

Chapter 5

Buying Practices in the Textile and Fashion Industry: Past, Present and Future



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Abstract The textile and fashion industry is characterized by complex structures, multiple actors and globally interlinked supply chains. Increasing competitive pressures associated with the fast fashion business model has led to unsustainable practices along the supply chains resulting in negative ecological and social impacts. In recent years, pressure has been mounting on the industry, specifically on retailers and clothing brands, to address these issues. Consequently, sustainable procurement practices have gained importance in addressing these sustainability issues and buyers at multinational retailers are now not only taking price, delivery time and quality into account but are also increasingly required to consider social and environmental aspects in their decision-making. In this section, we provide an overview of traditional, as well as sustainable buying practices in the textile and garment industry, as well as delineating suggestions on which additional elements to consider, calling for a more comprehensive approach to sustainable procurement in the textile industry.

Keywords Sustainable purchasing · Textile and garment industry · Sustainable supply chain management · Environmental and social impacts of garments

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5.1 Introduction

Sustainable procurement can best be defined as a special decision-making process, consisting of a range of steps (demand management, market research, award and procurement processing) involving a range of actors and actions against which sustainability criteria should be addressed (Guenther et al. 2013). Sustainable procurement decisions thus center around materials used in the products, where they have come from, who has made them, how they are made, how they are transported and how they are eventually disposed of. Most importantly, the procurement function holds a gatekeeper position in “greening the organization” as it is linked with all departments (Scheibe et al. 2010), and therefore, sustainable procurement strategies have considerable implications for the supply chain structure (Genovese et al. 2013). In the textile and fashion industry, this structure is complex, consisting of multiple actors and globally interlinked supply chains (Boström et al. 2012; Towers et al. 2013), which are characterized by high labor and low capital intensity. Contemporary trends in the fashion industry have greatly contributed toward vertical disintegration and networked structures due to the need for low-cost mass production driven by a high level of competition resulting in pressure to decrease prices (Doyle et al. 2006; Illge and Preuss 2012). Outsourcing of low value to where labor is cheapest and environmental standards are lowest leads to short-term buyer–supplier relationships that are said to be contributing to a race to the bottom (Guenther et al. 2012) and unsustainable practices with negative ecological and social impacts. In the textile industry, shifts could be observed from Turkey to Egypt (Tokatli and Kızılgün 2009), to Asian countries such as Bangladesh, Myanmar and Cambodia (Gereffi 1999), and more recently to East African countries such as Ethiopia and Kenya (Berg et al. 2015). Consequently, there is a trend toward buyer-driven sourcing networks, with a shift in balance of power in favor of the retailer at the expense of the producer (Gereffi 1999) as sourcing from multiple suppliers is based on price competition and bidding processes (Hines and McGowan 2005), creating unfavorable power structures for suppliers and contractors.

Addressing environmental challenges is crucial given that the industry accounts for 10% of the total carbon emissions and is responsible for approximately 20% of the industrial water pollution (Colin et al., 2016). The production of raw fibers, especially cotton-growing, plays an important role as it is environmentally problematic due to its intensive use of land, water and chemicals such as synthetic fertilizers, pesticides, defoliants and growth regulators, leading to lower groundwater levels, infertile soils, displacements or extinction of flora and fauna (Schaus 2013). The manufacturing phase, which includes yarn production (spinning and twisting), gray cloth production (weaving and knitting), textile finishing (pre-treatment, dyeing, printing and finishing) and manufacturing (cutting, assembly, finishing, packing), requires significant resources such as material, water, energy and chemicals (Schaus 2016). A further environmental impact is the release of non-purified sewage into the drainage system by dye factories, which pollutes the ground water and fields

(Diekamp and Koch 2010). Additionally, fiber waste, noise pollution and dust emissions occur during production and finishing processes (The Federal Environment Agency 2012). During distribution and retail, the transport of the products leads to carbon emissions. Transport emissions are on the increase due to the use of environmentally unfriendly transportation modes associated with short lead times (Turker and Altuntas 2014), as well as distant production locations which result in longer transportation journeys (Caniato et al. 2012). In addition, the use-phase of garments can also generate sustainability challenges including health risks to consumers resulting from chemical residues, which can also be released into rivers, seas, soil and plants through the washing processes and lead to the contamination of eco-systems (Schaus 2013). The washing process itself is also associated with impacts arising from the energy consumed (Pedersen and Andersen 2015) while the end-of-life phase has energy demands and pollution potential when products are either disposed, reused or recycled (Mastny and Prugh 2003).

