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Quinn Hanley  
*Grand Valley State University*

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Grand Valley State University

# Supply Chain Sustainability in the Fashion Industry

What Is It?

Quinn Hanley

## Abstract

Sustainability in the fashion industry has become an important topic recently for both retailers and consumers. Through my research I will be laying out what supply chain sustainability is, how it relates to the fashion industry, as well as how companies are doing it well or poorly. I will be using both scholarly pieces and other articles online to perform my research on the topic, to find a more in-depth understanding of how companies are affecting the world around us as well as the people around us. My goal with this research is to educate consumers about how supply chain sustainability affects the world and people around us, as well as what to look for when trying to shop sustainably.

## Introduction

What is sustainability? The term is defined as “the ability to be maintained at a certain rate or level.” (Lexico, n.d.). While this is the literal definition, in practice sustainability is a term for improving and maintaining the world around us both for the present and future. While many people see sustainability simply as being environmentally friendly, it encompasses most parts of our lives. The United Nations Department of Economic and Social Affairs has laid out seventeen sustainable development goals for

becoming a sustainable world (UN Department of Economic and Social Affairs, 2018). As you can see in *Figure 1*, sustainability is concerned with not only the welfare of the world around us, but also with the people living in our communities,



*Figure 1: UN Sustainable Development Goals*  
 Note: (UN News Centre, 2015)

the animals around us, and the economic aspect of our lives. We will only be a truly sustainable world once all these goals are met and sustained. Two industries that are hot topics in sustainability are the supply chain and fashion industries. Through my research I will lay out what sustainability means in supply chain as well as the fashion industry, as well as what companies are doing it well and who is doing it poorly. Through this research I hope to show how important sustainability is to consumers and how sustainable fashion companies can go along way in making our environment, people, and economy thrive together. I also hope that through this paper I can make more people aware of truly what sustainability is, that it is not just about the environment, it’s really about any way that we can make the people and world around us healthy and thrive.

## Supply Chain Sustainability

Supply chain sustainability has been a hot topic in many industries in recently years. Typically, when you hear that phrase, you automatically think of transportation sustainability in reference to emissions of trucks. While this one part of supply chain sustainability, it does not cover the entire issue. The term can be defined as “companies’ efforts to consider the environmental and human impact of their products’ journey through the supply chain, from raw materials sourcing to production, storage, delivery, and every transportation link in between.” (Luther, 2021). Using this definition, I would say the most important UN Sustainable Development goals for supply chain sustainability would be affordable and clean energy, Industry, innovation, and infrastructure, and good health and well-being.

### Affordable and Clean Energy; and Industry, Innovation, and Infrastructure

I have grouped these two sustainability goals together because there are ways to achieve both through the same initiatives. Companies have actively been trying to work with more suppliers that adhere to sustainable standards in an effort to create a fully sustainable supply chain from beginning to end (Villena & Gioia, 2020). Part of these efforts are making trucks and factories that are more energy efficient and cost-effective to decrease the effect on the environment. This in turn affects industry, innovation, and infrastructure because when trying to find ways to create these energy-efficient technologies and processes experts are actively innovating and creating processes of sustainability that the entire industry can utilize. One recommendation made by the University of Minnesota Institute on the Environment’s NorthStar Initiative for Sustainable Enterprise was to create collaborations between

manufacturers across a sector's supply chain (Energy Digital, 2020). Through collaboration these suppliers would create initiatives and processes to increase energy efficiency for an industry. This is a way to combine the expertise and knowledge of multiple supply chain experts to try and create the best practical solutions to have a positive impact on the environment through their operations.

