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# Why fast fashion industry is a problem

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## Abstract

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The purpose of this thesis is to study fast fashion industry, and its negative effects on the planet, environmentally and socially, and if there is anything to be done about those problems. The topic is relevant because there has been a lot of discussion in recent years about sustainability – still there are many problems which have significant impacts on the world, and people are not enough aware or interested in them.

The research of the thesis was conducted by studying literature and articles by many different authors. The information is relatively easy to find as there are a lot of publications on this subject. In addition, the thesis author's own reflections and thoughts are included to some extent.

The fast fashion industry is a major problem as it severely violates human rights and causes harm to the environment. The earth cannot bear with the current kind of consumption. Fashion companies need to change their operations, legislators need to force fashion companies to improve their sustainability, and consumers worldwide need to change their clothing buying behavior.

Keywords: Fast fashion, fashion, sustainability, clothes, consumers

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# 1 Introduction

Fast fashion is a clothing business that is focused on cheap prices and constant novelties. The entire world is full of fast fashion stores and fast fashion clothing, and therefore, not surprisingly, it is one of the largest industries in this world. The reason for its popularity is very clear – it is one of the most affordable and easiest ways to buy stylish clothes, and Western consumption habits are based on this kind of vain buying and “fun consumption”. The largest fashion chains, H&M and Zara for instance, are a common sight in the street scene of nearly every country, and with their cheap prices, they entice consumers to buy something new whenever they walk by. The significant and growing amount of fast fashion online stores are making it even easier to consume fast fashion, as the consumers can do shopping directly from home.

When it comes to business, the fast fashion business is highly profitable, and the industry has grown remarkably over the past several decades. It employs a huge number of people around the world. In addition to price, the competitive advantage of this business is the fast manufacturing process. However, the low prices and rapid mass-production mean that not everything is right – there are many problems related to this business, mostly social and environmental. If the price of a shirt is only few euros after it has been handmade on another continent and traveled a long logistics chain, it cannot be the real price for the garment. Someone else pays the price – the clothing workers, and the environment. The industry consumes a big part of the earth’s resources, creates waste, and in order to offer the cheap prices to the consumers, the manufacturing costs are mostly reduced by taking advantage of cheap labor costs in developing countries. In other words, at this moment, by neglecting human rights and the environment, the fast fashion companies make it possible to the consumers to constantly enjoy their new, cheap garments. This is also due to the fact that most consumers are more willing to spend €10 on an unsustainable fast fashion garment than €100

on a sustainable option made of better-quality materials, and according to research, as many as 88 % of consumers in the United States prefer to buy fast fashion (Farwell, 2021).

Not only the fashion companies need to change their operations – also the consumer behavior towards this subject needs to be changed. Clothing is, of course, a basic human need, but consumption of this kind is neither sustainable nor sensible. The clothing business is not on a sustainable level at all, not even close of it. The planet will not be able to sustain consumption and production of this kind. Not enough attention is paid to the problems of fast fashion. In theory, it would be very much possible for the consumer to make a big difference, as the fashion business is based on the clothes that the consumer voluntarily buys.

## **2 Research questions and methodology**

The purpose of this thesis is to inspect fast fashion business mainly from a critical perspective. The topic of the thesis was chosen due to the author's personal values, and desire to spread awareness of the problems related to this business. The subject is highly important because as mentioned previously, the planet will not be able to sustain consumption and production of this kind, and life quality and safety of the people who manufacture the clothes must be improved.

The thesis aims to answer to the two following questions:

- 1. Why fast fashion business is a problem**
- 2. Is there anything that could be done to solve or reduce the problems**

The thesis is based on secondary data and uses a qualitative data collection method as its main method (which means that the data is describing something). The research consists of analyzing information from books, articles, and

statistics. Quantitative data collection method, which is based on numbers, have also been used to some extent. The qualitative method fits the purpose of the thesis better, but the quantitative one supports some of the claims of the thesis well. There are also some of the author's own thoughts included, especially in the last part, when considering solutions to the problems.

The process begins with an introduction to the fast fashion business, which gives the reader a clear view of what fast fashion is and what does it mean. It is followed by an explanation of the social and environmental problems involved in the industry. In the last part are presented solutions that could solve, or even reduce, the problems associated with this industry. The solutions are about what both, the consumers, and the clothing companies, could do to improve these social and environmental problems. After reading this thesis, the readers should have a feeling that they want to start thinking about their own fast fashion consumption behaviors and if needed, possibly change them.

