Research Article

Social Sustainability and the Textile Industry: New Directions in Sustainability Research

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Abstract

Between sweatshops, accusations of chemical pollution and use of endangered animal's leather, the textile industry has been under scrutiny. Fashion brands have had to answer for unfair wages and inhumane working conditions, while the industry more broadly has been identified as a threat to the success of the global agenda on sustainable development. Considering the strategic importance of this industry, this letter proposes further research on the textile industry and its negative impacts on the planet and society through the lens of social sustainability. This creative and diverse industry has the potential to assist on other fronts like education, health, biological and cultural conservation. This letter begins with a brief overview of the environmental and social significance of global textile industry, and the definition of social sustainability. We then examine how social sustainability has been addressed in academic literature about the textile industry and conclude with opportunities for future research.

Introduction

The textile industry has long pushed the boundaries of global production and consumption with important environmental and social consequences. Its historical role in the Industrial Revolution, colonialism and the transatlantic slave trade has been well documented [1]. The current system of international trade and outsourcing of textiles manufacturing further highlights the gap between the Global North and South. Today's fashion industry is recognized as both a "key environmental threat" [2] and as a sector plagued by human rights abuses. The industry has significant impacts on ecosystems through its consumption of water, chemicals and materials, its dependence on agriculture for fibre production and marine and air cargo for global distribution, and its generation of waste and CO2 [2]. Textile and apparel manufacturing therefore present a number of points where biodiversity and human wellbeing intersect.

While the concept of sustainability is broad and inclusive [3-5], the social dimension has been neglected. Social sustainability has been overshadowed by more profitable and technological alternatives [6]. More effort has been invested in surveying and quantifying the economic and environmental dimensions of sustainability, while concepts such as injustice, inequality, behaviour and socio-cultural change have proven challenging to theorize and evaluate, as seen in overlapping frameworks and indicators of social sustainability, social progress, social impact, social equity, social costs and benefits, etc. [6-8]. Social sustainability has recently emerged as a priority in sustainability conversations. This raises questions about how to define the concept and the kind of society we should be striving for [7] at the same time that we aim to reconcile human needs and desires with those of the biophysical environment [6]. The transition to a sustainable society is strongly grounded in "a socially just transition," anthropocentric in essence, as it proposes intragenerational justice [8].

This letter proposes that social sustainability in textiles and apparel manufacturing is an important area of focus for sustainable development research. The topic is especially relevant to policy and practice in this moment of global stress and transition brought by the COVID-19 pandemic. We approach this topic based on our combined experience as researchers in sustainable textiles and fashion, circular economy, global value chains and social impact. Our perspectives are informed by our positions within a design school in Finland, a country seeking to revive industry with goals of carbon neutrality by 2035 [9]. Our intradisciplinary collaboration

led us to question how social sustainability is approached across our fields, particularly in the areas of circular economy and social impact. We pose the following research question in order to initiate a broader conversation: what does social sustainability mean in the context of the textile and apparel industry and how is it addressed in practice? The letter begins with a brief overview of the environmental and social significance of the global textile industry, followed by a short discussion of how social sustainability has been defined. We then examine how social sustainability has been addressed in academic publications about the textile industry and conclude with opportunities for future research.

Context

The textile industry and its global reach

The textile industry has played an integral role in colonialism and imperialism, contributing to the current positions of today's wealthiest countries [1]. The transition from the Silk Road connecting Asia to Europe, to the transatlantic slave trade between Europe, Africa and the Americas, is a period of history that has been heavily researched alongside the main 'products' of trade, especially silk, cotton, sugar, rum and slaves. As intercontinental commerce, the Industrial Revolution and growth in the consumer market brought changes to the Northern hemisphere, disadvantages of capitalism also became apparent, like working conditions in the factories, which 'required' long hours in squalid conditions and, due to the low wages, meant that entire families worked in the same environment, including children [10]. With time, human rights, politics, education and eventually unionising led to what can be seen as the exportation of hard labour, awful working conditions and low wages to colonies and developing economies [11,12], starting a new cycle of exploitation for the textile industry.