Due to increasing information transparency and media attention, focus on unsustainable behavior in the textile and garment industry has increased. Consumers are progressively demanding that environmental and social issues are addressed (Gardetti and Torres 2013), a pressure which has mounted following the Rana Plaza building collapse in 2013 (Reinecke and Donaghey 2015), where a collapsed factory led to the death of more than 1100 people and injuring around 2400 mainly female garment workers due to poor building safety (Schuessler et al. 2019). Consequently, sustainable purchasing practices have gained importance for addressing these issues. Buyers at multinational retailers are increasingly required to consider social and environmental aspects in their decision-making (Boström et al. 2012) At a theoretical level, increased consumer demand and increased stakeholder pressures as the combination of expectations from stakeholders (for example by NGOs or the media) place additional pressures toward implementing sustainable practices across the supply chain. These pressures are often linked to image or reputational 2008 losses of retailers, and a drive toward improving corporate sustainability performance for legitimacy and reputational purposes (de Brito et al. 2008; Macchion et al. 2018). On the other hand, due to commercial pressures, buyers often remain focused on price negotiations (Perry et al. 2015) which can have multiple negative consequences as cost-savings are pursued—such as poor labor conditions for workers in developing countries have arisen (Pedersen and Gwozdz 2014) often attributed to weak governance mechanisms and a lack of stringent procedures for the protection of workers' rights (Perry and Towers 2013). Further impacts in the labor market include low wages, long hours, forced labor, discrimination and inhumane treatment or harassment conditions (Crane 2013; Trautrimis et al. 2015; Köksal et al. 2017) and absence of freedom of association and collective bargaining (Perry et al. 2015). In extreme cases, retailers and buyers have been linked to driving modern slavery (Stevenson and Cole 2018).

Despite the potential for increased demand in sustainable practices from consumer pressures to drive a change toward sustainable purchasing practices across the overall industry (Hansen and Schaltegger 2013; Macchion et al. 2018), there exists a continued low-level demand for sustainable garments (Illge and Preuss 2012; Towers

et al. 2013; Franco 2017) can serve as barriers toward an institutionalized sustainability shift. Apparel brands and retailers at the top of the garment supply chain are now seen as jointly responsible for the conditions in the factories of their suppliers and contractors (Anner et al. 2013) given that procurement managers and purchasers have the ability to shape the structure of the supply chain.

In the following overview, the role of buyers in tackling these sustainability challenges along the textile and fashion chain will be discussed in detail. We begin by exploring traditional, as well as sustainability orientated supply chain theories and strategies, synthesizing the state of the art on sustainable supply chain management in the textile and garment industry in order to compare and contrast the two competing paradigms. Drawing on academic literature, we then provide an overview of mechanisms for sustainable decision-making relevant to buyer and supplier relationships in textile and fashion industry sourcing, and present them in two categories: supplier selection and assessment and collaboration. We then outline some challenges and opportunities for implementing sustainable sourcing decisions as discussed in the literature and try to develop a holistic perspective which has been lacking in the academic literature. We conclude with recommendations on how buyers may better address the sustainability challenges in the future by embracing a strategic approach that covers the full procurement process further looking at integrating sustainability at the product conception and design stage, as well as material selection, production, retailing and end of life.

5.2 Purchasing Approaches in the Textile and Garment Sector

In order to explore purchasing approaches and paradigms in the textile and garment sector, a survey of academic literature on the key terms of supplier selection and assessment was carried out through identification of peer-reviewed academic journals returned through searches in databases such as Web of Science, Scopus and Google Scholar. This was supplemented with experiences from reports of exemplar companies chosen for their size and prominence of sustainability. The idea of the search was to be exploratory and free-flowing. This section serves to lay the foundations and inspirations for future research directions, and recommendations for future studies are provided in the concluding sections.

(a) *Traditional Purchasing Paradigm*

According to empirical research with senior purchasing managers in the textile and fashion industry, the traditional purchasing criteria of retail buyers are price, delivery time and quality (Winter and Lasch 2016) and are especially relevant in the fast fashion market segment of the textile and garment industry where the focus is on high speed turnover and marketing new lines and items on a frequent basis resulting in redundancy of old styles (Black 2012). These criteria, combined with the ability

to respond to unexpected demand, are prioritized, leaving sustainability criteria such as ethical standards and suppliers' efforts in eliminating waste as less important (Kannan and Tan 2002). Alongside this remains the idea that buyers are "unwilling to increase prices paid to suppliers to reflect the increased cost of ethical production" (Perry et al. 2015, 740). However, catastrophes such as Rana Plaza are resulting in an increased focus on social issues due to buyers aiming to minimize reputational risks in their supply chains.

