Sustainability innovators and anchor draggers: a global expert study on sustainable fashion
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Abstract
Purpose – The purpose of this paper is to explore current barriers and opportunities for sustainability in the fashion industry.
Design/methodology/approach – The paper is based on a study among 36 fashion experts from academia, industry, and non-governmental organizations, who took part in an online study on sustainable fashion.
Findings – The results from the study indicates that the fashion industry faces immense social and environmental challenges and that the scale and scope of current approaches to sustainability are limited and fail to address more fundamental challenges linked to the dominant business models and consumption behaviors.
Research limitations/implications – As the study is based on the knowledge, values, attitudes, and cultural stances of the participating experts it cannot claim to provide a picture of the “real world.” Nonetheless it contributes with a nuanced understanding of current challenges and opportunities within the industry, as experienced by key stakeholders in the field.
Originality/value – The expert study approach moves beyond “good practice” case studies and allow a broader discussion of micro- and macro challenges for sustainability within the fashion industry. The learnings gained through such an approach could inspire future system level research as well as business model innovation in the industry.

Keywords Consumer behaviour, Sustainability, Organizational change, Partnerships, Business models, Accountability

Introduction
The fashion industry is a major contributor to problems of social and environmental sustainability. Sustainability challenges span across the entire life cycle of a piece of garment. The environmental impacts include energy use and generation of greenhouse gas emissions in production and use, water use, toxicity, hazardous waste and effluent associated with production stage pre-treatment chemicals, dyes, and finishes. Social impacts include poor working conditions, including sweat shops and child labor, low wages and long hours, workers’ rights and health and safety risks, and animal welfare (Pedersen and Gwozdz, 2014). All impacts are exacerbated by the ever-increasing volume of clothing consumption (Goworek, 2011; Moore, 2011, Gam et al., 2009; Defra, 2008/2011; Birtwistle and Moore, 2007). Today, more than 80 billion garments are produced around the world and in 2011 global fiber production (mainly cotton and polyester) set a new global record of 86 billion tons, reaching nearly 12 kg per capita (Deloitte, 2013).

Researchers, media and the public alike have discussed the sustainability impacts of each stage of the fashion supply. When it comes to the manufacturing processes, the Natural Resource Defense Council (NRCD, 2011) have concluded that textile-making is one of the most polluting industries in the world. This is due to the production of cotton
and synthetic fibers as well as the typical back-end of production, which is characterized by outdated manufacturing methods used in the dyeing and finishing of fabric. When it comes to the social aspects, the recent collapse of the Rana Plaza in Bangladesh, which killed more than 1,100 workers, serves as a tragic reminder of the poor working conditions among fashion suppliers in developing countries (Burke, 2013a, b). Looking at the demand-side of the fashion industry, the social and environmental impacts of fashion consumption have received relatively little attention. The fashion consumption stages are pre-purchase (the idea and decision to buy a garment), purchase, usage, maintenance, and disposal of clothes (throwaway, recycle, etc.). Goworek et al.'s (2012) qualitative study of UK consumers’ perspective on sustainable clothing consumption shows that consumers believe that the main sustainability issues related to clothing is at the stage of manufacturing. Research however, has shown that laundering, which is part of the use stage, is the single aspect of clothing consumption that has the greatest impact upon society (Laitala et al., 2011; Allwood et al., 2006), in some cases being responsible for up to 82 percent of energy use during the life cycle of a piece of clothing (Fletcher, 2008; Harris, 2010). Disposal of clothing is another key sustainability issue. In Europe and America, an estimated ten million tons of textiles are discarded every year (Wang, 2006). In the UK alone over one million tons of clothing is thrown away each year, more than half ending up in landfills (Harris, 2010). According to Politiken (2013), in Denmark more than 25,000 tons of clothing was donated to NGOs in 2012, which equals to each Dane giving away seven pairs of jeans or 30 T-shirts. In addition, large amounts of textiles end up in incineration (Laursen et al., 2007).

