevant for all of their product categories. Another perspective raised by one brand regarded the setup of the SAC, referring to it as creating a monopoly: a brand becomes dependent of SAC in order to be able to use the Higg Index. The perceived risk was that SAC may increase the member fee, which was already perceived as high. The opinion was rather that the more developed SAC becomes and

the more members that participate, the member fees should become lower. This brand further shared that they do not like becoming dependent on others but rather want to be able to do the work themselves. Other concerns raised by another brand was that it would be a challenge for them to get suppliers involved, both due to language problems if the Higg Index tools are not adapted to the local language of suppliers, but also regarding financial aspects. This was based on their suppliers being based in regions that experience economic problems and that because of this the willingness of suppliers to invest in things which they may not feel as necessary will be hard to drive for a brand like them.

5.2 Apparel brands' perception of the Sweden Textile Water Initiative

Member brands within the Sweden Textile Water Initiative (STWI) included: *Brand A, B, C, D, E, F, G, H*. Non-member brand included: *Brand I*. Non-member brand's perception of the STWI is provided under 5.2.5.

5.2.1 Motives for participation

The majority of the interviewed member brands have been participants of the STWI since the early establishment in 2010. Many of the initial member brands indicated that they did not know what the initial formation of STWI would entail, but that the significance to address water-related questions in textile production processes created the interest in participating. *Brand D* shared that they saw the opportunity to learn more about the questions and how they could address them as a company, since they had no previous experience in the field. Similarly, *Brand F* mentioned that they were curious to learn more, and because they wanted to place more focus on environmental questions, the initiative became relevant for them. *Brand G*, in turn, saw their participation as an opportunity to formalise that they as a brand take care in water-related concerns connected to their industry.

In addition, *Brand C* reported that the membership in STWI was one of the first industry initiatives they became participants of. However, the idea of collaborating with other brands was not new to them, as they had previously jointly developed garment sizes with two other Swedish apparel brands. Based on *Brand C's* previous experience of working together with other brands, they were positive to the idea of addressing issues collaboratively through the STWI. Similarly, *Brand H* shared a story of former collaboration experience with other brands through their participation in the Business Social Compliance Initiative (BSCI) when working on developing social code of conducts, which led them to realise early the value of collaboration and therefore be optimistic to their participation in STWI.

For *Brand A* the participation in STWI presented the opportunity to bring resource efficiency into their supply chain that would benefit their suppliers to save water, energy and chemicals. The value of the initiative with its practical approach and global scope was another reason brought up by both *Brand A* and *Brand E*. *Brand E,* who became members in 2012, indicated that the clear focus of the initiative was compelling and that it presented something they themselves could apply and influence. They furthermore liked the closeness to the initiative with its base in Sweden. Additionally, *Brand B* became a member in 2014 with the hope to address water-related challenges effectively in their supply chain, since they had no previous focus on these questions prior to their participation.

5.2.2 Activities and experiences with Sweden Textile Water Initiative projects

The initial participating apparel brands in the STWI indicated that the starting point of the initiative aimed at creating a learning process for those involved brands. This included learning

about water-related questions in textile production processes, what these challenges meant for the industry, and the ambition to gain insights into the situation of brands' suppliers related to addressed questions. All initial brands therefore indicated that they were active in established working teams on relevant areas in the process of creating common guidelines of how resource efficiencies could be created in textile wet processes. This also included the process of asking suppliers for specific information and visits in factories.

When asked about the experience of implementing these guidelines in supplier factories, interviewed brands mentioned that once the Swedish International Development Agency (SIDA) became a co-financer with the introduction of STWI-projects, it became easier to implement the guidelines. This was due to several reasons, one of them being the reduced costs for both suppliers and brands for participating in the projects, the other being the recruitment of local technical consultants that followed up the work in participating supplier factories. Brands then became responsible for nominating suppliers, rather than following up the work of the guidelines with their suppliers. *Brand F* shared that the transition to the setup of STWI-projects presented benefits, as they found it challenging to follow up the work themselves as it required technical knowledge of production processes to do so.

However, even though it became easier for brands to enroll suppliers to STWI-projects, interviewed apparel brands shared experiences of difficulties of gaining supplier interest in the projects. It required them to motivate and convince suppliers to participate. Interviewed apparel brands reported that suppliers were hesitant to the idea, since it required suppliers to both invest money and time in the projects. Both *Brand E* and *Brand F* explained that once results of cost reductions and saved resources could be demonstrated, it helped the process to motivate suppliers. However, experienced difficulties also depended on the location of suppliers and the type of factories involved. Interviewed apparel brands described that greater success was achieved with suppliers in India and Bangladesh, while China was overall difficult, explained by cultural differences and overall closed structure. It was further easier with suppliers that had vertical factories, as otherwise the relevant factories that had wet processes were not apparel brands' contractual supplier, but a sub-supplier. This sub-supplier could be large and brands indicated that due to their small order of fabric quantities placed they experienced difficulties to influence the supplier to become participant of the project. One way to address this issue was to see whether brands had same suppliers to increase the potential of influence, but that was not always the case.

Brand H illustrated the challenges with STWI-projects by contrasting it with the Better Cotton Initiative (BCI), which they also are members of. They shared that the BCI includes the whole industry working to improve the cotton cultivation, where a whole system is developed throughout the supply chain, therefore not involving any work directed towards specific suppliers. *Brand H* further shared that when it comes to STWI-projects, it requires the work with individual units which requires resources and presents limited impact many times, because as indicated above, it involves the sub-supplier of their contractual supplier, where *Brand H* often only has a small fabric order quantity placed, which then has consequences of the ability to motivate and influence.

5.2.3 Perspectives of results achieved

Smaller member brands of the STWI reported that they have tried to contribute as much as possible within STWI, but indicated that larger brands with more resources, and oftentimes more knowledge have achieved greater results and been able to put more effort into STWI. The amount of factories involved in STWI-projects varied between members. For example, *Brand H* reported that they were able to enroll three factories, *Brand E* two factories, *Brand F*

seven factories, while *Brand A* have had nearly hundreds of participating suppliers. Interviewed brands mentioned overall that projects with factories resulted in increased resource efficiencies and cost savings for suppliers. Some brands reported that some of their suppliers involved in the project had been participating for the full three years in the project. *Brand H* reported they had the best results with suppliers that showed interest in the projects, and one of their participating supplier became nominated because of their good results achieved. *Brand C* described that the results achieved by factories overall varied, and that some suppliers put in more effort than others. When asked whether brands had followed up the work with their suppliers after the STWI-projects to see whether suppliers continued to improve their processes, some brands reported that they do that with their local presence in producing countries, where others said that they have not followed up the work.

Both *Brand B* and *Brand G* reported that they did not manage to get any suppliers enrolled into STWI-projects. For *Brand B* it was difficult to create the interest with suppliers, but it had also to do with the fact that the focus of producing countries of STWI-projects did not include the regions where *Brand B* had their most water-intensive production. *Brand B* expressed that based on their capacity they would have wanted to have a STWI-project where they would have the largest opportunity for improving the resource efficiencies, since the projects also require effort from their side. Additionally, *Brand G* reported that for them as a small brand it has been difficult to drive the projects, both considering time and effort but also due to financial resources required.

5.2.4 Benefits of the membership

When asked about the benefits the membership within STWI has presented for the interviewed apparel brands, all of the brands reported the positive aspects of the network of actors that has been created through STWI. It has worked as a platform for member brands to meet, exchange experiences, and get insights into how others are working with sustainability. Brands further reported the benefits of the access to knowledge about water-related questions in textile production processes, alongside the insights into relevant industry updates, and training for the tools developed. Another aspect highlighted was the contributed savings that their involved suppliers have been able to make through STWI-projects. *Brand F* additionally shared that STWI has contributed to get to know their suppliers better, while for *Brand C* another benefit has been to find partners for collaboration through STWI. *Brand D* also mentioned that the STWI has provided them with a broader picture in general, where they have gotten insights into how NGOs and authorities are working. They further shared that they have come further in their sustainability work through being members in STWI. Related to this, *Brand H* added that they would not have been able to develop the work and tools on their own. They further expressed that through collaboration with other brands and actors you become stronger, considering the resources that would have been needed to develop the tools and get this knowledge gathered, it would not be possible for a smaller company as *Brand H*. For *Brand G* the access to insights to different processes and techniques that could save resources in textile wet processes through the STWI, also contributed to practical application. It made them look for suppliers with a specific dye technique which enabled them to develop a lining product for their jackets, that significantly has been less resource intensive in water, energy and chemicals. Some members had also been part of the steering committee as a way to shape the initiative but also as a way to learn more, which provided them benefits for their own internal work.

5.2.5 Structure of the arrangement

When asked about the structure of the STWI, brands shared their experiences and further reflected about challenges with the STWI arrangement. After discussions with brands it was

indicated that with the ending of STWI-projects in 2017, also presenting end of financial support from SIDA, the direction of the initiative became unclear. *Brand E* described that the structure of STWI can easily become vulnerable, which has been a key challenge, considering aspects regarding the leadership and who holds STWI together, but also considering financial aspects. *Brand E* mentioned that when STWI became co-financed by SIDA it increased the motivation by member brands to work with STWI-projects, but with financial aspects uncertain it has affected how active members can be. Another aspect raised by *Brand E*, was the consequences of someone that has a lot of knowledge withdraws from the initiative. Related to uncertainty related to what direction STWI now should take. *Brand A* expressed the hope that STWI-projects and how they are run can become more efficient, where the programme can excel to include more factories. *Brand A* believes that STWI and the resource efficient work in factories needs to become self-sufficient in order to excel the work. *Brand A* also explained that when it comes to the programme of STWI creating more resource efficient production processes, they are of the belief that suppliers should pay for their participation, rather than funding or brands, since the suppliers are the beneficiaries as they receive training and improve their production processes. According to *Brand A*, if this step is not taken, then the risk is that suppliers will not take it seriously. In connection to this, *Brand C* also reported a general change of the approach generally taken with suppliers. They explained that previously it has been usual to take a supporting role as a brand, assist suppliers to improve their practices and follow up their work, but now, *Brand C* described that it is more common to require suppliers to assume responsibility for their factories and the improvements. The reason for the changed approach, *Brand C* explained, was due to the reason that suppliers would otherwise only do the improvements for *Brand C* and not for the total production.

Brand D further described that one challenge of STWI may be its voluntary structure, which relies on everyone's responsibility to contribute. As it is a voluntary initiative, the work related to STWI may risk to get deprioritised when there are other tasks to take care of internally in organisations. However, *Brand D* also raised that since the membership requires financial resources to be invested, they as a member brand, and the assumption that other member brands also, set goals to be achieved, since the money invested need to pay off by results achieved. Furthermore, based on the uncertainty with the STWI after the end of STWI-projects and SIDA stepping out, *Brand B* have recently taken the decision to step out of their membership in STWI. This decision was also based on difficulties with getting suppliers interested in participating, but also that the focus areas of producing countries did not include their regions with the most water-intensive production. Similarly, *Brand I* which is not a participant of the STWI shared that they were interested to become members, but have not became one due to the focus areas of STWI not including the countries where the majority of their suppliers are based.