As the fast fashion business model entails shipping up to 24 fashion cycles into stores per year, the focus on lead times (Vaughan-Whitehead and Pinedo Caro 2017), costs, rigid negotiability (Towers et al. 2013), price renegotiating (Roloff et al. 2015) and order changes (Perry and Towers 2013) has increased. In addition to the above selection and assessment criteria, buyer and supplier relationships are often characterized by a lack of transparent information and absence of written contracts (Vaughan-Whitehead and Pinedo Caro 2017), ineffective communication (Boström et al. 2012) and ineffective audits (Roloff et al. 2015). Overall, it can be summarized that the aforementioned practices negatively impact on the suppliers in the sector, while favoring the buyer and is a "textbook" example of an unsustainable model which impacts on overall sustainability levels.

(b) *Sustainable Purchasing Paradigm*

The emerging attention toward sustainability topics led to growing focus on sustainability aspects within the supply chain theory in both practice and research over recent years. Terms such as *sustainable supply chain management (SSCM)*, *responsible supply chain management (RSCM)* and *green supply chain management (GSCM)* and other related terms arose. While there is not one standardized model, Seuring and Müller's (2008) and Beske and Seuring's (2014) SSCM conceptual frameworks are cited frequently (e.g., Köksal et al. 2017) and are considered as a common framework (Rajeev et al. 2017, 300). From the starting point of SSCM, defined as "the management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e., economic, environmental and social, into account which are derived from customer and stakeholder requirements" (Seuring and Müller 2008, 1700), two important categories emerge with high relevance to buyer–supplier relationships in the textile and garment sector. The first category includes topics such as supplier evaluation and assessment, such as evaluation schemes and minimum requirements (Seuring and Müller 2008). The second category includes topics such as supplier development programs and increased communication, which can be grouped under collaboration-based strategies (Beske and Seuring 2014). Examining the literature on sustainable procurement and supply chain in the context of the textile and garment industry, articles can be broadly classified into the categories of supplier selection and assessment and collaboration. These are illustrated in Fig. 5.1.

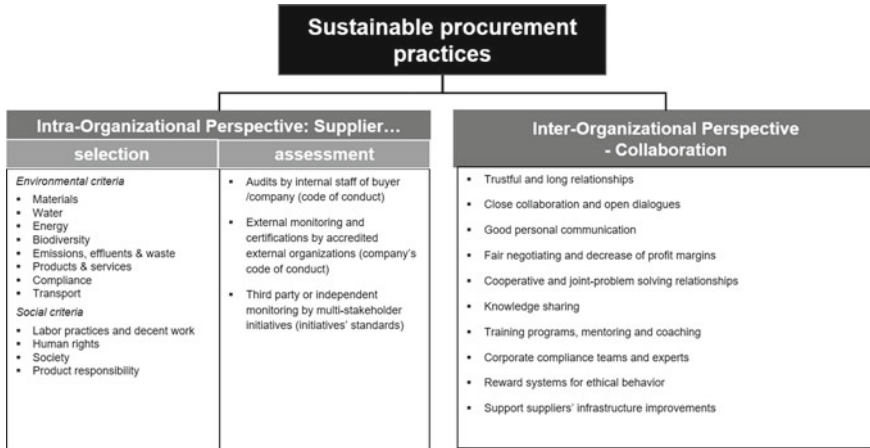


Fig. 5.1 Overview of sustainable procurement practices in the textile and garment industry (source developed by the authors based on the literature discussed in this study following the GRI criteria)

(c) *Supplier Selection and Assessment*

The first category of sustainable buying practices (defined here as buyer–supplier activities and procedures which make up the sourcing process) consists of **supplier selection and supplier assessment**. Selection refers to pre-qualification requirements, and assessment is the subsequent verification of the sustainable practices of suppliers (Winter and Lasch 2016). These steps are also referred to as supplier selection and monitoring (Moretto et al. 2018). Sustainable supplier selection criteria can concern ecological or social aspects (Turker and Altuntas 2014) and are the first step of adopting sustainability in purchasing decisions (de Brito et al. 2008) and therefore orientating the supply chain toward a more sustainable focus.

In their empirical study of the textile and garment industry, Winter and Lasch (2016) focus on three main ecological purchasing criteria:

- *End-of-pipe control (wastewater treatment system)*—concerned with fulfilling legal minimum requirements of waste water, e.g., using of wastewater and sewage plants, wastewater filtering and return systems and the disposal of wastewater sludge by suppliers (Winter and Lasch 2016, 187).
- *Use of environmentally friendly material*—ensured with the help of environmental standards like the European Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulations. For example, buyers can decide between recycled wool or virgin wool as a material and are thus considering environmental aspects in the purchasing process (Clancy et al. 2015).
- *Carbon and hazardous substance management*—requires fulfillment of legal requirements of treating chemicals and further toxic substances, e.g., by providing safety data sheets for chemicals, safe disposal and training on handling chemicals (Winter and Lasch 2016, 187).