Fashion is not the only industry struggling with social and environmental problems but the challenges depend to a large extent on the characteristics of the sector. For instance, Sarah Roberts (2003) concludes based on a comparative analysis of branded confectionary, clothes/footwear, and forest products that the nature of the supply chain puts limitations on the ability to address corporate social responsibility (CSR). Supply chain power, reputation, length, and diffusion are all key factors in understanding how CSR is implemented in different sectors (Roberts, 2003). Moreover, André Martinuzzi and colleagues have compared sustainability barriers and opportunities in the chemical, textile, and construction sector (Martinuzzi, 2011; Martinuzzi et al., 2010). One of the differences is that competition in the chemical industry is centered in Europe, whereas European textile manufactured are faced with global competition especially from Asia (Martinuzzi, 2011; Martinuzzi et al., 2010). Last, Thomas Laudal (2010) argues that the structure of the global clothing sector (high labor-intensity, lack of transparency, etc.) result in higher risk of violating social and environmental norms. In addition to sectoral differences, evidence also indicates that sustainability challenges vary across countries (de Abreu et al., 2012; Akyildiz, 2012; Cosmic Project, 2009; Thauer, 2014).

The objective of this research is to discuss sustainability within the fashion industry and to share concrete ideas for the future development of sustainable fashion, whether it concerns new materials, new partnerships, new consumption patterns, or new policy options. This study takes on a novel approach to provide a broader overview of the barriers and opportunities for systemic changes for sustainability in the fashion industry. Much research on sustainable fashion focuses on a single issue (e.g. codes of conduct) or agent (e.g. designers) even though it is generally acknowledged that a more holistic and systemic perspective is needed to address the global and interrelated sustainability challenges in the supply chain. Moreover, the literature of CSR is dominated by case studies of single companies whereas there is little knowledge about the broader tendencies and trends within the field of sustainable fashion.
The remaining paper is structured as follows. The paper begins with a short description of the online research method used in this expert study of sustainable fashion. This section is followed by the analysis where the main results from the online study is presented. The analysis will focus on a limited number of themes that were also used to structure the discussions in the data collection phase. The analysis will result in a broader discussion of the need for collective action for sustainability within the fashion industry. The conclusion wraps up the main results from the findings and reflects on the limitations of the study.

Method
Existing research sustainable fashion is mainly based on evidence from surveys (i.e. Pedersen and Gwozdz, 2014; Kozar and Connell, 2013; Langhelle et al., 2009) and especially case studies analyses (interviews, participant observation, secondary sources) (e.g. Arrigo, 2013; Curwen et al., 2013; Dickson et al., 2012; Goworek, 2011; Hvass, 2014; Perry, 2012; Plieth et al., 2012). Existing research also tends to pick individual organizations or a limited part of the fashion life cycle as the locus of analysis. Few studies provides a broader analysis of the multiple stakeholder groups related to the fashion industry which all have a role to play in bringing about changes toward sustainability (e.g. design students, NGOs, governmental bodies, industry associations, technology providers, consultants, research institutions, etc.).

This study adopts a slightly different and more relational approach by including the voices of more stakeholder groups in the analysis. The study was conducted as a Sociolog.dx, a digital qualitative research tool provided by the data provider GfK (Growth from Knowledge). The Sociolog.dx is an online forum with restricted access, where a selected group of participants answer questions, solve tasks, and share various material (pictures, links, drawings, etc.). The main advantage of the Sociolog.dx is that the method is flexible and allows participants from around the world to decide themselves when to contribute. Moreover, contrary to traditional interviews and questionnaires, the participants in the Sociolog.dx gain insights about the contributions of the other experts and are able to comment on each other’s answers.