5.2.6 Future expectations

Interviewed brands shared their hope for the STWI to continue. *Brand D* shared that they believe in building a platform so that all suppliers have the possibility to implement resource efficient solutions in their factories, and not only those suppliers who are large. However, *Brand D* indicated that a lot of work still remains, and that something needs to be developed soon, since *Brand D* as well as other brands need to report to their management teams what the membership money are invested in. *Brand F* hoped that the participation of suppliers in STWI will not become too expensive, as otherwise it will be difficult to involve suppliers. *Brand H* further hoped that STWI will be scaled up and that the economy for the initiative will be found. *Brand E* hoped that brands would continue to be members, and put in some time to make this work, reflecting that more time needs to be put in to motivate suppliers. For *Brand E* as a brand

of their size the STWI is the only project which they can afford to participate in that provides the opportunity to work as close with production-related questions.

5.3 Apparel brands' perception of the Textile Exchange

Participating brands within the Textile Exchange (TE) included: *Brand A, B, H* and *I*. Non-member brands included: *Brand C, D, E, F,* and *G*. Non-member brands' perceptions of TE are provided under an own heading (5.3.5).

5.3.1 Motives for participation

All interviewed member brands indicated they choose to participate within the Textile Exchange (TE) for the access to information and knowledge about textile materials and their sustainability impacts, but also as a way to get increased access to the different material standards developed by the TE. *Brand H* shared that by being a member they also support the TE's work on driving the development of sustainable materials. *Brand A* became one of the first members of the initiative, during 2004 when they started to buy organic cotton, explaining that TE was the first organisation that initiated a standard for organic cotton. Similarly, *Brand I* became members when they were in the process of wanting to increase their content of organic cotton in their products. By that time, they did not have the sufficient knowledge about organic cotton and certificates needed, so they considered the membership in TE as a way to gain more knowledge. Furthermore, they recognised TE as a good organisation if they were to do this seriously. *Brand B* indicated that because the material question is of such importance to them they chose to become members in order to gain access to TE's resources and their expertise.

5.3.2 Activities within the arrangement

Brand B, *Brand I* and *Brand H* reported that they are supporting members, with access to the knowledge and resources that TE provides, and that they attend their conferences and seminars. *Brand I* shared that they have started to take a more active role and want to become even more involved now when they have more time to do so, expressing that TE has a lot of expertise which they would like to take an increased part of. *Brand I* further shared that they together with another Swedish brand arranged a collective event for press and customers with focus on organic cotton, where they had one spokesperson from TE joining the event to talk about organic cotton, so they have taken steps to become more involved but also involve TE in their work. *Brand H* indicated that it requires a lot of resources being involved in the working groups within TE, but also that a certain competence is needed in order to be able to contribute to the work involved with creating material standards. Therefore, they have not felt they have had the resources to take part in the working groups. All brands furthermore participate in TE's Benchmark Report, where they fill in their material purchases every year, more specifically how many kg of different materials they purchase annually. *Brand A* has taken a more active role as they have been involved in some of the working groups to develop material standards. The involved work in TE working groups is directed towards defining a sustainable material, often focused on technical parameters. For example, *Brand A* initiated a sustainable wool standard which involved a lot of work with animal rights, and getting input from textile experts and animal activists. Overall, TE working groups involves developing standards that can be used by the industry.

5.3.3 Benefits and challenges of the membership

One of the main benefits that was raised by all brands was the access to the expertise on different materials that TE provides, but also the service offered by TE to support member brands in any of their related questions. For *Brand I* the membership helps to support their

sustainability work, as the membership provides them information on external developments and enables them to be updated on relevant matters. *Brand B* further mentioned that TE's fact based reports on materials help to support their decisions on material choices for their products. Another aspect brought up by *Brand H* was that it is easier to showcase that as an organisation you take responsibility, since you support the development and research of more sustainable materials, based on the rationale that without supporting member brands, the research TE conducts would not have been possible. *Brand H* further also mentioned that the standards developed by TE provide them assurance that what they buy actually is certified. Furthermore, interviewed apparel brands report the benefits of the Benchmark Report that TE produces, and they themselves also are part of. Based on *Brand B's* ambition to become the leaders in sustainability, it is of value for them to see how they position themselves against other industry actors when it comes to material choices. *Brand H* mentioned that they use the Benchmark Report when they set their internal goals for materials, but also to find a balance as they do not want to fall behind in the development but also not take the leading role in sustainable materials, as many of the materials are more expensive. This was explained based on the market conditions that are perceived as tough, where they as a brand need to meet customers on several levels, not only regarding sustainability aspects, but also in terms of fashion trends, price and quality. Based on this, it is a document of value, to get insights into what other industry actors have for goals. *Brand A* mentioned that the main benefit of TE is the standards that are developed.

Overall, there were no challenges raised by member brands of the membership in TE, apart from *Brand I* that raised one concern, the challenge with finding the time to become more involved, expressing the want to participate in the working groups of TE in order to learn more, but that it is difficult for a small brand that only has two employees working with sustainability questions.

5.3.4 Future expectations

Brand A, based on their circular goal for 2030, with the ambition to have all their materials either sustainably sourced or recycled, have the expectation to find sustainable options for their whole material portfolio, which consist of hundreds of different materials. Therefore, one of their expectations with the TE is to find sustainable options for the majority of the materials which they use in their products. Another expectation expressed by *Brand A* includes to manage the integrity of established standards and keep up with evolving technologies concerning traceability, meaning that the old way of certifying and keeping certificates in hard copies does not work. *Brand A* hopes that IT-systems will be developed, with the potential adoption of blockchain technology in the future. In all describing that material standards need to evolve and become more transparent and easily communicated with customers. *Brand B* hopes for the continual development of their Benchmark Report and other reports and tools considering materials. Another expressed hope was for TE to start working more towards circular material flows. *Brand H* further hopes to become more involved within TE, and maybe get involved in a working group to learn more about other materials and to stay up to date with relevant developments.

5.3.5 The perspectives of non-members

The majority of interviewed non-members indicated that they have been looking into TE membership and that their general perception of what TE provides is good. Some brands explained that the reason that they do not participate is because of the costs of becoming members, but also because of the required time needed to get involved in an additional initiative. Some brands mentioned that they may look into a potential membership depending

on whether they will need increased support when it comes to certifications or guidance for certain material choices.

5.4 General perceptions of multi-stakeholder initiatives and collaboration to address environmental challenges

This section includes additional findings to increase the understanding of MSIs and their role in interviewed brands' SSCM. The section focuses on providing general aspects of MSIs, how interviewed brands decide to become members of MSIs, and the role of collaboration to address environmental issues that are facing the apparel industry.

5.4.1 Perceived experiences of memberships within multi-stakeholder initiatives

Interviewed apparel brands indicated that the participation in multi-stakeholder initiatives (MSIs) overall helps to progress the sustainability work for their organisation. MSIs help to contribute with knowledge and various tools to address environmental issues, in addition to keeping them informed about relevant external developments, for example related to regulations. Addressing environmental issues of concern with regards to upstream parts of supply chains were connected to experienced complexities by the interviewed brands. One of the complexities related to environmental questions in general is that they are multifaceted, requiring brands to obtain information and knowledge in order to know how to address the specific environmental issues, but also in order to be able to assess what decisions are the most environmentally friendly. For example, *Brand B* highlighted the complexity related to environmental impacts of textile materials, bringing up that there are no clear answers of which materials are more environmentally friendly, as all materials have their specific impacts. Therefore, MSIs are often seen as contributing with expertise to enable more environmentally friendly decisions.

The majority of the brands also brought up that MSIs and the collaboration which they constitute are seen as necessary in order to improve the environmental performance of the industry. Related to this, was also the complexity or characteristics of apparel and textile supply chains constituting of multiple actors and the challenge to influence beyond tier-one of direct contractual suppliers. Therefore, the participation within MSIs is by the majority of the interviewed brands seen as an opportunity for increased influence. This was based on the perceived complexity connected to the characteristics of apparel supply chains, where the number of actors and the size of the apparel brand challenges the ability to control and influence environmental aspects in supply chains. For example, *Brand A* expressed that environmental impacts beyond tier-one suppliers are important to address as further upstream tiers generally include more environmentally demanding processes, intensive in water, chemicals and energy. Based on this, it was acknowledged that environmental challenges in upstream supply chains are issues facing not only *Brand A* but the whole industry. *Brand A* further mentioned that one of the largest challenges to address the environmental impacts in upstream parts of supply chains, is the ability for them to influence beyond contractual suppliers. One way of influencing beyond tier-one contractual suppliers, is to influence tier-one by putting requirements and demands, so that they in turn can influence their tiers. The second way to influence beyond tier-one suppliers is through collaboration within MSIs, as this presents larger potential for influence if several brands and/or actors put the same requirements, explained by *Brand A*.

Brand H, *Brand F* and *Brand I* further perceived the participation in MSIs to add value to stakeholders, as way of providing credibility of the support and participation in recognised

initiatives within the industry. The majority of the brands also brought up that MSIs and the collaboration which they constitute are seen as necessary in order to improve the environmental performance of the industry.

However, even though interviewed apparel brands perceived benefits of being members of several multi-stakeholder initiatives (MSIs), the majority reported that being members of several initiatives requires a lot of resources, both with regards to time and effort but also in terms of finances, making it challenging to participate. Another experience brought up by *Brand E* is that it is difficult for them to assess what various initiatives can provide in terms of benefits and results when evaluating memberships, and that they have experienced that many initiatives are adapted to big multi-national brands, making it difficult for smaller brands to participate. *Brand E* indicated that they overall prefer initiatives that can increase the internal competence, so that the work can be performed internally within the organisation, and include external support when needed.

5.4.2 Considerations prior to membership

All of the interviewed brands mentioned that for them to consider a membership within a MSI, it needs to meet the focus of the brand/strategy and fill a certain need. Brands further evaluate initiatives based on the benefits they can provide in relation to costs of the membership. *Brand H* described that they keep their eyes open for new initiatives, screening whether they may add to the internal sustainability work based on the focus areas where work needs to be developed, as they see the participation within initiatives as a way to progress. Another aspect considered important for *Brand G* is the availability of the initiative, referring to the closeness to the competence. *Brand G* further provided the example of their involvement with Swerea[11], and their involvement in a project with them to introduce a recycling scheme for their products, highlighting the benefits of receiving knowledge and competencies to add on the development of more sustainable products. *Brand A* shared that they are usually the initiators or co-founders of industry initiatives. Internally they decide what topics that are important to address and where collaboration is needed. The next step includes screening through available initiatives around those identified topics. If they do not exist, then *Brand A* tries to initiate collaboration by contacting other brands or industry players. In line with the other interviewed brands, *Brand A* mentioned that it is important for them that the outcomes of the initiatives match their ambition, only then they get involved. In addition, initiatives that present practical measureable changes rather than a platform of dialogue are preferred.