The hazardous textile industry

In the European continent 60% of production is outsourced to countries with cheaper workforces and more lax legislation [13]. According to Fontell & Heikkilä [14], the textile industry is responsible for providing "basic-level jobs in many developing countries. However, the increase of global trade has not increased opportunities for social or economic catch-up among the least developed nations". Shorter lead times and other asymmetries in global value chains are direct consequences of the price pressure on final products, which in turn impacts workforces already at risk of not meeting their basic needs [15]. In the European Commission's A New Circular Economy Action Plan [16], textiles rank fifth on the list of key product value chains, being the fourth highest-pressure category when it comes to the use of raw materials and water and fifth highest for greenhouse gas emissions. Natural, synthetic, artificial and regenerated fibres have been evolving alongside the industry, ideally to produce more while using less water, land and chemicals [1,17, 18].

Progress has been slow and steady, but some areas of the industry still rely strongly on rapid turnover of trends, scarcity of goods or low price to generate profit, counteracting many

of the advances in sustainable production [19,20]. Cheap 'fast fashion' and 'exclusive luxury' appear to be polar opposites in the textile industry, however, in regard to sustainability, they present similar threats. Companies in the first group use harsh chemicals, cheap labour and polluting practices to lower their production prices, while companies in the second are constantly searching for exclusive and unique goods which can be priced higher (e.g., leather from specific animals) [17,21,22]. The cost of fashion thus reflects the demands of consumers in faraway lands, but the bio-price of the industry stays in local communities where pollution accumulates, land is used for fibres instead of food, water and soil are contaminated, populations of endangered species continue to decrease, and communities continue to struggle to meet minimum living conditions [23-25].

The understanding of social sustainability

The sustainability tripod [25] provides a framework which illustrates the initial understanding of sustainability as a developmental concept: the three areas must balance each other out to ensure long-term stability (Figure 1). In 1991 [11], Sachs proposed two more variants to the development issue: culture and location. As can be seen in Figure 2, these two new pods take into consideration further dimensions of the disparities faced around the world (especially in poorer areas) which, combined with profit, people and the planet, could lead to a higher level of global equality, and thus, universal development. 'Our common future' [27] already considered the need to grow together as a planet, however, governmental failure to act accordingly led the United Nations Environmental Programme to develop the Sustainable Development Goals (SDGs): a set of objectives and guidelines to ensure sustainable social and environmental growth and universal sustainable development [28]. Part of the 2030 Agenda, the SDGs are composed of 17 goals and 169 targets to stimulate actions for 15 years in areas of critical importance: People, Planet, Prosperity, Peace and Global Partnership (4th United Nations Plenary Meeting, 2015).
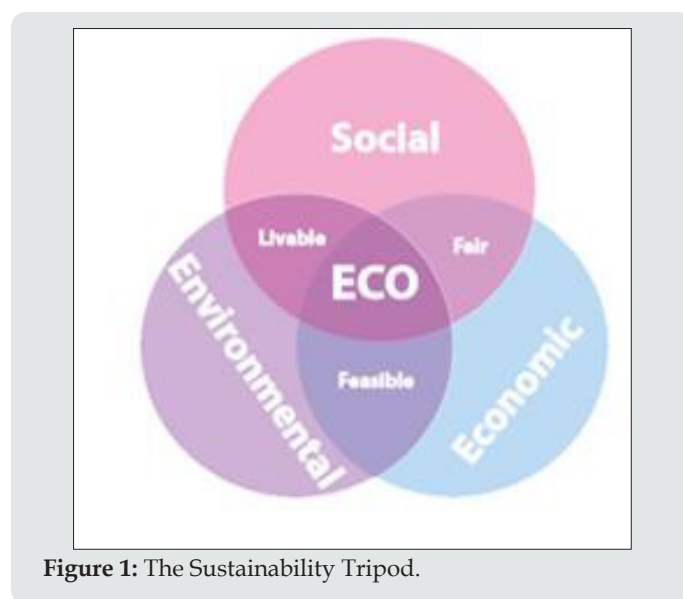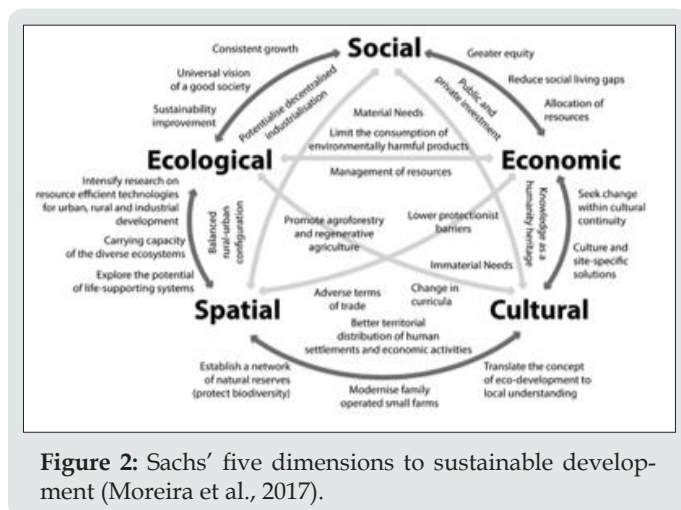