These purchasing criteria link to the disclosure guidelines from the Global Reporting Initiative (GRI) G4, which includes materials used, water, energy, biodiversity, emissions, effluents and waste, products and services, compliance and transport (Global Reporting Initiative 2013).

Integrating social criteria into purchasing decisions can also draw on the variety of social indicators included in these guidelines and derived from international standards such as the International Labor Organization (ILO) Convention, United Nations (UN) Global Compact, Universal Declaration of Human Rights, sector-specific organizations and guidelines such as Oeko-Tex 100 Standard, Fair Wear Foundation and other initiatives such as the Ethical Trading Initiative (ETI) or the Business Social Compliance Initiative (BSCI). Criteria can be divided into labor practices and decent work (e.g., equal remuneration for men and women), human rights (e.g., no forced or compulsory labor), society (e.g., anti-corruption) and product responsibility (e.g., customer health and safety) (Global Reporting Initiative 2013). These can be further sorted by internal (health and safety, quality of workers' life and worker rights) and external (local community support, inclusion of marginalized workers and social safety for the community) social performance (Huq et al. 2016). Criteria are then transformed to a company's *code of conduct* (Turker and Altuntas 2014, 846) which suppliers are the requested to sign by buyers in order to guarantee the fulfillment of their standards (Caniato et al. 2012). However, the effects of such voluntary codes of conducts are disputed and do not necessarily guarantee decent factory conditions (Bartley and Egels-Zandén 2015). Instead, it is shown that codes of conduct have an uneven impact and that they may improve overall workers' rights conditions but not for specific individual-level rights (Egels-Zandén and Merk 2014; Egels-Zandén and Lindholm 2015). Another aspect is to consider when making purchasing decisions are the regions where fulfillment of social criteria is more likely (Hansen and Schaltegger 2013; Perry and Towers 2013).

The assessment of suppliers' practices for verification can be conducted in several ways. One option is to carry out a supplier preselection using self-reported data on sustainability aspects (e.g., implementation of environmental management systems). Other options include supplier ratings and rankings, overall performance assessments, required criteria catalogues, as well as audits (Günther 2008). Köksal et al. (2017) differentiate between audits (physical inspections often carried out by internal staff of the buyer conducted at the production site and documenting the status quo), external monitoring and certification, and third-party monitoring or independent monitoring involving appointing "accredited external organizations, including large accounting firms, professional service firms, quality testing firms, and small non-profit organization to monitor compliance with codes" (Köksal et al. 2017, 15). Third-party monitoring "is widely acknowledged to be more competent, credible and transparent than a buyer's own audit" (Huq et al. 2016, 22). Huq et al. (2016) also name external monitoring, which is done by multi-stakeholder initiatives and often according to the standards associated with the initiatives. Suppliers often use this method for obtaining recognized accreditation. However, research indicates that factory audits are seldom able to identify process rights violations (Egels-Zandén

and Lindholm 2015) and improvements are only likely to be observed at factories that have undergone numerous audits (Lindholm et al. 2016).

(d) Practical Examples of Sustainable Purchasing Strategies

The German sports apparel producer Vaude, considered a high performer around sustainability issues, considers ecological (e.g., chemical and environmental management) and social criteria when choosing suppliers. Vaude's environmental policy includes a self-developed Manufacturing Restricted Substance List (MRSL) for suppliers, which bases and exceeds the Greenpeace Detox Commitment MRSL and fulfils the REACH regulation. Furthermore, the company introduced the Greenpeace Detox Commitment Waste Water Guideline as a standard for its suppliers in 2017, and the publication of wastewater test results (80% of material's volume (Vaude 2018a, 1) were introduced in 2018. Regarding sustainable materials, Vaude's material policy considers production conditions, such as using only Responsible Wool Standard certified wool (Vaude 2018a) and a significant share of used cotton certified by the Global Organic Textile Standard (GOTS). Vaude's social criteria are based on the International Labor Organization (ILO) and Fair Wear Foundation (FWF) Code of Labor Practices which is mandatory for all its essential suppliers and the company states to work on the integration of suppliers' information for more informed sourcing decision-making (Vaude 2018b).