5.4.3 Perceived value of collaboration

Interviewed member brands indicated that sustainability issues fall into the category of common problems for all apparel brands, and therefore not considered as an area for competition. The majority of the interviewed brands were of the opinion that collaboration is the way forward in order to increase the potential to progress the environmental performance of the industry, as no single apparel brand is perceived to have the potential to create the necessary change. Benefits of collaborations through MSIs were connected to the ability to place same requirements on suppliers, the ability to use the same language towards suppliers, to share experiences and knowledge within established networks, to share the costs between partners, and to increase the potential of influence in supply chains.

In discussions with some of the apparel brands collaboration stories, not necessarily tied to a specific initiative, were also brought up. *Brand I* mentioned that they collaborate with other

[11] Swerea is a Swedish research institute for industrial improvements, https://www.swerea.se

brands whom they have shared suppliers with, indicating that they align their supplier requirements in order to increase their influence, since they often are too small by their suppliers. Through the collaboration with other brands, *Brand I* indicated that it becomes easier for suppliers to meet the demands if they receive a clear requirement rather than a set of various requirements by different brands. *Brand C* further explained that it is quite common to collaborate with other brands in Sweden when it comes to sustainability issues. However, according to *Brand C* this is rather uncommon in other countries, referring to the UK for example where local brands could not understand that *Brand C* dares to collaborate with other brands. *Brand C* further shared that they early on had collaboration with another brand related to sustainability matters, and mentioned that the CEO of *Brand C* had concerns at that time. That has now changed, as collaboration is now added in their corporate strategy as a way to achieve results.

6 Discussion and analysis

This chapter begins with analysing the perceived role of multi-stakeholder initiatives (MSIs) in brands' sustainable supply chain management (SSCM). The findings related to this question are analysed through the developed conceptual framework by the author (Figure 2-4.), introduced under 2.7. The section starts with outlining collaboration as an operational management practice and follows with explaining the identified motives and benefits of MSI participation. Based on the analysed findings of the role of MSIs in SSCM context the conceptual framework is developed to illustrate the connections.

The chapter then follows with an analysis based on the characteristics of the addressed MSIs – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI), and Textile Exchange (TE). Based on their characteristics as arrangement they are analysed for their potential implications as governance mechanisms for improving the environmental performance of the textile and apparel industry. Since it has not been possible to conduct an interview with TE to provide more depth into the findings of this MSI, the analysis of TE will be limited, and merely based on what has been identified from interviews with member brands. The analysis further draws upon findings related to the identified movement where various initiatives join for a collaboration. The section concludes with a methodological reflection.

6.1 Collaboration through multi-stakeholder initiatives – its role in sustainable supply chain management

The findings of this study indicate that apparel brands are open to adopt collaboration as an operational management practice when it comes to addressing environmental issues connected to the apparel and textile industry. Some brands have also adopted collaboration outside multi-stakeholder initiatives (MSIs), in some cases as a way to create more leverage by their suppliers to enforce requirements. This suggests horizontal collaboration with other brands towards mutual efforts of sustainable supply chain management (SSCM), which adds knowledge to previous findings by Börjeson and Boström (2018) that identified collaboration between brands merely as knowledge-exchange rather than mutual efforts at SSCM. When it comes to collaboration through MSIs, it has been found that the decision about participation is connected to an apparel brands' strategy and area of focus, where a MSI needs to fulfil a certain need. The MSI further needs to make good business sense, where the perceived value or benefits relative to the costs and human resources required for membership are commonly evaluated prior to any membership decision.

As can be identified from the findings of this study, apparel brands' participation in MSIs may be based on several motives and provide various benefits. The below categorisation builds upon previously identified motives and benefits from the conceptual framework developed (Figure 2.4).

- *Sustainability stewardship:* The findings suggest that the participation in MSIs may for some brands be related to taking a leading role in attempt to address and drive sustainability questions within the apparel and textile industry, or as a way for a brand to commit to be a sustainability leader. For example, *Brand A* indicated that they often are the initiators of various MSIs as a way to address specific areas of concern based on their identified priorities aligned to their overall sustainability strategy, and where no other relevant initiatives can be identified.

- *Market-based incentives:* The participation in MSIs may also provide apparel brands credibility towards stakeholders. Some brands identified that the participation in MSIs

demonstrates to their stakeholders that they as an apparel brand support external initiatives that are connected to a wider industry cause, outside the boundary of their direct organisation. This benefit was also connected to the fact that MSIs often have a well-known name themselves and are recognised as an initiative or organisation, which in turn also adds to the credibility.

- *Cooperation benefits:* The participation in MSIs presents several cooperation benefits. The findings suggest that it helps brands to share the cost amongst them in order to develop certain measures/systems/tools to address certain environmental questions. Furthermore, a collective effort with several apparel brands and/or additional actors is perceived to create a larger leverage and potential for influence. This rationale builds upon on the perceived complexity with textile supply chains constituting a multitude of actors and the difficulty to influence or control upstream tiers of a supply chain beyond direct contractual suppliers. This is also in accordance with previous findings about power relations within supply chains, and that position in the supply chain and size does not automatically equal power or control (Cox, 2004; Kogg, 2009; Börjeson, 2017).

- *Information:* The benefits of receiving information through the participation in MSIs was mentioned by the majority of the brands. It helps brands to keep informed about industry updates related to developments within the field of sustainability relevant to their business activities, but also to assist them with addressing complex environmental issues. MSIs further enable brands to save time as they provide a gathered source of high quality information. Furthermore, knowledge-exchange and exchange of experiences by the networks created through MSIs with different brands, was perceived as beneficial to get insights into how other brands are working with sustainability. The network of brands was further beneficial as a way to get support and advice related to sustainability decisions, as advice could be received from apparel brands that have had faced the same situation. This presented the ability to save time and make decision-making processes shorter.

- *Regulatory threats:* Although not explicitly mentioned by the interviewed apparel brands, based on the Sustainable Apparel Coalition (SAC) reasons for establishment, it has been identified that the initial start of the MSI was driven by the industry as a way to establish a system for measuring sustainability performance to stay ahead of any governmental regulation.

6.1.1 The role of multi-stakeholder initiatives in sustainable supply chain management

The findings related to apparel brands perceived motives and benefits of MSI participation, as presented in the above section, reveal to be addressing some of the previously identified barriers within literature that have been suggested to hinder the adoption or advancement of sustainable supply chain management (SSCM). Findings reveal that the participation in MSIs provide the benefits of sharing *costs* amongst brands related to addressing certain environmental challenges and/or developing measures collectively, which for some brands individually would not otherwise have been possible to bear, especially not a smaller brand. Related to this, is also the information and knowledge that is needed in order to be able to address certain environmental challenges, due to the *complexity* and *lack of knowledge* regarding environmental issues, which MSIs have been put forth to provide. Another aspect is, that through the participation in MSIs valuable knowledge and experiences can be exchanged with

other brands or involved experts which may shorten the *time* to address a certain issue, or shorten the decision to which approach that should be taken. Another example relates to the *size* of apparel brands and the perceived difficulties to influence suppliers related to sustainability aspects. What can be recognised from the findings with interviewed apparel brands is the perception of MSIs to enable increased leverage and potential for influence by the collective action amongst apparel brands and other relevant industry actors participating in the MSIs. Furthermore, MSIs have been considered to provide *credibility* for apparel brands' stakeholders.

According to these findings, the conceptual framework (as introduced under 2.7, Figure 2-4.) has been further developed to indicate the perceived role of MSIs in brands' SSCM. The below Figure 6-1. illustrates the connections between MSIs and SSCM, as they have been identified to address some of the perceived barriers hindering SSCM and provide credibility to stakeholders.

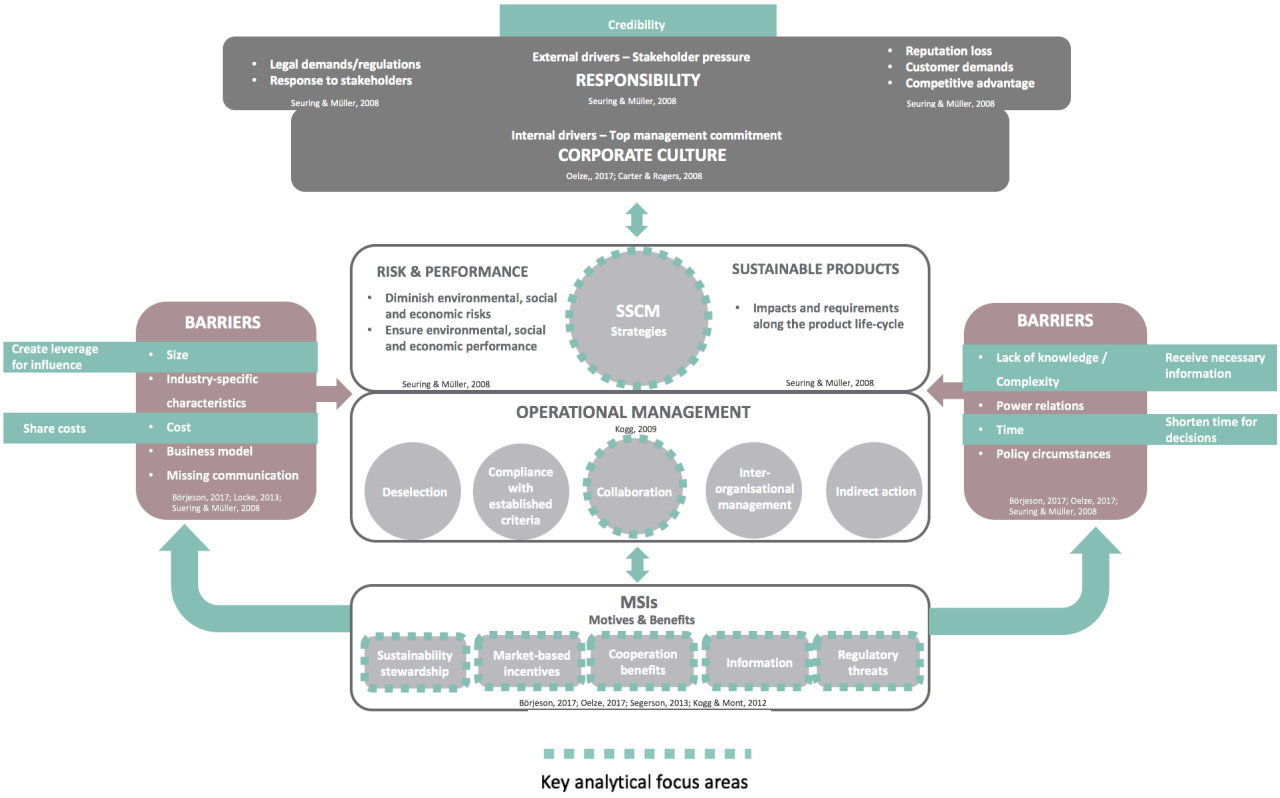

Figure 6-1. Framework illustrating the connections between MSIs in SSCM context

Source: Own elaboration

6.2 Multi-stakeholder implications on sustainable supply chain management

Although apparel brands perceive the role of MSIs to be beneficial in their SSCM in general, it is of relevance to consider the potential implications of the selected MSIs (SAC, STWI, and TE) based on identified characteristics as mechanism for governance to improve the

environmental performance of the textile and apparel industry. The below section provides an analysis based on each of the three MSIs of this study.