The objective is to raise awareness among people about how harmful the fast fashion industry is, and thereby get consumers to make more responsible and sustainable choices when it comes to buying clothes and textiles. This is important because as mentioned, the consumers have a big role in making these issues better, as the clothing business is based on the clothes they voluntarily buy.

## 2.1 Limitations

The thesis is based on secondary data, which means the results are limited. There are a lot of recent resources regarding fast fashion, but the problem is that even though some of the articles describe the same thing, there are some discrepancies in the information (in numbers, for instance). Therefore, the author must have relied on a resource that at the time seemed the most qualified and / or reliable. In addition, because the fast fashion business is remarkably wide and

changes can occur any time, there are a possibility that the information and numbers in the thesis can change and become obsolete quickly.

Another limitation is that there is no surveys or interviews in this thesis. Especially self-conducted surveys or interviews could bring new perspectives and provide more information, as well as they could question some of the resources used in the thesis. In other words, the thesis has relied very much on the information provided in the sources; surveys or interviews could have supported certain claims in them a lot.

### 3 Fast fashion business

The term “fast fashion” dates back to the late 1990s, when clothing manufacturing began to move to Asia in pursuit of very cheap labor costs and rapid, effective manufacturing process. A few decades ago, most of Finnish peoples’ clothes were still made in Europe, but today, the number has dramatically fallen. In Finland, the clothing manufacturing industry employees only few thousand Finns, whereas only in Bangladesh it employees about 4,5 million people (Karas, 2014) (Finnwatch, 2022).

Table 1. Largest clothing manufacturers in the world in 2020, based on 2019 fiscal year sales revenue (Markhor Ventures, 2020)

<b>Company</b>	<b>Revenue, in USD billions</b>
<b>Inditex</b> (e.g., Zara)	28,89
<b>Fast Retailing</b> (e.g. Uniqlo)	21,51
<b>H&amp;M</b>	21,5
<b>Gap</b>	16,58
<b>L Brands</b> (e.g. Victoria’s Secret)	13,24
<b>PVH</b> (e.g. Calvin Klein, Hilfiger)	9,66

New clothes enter the stores every week, making the consumers feel the existing clothes in their closets are constantly out of date, thus encouraging the consumer to buy more. The number of fast fashion brands is enormous, because it is so profitable as a form of business. Technological innovations, such as social media and apps, have made it possible to many of them to grow into large global companies. Irish retailer Primark offers some of the lowest prices in the industry – prices are approximately 40 % less than H&M's, and 75 % less than Gap's (TFL, n.d.).

Many successful fashion companies only operate on the internet, without having any brick and mortar stores. In fact, numerous fashion companies have gone bankrupt, or have run into severe financial difficulties as consumers have started to prefer online shopping. A good example of a very successful e-commerce fast fashion store is SHEIN. It is the fastest growing e-commerce company in the world, with revenue of nearly \$10 billion in 2020 (Chou, 2021). In addition, the company continues to grow bigger. The problem is that the online stores make buying and returning too easy, and therefore are encouraging consumers more to the unnecessary consumption. On the other hand, in the online store, it is easier for the fashion companies to provide information on the environmental impact of the garment compared to a regular brick and mortar store.

Massive quantities of new, fast fashion clothes are produced every year – 80 billion units, and the brands commonly produce more clothes than what can even be sold. There has been a big drop in prices of clothes, and the cheap prices make them more attractive to the consumers, allowing them to buy more clothing on a whim. In average, a piece of fast fashion clothing is worn only 7 times before it is thrown away (Charpail, 2017). This means a fast fashion shirt may hang in a wardrobe unused or couple of times used for several years, until its owner wants to get rid of it. Also, as the companies aim to produce as cheaply as possible, the quality is low. If the garment breaks, it is only thrown away and a new one is bought, instead of repairing.



## 4 Social problems

When the consumer buys a regular €10 shirt, many of them do not consider what is behind this cheap price tag. It could easily be concluded that no fair compensation has been paid to some parties.

Figure 1. How much does it cost to produce a regular t-shirt (Saramäki, 2014)

### Price of a t-shirt to fast fashion companies



As the figure above illustrates, the sewing part forms only a very small proportion of the total costs although every garment is sewed manually by a human. It is a common misconception that clothes could be produced entirely by a machine. The pieces of a clothing may be cut with a programmable laser cutter, but every time, they are assembled into a clothing by a human. It is possible to automate some of the cutting of the fabric, but so far it has not been possible to build robots that could handle the fabric well enough, and cost effectively. The machines perform only small tasks, such as attaching pocket to the jeans. In fact, there are not many industries that are as labor-intensive as the fashion industry. The clothing industry is estimated to employ worldwide up to 300 million people at

different stages of the supply chain (Finnwatch, 2022). Also, even though machines have been invented for some work steps, human labor is often used for that too – in developing countries, labor is cheaper than investment in machinery (Saramäki, 2014: 25-26).