In this study, the data provider recruited 51 participants to the Sociolog.dx based on a contact list with information on 200+ experts identified by the researchers. The initial list of experts in sustainable fashion was developed over a longer period of time from various sources (literature review, speaker documents from conferences/workshops, newspaper articles). 36 participants ended up taking part in the actual data collection which took place May 6-10, 2013. The experts in the Sociolog.dx include independent designers, business representatives, faculty members, as well as civil society organizations from 13 different countries. Some of the participating experts hold multiple roles within the fashion industry.

The discussions in the Sociolog.dx were structured around a limited number of activities/questions within the field of sustainable fashion (training/education, consumer behavior, policy making, etc.). All participants in this study were given the opportunity to be anonymous to the other experts participating in the Sociolog. An external moderator from the data provider helped facilitate the discussions. The researchers were able to observe the activity on the Sociolog.dx but did not interfere in the discussions between the experts.

The researchers received full transcripts of the discussions under each of the Sociolog.dx activities/questions. The data were analyzed using open-ended coding and subsequently grouped into higher-level categories and organized in various typologies.
inspired by the existing literature (Lewins and Silver, 2007). As an example, the analysis of a question relating to policy making for sustainable fashion was organized and inspired by an existing continuum between soft and hard regulation (Lozano et al., 2008). Lastly, quotations, links, and pictures were selected to illustrate the categories identified during the previous analysis stages.

### Analysis

Participants in the online study were requested to visualize the fashion industry by uploading photos, drawings, videos, or other material that best represented their view of the industry and subsequently reflect on the rationale for their choice. Moreover, the participants were asked to articulate what they considered the main barriers for change toward sustainability. The analysis of the visual material and the text clearly indicate that the fashion industry is having a serious image problem as most experts portray the sector as superficial, irresponsible, unsustainable, and/or unethical. Upstream, lack of visibility and transparency in the fashion supply chain is repeatedly highlighted as a problem by the experts. As an example, one of the participants has chosen a retail window to illustrate the fashion industry because it looks glamorous but provides little information about the journey of the individual garments. Downstream, overconsumption, and a throwaway culture implies is a significant barrier for sustainability in the fashion industry. In the words of a participant:

> We certainly don’t need all the clothes and fashion that is produced today. We produce and consume in excess. All these clothes, all these resources, when the charm of novelty fades, are soon thrown on the dump. We are very much involved in luxury production and consumption, for the sheer enjoyment of creating and buying something new, again and again. But this has implications. The textile industry exerts a heavy toll on the environment and on the people involved in production, and after the textiles are discarded they create a lot of waste and a further burden on the environment.

Overall, the results from the online study indicate that the sustainability challenges in the fashion industry are deeply rooted in current “fast fashion” business models and consumption patterns. Moreover, there is an element of skepticism toward the current sustainability efforts within the fashion industry which are considered insufficient in addressing the more fundamental social and environmental challenges. For instance, a participant argues that the sustainability initiatives of big fashion companies are often about being “Less Bad” within a limited number of areas rather than making more fundamental changes in the organization:

> [T]hey change a small portion of some material to be a bit less bad, but don’t think of the production process as a whole. We should think of the life cycle of a product and its impact on the environment and people. We cannot be just a bit less bad – we should change the fashion industry to be truly good.

The experts participating in the online study were also asked to provide example(s), pictures, links, etc., of innovative sustainability initiatives within the fashion industry. Despite the challenges in the fashion industry, the results indicate that a number of companies are in fact experimenting with new products, processes and business models that hold promises for a more sustainable fashion future. The participants highlighted for instance various recycling/upcycling initiatives that represent first steps to break with the prevalent linear system within the fashion industry (e.g. Marks & Spencer’s Shwop Coat). Other examples include for instance From Somewhere and
Goodone, which make upcycled products from pre-consumer (cuts and leftovers fabrics) and post-consumer waste (stuff that is thrown out), respectively. The participants also pinpoint the transformation from products to services (swapping, leasing, repairing, hiring, reusing, etc.). As one of the participants argue: “We all have plenty to wear! We need to be offered more support and encouragement in looking for the alternative ‘new’.” Examples include “Rent the Runway,” which promotes reuse through renting, and “Stylish Girl,” that enables consumers to organize a wardrobe and thereby extending the life of a garment. Last, the participants mention a number of new systems, tools, and technologies that support the development of sustainable fashion. This includes for instance, first, new technologies for reducing the social and environmental footprint of manufacturing processes, packaging, and transportation, second, new tools for promoting transparency and traceability in the supply chain, and third, new systems for managing and measuring the social and environmental footprint of various garments.