6.2.1 Sustainable Apparel Coalition

It can be said that the Sustainable Apparel Coalition (SAC) aims to address both of the identified SSCM strategies identified by Seuring and Müller (2008), i.e. strategies related to decreasing risk and increasing performance of sustainability aspects, and strategies related to sustainable products. This is based on the fact that the development of the Higg Index aims to allow measurement and transparency related to the sustainability performance in upstream tiers which indirectly also allows risk assessment, in addition to downstream stages, alongside enabling an assessment of the environmental performance of products. Considering the categories of MSI arrangements identified by Mena and Palazzo (2012), the SAC includes several categories. Firstly, it includes a network of actors where a dialogue can be created and where learnings from each other can be made. Secondly, the SAC includes the development of behavioural standards with its Higg Index and set of environmental and social indicators for the sustainability performance of brands, facilities and products. Thirdly, the SAC includes a compliance mechanism through audits to ensure that standards are followed.

What is special to the SAC is the fact that it comprises a large number of global brands and other actors, such as NGOs, manufacturers, academia and governmental bodies, who collectively work to develop the Higg Index and its tools. At the first look the arrangement presents the potential of transformative power in order to enable structural changes for improved sustainability performance of the textile and apparel industry. The efforts of industry to collectively work to agree on sustainability criteria needs to be acknowledged and indeed presents an interesting development. However, there are also concerns that need to be addressed. First of all, the outcomes related to sustainability performance of the SAC are still unknown as the Higg Index is still largely under development. Furthermore, based on the empirical findings of this study it can be identified that there are certain power dynamics within the SAC that are necessary to address.

Even though there are a lot of actors involved within the SAC, such as academia, NGOs, and governmental agencies that do provide their input for the development of Higg Index, the final decision about how the tools are shaped and what they constitute seems to lie with the Core Team, constituting only certain brands. This raises concern not only about power inequalities between member brands and additional member stakeholders within the arrangement, but also about the implications on the Higg Index tools developed and its consequences on sustainability performance.

Among the different teams within the SAC: Core Team, Extended Team, and Reference Team (see 4.1.2) member brands involved in the Core Team often have staff employed specifically to work within SAC and on the development of the Higg Index. This suggests power asymmetries with regards to financial and human resources between member brands, where only those brands who have the necessary resources will be able to participate in the Core Team. The issue of power asymmetries between members of MSIs has previously also been raised as a concern by Pattberg and Widerberg (2012).

With regards to the additional non-brand actors, it seems that they provide their input/suggestions related to how the Higg Index tools should be developed, while as mentioned, the final decision seems to lie with the Core Team. This suggest certain power inequalities between members within the SAC. The concern with this may be connected to Lund-Thomsen and Lindgreen (2014) who raised that the potential implication of the

collaboration between global brands and for example NGOs within MSIs, is the risk that NGOs otherwise activism might get toned down. Related to this, is also the concern raised by Wong (2014) with global brands dominating the negotiations in MSIs, suggesting that there is a difference between member actors within MSIs and how much they can influence based on their resources, networks and knowledge.

Additionally, the interviews with apparel brands reveal that reaching agreement on the development of the Higg Index tools has been a challenge due to different sustainability ambition levels by brands, and the unclear system of how and by whom the final decision should be taken. This in turn, has implications of how the Higg Index is developed. It was revealed that certain criteria may not be included as a score within the Higg Index. An example, the decision about the durability of garments not being included as a Higg score, which from an environmental perspective is considered as an important aspect to consider. The questions to ask are, how transparent will this be towards customers and how will it be communicated? Another aspect is, how will this affect other brands that are not members within the SAC but that might be more sustainable than brands using the Higg Index? As indicated by interviewed non-member brands they perceive the membership as too costly and resource intensive based on time and effort required. Furthermore, concerns related to the monopolistic characteristics of SAC and the Higg Index have also been raised, alongside the perceived challenge to get suppliers on board if participation within SAC would be considered.

6.2.2 Sweden Textile Water Initiative

The Sweden Textile Water Initiative (STWI) and its focus on improving resource efficiencies in wet processes in textile production stages, can be connected to the SSCM strategy identified by Seuring and Müller (2008) related to improving environmental performance, but also risk considering the guidelines developed to improve water management and pollution prevention, alongside safer handling of chemicals. Regarding the MSI categories identified by Mena and Palazzo (2012), the STWI includes a dialogue arrangement based on the included network of actors, and it further develops behavioural standards in form of guidelines for resource efficiencies connected to water, chemicals and energy.

The findings related to STWI have several implications, both related to the effort of driving more environmentally friendly practices in textile supply chains, but also to challenges with the constellation of MSIs as arrangement and its ability to work as governance mechanisms.

Regarding the first implication, STWI-projects as means to drive improvement of environmental performance for apparel brands in their textile supply chains has proven to be difficult, especially for smaller brands. The experienced difficulties can be associated with several aspects. The majority of the interviewed apparel brands brought up that they faced problems with influencing their suppliers since it regarded suppliers beyond their first-tier contractual supplier. Another aspect was the perceived unwillingness of suppliers to participate in the STWI-projects, alongside the involved costs that also challenged the willingness for participation from suppliers and sometimes also brands. Again, these aspects can be connected to the previously identified barriers in existing literature hindering SSCM (Kogg, 2009; Börjeson, 2017; Oelze, 2017). Additionally, the voluntary design of the STWI might have also affected how active and what effort brands put into the STWI, as it has been indicated that the voluntary approach may decrease the priority of the work related to this, which has been raised as a concern by Jastram and Schneider (2015).

The other implication concerns aspects with STWI as an MSI arrangement itself, which also has presented challenges. With the end of the STWI-projects and the financial support from

the Swedish International Development Agency (SIDA) it became uncertain how the initiative should be continued and even whether it should be continued at all. In connection to this, STWI also indicated the belief that the output results achieved of the number of factories would not have been possible without the funding from SIDA. What can be understood from brands' perspective is the belief that STWI-projects need to become more efficient and scaled up. From the perspective of apparel brands, it demonstrates that as an apparel brand when addressing environmental challenges, the focus is to do it as effectively and efficiently as possible, as also previously identified by Kogg (2009). However, this situation also presents how an MSI can become unstable when it is reliant on voluntary financing from member brands, previously raised by Martens (2007) as a concern, which ultimately could have presented the end of an MSI and its objectives to improve environmental performance.

6.2.3 Textile Exchange

Textile Exchange (TE) is focused on developing more sustainable fibres and materials in textile supply chains, which can be connected to the sustainable product SSCM strategies identified by Seuring and Müller (2008). TE is by large focusing on supporting apparel brands with their expertise on matters related to textile materials and their environmental impacts. The TE encompasses a few of MSI categories by Mena and Palazzo (2012); it creates certifications and includes compliance mechanism through audits to ensure integrity of standards.

What can be understood from the interviews with member brands, is that they perceived many benefits with the membership, and regard TE as experts within their field of material knowledge. The service that TE further provides member brands with support on any relevant matters was convenient for interviewed brands. TE is furthermore regarded as important for the continual development of more sustainable fibres and materials for the industry, alongside ensuring the integrity of material standards.

Becoming more engaged within TE for a member brand requires the time to be invested, which was seen as a constraint for one brand who wished to become more engaged by wanting to participate in one of the Working Groups, as a way to learn more. Non-member brands further indicated that although they have looked into TE and have considered becoming members, the membership cost and needed time were hindering the participation.

6.3 Towards harmonisation of standards?

What emerged from the findings is that MSIs seem to be recognising that it is difficult to achieve necessary environmental outcome results independently. Findings from this study show that both STWI and TE are members of the SAC. In addition, STWI has also started to collaborate with other international MSIs addressing same or similar issues, and have become part of a new collective initiative named the Apparel Impacts Institute, also initiated by the SAC. The identified move where MSIs collaborate and join other MSIs, in addition to create new collective arrangements, have not been found in existing reviewed literature.

This move seems to indicate that a large part of the industry is moving towards the harmonisation of standards through the SAC, and as a way to prevent counter productivity of initiatives addressing same/similar matters. Judging from the motivation of STWI it has to do with increasing the potential of outcome results of environmental performance, but also as a way for the initiative to be sustained as it requires more members to survive financially. From an environmental perspective this could present larger potential for environmental improvements as the leverage for a change potentially increases.

However, it may also imply increased move towards the privatisation of standards, and the SAC becoming even more powerful. Considering this, it becomes relevant to raise concern regarding NGOs and other stakeholders within MSIs that may increasingly find themselves part of private regulatory efforts whose standards are decided unilaterally, which has been raised by Lund-Thomsen and Lidgreen (2014). A question relevant to ask is, what does this mean to the independence of NGOs and other stakeholders involved? This also raises the question whether NGOs and other stakeholders are critical of their participation within MSIs, as raised by Wong (2014) this might be overlooked by the belief that values are aligned with the focuses of MSIs. Additionally, this may also be connected to the increased tendency of dependence on global brands for NGOs/MSIs to be sustained.

Furthermore, previously raised critique in reviewed literature about MSIs as means for global brands to increase their power (Martens, 2007) has been empirically confirmed by this study with the concerns raised with the SAC, where global brands seem to increase their influence over the market and political settings with how the Higg Index is developed. In connection to this, O'Rourke's (2006) critique of MSIs being an "elite regulation" system designed to protect global brands instead of solving the actual environmental and social issues, may also be linked to the concern of how the Higg Index is being shaped. The example of the decision about the durability of garments which was decided not to be scored within the Higg Index, this suggests that the considerable environmental concerns about the current patterns of overproduction and overconsumption within the apparel industry can be side-lined. As indicated by the findings, extended durability for some of the apparel brand members within the SAC opposed their current business model. Exclusion of durability from Higg Index scoring means that the sustainability score of these brands will not be lowered according to the scoring of one of the most well-known MSIs.