Outdoor clothing company Patagonia also developed its social criteria for its supplier code of conduct from ILO standards and are referred to directly in its sustainability report (e.g., no child labor, no forced labor, no discrimination, no disciplinary and security practices, freedom of association, working hours, employment compensation, health and safety practices, employment conditions, local community support), while others are mentioned indirectly (employment contract and working permission, inclusion of marginalized workers, social safety for the community). Two criteria are not mentioned at all (housing conditions, home worker conditions); Winter and Lasch (2016) categorize these as being detailed and new criteria which should be included alongside existing sustainability criteria. Environmental criteria are included in a general point concerning monitoring, disclosing and minimizing energy and natural resource usage, emissions, discharges, carbon footprints and waste disposal. Moreover, the code of conduct includes not previously mentioned criteria such as subcontracting only with prior written approval, respecting animal welfare, quality standards and traceability of all levels of supply chain (Patagonia 2013).

The European sportswear manufacturer Adidas uses supplier assessments to ensure compliance with their set standards, and it reports against it in detail. Audits which are internal and external, unannounced and announced are conducted regularly at production locations in Asia, America and Europe, the Middle East and Africa (EMEA). These are based on a rating system with social and environmental KPIs and attached scores, which then can lead to trainings, warning letters or even contract terminations. In 2017, around 1000 audits (Adidas 2018, 95f.) at supplier factories, of which 409 were internal (in-house technical staff) and 606 external (third-party monitored commissioned by Adidas business entities and licensees) audits were

conducted. These audits covered 48% of all active suppliers (neglecting factories in “low-risk” countries) and around 70% of “high-risk” locations in Asian countries. The results of social compliance assessments in 2017 show that around 50% of the assessed factories are at a medium, around 20% have a higher and around 30% a lower level of social compliance. The environmental KPIs are not reported in detail in the report. Besides internal and external audits by Adidas itself or appointed officers, four independent external factory assessments or remediation verification exercises were conducted by the Fair Labor Association (FLA), an NGO which promotes international and national labor laws in 2017. The annual report contains further results and details an action plan to improve factories’ environmental and social compliance performance (Adidas 2018).

As can be seen from the above discussion of sustainable purchasing practices drawing on practical examples, the full spectrum of supplier selection (e.g., GOTS, ILO, Greenpeace Detox Commitment) and assessment (e.g., internal/external audits, scoring system based on social and environmental KPIs) are discussed in sustainability reports of leading firms in the garment industry.

(e) Collaboration

The second category of sustainable buyer practices is centered on **collaboration** (Beske & Seuring 2014). Recent literature in this field places greatest attention on trustful and long relationships between buyers and suppliers. Buyers choose trustworthy suppliers with priority as they are more likely to fulfill set (sustainability) criteria, even if they are not undergoing formal audits or inspections (Boström et al. 2012). As well as easier fulfillment of sustainability criteria, the positive economic effects of long and secure relationships are welcomed by buyers, for example due to the predictable fulfillment of delivery times, mutual trust on both sides as well as easier access and understanding between buyers and suppliers (Boström et al. 2012). Trust also facilitates information sharing and lowers costs and can also lead to (sustainable) innovations (Franco 2017) and higher agility along the supply chain (Perry and Towers 2013). Long-term relationships offer positive effects in contrast to short-term benefits (Turker and Altuntas 2014; Roloff et al. 2015; Huq et al. 2016). These positive effects for buyers might be “evidence of consistency and reliability” (Towers et al. 2013, 968) and to reduce the need for control (Börjeson et al. 2015).

Close collaboration is “essential to diminish the barriers to successful policy implementation within the highly competitive textile industry” (Oelze 2017, 11) and open dialogue with suppliers is a key practice for more sustainability (Stevenson and Cole 2018). Cooperative relationships are also focused on “analyzing and correcting root causes of social issues, joint problem solving, mentoring, coaching, learning, capacity building, positive incentives” (Köksal et al. 2017, 14). Other forms include providing training programs or supporting infrastructure improvements for suppliers. Training programs can for example include the topic of detecting and remediating unfair labor practices (Stevenson and Cole 2018). Another form of positive collaboration is decreasing profit margins and lead times and therefore supporting higher

wages of factory workers and reducing overtime on the factory floor. Such fair negotiation practices are key for improving sustainability within the supply chain of the textile and garment industry (Köksal et al. 2017). Further, knowledge sharing with the suppliers and actors along the supply chain is an important aspect that contributes to successful collaboration (Moretto et al. 2018). This may include clear explanation of requirements and their underlying reasons between buyers and suppliers, as well as outlining the benefits of going beyond legal requirements, knowledge on substitutes and more (Börjeson et al. 2015). To facilitate knowledge sharing, experts may be involved (Börjeson et al. 2015) or corporate compliance teams may be formed in order to improve supplier communication, provide training and hands-on knowledge (Köksal et al. 2017). Finally, good personal communication plays an important role (Boström et al. 2012), as does the introduction of a reward systems for ethical behavior (Li et al. 2014). The sustainable buying practices discussed above are summarized in Fig. 5.1.