Figure 1: The Sustainability Tripod.

Figure 2: Sachs' five dimensions to sustainable development (Moreira et al., 2017).

To understand how the objectives are intertwined and create purposeful solutions, methodologies and tools were developed. Circular Economy emerged as a favored solution for sustainable development and was quickly adopted by the European Commission as fundamental to its overall action plan [13]. More recently, social sustainability has received increasing attention in EU policy leading to the publication of the European Pillar of Social Rights Action Plan [29] and raising questions about how to define and evaluate the concept. As McGuinn et al. note, all dimensions of sustainability are intrinsically interlinked and the rapport between the parts is complex: "what is good for the people might not be good for the biophysical environment and vice versa" (2020, p.40). Fletcher and Tham published the Earth Logic in year 2019, which also points out the importance of developing a new system level understanding for fashion and extends the sustainability discussion from environmental impacts only to include e.g., individual, minority and community voices and through this challenge the power issues in the fashion business. Companies are nevertheless trying to integrate supply chain stakeholders through circular initiatives, creating means to ensure support and useful exchange between the pillars of sustainability [30-32].

Social Sustainability in the globalized textile industry

In the context of sustainable development, social sustainability is highly relevant to the textile industry, where many stakeholders' profit from social inequality. The existence of sweatshops, for example, can be directly linked to the urgency for some groups to acquire means to meet their basic needs. Without better alternatives, families (especially mothers who are responsible for the household income) will accept jobs regardless of threat to their health. One way to evaluate the textile industry's impact on sustainability is to examine the extent to which the sector's practices change, particularly in relation to financial inequality [33]. For example, in the field of supply chain management, social sustainability is defined as including ethics in supply chain practices or operationalizing fair trade principles [31]. However, there are a number of challenges in monitoring and improving social sustainability in textile supply chains, including: lack of transparency; the complexity, size and distribution of supply chains; lack of knowledge of what to monitor; lack of collaboration between stakeholders; and adherence to and monitoring of different levels of regulation [30].

Social Sustainability in Current Textile Research

In order to gain an overview of how social sustainability and the textile and apparel industries have been treated in academic literature since the publication of the Brundtland report [27] and from across fields, we used Scopus to search for peer-reviewed articles in which the title, abstract or keywords contain "social sustainability" in combination with one of "textile," "fashion" or "apparel." Of the 38 articles that match these criteria, the majority (24 or 63%) were published in 2020 (11) and 2021 (13) with one to four articles appearing each year between 2014 and 2019, and nothing predating 2014. The articles present a range of views of social sustainability, mostly in the context of vulnerable workers. The most prominent is ensuring workplace health and safety, followed by other human rights (e.g., diversity, equal opportunity, education, job security) and the goal of ending exploitation and modern slavery. Within the western context of consumption and small-scale production, several articles position social sustainability as alternative ways of making (e.g., slow fashion and building on local craft traditions), while Huq and Stevenson [34] explain that social sustainability literature "has been largely focused on the Western buyer perspective." Social development, social investment and social practices are broad terms that describe stakeholder approaches to social sustainability, with more specific strategies appearing in the literature, like socially sustainable supply chain management, supplier social compliance management, social sustainability disclosures, ethical trade and product responsibility.