6.4 General reflections based on addressed multi-stakeholder initiatives as governance mechanisms

With regards to the implications of the three MSIs presented above, it also becomes of value to comment on general aspects and what this means for MSIs as governance mechanisms within the textile and apparel industry and their potential to improve the environmental performance of the industry. Even though several challenges and implications have been identified based on the findings, the action taken by MSIs still presents a starting point, which should be acknowledged. Moreover, considering MSIs as governance mechanisms are relatively new phenomena, suggesting that learnings of what works and what does not work need to be made. However, this does not mean that the implication raised should get unnoticed, rather the contrary in order to enable improvements.

Considering that MSIs are questioned in the current academic literature as governance mechanisms, with raised concerns empirically found by this study, it is of value to consider how MSIs may be designed to address acknowledged implications. In line with Pattberg and Widerberg (2012) and O'Rourke (2006), increasing transparency of MSIs as a step to enable governance improvements to form trust and address power asymmetries, with focus placed on transparent communication, decision-making and governance evaluation among members and stakeholders outside MSIs, are suggested to be key as a way forward.

However, in line with Wong (2014) when addressing power asymmetries in MSIs care should be taken not to create an "anti-firm" setting, risking corporate withdrawal from a MSI and creating a "them versus us" situation between corporate actors and non-corporate actors. This potential situation is further argued by Wong (2014) to undermine the agendas from all

participating stakeholders within MSIs. Instead, it is suggested that stakeholders should be more aware about their own participation in MSIs and their legitimacy, alongside the focus on the environmental issues addressed by the MSI and the results achieved (Wong, 2014).

An MSI that has been put forth within literature as promising related to how it is designed as an arrangement and its governance structure, is the German Partnership for Sustainable Textiles. Jastram and Schneider (2015) present several elements that point to its potential. First of all, the German MSI has its own decision-making body, responsible for strategy development for the MSIs standards and goals. Secondly, measures are implemented in producing countries with on-going projects and programmes. Thirdly, the MSI focuses on a credible and transparent review process, with emphasis on reporting and independent third party verification of progress made by the initiative. Fourthly, the MSI focuses on communication with members and stakeholders outside the MSI, and lastly, it collaborates with governments, international organisations and MSIs (Jastram & Schneider, 2015).

Whether or not any of the addressed MSIs will be able to make structural changes within the textile and apparel industry as raised as a concern by Lund-Thomsen and Lindgeren (2014) remains to be seen. Barriers in existing literature can still be identified with the empirical findings of this study hindering SSCM, related to *industry-market characteristics*, where apparel brands are expected to meet various demands from customers related to sustainability, price and garment quality. Furthermore, related to *policy circumstances* and *power relations*, it has shown to be challenging to get suppliers interested and motivated for more sustainable practices. Additionally, *cost*, *time* and *top management commitment* may affect whether a brand participates in an initiative, as well as how involved it can be within an initiative. However, what can be identified from the study which does not seem to be addressed in previous literature reviewed, as mentioned above, is the move where MSIs join other MSIs or constitute new collective arrangements, as a way to try to create larger potential for environmental outcome of results. Additionally, with the new potential structure of STWI it also suggests that it is an attempt to move away from limited outcome of results, which presents a progress from previously raised critique of MSIs only being pilot projects by Lund-Thomsen and Lindgreen (2014).

6.5 Methodological reflection

The following section provides a reflection about the adopted methodology of this thesis, focusing on the analytical choices, data collection and qualitative research adopted by this study. Limitations of the methodological choice are further acknowledged.

6.5.1 Reflections on analytical choices

The developed conceptual framework by the author (Figure 2-4.) can be considered to have been useful as an analytical tool for increasing the understanding of the perceived role of MSIs in brands' SSCM, and for placing the MSIs in the SSCM context. However, based on the specific focus of the thesis on collaboration as an operational management practice through the participation in MSIs, the other aspects included in the framework have not been directly addressed. For example, it has not been addressed how important the internal culture is in relation to sustainability efforts by researched apparel brands. It has only been discussed indirectly in some of the conducted interviews connected to the interview questions. However, it was recognised that in order to do this it would require more in-depth study on each specific brand and include interviews with additional people within the organisations. Additionally, interviewed apparel brands operate in different segments, employ different strategies, and are of various sizes. In order to increase the further understanding of the MSIs in their SSCM more information could have been provided to the contextual characteristics of the apparel

brands included in this study. During the study, it became apparent that literature about the privatisation of standards has not been adequately included as a way to assist the analysis for the potential implications of identified movement of the influence of private actors within MSIs.

6.5.2 Data collection

The majority of the data of this study has been collected by semi-structured interviews, which has allowed flexibility to discuss occurring themes during the interviews. However, it should be acknowledged that the majority of the interviews have been conducted via Skype and telephone, which has undermined the potential identification of non-verbal communication. Furthermore, the fact that sustainability managers from apparel brands were the ones interviewed to provide brands' perspectives may have given responses overly environmentally focused/positive than if other persons within the organisation would additionally been interviewed. However, this was also acknowledged by some of the interviewees and they sought to provide the perspective that there are different interests within their organisation.

Not being able to conduct an interview with the Textile Exchange (TE) has affected the depths of the understanding of the TE, as data has been collected only from the TE website and through the perspectives of brands' perceptions of the MSI.

6.5.3 Qualitative research

Considering the study's qualitative approach, the findings are not generalisable to other apparel brands. Furthermore, the Swedish context may not be relevant in other geographical contexts. For example, as brought up by some interviewees, the openness for collaboration between brands may not be as common in other international contexts. Even though the findings are not generalisable, it is worth reflecting about the representativeness of the sample of interviewed Swedish apparel brands who are members of the three MSIs examined (SAC, STWI, and TE). Referring back to Table 3-1. presenting the number of Swedish apparel brands in each of the selected MSIs, a good representativeness can be said to have been achieved, where in majority half of the participating member brands have been interviewed (3 of 3 in SAC, 4 of 6 in TE, and 8 of 18 in STWI). Considering this, the thesis manages to capture a prevalent perception from Swedish member brands.

7 Conclusions

The concluding chapter presents the main conclusions that can be drawn from the findings, arranged based on the three research questions raised by this thesis. The chapter follows with an overview of contributions of the thesis and ends with providing suggestions for future research.

7.1 Conclusions of the thesis

Three research questions have guided the research of this thesis. Based on the aim of the study to increase the understanding of multi-stakeholder initiatives (MSIs) as means for the Swedish apparel industry to enhance their sustainable supply chain management (SSCM), together with collected data and findings of this study, the following conclusions can be drawn in relation to the three research questions:

1) What are the characteristics of the selected MSIs?

All three multi-stakeholder initiatives (MSIs) addressed by this thesis – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI), and Textile Exchange (TE) make effort in improving the environmental performance of the textile and apparel industry. Their activities are in line with sustainable supply chain management (SSCM) strategies identified within existing literature, and include several of the previously acknowledged categories of MSI characteristics. Based on the characteristics of the addressed MSIs as governance mechanisms for the improved environmental performance of the textile and apparel industry, implications of concern related to power relations between members, and vulnerable structure due to unstable financing, have been raised by this study. These concerns are in line with previous research and imply that design aspects of MSIs is considered important to address the identified implications. Whether the selected MSIs will be able to improve the environmental performance of the industry, remains to be seen. As previously addressed in literature, the potential of MSIs to change current apparel industry structures has been questioned. In line with this, barriers hindering structural changes can still be identified in this study. However, what has additionally been identified by this study is the tendency for MSIs to collaborate and join other MSIs, which suggests an increased move towards harmonisation of standards and prevention of counter productivity. It may on one hand present increased potential for the environmental improvement of the industry. However, it also becomes important to look into this development through the lens of privatisation of standards and judge its implications.

2) How do apparel brands perceive the role of MSIs within SSCM?

Interviewed apparel brands perceive the role of MSIs to be important for their sustainable supply chain management (SSCM), and consider their participation as means to progress their SSCM. The participation in MSIs contributes with several benefits, such as better access to information and knowledge on how to address environmental issues, creation of leverage and increased potential for influencing environmental aspects by joint efforts, development of collective measures and sharing of costs, and the being part of a network of actors created for knowledge-exchange. The identified motives and benefits of MSI participation have been found to be in line with previous knowledge and connected to the following categories: *Sustainability stewardship*, *Market-based incentives*, *Cooperation benefits*, *Information* and *Regulatory threats*. Based on the conceptual framework which was developed, it can be concluded that MSIs are perceived to address some of the barriers identified in existing studies hindering SSCM, such as *cost*, *lack of knowledge/complexity*, *time* and *size*, alongside adding *credibility* towards stakeholders. Collaboration can be considered as an operational management practice for

interviewed apparel brands to address the complexity of environmental issues that are perceived as multifaceted, and the complexity of textile supply chains constituting multiple actors with the perceived difficulty to influence beyond tier-one of contractual suppliers.

3) *Why or why not do apparel brands choose to participate in MSIs?*

The interviewed apparel brands participate in MSIs if the topic addressed by the MSIs is connected to apparel brands' sustainability strategy and/or area of focus. The MSI needs to meet a certain need. Prior to any MSI participation the brands seek to assess the value of a membership in regards to what benefits and output results it can provide in relation to membership costs and resources required. The reason why apparel brands do not participate in all the selected MSIs has shown to be explained by the same reasons, but it has also been revealed that in some cases how a MSI is designed also affects the decision. The design of the MSIs has been found to not always allow the engagement of brands, especially for smaller brands who have limited resources. Furthermore, the participation in a MSI and the collaboration it presents with the range of actors involved, is seen as necessary in order to address the environmental challenges that are facing the apparel and textile industry.

7.2 Contributions of the thesis

The thesis contributes with a conceptual framework developed as a synthesis of reviewed literature related to MSIs and SSCM (Figure 2-4.). Based on the empirical findings, the conceptual framework further provides how MSIs may contribute to the reduction of some of the barriers pertaining to SSCM (Figure 6-1.).

Three MSIs addressing environmental challenges in apparel and textile supply chain were selected as cases in this thesis (SAC, STWI and TE). The focus was placed on providing the characteristics of the selected MSIs as way to deepen the understanding of each initiative to acknowledge the previously identified gap by Vogel (2008). Focus was placed on why the selected MSIs have been established, how they are perceived to be working and their potential implications as governance mechanisms for improving the environmental performance of the textile and apparel industry. The thesis contributed with the provision of concrete views of participating Swedish apparel brands on the respective MSIs, which enhances knowledge about industry-specific MSIs, i.e. apparel and textile industry.