### Good Health and Well-being

Another aspect of supply chain sustainability is the humane side. I often hear about the "sweat shops" in manufacturing facilities where people are working extended hours and there are even kids being put to work. These operations directly violate human rights and go against the UN Sustainable Development Goal of good health and well-being. Research performed in 2021 by Verisk Maplecroft, a risk consultancy, revealed that "modern slavery, child labour and occupational health and safety hazards are all found to have intensified over the past five years" (Basquil, 2021). This is seen mostly in Asian countries, with China accounting for about 20% of the world's manufacturing (West & Lansang, 2018). In the US, these practices will not be seen because we have strict laws that ensure workers are paid fairly, treated fairly, and that children are not allowed to work. Another aspect of human rights in the supply chain industry is how truckers are treated. One of the key issues in the trucking industry is over-working. "Long working hours and intense economic pressure are important to everyday motorists, because the truck driver's workplace is everyone's roadway." (Belzer, 2018). Trucking is an essential job to most companies, as it is one of the main modes of transportation throughout the entire supply chain. Companies often need supplies in a certain time frame which leads to truck drivers wanting to do anything they can to meet the deadline, but this causes drivers to be on

the road longer than they should and can lead to fatigue, tiredness, and even falling asleep. This is a problem because these trucks are on the road with other trucks as well as citizens going about their day. The law states that drivers can only spend fourteen hours per day doing “driving-related work” which includes breaks, which can be extended to sixteen under certain conditions (Keep Truckin Admin, 2016). This limit ensures that drivers aren’t experiencing too much fatigue and they have enough rest to drive safely, and while paper logs have been traditionally how they log their hours there have been electronic logs developed to ensure drivers aren’t working outside of that time. These are just some of the issues seen in supply chain sustainability and I will be using these and other examples to explain the subject further.

## Sustainability in Fashion

In a study done by Beth Howell of The Eco Experts, the fashion industry was found to be the third worst industry for pollution based on total amount of air and water pollution (Howell, 2021). This is mainly attributed to the CO2 emissions that go into manufacturing clothing and the amount of clothes waste found in landfills around the world. These environmental factors make sustainability in fashion an interesting topic. While the fashion industry has not done a good job in the past of promoting sustainability, there is now an emphasis on it, and it seems to be more important to organizations and consumers. We also see the use of “sweat shops” throughout the fashion industry, generally defined as “a manufacturing facility that pays low wages to highly stressed workers that have to deal with unsafe working conditions and abusive bosses.” (McKay, What Working Conditions Do Garment Workers Still Face?, `2019). These types of facilities are often used in the clothing industry, as it is an easy way to manufacturer

large quantities of clothes in a small amount of time and for a low cost. While not commonly found in the United States because of the extensive human rights and labor laws, there are many American clothing companies outsourcing their manufacturing to sweatshops in other parts of the world. These working conditions are obvious violations to the humane aspect of sustainability, and this is a sustainability problem that has needed to be assessed for a while now. These examples of sustainability in the fashion industry will help me lay out how companies are doing a good job with their sustainability goals and projects, and how companies are doing it poorly.

## Sustainable Fashion Companies

Most fashion companies are setting goals for sustainability, but those goals sometimes are not being met and the companies are not doing much to achieve the goals. While this may be true, there are also companies out there that are successfully putting their sustainability goals into action, and I believe other companies should follow their lead. The company whose sustainability I will be highlighting is Patagonia. This company has led sustainability efforts and innovation in the fashion industry for years and they are a fitting example of how to approach sustainability efforts.

### Patagonia

One company that is well-known for having very fashionable clothing as well as making strides toward a fully sustainable supply chain is Patagonia. Their four main initiatives to achieve a sustainable supply chain are making durable clothes that last, being transparent in how they operate, incorporating a resale program for their clothes, and a donation program



that contributes to preservation and restoration of the environment (Patagonia, n.d.). Their durable clothing and recycling efforts are the areas that are most visible to the consumer. Their clothing is made with materials that you can wear for a long time, and even when pieces start to wear out or tear, they have a repair program where you can send those clothes in to get them repaired and able to wear again (Engel, 2018). No matter how old or worn the clothes are, Patagonia will fix your clothes for you and prevent them from being thrown away and ending up in a landfill. This program is important because there is a large amount of clothing that is thrown away once they have been worn too many times and this adds to the immense amount of trash in landfills, leading to the deterioration of the environment around us from the harsh chemicals that are put into the air. Along with this program they also have a separate store on their website that is for the resale of fixed clothes. This is essentially an online thrift shop where customers can buy clothes that were sent in to be recycled instead of sent back, and it is a way for the company to encourage the resale of clothes instead of buying all new pieces (Barkho, 2020). This is an interesting route to take for a clothing company, as usually these companies are trying to sell as much new product as possible, but Patagonia has realized that they can incorporate sustainability into their selling practices while also reaching the substantial number of consumers turning to thrift stores and second-hand shops to find clothes. Another important aspect of Patagonia's sustainability efforts is their use of recycled materials. The company has been making clothes from recycled materials since 1993, when they made the first fleece jacket made from polyester that was created from recycled water bottles, and by 2016 they had 82 products made from that recycled polyester (Lozanova, 2016). This is another way the company is trying to get waste out of landfills, taking water bottles out