In terms of fields of research represented by the journals, the articles can be grouped as follows: industry from the perspectives of management and production (13), sustainability (11), business (6), textiles (3), science and engineering (2), education (2), and social responsibility (1). The first five groups discuss social sustainability in relation to supply chain management, including roles within supply chains, costs, legislation and standards, ethics and CSR, new business models like circular economy, the extent to which different types of firms adopt social sustainability and the challenges they face. The need for more practical guidance is raised in several articles as are the recent impacts of covid on supply chains. Geographically, there are themes that reflect the international division of labour and how global supply chains are organized. Of the 25 abstracts that indicate a specific location as a subject of research, over half (16 or 64%) focus on "producer" countries including Bangladesh, India, Vietnam, Sri Lanka, Indonesia and Turkey. Their primary concerns relate to social sustainability in multi-tier supply chains; regulation and standards; barriers, pressures and incentives for compliance by suppliers and sub-suppliers; stakeholder roles and collaboration models that influence implementation of social sustainability measures; and

economic impacts of social sustainability practices. Two articles focus on the relationship between the EU and exporting countries (China, Bangladesh, India, Turkey, Cambodia, Vietnam) within global supply chains.

In the nine articles discussing "advanced" economies, the research topics are quite different. Two examine social sustainability in local apparel and luxury fashion production (Sweden, UK), three focus on social sustainability through the preservation of traditional, local knowledge related to fashion, craft and costume (New Zealand, Japan, Portugal), and four focus on communicating social sustainability to consumers or students (Italy, Sweden, US, Germany and South Korea).

Final Remarks

Although 'social' is one of the three pillars of sustainability, it has received less attention in comparison to 'environment' and 'economy'. Research on social sustainability appears in fields such as oil, food and furniture [31] but within the textile and apparel industries, it has been overshadowed by technological transitions to sustainability or social approaches to appalling work conditions [18,19,24,25]. Social sustainability remains under-researched within this field despite public awareness of social inequity within the textile and apparel sectors, the increasing reach of activist groups focused on unfair working conditions, and initiatives by NGOs, the private and public sectors to advance corporate social responsibility (CSR), fair trade and most recently circular economy. In discussions of conservation and biodiversity, addressing the unjust society, including the unequal distribution of wealth within global textile and apparel industries, should be contemplated as a means to systemic change. Research is needed that examines social impacts and their causes, connecting academic and industrial knowledge towards practical solutions for the textile sector. Local progress in some areas could be shared more broadly with the appropriate tools.

A number of social sustainability frameworks have recently been published [6-8,31], providing conceptual frameworks that can be tested in practice. Bubicz et al. provide a useful model for this in their analysis of six apparel companies and how they engage with aspects of social sustainability at different points in their supply chains [30]. They note that despite advances, a better understanding of the structures and relationships of supply chains is still needed in order to intervene and influence social sustainability beyond first tier suppliers [30]. Our initial literature review reveals that social sustainability has only recently become an area of research with respect to the textile and apparel industries. A search using alternative terms, such as social justice or social responsibility, may yield more articles, however social sustainability has specific meanings within current policy and sustainability discourse [32-40]. As the concept continues to develop, how it is understood, applied and evaluated will continue to evolve. Current research focuses primarily on the management of supply chains and regulation compliance, especially with regard to

working conditions. However, social sustainability can encompass many other aspects of social well-being, such as health, education, preservation of local knowledge and cultural heritage. How these topics might relate to textile and apparel manufacturing and how they are entwined with the other pillars of sustainability bear further investigation.

Acknowledgements

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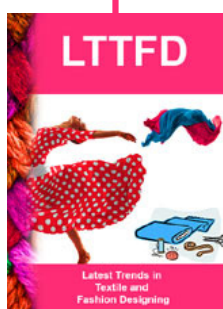
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