A number of innovations highlighted by the participants have a partnership-like character involving participants from a variety of organizations (design schools, NGOs, local communities, etc.). For instance, the participants mention a number of collaborative projects that have been introduced to benefit vulnerable groups, e.g. immigrants, disabled, and HIV-patients). Moreover, companies have developed special collections in collaboration with local artisans and thereby contributing to local economic development and perhaps also greater understanding among people across cultures. Companies are also working together with universities/design schools on sustainability-related teaching and research. As noted by a participant: “Universities and (their) design schools are in a very strong position to work with fashion companies – to develop good practice, but also to be involved in exploration, research, ‘thinking outside of the box.’” While the partnerships highlighted by the experts often have a project-like character, which involves a limited number of actors for a limited period of time, there are also examples of collaborative efforts with multiple partners and a longer time perspective. This includes for instance multi-stakeholder initiatives such as the sustainable apparel coalition and the sustainable clothing action plan, respectively.

Just like there are a number of upstream challenges in the fashion supply chain, there is also a need to address the downstream challenges caused by unsustainable consumer culture. To challenge dominant fashion consumption patterns, the experts highlight a number of consumer campaigns which aim at avoiding certain products (e.g. fur), lowering the environmental footprint in the use phase (e.g. washing at lower temperatures), and extending the product lifetime through repairing, recycling, reuse, etc. Especially the last category seems to receives a great deal of attention in the discussions and perhaps reflect a broader trend in sustainable fashion. As noted by a participant: “People have really become much more aware of exchanging, borrowing and re-using clothing as well as up-cycling, customizing and repairing what they have.” However, it is also acknowledged that consumers often have no or very little knowledge of the social and environmental impact of their purchases. The industry is characterized by scant information and lack of transparency, which means that consumers have to make a big effort to find better alternatives. As noted by one of the participants: “Most consumers think that an organic cotton label is enough to safeguard that the garment is ‘green,’ when in fact the ensuing dyeing process drenches the textile in lots of hazardous dyes and chemicals […].” Moreover, it is acknowledged that there are limitations to the sacrifices consumers are willing to make in relation to sustainable fashion. In the words of a participant: “[…] you can’t just dissuade certain
purchasing behaviors, without offering some better alternatives. We have to promote sustainable consumer behavior by offering better choices.” Last, there is a need to look at the price structure where consumers today have to pay a price premium for sustainable alternatives. To quote a Sociolog.dx participant:

It is also important to introduce consumers to a pricing scheme that is representative of what clothing actually costs to produce – unlike the dominant global supply chain that externalizes costs [in the form of environmental & social impacts] promoting misleading pricing/costing mindset to consumers.