of the trash or recycling can and creating a material that can give those bottles a new life. These initiatives and innovations have led Patagonia to be known as a leader in sustainability in the fashion industry and they have shown how innovation in any industry can help us become more sustainable.

Although they have some great programs in place to increase their sustainability, there have been some issues in their factories in the past. In 2011, an internal audit discovered what they described as “modern-day slavery” (Simpson, 2015). They found that in their factories located in Taiwan some workers were paying labor brokers around \$7,000 to find them jobs, and it would take years to pay that debt, and most of those contracts would expire after a few years and the process and fees would start over again. Patagonia tries to hold their facilities to a high standard, and they simply were not aware of this issue previously. This is where the problem exists, without full transparency throughout a company’s supply chain there could be unethical or even illegal practices happening that a company is not aware of. Patagonia seemed to handle this situation well, holding a forum with multiple Taiwanese manufacturers where they laid out good practices to employ and ways for companies to have an open conversation about the expected standards of their partnerships, as well as a way for the manufacturers to ask questions and better understand how to operate in a sustainable way. They seemed to handle this situation in a responsible way and taught other companies how they approached it, but these practices could be going on other companies without their knowledge, so transparency with suppliers is essential to humane sustainability.

## Companies with Poor Sustainability

While there are fashion companies that are making strides to be sustainable, there are also companies doing the opposite. “Fast Fashion” has become increasingly popular in recent years, which is a term for “a design, manufacturing, and marketing method focused on rapidly producing high volumes of clothing.” (Stanton, n.d.). These companies produce clothes that are trendy at the time, and they hop on latest trends as soon as they see them. The only way that companies can make this happen is by rapidly changing what they are selling, and this leads to troubles along the supply chain. Some of the issues that have become apparent are faster manufacturing speeds leading to more emissions from those factories, poor treatment of workers, and a decrease in recycling and reselling clothes. I will be looking into Shein, one of the largest fast fashion companies currently, and Nike, who can be seen as a fast fashion company but is also one of the largest clothing manufacturers in the world who has not had a good history when it comes to sustainability.

### Shein

One company stands out when it comes to unsustainability supply chains is Shein. Shein is a fast fashion company that started in China in 2008, offering affordable clothes with the latest trends, and in 2021 they had the most popular shopping app in the US (Dutta & Banerjee, 2021). While the company rose to fame and became extremely popular, sustainability does not seem to have been on their mind. The main aspect of Shein that does not help their sustainability is the lack of transparency in their supply chain and processes. One example of this is a statement on their website that claims that they support “fair pay for all” and “wages

and benefits above the industry average” but there is no information about whether or not this statement is true (Fuller, 2021). This is a problem because companies can say things and make promises about anything they want, but there is no way to see if they go through with those promises if they do not show how they are fulfilling them. Another aspect of the company that is unethical and unsustainable is their statement that they Make their pieces in small quantities. They state that goods are created “in small quantities of 50-100, which reduces waste.” (Mason, 2021). This may be true, but the website has such a wide selection of styles and pieces that while they may not make a large amount of one product, they’re still producing large quantities every week. Making many varieties of pieces not only hurts the environment around factories because of the volume of clothes, but there are also many different materials used, and this leads to more waste because you can’t reuse materials for other pieces. These and other factors lead to Shein being scored extremely low in sustainability across multiple publications and customers should research these scores before they decide to buy clothes from fast fashion companies like Shein.