As a practical example, Vaude reports on a variety of sustainable buying measures such as a focus on trust-based, long-term relationships with suppliers, close collaboration, direct business connections and dialogue with manufacturers and material suppliers, as well as fair negotiation practices. According to Fair Wear Foundation inspections, high wage levels above statutory minimums are paid at Vaude's producers. Further, the company strives to build cooperative relationships offering supplier training programs and infrastructure support to aid the implementation and improve suppliers' sustainability performance (Vaude 2018b). Another example includes Adidas' worker empowerment program, which was initiated in 2012 in Indonesia and focuses on improving management–worker communication to supplement existing grievance systems. The scheme has since been extended to 69 factories in four countries (Adidas 2019). In addition, Adidas strives to build long-term partnerships and the company provides various trainings around workplace standards, health and safety, supplier self-assessment methods, etc., to its suppliers to raise overall performance (Adidas 2019). Patagonia regularly meets with its suppliers to receive updates and to share best practice in a dialogic manner (Patagonia 2019).

5.3 Implementation Gap for Sustainable Textile and Garment Procurement

Sustainable textile and garment procurement practices can be divided into collaboration and supplier selection and assessment as outlined above. However, the application of these practices may not reach full effectiveness given the “different interests and asymmetric information...such that one player cannot directly ensure that the other player is always acting in mutual best interests, particularly when activities that are useful to one player are costly to another, and where elements of what the other player does are costly to observe” (Gong et al. 2018, 155) which may give rise to implementation barriers as a result of lacking trust and transparency between

buying and supplying firms, as well as high costs in rectifying misalignment and misunderstandings (Oelze 2017). Therefore, we will now explore the underlying dynamics, namely barriers and drivers, for sustainable purchasing decisions building on the established body of work on green procurement in municipalities (Günther and Scheibe 2006; Guenther et al. 2013). Köksal et al. (2017, 8) define barriers as “factors that hinder focal companies in the implementation, realization and achievement of sustainable supply chain management practices” and drivers as “factors that initiate and motivate focal companies in implementing sustainable supply chain management practices” (2017, 8). The successful implementation of strategic sustainability approaches depends on how a company can strengthen drivers and inhibit barriers (Macchion et al. 2018). The identified barriers for the textile industry are highlighted in Fig. 5.2:

On the individual buyer level, drivers for sustainable purchasing include the intrinsic motivation of individuals (Oelze and Habisch 2018), the integration of sustainability into corporate values and (strong) commitment of the (top) management (Caniato et al. 2012; Moretto et al. 2018), good knowledge on sustainability aspects so buyers can make well-informed decisions (Clancy et al. 2015), innovation capabilities of individuals yielding new markets, management systems, and performance outcomes considering sustainability (Huq et al. 2016), as well as open communication (Roloff et al. 2015). In contrast, communication problems such as insufficient or missing communication, as well as cultural differences and language

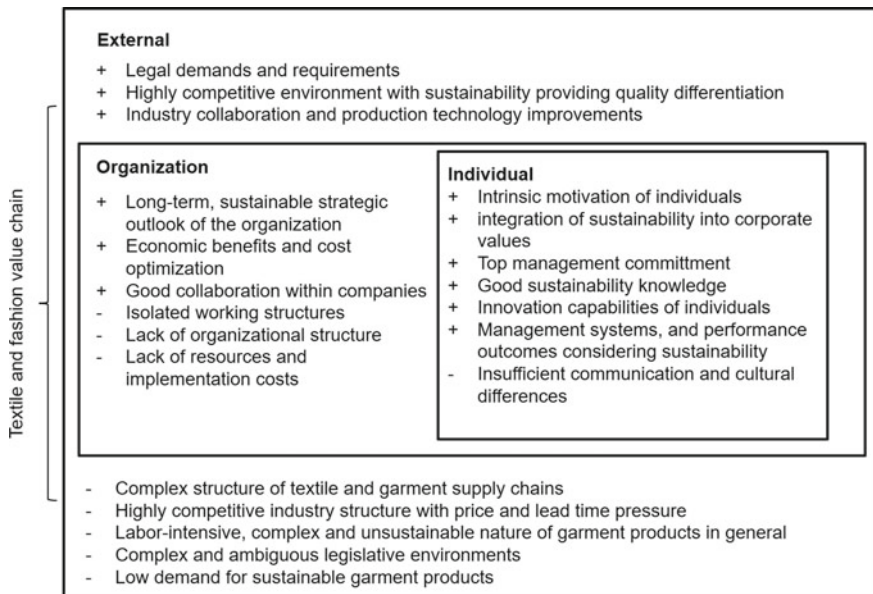


Fig. 5.2 Summary of the barriers (–) and drivers (+) to sustainability procurement practices in the textile and fashion value chain (source developed by the authors based on the literature discussed in this study)

problems are mentioned as barriers (Boström et al. 2012). Another barrier mentioned in the literature is the lack of intrinsic motivation of individuals (Oelze 2017).