The thesis confirms many of the existing knowledge in literature about the motives and benefits of corporate participation in MSIs, but also adds to the knowledge by providing insights from the apparel industry context. Much of the previously existing knowledge about barriers of SSCM adoption/advancement has also been found by this thesis, alongside the characteristics and potential implications of MSIs as governance mechanisms. The thesis further contributes with new insights with the identified movement where MSIs join other MSIs, which has not been identified in reviewed literature.

7.3 Relevance of findings for intended audience

The intended audience of this thesis comprised practitioners, including MSIs, apparel brands, and policy makers, in addition to academia and scholars. Below a description is provided of the relevance of the findings for each of the intended audiences:

- **Ppractitioners (MSIs, apparel brands, and policy makers):** The insights this thesis provides may be relevant for practitioners' further work and development of MSIs and the potentials of them as governance mechanism to improve environmental issues. The thesis has provided insights into how Swedish apparel brands participate in MSIs and their perceptions of them. The findings revealed that MSIs tend to be adapted to large brands, which complicates the opportunity for smaller brands to participate and further engage in MSIs. This suggests that how MSIs are designed needs to be considered in order to assure increased activity for all member brands within MSIs. The thesis has also identified why or why not Swedish apparel brands choose to participate in MSIs, alongside identified what benefits brands value in their memberships. The emphasis by interviewed member brands was placed on MSIs providing hands-on solutions and outcome results relevant to apparel brands' sustainability focus areas. In addition, concerns about how MSIs are designed as governance mechanisms to address environmental challenges have been raised by this study with regards to identified power asymmetries and unstable financing. To address these implications, it is suggested that increasing the transparency within MSIs related to communication, decision-making and governance structure is key. Furthermore, the thesis highlights the need of stakeholders to be mindful of the legitimacy of their participation in an MSI, alongside the focus on environmental issues addressed and the results achieved through MSIs. To address some of the issues mentioned above, the German Partnership for Sustainable Textiles may be worth looking into, as this MSI has been suggested as promising with regards to its design as an arrangement and its governance structure.

- **Academia and Scholars:** This thesis has contributed with an increased understanding of the selected MSIs, specifically relevant for industry-specific MSI context, and provided apparel brands' perceptions of them. To demonstrate the connections of MSIs within SSCM context, a conceptual framework was developed, which can become useful for further research. Furthermore, the study has revealed potential implications with the selected MSIs as governance mechanisms for the environmental performance of the textile and apparel industry. This adds to the existing knowledge. In addition, the study has also identified an increased move where MSIs join other MSIs as a way to potentially increase the leverage of output results of environmental improvements. This development is suggested to be followed and further investigated to assess the potential possibilities and challenges.

7.4 Suggestions for future research

The identified movement of MSIs collaborating and joining other MSIs is worth further investigation in future research. In order to assess the identified trend/tendency of an increased move towards harmonisation of standards, it becomes relevant to adopt the lens of privatisation of standards to evaluate the implications. Another aspect is to conduct research of the reasons why MSIs join other MSIs. What has been identified by this study, is the aspiration for a MSI to increase its output results and sustain itself as reasons for joining other MSIs. More research is needed to understand this situation and its underlying reasons better.

Furthermore, especially in relation to the Sustainable Apparel Coalition (SAC), it also becomes relevant that future studies investigate the identified power relations. A research focusing on the perspectives of all types of participating stakeholders (such as NGOs, Academia, Governmental agencies, and Manufacturers) would be very useful in order to understand their perceptions of their participation within SAC and whether they perceive these power

dynamics. For this type of study, a framework developed by Wong (2014) may become relevant. Furthermore, the developed framework in this thesis (Figure 2-4.) can be adopted to address other MSIs, or as a way to adopt for more in-depth study within organisations to address all of the identified elements of the SSCM context.

Considering that MSIs are questioned in the current academic literature as governance mechanisms to address environmental challenges, further research of how MSIs can be improved from a design perspective are needed to address raised concerns from literature and the empirical findings of this study. One suggestion would be to conduct an in-depth research on the German Partnership for Sustainable Textiles, as it has been suggested within literature as a promising MSI with regards to its design and governance structure.

Bibliography

Ashby, A., Smith, M. H., & Shand (2013). From principle to practice: Embedding sustainability in clothing supply chain strategies. In Torres, A. L., & Gardetti, M. A. (Eds.), *Sustainability in Fashion and Textiles: Values, design, production and consumption* (pp. 62-81). Greenleaf Publishing Limited

B.-Turcotte, M-F., de Bellefeuille, S., & den Hond, F. (2007). Gildan Inc.: Influencing Corporate Governance in the Textile Sector. *Journal Of Corporate Citizenship*, (27), 23

Baumann-Pauly, D., Nolan, J., & Heerden, A. (2017). Industry-Specific Multi-stakeholder Initiatives that Govern Corporate Human Rights Standards: Legitimacy Assessments of the Fair Labor Association and the Global Network Initiative. *Journal Of Business Ethics*, *143*(4), 771-787.

Blissick, M., Dickson, M., Silverman, J., & Cao, H. (2017). Retailers' extent of involvement in sustainability and role in creating sustainable apparel and textiles from South Africa. *International Journal Of Fashion Design, Technology And Education*, *10*(3), 265-275. doi:10.1080/17543266.2017.1298160

Bäckstrand, K. (2006). Multi-stakeholder partnerships for sustainable development: rethinking legitimacy, accountability and effectiveness. *European Environment: The Journal Of European Environmental Policy (Wiley)*, *16*(5), 290-306. doi:10.1002/eet.425

Börjeson, N. (2017). *Toxic textiles : towards responsibility in complex supply chains*. Huddinge : Environmental science, Natural sciences, technology and environmental studies, Södertörns högskola (Södertörn University), [2017]

Börjeson, N., & Boström, M. (2018). Towards Reflexive Responsibility in a Textile Supply Chain. *Business Strategy And The Environment*, *27*(2), 230-239.

Bryman, A. & Bell, E. (2011). *Business Research Methods* (3rd ed.). New York, USA. Oxford University Press.

Caniato, F., Caridi, M., Crippa, L., & Moretto, A. (2012). Environmental sustainability in fashion supply chains: An exploratory case based research. *International Journal Of Production Economics*, *135*(Green Manufacturing and Distribution in the Fashion and Apparel Industries), 659-670. doi:10.1016/j.ijpe.2011.06.001

Cao, M., Vonderembse, M. A., Zhang, Q., & Ragu-Nathan, T. S. (2010). Supply chain collaboration: conceptualisation and instrument development. *International Journal Of Production Research*, *48*(22), 6613-6635. doi:10.1080/00207540903349039

Carter, C., & Rogers, D. (2008). A framework of sustainable supply chain management: Moving toward new theory. *International Journal Of Physical Distribution And Logistics Management*, *38*(5), 360-387. doi:10.1108/09600030810882816

Chan, S., and P. Pauw. (2014). *Proposal for a global framework for climate action to engage non-state and subnational stakeholders in the future climate regime*. Briefing paper 15/2014. German Development Institute.

Chkanikova, O., (2012). *Sustainable supply chain management: theoretical literature*. Lund : IIIEE, Lund University, 2012 (Lund : KFS)

Christopher, M. **(**2016). *Logistics and supply chain management*, (fifth edition). Harlow, UK: Pearson.

Cox, A. (2004). The art of the possible: relationship management in power regimes and supply chains. *Supply Chain Management: An International Journal*, (5), 346. doi:10.1108/13598540410560739

Creswell, J. W. (2014). *Research design : qualitative, quantitative, and mixed methods approaches*. Los Angeles, Calif. : SAGE, cop. 2014

Delmas, M. A., & Young, O. R. (2009). *Governance for the environment: new perspectives*. Cambridge: Cambridge University Press, 2009.

Dicken, P. (2011). *Global shift: mapping the changing contours of the world economy*. Thousand Oaks, Calif. : Sage, 2011

Ellen MacArthur Foundation. (2017). *A new textiles economy: Redesigning fashion's future.* Retrieved 20, June, 2018, from https://www.ellenmacarthurfoundation.org/publications/a-new-textiles-economy-redesigning-fashions-future

Faria, A., & Wensley, R. (2002). In search of 'interfirm management' in supply chains: recognizing contradictions of language and power by listening. *Journal Of Business Research*, *55*(Markets as Networks), 603-610. doi:10.1016/S0148-2963(00)00190-9

Folke, C., Biggs, R., Norström Albert, V., Reyers, B., & Rockström, J. (2016). Social-ecological resilience and biosphere-based sustainability science. *Ecology And Society*, (3)

Giunipero, L. C., Hooker, R. E., Joseph-Matthews, S., Yoon, T. E., & Brudvig, S. (2008). A DECADE OF SCM LITERATURE: PAST, PRESENT AND FUTURE IMPLICATIONS. *Journal Of Supply Chain Management*, *44*(4), 66. doi:10.1111/j.1745-493X.2008.00073.x

Gold, S., Seuring, S., & Beske, P. (2009) 'Sustainable Supply Chain Management and Inter-Organisational Resources: A Literature Review', *Corporate Social Responsibility and Environmental Management* 17.4: 230-45.

Hemmati, M. (2002). *Multi-stakholder Process for Governance and Sustainability*. London, United Kingdom: Earthscan. [PDF]. Retrieved 22 July, 2018, from http://www.wageningenportals.nl/sites/default/files/resource/multi_stakeholder_processes_for_governance_and_sustainability_hemmati_2002.pdf

Hvass K (2015). Business Model Innovation through Second Hand Retailing: A Fashion Industry Case. *The Journal Of Corporate Citizenship* [serial online]. 2015;(57):11. Available from: Sustainable Organization Library (SOL), Ipswich, MA.

Hugos, M. H. (2006). *Essentials of supply chain management* [E-book]. Hoboken : John Wiley & Sons, Inc., 2006

Hyatt, D., G. & Johnson, J., L. (2016). Expanding boundaries: Nongovernmental organizations as supply chain members. *Elementa: Science Of The Anthropocene (2016)*, doi:10.12952/journal.elementa.000093

IIIEE. (n.d.) *Mistra Future Fashion Phase II*. Retrived, 25 July, 2018, from http://portal.research.lu.se/portal/en/projects/mistra-future-fashion-phase-ii(f499f002-1480-4bcc-b668-ecd613ecac8f).html#Overview

Jastram, S., & Schneider, A. (2015). Sustainable fashion governance at the example of the partnership for sustainable textiles. *Umwelt-Wirtschafts Forum*, *23*(4), 205. doi:10.1007/s00550-015-0377-0

Jastram, S. M., & Klingenberg, J. (2018). Assessing the Outcome Effectiveness of Multi-Stakeholder Initiatives in the Field of Corporate Social Responsibility – The Example of the United Nations Global Compact. *Journal Of Cleaner Production*, *189*775-784. doi:10.1016/j.jclepro.2018.04.005

Khurana, K., & Ricchetti, M. (2016). Two decades of sustainable supply chain management in the fashion business, an appraisal. *Journal Of Fashion Marketing And Management*, (1), 89. doi:10.1108/JFMM-05-2015-0040

Kogg, B. (2009). *Responsibility in the supply chain : interorganisational management of environmental and social aspects in the supply chain : case studies from the textile sector*. Lund : IIIEE, Lund University, 2009 (Lund : KFS).