A transformation of fashion industry also necessitates deep, organizational changes in the structure, organization and management of the individual fashion company. Therefore, the participants were asked to give recommendations regarding the practical implementation of sustainability in a non-specified organization. Overall, the results indicate that there is no one-size-fits-all model for the successful adoption of sustainable fashion. Therefore, a thorough understanding of the unique organizational characteristics is required prior to the implementation process. However, management commitment is always an important precondition for a successful implementation process as it is upper echelons in the organization sets the direction, allocate resources, and reward performance. Moreover, it will be important to identify internal change agents, who can play a key role in the transformation process, as well as local anchor draggers, who will defend status quo at all costs. As noted by a participant: “Finding early adopters and championing them is important, as is identifying the obstructors of change.” With regards to the implementation of the internal changes, multiple approaches are suggested – some participants favor a cross-departmental strategy which involves everyone in the organization (and sometimes the entire supply chain) whereas others want to begin the company’s sustainability journey in a single department (e.g. sourcing or design). Still others emphasize a differentiated strategy which combine a broad information strategy with deep involvement in selected departments. One of the participants refers to this strategy as a T-shaped approach which combines: “[...] lecture format to reach lots of people[...]and a deeper learning experience with at smaller group, over a longer period of time.” There is also some disagreement when it comes to the involvement of outside experts (consultants, designers, researchers, etc.). On the one hand, external parties can bring important expertise to the organization. On the other hand, it is the internal organizational members who need to take ownership for the transformation. In the words of one of the participants:

I think that external consultants can be extremely valuable in re-evaluating corporate current practices, as it often needs a fresh set of eyes to view processes that have become automatic, and evaluate them from a sustainability perspective. That said, consultants do not always take the time to consult and work with existing staff effectively, who quite often are very aware of their own shortcomings and poor practices.

Participants in the online study also reflected on the role of public policies in promoting sustainable fashion. Overall, the suggestions fall into two categories: punishments and rewards. With regards to the former, companies should be financially sanctioned for non-compliance with social and environmental standards and current externalities should be dealt with through taxation of certain materials (e.g. virgin polyester), resources (e.g. water), and business practices (e.g. violations of workers’ rights). With regards to the latter, organizations promoting sustainability should pay lower taxes just like sustainable fashion should be cheaper for consumers compared to conventional fashion.
Overall, the findings indicate that there is a need to “fix the prices” in the fashion industry, which today provides no incentives for companies and consumers to produce and buy socially and environmentally friendly fashion. As noted by one of the participants: “It should not be the case that brands that choose to produce their garments ethically should pay a premium for those choices, whether through the cost of materials or production. Unethical and polluting processes are what should be taxed, while ethical production should be financially incentivised.” Other policy recommendations mentioned by the participants include requirements for companies to promote transparency (reporting, certifications, labels, etc.), the banning of environmentally harmful materials, and compulsory sustainability teaching at educational institutions.

While there is an element of disillusion when it comes to the current state of affairs in the fashion industry, the participants expect the fashion industry to make progress on all fronts: exploration of new materials, downcycling/recycling/upcycling, clothes sharing, slow fashion, and sustainable consumption. One of the participants makes the following comment: “Many good things are happening everywhere: the fast, mainstream fashion system is slowly, but steadily improving, led by a few leaders. Platforms for interchanging experiences, best practices, and solutions, are being created, as well as practical tools to be used by designers to make more informed decisions when choosing materials and processes.” As an example, systems for transparency and traceability in the fashion supply chain are perceived as being steadily more sophisticated and advanced. A more transparent supply chain is needed to allow companies, retailers as well as consumers to know what takes place at each stage of the supply chain. As one of the participants argues, today it is difficult to be only one organization when changes are required in the entire industry: According to a participant:

I feel that one of the main barriers for sustainability in fashion is the complexity of the fashion supply chain. It is really difficult to start with sustainability as just one company or organization. For sustainability to work, all the actors in the supply chain have to work together and link their activities, expectations and wishes in terms of sustainability to each other.

**Discussion: reflections on the journey toward sustainable fashion**

The results from the online study point in a number of different directions. In general, the participants echo the view that current approaches to sustainability often lack scale and scope (Visser, 2010). Moreover, the discussions between the participants also highlight the complexity and interconnectedness of the challenges of sustainability in the fashion industry. However, in order to better understand the findings from the analysis, the results need to be related to the broader literature on sustainability and CSR. Therefore, a number of continuums have been developed inspired by the existing literature which is used to structure the discussions of the progress toward sustainability within the fashion industry (see Figure 1).