At the organizational level, the main drivers for adoption of sustainable purchasing decisions are long-term, sustainable strategic outlook of the organization (Perry and Towers 2013), economic benefits and cost optimization (Caniato et al. 2012; Perry and Towers 2013; Li et al. 2014; Macchion et al. 2018), as well as good collaboration within companies (Oelze 2017). Organizational barriers to sustainable practices include isolated working structures (Boström et al. 2012), lack of organizational structure (Oelze 2017), additional coordination requirements (Seuring and Müller 2008), lack of resources due to a small company size (Oelze 2017), as well as implementation costs (Macchion et al. 2018).

The complex structure of textile and garment supply chains is one of the most pressing external barriers to more sustainable purchasing decisions (Perry and Towers 2013; Karaosman et al. 2016; Franco 2017). Further external barriers include the highly competitive industry structure with price and lead time pressure (Perry et al. 2015; Oelze 2017), as well as the labor-intensive, complex and unsustainable nature of garment products in general (Boström et al. 2012; Perry and Towers 2013). Complex and ambiguous legislative environments (Boström et al. 2012; Oelze 2017) which lack clear guidance (de Brito et al. 2008; Carrigan et al. 2013) are also said to hamper sustainable purchasing practices along the supply chain, and this is particularly the case in developing countries with weak governance (Karaosman et al. 2016).

5.4 Discussion and Propositions

In recent years, consumers are progressively demanding that the textile and garment industry in addressing the environmental and social issues prevalent in the sector (Gardetti and Torres 2013) and pressure on the industry mounting as a consequence of the Rana Plaza building collapse in 2013 (Reinecke and Donaghey 2015). This has resulted in the apparel brands and retailers at the top of the garment supply chain being increasingly seen as jointly responsible for the conditions in the factories of their suppliers and contractors (Anner et al. 2013). Consequently, there has been a renewed focus on risk management in global garment production networks, with lead firms and their buyers acting as “gatekeepers” which hold significant power over sustainability standards in the industry (Ven 2018). They have an important role to play in addressing these sustainability challenges and can effect change by adopting a focus on sustainable products sourced from responsible suppliers. From reviewing contemporary academic literature in this field, we can draw three main propositions which can be investigated further in future studies.

Proposition 1 Comprehensive and long-term collaborative approaches to procurement fosters sustainability outcomes.

While the sustainable procurement process includes a whole range of decision processes concerning processes ranging from product design to end of life, we find that the literature examining sustainability in the textile industry adopts a fragmented approach with studies focusing on these stages in situ, with the majority concentrated on buyer–supplier relationships from an operational perspective. These strategies build around supplier development programs which aim to build long lasting supply chain relationships (Perry et al. 2015; Köksal et al. 2017; Oelze 2017), utilizing supplier assessment and selection strategies in the procurement process to ensure suppliers comply with environmental and social standards (Winter and Lasch 2016; Moretto et al. 2018) set out in supplier codes of conduct (Turker and Altuntas 2014; Huq et al. 2016). Collaboration-based supply chain strategies focused on supplier development represent a departure from the traditional, transaction-based, short-term relationship supply chain management paradigm where lead firms search out alternative supplier in case of dissatisfaction instead of upgrading supplier capabilities. This recent development can be linked to the fast fashion supply chain model, which requires collaborative networks to allow for better supplier responsiveness. Increasing frequencies of fashion cycles, altering consumer demands and short product life cycles require high levels of agility to deal with reduced lead times, which can best be achieved via long-term relationship-based supply chain relationships (Perry and Wood 2018).

Proposition 2 Increased knowledge and training in procurement personnel increases pro-sustainable practices.

Intensified buyer training in relation to sustainable production and consumption would provide a necessary basis for better informed decision-making in the procurement process. Greater awareness of product lifecycles allows buyers to consider how the product will be used and can improve their decision-making in relation to durability, potential for repair and longevity of the product. In this case, buyers can select fabrics requiring less detergents and can be cleaned in cold water, reducing environmental impacts during usage phase. By conducting results from Life Cycle Analysis (LCA) covering environmental and social impacts from garment production and maintenance (Gibbon and Dey 2011; Kozlowski et al. 2012; Guenther et al. 2013), optimized decisions can be made during the design phase. Other tools such as Material Flow Cost Accounting (MCFA) can be used to calculate the full costs of waste and aid developing operational efficiencies (Schaltegger et al. 2012; Kasemset et al. 2015). The results from these assessment tools can be a useful tool for buyers when making procurement and purchasing decisions (Krozer 2008) and can be integrated with further Product Lifecycle Management (PLM) tools, minimum activity/component-based costing, and building price from costs up to help negotiate fairer prices. These managerial techniques can be combined with introducing targets and bonuses linked to responsible sourcing in order incentivize consideration of environmental and social criteria into purchasing decisions and subsequent supply chain management strategies.