## Nike

Nike is one of the most well-known and recognizable sports apparel and footwear brands in the world. In 2021, the company held 39% of global athletic footwear market share and 13% of global athletic apparel share (Salpini, 2021). Being one of the largest athletic apparel companies in the world leads to having a lot of eyes on you, and for Nike that has not been a great thing when it comes to sustainability. The aspects of their supply chain that highlight their lack of sustainability are the company’s sourcing practices and treatment of their manufacturing workers. The first sourcing issue Nike has is how they source their cotton.

Cotton has traditionally been grown with pesticides and other harmful chemicals that deteriorate the atmosphere and it is often an essential material for clothing companies. This is the case for Nike, as they do use some organic cotton that is certified by the Better Cotton Initiative, but they have no clear approach to lessen their use of suppliers that utilize harmful chemicals (Ethical Consumer, n.d.). This is another example of how transparency in the supply chain and operations is essential. Nike may have a plan to switch to using only organic cotton, but there is no way to know that because there has been no statement made by the company about the subject. The second issue, which Nike has been dealing with for decades, is working conditions in their factories. As I mentioned before, sweatshops are a common occurrence in the fashion industry and Nike is not exempt from that statement. When reports came out in the 1990s about the terrible working conditions in Nike factories in countries such as Indonesia, with examples like workers being paid 14 cents an hour, they were met with public protests and boycotts of the brand that essentially forced Nike to change their ways (McKay, *The Truth Behind The Alleged Nike Sweatshops*, 2019). For years they tried their best to make the working conditions in their factories better and they did a good job of getting back on the good side of the consumers, until 2017 when a report came out that in Cambodia there was more than 500 workers manufacturing clothes for Nike and 3 other companies who were hospitalized, and that there was poor ventilation and extreme heat as well as paying workers lower than a living wage and overall poor working conditions. These allegations paint Nike in a very bad light, especially as sustainability and humane working conditions are becoming more of a focus by consumers, and reports like these coming out in the age of social media hurts the company even more than it used to as news like this circulates so rapidly.

Although these reports came out recently, it does appear that Nike is trying to set up sustainability initiatives for their supply chain. The company has tried using recycled plastics to make clothes much like Patagonia, and in 2021 they created a website devoted to their sustainability initiatives (Mahirova, 2021). The focus of their 2021 impact report is their efforts to reduce their carbon footprint. This is an important aspect of supply chain sustainability because of the effects that carbon emissions have on the environment, and with Nike being as



*Note: (Mahirova, 2021)*

large as they are, the number of factories they have around the world, and how much volume they produce every year, lowering their carbon emissions could go a long way in protecting our environment. One of their initiatives is the signing of a pledge with the Renewable Energy Buyers' Alliance that says that

the company will “reduce its carbon footprint by 30% and use 100% renewable energy by 2025.” (Parisi, 2021). This agreement is a good step, making a step that puts Nike's sustainability goals set in stone and to be held accountable by an outside organization. This is a way to ensure the company will go through with their initiatives, and not just a way to save face and make it look like they are changing their ways without doing anything. This is one way that Nike is working toward being sustainable, and while they do not have a great track record in relation to sustainability it does seem that they are trying to change their ways.

## Conclusion

Through my research I was able to educate myself on what to look for when it comes shopping sustainably. It's apparent to me that there's still a lot of work to do in this area and the fashion industry isn't exactly sustainable, but companies seem to be at least trying to change their ways and become more sustainable in some aspect of their supply chain. By laying out different forms of sustainability that each company is either benefitting or hurting, I believe I was able to show that consumers need to focus on a company's impact on not only the environment, but the people and animals around us. I hope that this paper may lead people to become more conscious about their buying process and try to find more sustainable alternatives for what they're purchasing. The one area of sustainability that I believe the fashion industry and its companies should focus on the most is recycling clothes. There's so much clothing in dumps and landfills around the world, and as we can see with Patagonia there are ways to repair or reuse clothes, keeping them out of those landfills that emit large amounts of harmful gasses. Hopefully in the coming years we will see a heavier focus on sustainability from the customer's perspective as well as companies' perspectives.

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