In terms of innovation, a continuum exist between incremental process and product improvements within the existing (“old”) business layout and the development of more innovative business models (“new”) which break with predominant approaches to value creation, delivery, and capture value (Davenport *et al.*, 2006; Schaltegger *et al.*, 2011; Smeds, 1994). For instance, Puma’s Clever Little Bag is an example of incremental process innovation which attempts to minimize the use of materials for packaging. A more innovative business model includes for instance from somewhere which uses pre-consumer waste (i.e. cuts and leftover fabrics from designers) in creating their clothes. Other examples of more radical innovations include new types of sustainable services which reduce the need for buying new products. It is often new, small-scale
businesses rooted on ideas of sustainability which experiment with radical innovations whereas major fashion brands rarely depart from the predominant manufacturing and consumption patterns. As noted by one of the participants, new business models will be met with reluctance from well-established brands have based their business on fast production of quick commodity goods: “I would agree with the importance of developing new business models e.g. based around service rather than the production/commodity models. It is likely however, that such models will have to come from outside/beyond those already invested [literally and figuratively] in the fashion status quo.” The quotation resonates with the business model literature which also highlights the difficulties of changing an existing business model which has proven successful in the part and has become institutionalized in the existing organizational infrastructure (Chesbrough, 2010).

Internal change in the organization can be implemented top-down, bottom up, or by a combination of both (Paton and Boddy, 2007). The participants seem to agree that an element of top-down implementation is needed for change to happen in an organization. For instance, it is recognized that management commitment is an important precondition for a successful implementation process as it is the top management who sets the direction of the company and allocate resources to different agendas and priorities. To quote one participant: “[…] without senior management buy-in, the exercise would be futile.” Moreover, it is argued that: “Motivation only lasts so long unless there is a major shift in the company’s strategy and core structure.” However, the participants also argue that changes are unlikely to take place without the ownership of staff from across the organization. One participant says: “the whole process of change should be co-created, co-designed with the core team consisting of representatives (natural leaders) from different departments.” Overall, the results seem to indicate that the success of internal changes toward sustainability depends on leadership from the top as well as involvement from the bottom of the organization.

Partnerships can be divided between transactional partnerships with limited commitment, communication, and learning between the parties, and transformational partnerships, which are characterized by frequent interaction, high levels of trust, and joint management (Bowen et al., 2010). While it is generally acknowledged that collective action is needed for systemic change in the fashion industry, the majority of partnerships highlighted by the participants are often small-scale and having a project-like character, which cannot be said to be fully integrated in the fashion supply chain. For instance, one-off partnerships between major fashion brands and selected NGOs or community groups can hardly be seen as a transformational engagement. However,
a few smaller fashion brands (e.g. Indigenous and Gudrun & Gudrun) seem to have adopted a more transformational approach by partnering with local artisans who manufacture their core products.

When it comes to the demand-side of sustainable fashion, it is possible to influence consumers using a variety of means: information, education, campaigns, incentives, engagement, etc. (Bocken and Allwood, 2012). Here, a distinction is made between influence strategies which are about encouraging consumers to be act more sustainably, and editing strategies, which actors decide to remove or add options available to the consumers (editing). The participants mention that it is possible to challenge consumption behavior through campaigns and information sharing, e.g. PETA’s anti-fur activities and the work of Clean Clothes Campaigns. Moreover, consumers can be provided with new options for reusing clothes, e.g. renting and swapping initiatives offering consumers the ability to use designer clothes without having to buy it and then throw it away later after limited use. This also increases the life cycle of the garment, as it is taken care of, and shared for longer period of time than it would potentially be in a “private” ownership. The participants in the online study provides little evidence of editing strategies where major fashion brands remove unsustainable fashion or make sustainable fashion the default option.