Kogg, B., & Mont, O. (2012). Environmental and social responsibility in supply chains: The practise of choice and inter-organisational management. *Ecological Economics*, *83*(Sustainability in Global Product Chains), 154-163. doi:10.1016/j.ecolecon.2011.08.023

Kumar, V., Agraval, K.T., Wang, L., & Chen, Y. (2017) Contribution of traceability towards attaining sustainability in the textile sector. *Textiles and Clothing Sustainability*, (5), doi:10.1186/s40689-017-0027-8

Lambert, D. M., & Cooper, M. C. (2000). Issues in Supply Chain Management. *Industrial Marketing Management, 29(1),* 65-83

Lambert, D. M., & Enz, M. G. (2017). Issues in Supply Chain Management: Progress and potential. *Industrial Marketing Management*, *62*1-16. doi:10.1016/j.indmarman.2016.12.002

Locke, R., Amengual, M., & Mangla, A. (2009). Virtue out of necessity? Compliance, commitment, and the improvement of labor conditions in global supply chains. *Politics And Society*, *37*(3), 319-351. doi:10.1177/003239209338922

Locke, R. M. (2013). CAN GLOBAL BRANDS CREATE JUST SUPPLY CHAINS?. *Boston Review*, *38*(3), 12-29

Lummus, R., R. & Vokurka, R., J. (1999). Defining supply chain management: a historical perspective and practical guidelines. *Industrial Management & Data Systems*, (1), 11. doi:10.1108/02635579910243851

Lundsgaarde, E. (2017). Business Motives in Global Multi-Stakeholder Initiatives: Exploring Corporate Participation in Sustainable Energy for All. *Global Policy*, *8*(4), 464-473. doi:10.1111/1758-5899.12473

Lund-Thomsen, P. & Lindgren, L. (2014). Corporate Social Responsibility in Global Value Chains: Where Are We Now and Where Are We Going?. *Journal Of Business Ethics*, (1), 11. doi:10.1007/s10551-013-1796-x

M2014/1901/Ke.(2014). Uppdrag att utveckla förslag om hantering av textilier. Regeringen: Miljödepartementet.

Martens, J. (2007). *Multistakeholder Partnerships – Future Models of Multilateralism?* [PDF]. Retreived, 28 July, 2018, from http://library.fes.de/pdf-files/iez/04244.pdf

Maxwell, D. McAndrew, L. Ryan, J. (2015). *State of the Apparel Sector Report – Water a report for the global leadership award in sustainable apparel* [PDF]. Retrieved 5 June, 2018, from https://glasaaward.org/wp-content/uploads/2015/05/GLASA_2015_StateofApparelSector_SpecialReport_Water_150624.pdf

Maxwell, J. A. (2005). *Qualitative research design : an interactive approach*. Thousand Oaks, CA : Sage Publications, cop. 2005

Mena, S., & Palazzo, G. (2012). Input and Output Legitimacy of Multi-Stakeholder Initiatives. *Business Ethics Quarterly*, (3), 527. doi:10.5840/beq201222333

Mentzer, J. T., DeWitt, W., Keebler, J. S., Soonhoong, M., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). DEFINING SUPPLY CHAIN MANAGEMENT. *Journal Of Business Logistics*, *22*(2), 1-25.

Mistra Future Fashion. (n.d). *Forskning.* Retrieved, 1 May, 2018, from http://mistrafuturefashion.com/sv/vad-vi-gor/#forskning

Moog, S., Spicer, A., & Böhm, S. (2015). The Politics of Multi-Stakeholder Initiatives: The Crisis of the Forest Stewardship Council. *Journal Of Business Ethics*, *128*(3), 469-493. doi:10.1007/s10551-013-2033-3

Moorhouse, D., & Moorhouse, D. (2017). Sustainable Design: Circular Economy in Fashion and Textiles. *Design Journal*, *20*S1948-S1959.

Najam A., Runnalls, D. & Halle, M. (2010). Environment and globalisation: five propositions. In Newel, P. & Roberts, J. T. (eds.) *The globalisation and environment reader.* West Sussex: Wiley-Blackwell.

Naturvårdsverket. (2016). *Förslag om hantering av textiliter – Redovising av regeringsuppdrag (NV-06147-14).* Stockholm: Naturvårdsverket.

Oelze, N. (2017). Sustainable Supply Chain Management Implementation–Enablers and Barriers in the Textile Industry. *Sustainability, Vol 9, Iss 8, P 1435 (2017)*, (8), 1435. doi:10.3390/su9081435

O'Rourke, D. (2006). Multi-stakeholder Regulation: Privatizing or Socializing Global Labor Standards?. *World Development*, *34*(5), 899-918. doi:http://dx.doi.org.ludwig.lub.lu.se/10.1016/j.worlddev.2005.04.020

O'Rourke, D. (2014). The science of sustainable supply chains. (6188), doi:10.1126/science.1248526

Pattberg, P. H. (2005). The Forest stewardship Council: Risk and Potential of Private Forest Governance. *Journal of Environment & Development*, *14*(3), 356–374. https://doi.org/10.1177/1070496505280062

Pattberg, P. H., Chan, S., & Biermann, F. (2012). *Public-Private Partnerships for Sustainable Development: Emergence, Influence and Legitimacy. [E-book]*. Edward Elgar Publishing 2012.

Pattberg, P., & Widerberg, O. (2015). Transnational multistakeholder partnerships for sustainable development: Conditions for success. *Ambio*, *45*(1), 42-51

Preuss, L. (2005). Rhetoric and reality of corporate greening: a view from the supply chain management function. *Business Strategy & The Environment (John Wiley & Sons, Inc)*, *14*(2), 123-139. doi:10.1002/bse.435

Rasche, A. (2012). Global Policies and Local Practice: Loose and Tight Couplings in Multi-Stakeholder Initiatives. *Business Ethics Quarterly*, *22*(4), 679-708. doi:10.5840/beq201222444

Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S. I., Lambin, E., … Foley, J. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society*, *14*(2). https://doi.org/10.5751/ES-03180-140232

Roos, S., Sandin, G., Zamani, B., Peters, G. (2015) *Environmental Assessment of Swedish Fashion Consumption: Five Garments e Sustainable Futures*. A Mistra Future Fashion report, Gothenburg. Retrieved 20 February, 2017, from http://mistrafuturefashion.com/download-publications-on-sustainable-fashion/

Roos, S. (2016). *Advancing life cycle assessment of textile products to include textile chemicals : inventory data and toxicity impact assessment*. Göteborg : Chalmers University of Technology, 2016

Roos, S., Zamani, B., Peters,. & Svanström, M. (2017). Will Clothing Be Sustainable? Claryfying Sustainable Fashion. In S., S. Muthu (Ed.). *Textiles and Clothing Sustainability. Sustainable Technologies (pp.*1-45) [PDF] Singapore : Springer Singapore : Imprint: Springer.

SAC (Sustainable Apparel Coalition). (n.d.-a) *Our Members*. Retrieved August 15, 2018, from https://apparelcoalition.org/members/

SAC (Sustainable Apparel Coalition). (n.d.-b). *The Sustainable Apparel Coalition*. Retrieved August 15, 2018, fromhttps://apparelcoalition.org/the-sac/

SAC (Sustainable Apparel Coalition). (n.d.-c). *Higg Index Transparency*. Retrieved August 15, 2018, from https://apparelcoalition.org/the-higg-index/

SAC (Sustainable Apparel Coalition). (n.d.-d). *Our Origins*. Retrieved August 15, 2018, from https://apparelcoalition.org/origins/

SAC (Sustainable Apparel Coalition). (n.d.-e). *Higg Material Sustainability Index*. Retrieved August 15, 2018, fromhttps://apparelcoalition.org/higg-msi/

SAC (Sustainable Apparel Coalition). (n.d.-f). *A first step towards consumer transparency*. Retrieved August 15, 2018, from https://apparelcoalition.org/pef-project/

SAC (Sustainable Apparel Coalition). (n.d.-g). *Higg Facility Tools*. Retrieved August 15, 2018, from https://apparelcoalition.org/higg-facility-tools/

SAC (Sustainable Apparel Coalition). (n.d.-h). *Brand Tools*. Retrieved August 15, 2018, fromhttps://apparelcoalition.org/brand-tools/

SAC (Sustainable Apparel Coalition). (n.d.-i). *Retail Tools*. Retrieved August 15, 2018, from https://apparelcoalition.org/retail-tools/

SAC (Sustainable Apparel Coalition). (n.d.-j). *Sustainable Apparel Coaliion Membership*. . Retrieved August 15, 2018, from https://appcoa.memberclicks.net/sustainable-apparel-coalition-membership

Saxena, S., Raja, A. M., & Arputharaj, A. (2017). Challenges in Sustainable Wet Processing of Textiles. *Textiles & Clothing Sustainability: Sustainable Textile Chemical Processes*, 43. doi:10.1007/978-981-10-2185-5_2

Scherer, A., & Palazzo, G. (2011). The New Political Role of Business in a Globalized World: A Review of a New Perspective on CSR and its Implications for the Firm, Governance, and Democracy. *Journal Of Management Studies*, *48*(4), 899-931. doi:10.1111/j.1467-6486.2010.00950.x

Searcy, C. (2017). Multi-stakeholder initiatives in sustainable supply chains: Putting sustainability performance in context. *Elementa-Science Of The Anthropocene*, *5*

Segerson, K. (2013). Voluntary approaches to environmental protection and resource management. *Annual Review Of Resource Economics*, *5*161-180. doi:10.1146/annurev-resource-091912-151945

Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal Of Cleaner Production*, *16*(Sustainability and Supply Chain Management), 1699-1710. doi:10.1016/j.jclepro.2008.04.020

Skog, K. (2017). Sverige ska bli världsledande i hållbar textile – därför reser jag till Avesta [Debate artcle]. Retrieved, 3 Sep, 2018, from https://www.regeringen.se/debattartiklar/2017/11/sverige-ska-bli-varldsledande-i-hallbar-textil--darfor-reser-jag-i-dag-till-avesta/

Steffen, W., Rockström, J., Cornell, S., Fetzer, I., Biggs, R., Folke, C., & ... Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223), doi:10.1126/science.1259855

Sternö, J., & Nilsén, T. (2016). *Modebranschen I Sverige – Statisktik och analys 2016* (Rapport 16:07). Stockholm: Volante Research