Proposition 3 Realizing sustainable outcomes from procurement practices is reliant on consumer demand and legislative environments.

Many of the sustainable purchasing strategies such as voluntary codes of conducts and supplier audits have been shown to have significant limitations (Egels-Zandén and Merk 2014; Bartley and Egels-Zandén 2015; Egels-Zandén and Lindholm 2015; Lindholm et al. 2016). Further, our review of literature has also highlighted that there are manifold barriers to the adoption of more sustainable purchasing practices, which include but are not limited to the highly competitive industry structure with price and lead time pressure (Perry et al. 2015), cost of implementation and lack of resources (Oelze 2017; Macchion et al. 2018), ambiguous legislative environments (Boström et al. 2012; Oelze 2017), as well as the labor-intensive, complex and unsustainable nature of garment products in general (Boström et al. 2012; Perry and Towers 2013). Further, low demand for sustainable garment products is also stated as a barrier (Illge and Preuss 2012; Towers et al. 2013; Franco 2017).

Such consumer-driven conceptualization of garment demand is problematic, as lead firms play an important role in offering responsible products and creating demand for these products. Yet, textile and garment retailers and brands rarely tackle consumption issues, which are linked to the fast fashion business model (Lohmeyer and Schüßler 2018) as this would threaten the operational success which is built on selling large volumes of mass produced garments. However, this would be an integral step in tackling the significant wastage and unsustainable consumption of textiles and garments. However, a reduction in textile consumption could also mean job losses in producing countries, thus negatively impacting on workers there and creating a trade-off. Against the backdrop of the discussion of barriers toward implementation of adopting more sustainable purchasing at the lead firm level, we would like to highlight and draw attention to recommendations on how these barriers may be overcome. While reducing many of the barriers requires changes at the institutional level via an intensified focus on clear legislative and regulatory structures and governance mechanisms, we would like to limit our recommendations to the organizational and individual level to provide practical guidance for buyers at apparel brands and retailers.

5.5 Conclusions

Our review of the literature above demonstrates that there is a range of buying mechanisms and instruments that can be introduced to further sustainability in the textile value chain. It is highlighted that most studies adopt a fragmented, flash light approach to sustainable procurement, only focusing on certain stages of the procurement process. Such an isolated approach brings certain limitations with it as it lacks a comprehensive, systematic framework while also only focusing on operations without considering the strategic perspective examining the policy and control dimension. While the literature discussed in this section presents a good starting point,

we see a potential for more systematic research on sustainable procurement in the textile industry building on comprehensive green procurement frameworks already applied in other contexts (Günther and Scheibe 2006; Guenther et al. 2013). Further, in this overview, we refer to the drivers and barriers for implementing ecological and social criteria into purchasing decisions as part of procurement and supply chain management strategies in the textile industry. However, it is important to note that there are numerous factors which influence procurement and supply chain decision-making in the industry, and therefore, a more comprehensive approach is required to draw concrete conclusions on how to develop an operationally and strategically successful supply chain management structure in the textile and garment industry.

There exists a large scope for future work in this field to take a systematic and holistic approach to examining the full extent of procurement processes in generating sustainable outcomes across the entire textile value chain. This section provides an overview of the key challenges facing the industry and future studies should address the extent to which long-term collaboration is more effective at creating efficient, responsive and sustainable textile value chains that minimize environmental and social impacts, or whether the existing business models can be adapted to value sustainable characteristics in the same way that cost, time and quality are currently valued. A second stream of work should focus on the knowledge capabilities and requirements for procurement managers in order to analyze and process the data required to comply with demands from auditors and external monitoring agencies, while a third stream of work should consider the wider institutional arena, taking into consideration consumer psychology toward sustainable consumption and the legislative environment which places pressure on procurement actors to move toward sustainability outcomes. Furthermore, we encourage future research to take a systematic approach toward the types of companies surveyed in terms of institutional environment, size (the experiences of SMEs compared to multinational companies are likely to differ markedly) and market type (i.e., mainstream or niche market) to fully understand how buying practices and procurement processes vary across a wide range of institutional and organizational contexts.

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