A continuum exists between “soft” (e.g. awareness-raising and facilitation) and “hard” (taxation and legislation) public policies (Lozano et al., 2008; Albareda et al., 2007). Here, the recommendations of the participants typically fall into the latter category. Even though there is a need for, e.g. consumer information, these efforts cannot fix more fundamental flaws in the system which makes sustainable alternatives more expensive than conventional fashion. One participant says: “Unethical and polluting processes are what should be taxed, while ethical production should be financially incentivized.” Most participants agree that governments should play an important role in the future of sustainable fashion. Currently, however, participants do not feel that governments are investing enough to the future of the industry. According to a participant:

Governmental legislation does not currently support brands producing ethically and sustainably, and does not hold brands directly accountable for the production of their own goods. The old excuse of lack of control and thereby responsibility due to contracted and subcontracted labor, no longer holds water. I believe that governments must hold brands responsible, and that consumers should exert their power through social media and purchasing choices.

Overall, the participants highlight a long list of barriers, which range from organizational impediments to broader societal tendencies. Together, the voices of the experts give a portrait of an industry where everyone is trapped in a system, which make it difficult and costly to develop less impactful ways to supply and consume fashion. In this system, consumers and companies receive little or no rewards for pursuing new approaches to fashion. Even people trying to do things differently often have to adhere to the existing, unsustainable logics of the system. In the words of one of the participants:

The traditional systems of sampling materials, making sample lines, engaging sales agencies or agents, across the country, each of whom require a sample set, showcasing the collection during fashion week through fashion shows or trade shows, wholesaling the collection and delivering months prior to actual consumer use, then turning around and repeating the process for 2, 4 or more drops per year, is in itself inherently wasteful and unsustainable, and requires a major rethink. We need alternative models to deal with alternative products.
Conclusion
The purpose of this paper was to map the current challenges and opportunities for sustainable fashion by conducting an online study among fashion experts from different sectors and geographies. The online discussions among the participants document the inadequacies of the current fashion supply chain – from extraction of raw materials to end consumption – and the surrounding institutional environment. However, the emergence of new and more sustainable alternatives to conventional fashion manufacturing and consumption also offer potentially interesting avenues for lowering the social and environmental footprint of the fashion industry. The systemic nature of the sustainability challenges in the fashion industry highlight the need for concerted action from all stakeholder groups (businesses, designers, policy makers, consumers, researchers, NGOs, etc.).

With its relational approach, the results of the study can inspire and inform business as well as education in the area. By highlighting the systemic character of sustainability challenges, it is a call for re-thinking existing practices and business models. In particular, there seems to be a need for knowledge sharing and collaboration in between and across companies and sectors (partnerships). The study could, for example, lay the foundation for the development of teaching cases, targeting business and design students as well as industry. Also, the study brought to light a number of new and more sustainable ways of doing business that might inspire further explorations, in education and in practice. The Sociolog.dx method in itself might also pose interesting opportunities for knowledge exchange and learning, as it can serve as an online meeting point where stakeholder groups (design students, fashion brands, supplier brands, NGOs) can engage in debates on specific themes related to sustainable fashion (closed loop, collaborative consumption, slow fashion, etc.).

The paper has limitations. It is based on insights of a limited number of experts selected by the researchers and thus cannot be said to represent the voices of all stakeholders throughout the fashion supply chain. Therefore, the Sociolog.dx study is dominated by businesses, consultants, designers, and academics whereas there are no representatives of upstream supplier factories or downstream consumer groups. A broader study including the perspectives of more stakeholders could have improved the breadth and depth of the analysis. In the future, it will be relevant to conduct a more thorough analysis of the perception and practice gaps within and between stakeholder groups to provide a more holistic view of the sustainability challenges and opportunities. Moreover, it will be relevant to look more closely at how consumers perceive the sustainability innovations introduced to better evaluate their potentials for bringing about systemic change in the fashion industry. In the absence of efficient public policies and industry initiatives, the future of sustainable fashion still resides in the behaviors of individual consumers.

References


**Further reading**


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