Styles, D., Schoenberger, H., & Galvez-Martos, J. (2012). Environmental improvement of product supply chains: A review of European retailers' performance. *Resources, Conservation & Recycling, 65*57-78. doi:10.1016/j.resconrec.2012.05.002

SIWI (Stockholm International Water Institute). (n.d). *Organization*. Retrieved August 15, 2018, from http://www.siwi.org/about/organisation/

STWI (Sweden Textile Water Initiative). (n.d.-a). *Our members*. Retrieved August 15, 2018, from http://stwi.se/members/

STWI (Sweden Textile Water Initiative). (n.d.-b). *The initiative*. Retrieved August 15, 2018, fromhttp://stwi.se/about/

STWI (Sweden Textile Water Initiative). (n.d.-c). *Intervju med Renée Andersson*. Retrieved 15 Aug, 2018, from http://stwi.se/sv/2015/02/23/intervju-med-renee-andersson/

The Fiber Year 2018. (n.d.). The Fiber Year 2018. Retrieved 25 July, 2018, from https://www.thefiberyear.com/home/

TE (Textile Exchange). (n.d.-a). Who We Are. Retrieved 14 Sep, 2018, from https://textileexchange.org/about-us/

TE (Textile Exchange). (n.d.-b). Our Focus Areas. Retrieved 14 Sep, 2018, from https://textileexchange.org/our-focus-areas/

TE (Textile Exchange). (n.d.-c). Fiber and Materials Platform. Retrieved 14 Sep, 2018, from https://textileexchange.org/materials/

TE (Textile Exchange). (n.d.-d). Preferred Fiber & Material Round Tables. Retrieved 14 Sep, 2018, from https://textileexchange.org/materials/pfm-round-tables/

TE (Textile Exchange). (n.d.-e). Preferred Fiber & Materials Benchmark Program. Retrieved 14 Sep, 2018, from https://textileexchange.org/materials/pfm-round-tables/

TE (Textile Exchange). (n.d.-f). Recycled Polyester Commitment. Retrieved 14 Sep, 2018, from https://textileexchange.org/recycled-polyester-commitment/

TE (Textile Exchange). (n.d.-g). Organic Cotton Sustainability Assessment Tool. Retrieved 14 Sep, 2018, from https://textileexchange.org/organic-cotton-sustainability-assessment-tool/

TE (Textile Exchange). (n.d.-h). Integrity & Standards. Retrieved 14 Sep, 2018, from https://textileexchange.org/integrity/#testandards

TE (Textile Exchange). (n.d.-i). Supply Network. Retrieved 14 Sep, 2018, from https://textileexchange.org/supply-network/

TE (Textile Exchange). (n.d.-k). Members. Retrieved 14 Sep, 2018, from https://textileexchange.org/become-a-member/

TE (Textile Exchange). (n.d.-l). Annual Report 2016 [PDF]. Retrieved 14 Sep, 2018, from https://textileexchange.org/wp-content/uploads/2017/08/2016-Textile-Exchange-Annual-Report.pdf

TE (Textile Exchange). (n.d.-m). Textile Exchange Industry Engagement Hub. Retrieved 14 Sep, 2018, from https://textileexchange.org/industry-engagement/

Tighe, E. (2016). Voluntary governance in clothing production networks: management perspectives on multi-stakeholder initiatives in Dhaka. *Environment And Planning: A*, *48*(12), 2504-2524. doi:10.1177/0308518X16660978

UN Earth Summit. (n.d). *UN Conference on Environment and Development (1992).* Retreived 11 June, 2018, from http://www.un.org/geninfo/bp/envirp3.html

Utting, R. (2002). *Regulating business via multistakeholder initiatives: A preliminary assessment* [PDF]. Retrieved 25 July, 2018, from http://www.unrisd.org/80256B3C005BCCF9/(httpAuxPages)/35F2BD0379CB6647C1256CE6002B70AA/$file/uttngls.pdf

Van Tulder, R. (2012). Foreword—The necessity of multi-stakeholder initiatives. In M. van Huijstee (Ed.), *Multi-stakeholder initiatives: A strategic guide for civil society organizations* [PDF file]., SOMO. Retrieved 27 July, 2018, from https://www.somo.nl/wp-content/uploads/2012/03/Multi-stakeholder-initiatives.pdf

Vogel, D. (2008). Private Global Business *Regulation. Annual Review of Political Science*, 11:261-82. doi: 10.1146/annurev.polisci.11.053106.141706

Weale, A. (2009). Governance, government and the pursuit of sustainability. In W.,N., Adger & A., Jordan (Eds.), *Governing Sustainability.* [E-book]. Cambridge : Cambridge University Press.

Wong, S. (2014). A Power Game of Multi-Stakeholder Initiatives. *Journal Of Corporate Citizenship*, (55), 26.

Yin, R. K. (2014). *Case study research : design and methods*. London : SAGE, cop. 2014

Zbinski, I., Stavenuiter, J., Kozlowska, B., and van de Coevering, H. (2006). *Product Design and Life Cycle Assessment* [PDF]. Retrieved August 20, 2018, from https://uu.diva-portal.org/smash/get/diva2:604277/FULLTEXT01.pdf

Appendix 1 List of interviewed apparel brands

Apparel Brand	**Description**	**Interviewee name**	**Position**	**Interview details**
Fjällräven www.fjallraven.com/	Outdoor clothing and equipment	Christiane Dolva	CSR Manager	Phone 25.06.2018 Duration: 38 min
Stadium www.stadium.se/	Sportswear and sports equipment	Catrine Marchall	Sustainability Manager	Skype 03 & 04.07.2018 Duration: 70 min
Ellos www.ellos.se/	Fashion clothing, interior, beauty products and electronics	Lena Berger-Andersson	Quality & Sustainability Coordinator	Phone 04.07.2018 Duration: 40 min
Nudie Jeans www.nudiejeans.com/	Denim and clothing	Eliina Brinkberg	Environmental Manager	Skype 06.07.2018 Duration: 42 min
MQ www.mq.se/	Fashion clothing	Helen Göthe	CSR & Environmental Responsible	In person, 09.08.2018 Duration: 55 min
KappAhl www.kappahl.com/	Fashion clothing	Eva Kindgren de Boer	CSR & Quality Manager	In person 09.08.2018 Duration: 54 min
H&M www.hm.com/	Fashion clothing	Harsha Vardhan	Environment Manager (production)	Skype 14.08.2018 Duration: 46 min
Didriksons www.didriksons.com/	Outdoor clothing	Ulf Bourghardt	Chief Executive Buying & Design	Skype 14.08.2018 Duration: 42 min
Odd Molly www.oddmolly.com/	Fashion clothing	Kristin Roos	Product Manager	Phone 27.08.2018 Duration: 44 min

Appendix 2 List of interviewed multi-stakeholder representatives

MSI initiative	Interviewee name	Position	Interview details
Sustainable Apparel Coalition (SAC)	Jonas Larsson	Representative of the SAC - Lecturer at the Swedish School of Textiles	In person 19.06.2018 Duration: 54 min
Sweden Textile Water Initiative (STWI)	Katarina Veem	Director	Phone 04.07.2018 Duration: 43 min
Textile Exchange (TE)			No interview

Appendix 3 Sample of questions for interviews with Swedish Apparel Brands

Brand specific questions – to provide the context:

1. What are the biggest/most prioritised environmental challenges facing you?

2. What are the challenges to address these environmental challenges?
    a. What affects your ability to influence them?

3. What are the challenges with managing your textile supply chain?
    a. What affects your ability to influence this?

4. How important is your environmental profile on a strategical level?

For each of the initiative the brand was participant of – Sustainable Apparel Coalition (SAC), Sweden Textile Water Initiative (STWI), Textile Exchange (TE):

5. Why did you become member of this initiative?
    a. How was it decided?
    b. How long have you been members?

6. How has your engagement/involvement been in this initiative, what role have you taken?
    a. Why did you take this role?
    b. What is the experience of working within this initiative?
    c. What are the pros/cons?

7. What is expected of you as members?

8. What benefits does the membership provide you?

9. Has the membership influenced your practices/work/choices, if yes, in what way?

10. What is the experience of being involved in this initiative with all actors that are involved?
    a. What are the pros/cons?

11. What are your further expectations/plans on the continuing work with/within the initiative?

General questions addressing multi-stakeholder initiatives and perceptions of collaboration:

12. What are the benefits/challenges of being members in several different initiatives?

13. What is your general perception of being members in initiatives, considering how they are designed/organised/questions they address?

14. What should an initiative meet/contain/include in order for you to consider a membership?

15. What is the role of initiatives for you, why do you engage in them?

What role does collaboration with other actors have for you to address environmental challenges?

Appendix 4 Sample of questions for interviews with representatives of multi-stakeholder initiatives

This sample of questions was used for the interview with the Sweden Textile Water Initiative (STWI) (Interview with the Sustainable Apparel Coalition (SAC) covered same type of questions but was adapted to their specific characteristics and based on what needed to be addressed further based on information from their website).

1. Tell me a bit about the background of the establishment of STWI and how the initiative has progressed since then.

2. Tell me about how STWI works in order to create more sustainable water management within the textile industry.
    a. How are your projects developed and run?
    b. How are fashion brands involved in the process?
    c. How are suppliers involved in the process?

3. How is STWI governed?
    a. When it comes to the decision-making, who is making decisions and in what way?
    b. How are members/apparel brands involved in the decision-making process?
    c. What have been/are the challenges when it comes to creating this type of initiative where several actors need to collaborate?
    d. What learnings have been made?

4. How are your guidelines for the industry developed and what do you base your recommendations on?
    a. How often are the guidelines updated and what process is then needed?
    b. How are the guidelines implemented, controlled and measured?
    c. How do you measure the reduction of the water, energy and chemical use?
    d. How do you work to influence fashion brands and suppliers to advance the water management?

5. If an apparel brand wants to become a member of STWI, what is then required and what type of process does the membership require?
    a. What is required or expected from fashion brands that are members of the STWI?
    b. What measures are taken if a fashion brand does not meet some of these?

6. What do you think participating apparel brands get out of becoming members of the STWI?
    a. What type of sctivities does STWI have together with its members and how often?
    b. What do you believe is the reason that apparel brands decide to become members of the STWI?

7. Is there any difference of how active the participating apparel brands are within the STWI, if yes, how?

8. Does the STWI take any steps to acquire new members, if yes, how?
    a. What is the experience of gaining members?

9. What are the aims and targets of STWI?
    a. What are the future plans to develop STWI further?
    b. I read that from 2018, there are plans to develop STWI to become a global network, could you tell me more about this?

10. STWI collaborates with other industry initiatives, what benefits/challenges do these collaborations present?
    a. There is also a collaboration with the Sustainable Apparel Coalition (SAC), could you tell me more about this?