Bangladesh, in Asia, is the most popular country for the fast fashion businesses when it comes to manufacturing – it manufactures a significant proportion of all clothing in the world. There are about 4,5 million clothing and textile workers in Bangladesh, and fashion accounts for as many as 54 % of its industrial jobs. More than 80 % of the country's export revenues come from the clothes, which means that the industry is highly important to it. Other common fashion manufacturing countries are Cambodia, Vietnam, Indonesia, China, and India, for instance (Pajari, 2018) (Finnwatch, 2022).

Given that most work is done in those low-cost developing countries where workers' rights are limited, the fact is that low wages, poor working conditions, safety, and workers' rights are a problem.

#### 4.1 Wages, child labour

Since the fast fashion industry is all about keeping the costs low, in order to offer the cheap prices to the consumers now and in the future, those costs are mostly reduced by using cheap labor force in developing countries. The problem is that the employees are unable to live a decent life on the salaries they earn. When consumers buy a basic €10 shirt, compared to the salary of the person who sewed it, or grew its cotton, it is a big amount of money. The profits of the fashion businesses are so high that there would be possibilities to improve the wages of the workers – wealthy managers and shareholders get rich at the same time as the workers are not paid enough to live on. In fact, the richest fashion managing directors take only 4 days to earn more money than one of their factory workers in their lifetime (Pretty Green Lily, n.d.).

According to a survey, 93% of the fashion companies are not paying their clothing manufacturers a living wage, which is the bare minimum that a family requires to fulfil its basic needs, such as food, rent, healthcare, education, and other mandatory expenses (Darmo, 2020). Consumers may have noticed that fast fashion companies have convinced their customers that at least the minimum wage is paid for the clothing workers. However, the minimum wage is only between half to a fifth of the living wage in most developing countries.

Table 2. The difference between the minimum and living wages (Charpail, 2017)

<b>Country</b>	<b>Living wage</b>	<b>Minimum wage</b>
<b>Bangladesh</b>	259,80 €	49,56 €
<b>India</b>	195,30 €	51,70 €
<b>Malaysia</b>	361,21 €	196,06 €
<b>China</b>	376,07 €	174,60 €
<b>Cambodia</b>	285,83 €	72,64 €
<b>Indonesia</b>	266,85 €	82,14 €
<b>Sri Lanka</b>	259,46 €	50,31 €

The statutory minimum wage is not enough to cover the cost of living, or it can only be earned by working unreasonable, inhumanly long working days. The workers usually do not have the opportunity to buy nutritious food after they have paid their rents. Therefore, a significant proportion of the fashion workers are malnourished (Saramäki, 2014: 47).

In developing countries, children are considered as a “business opportunity” for contractors looking for low-skilled workers who can be paid below the minimum wage. This leads to the fact that the use of child labor in the industry is common and countless fashion companies have been accused of using it, especially Zara.

In fact, it has been said that due to their small hands, children are particularly well-suited for certain tasks, such as sewing, which makes them even more vulnerable to exploitation in the clothing industry (Baruta, 2021). UNICEF has estimated that 100 million children are involved in the fashion supply chain (Nikolay, 2021). A study that investigated working conditions in Delhi, found out that young boys received only 7 rupees (around 8 cents in euros), for doing demanding sequin decorations for half an hour. In order to reach the statutory minimum wage, they would have to work at the same pace for 18 hours a day (Saramäki, 2014: 30, 47). In addition to the sewing stage, there is a lot of child labor used in planting and harvesting cotton. The problem is basically because as the factory workers, also cotton workers earn very low wages. The situation is exacerbated by the fact that wages are paid according to the amount of cotton picked, which attracts even more parents to earn extra income by bringing their children to the fields – instead of sending them to schools. An estimated 100 000 children worked in India for 13-hour days to pay off their parents' loans (Aronen, 2019). Unreasonably fast pace requirements are common in the industry, and if someone fails to reach the target, he/she may be forced to work overtime, without compensation. In order to reach the targets and/or the living wage, every minute matters – meaning that there is no time for toilet breaks and getting enough sleep. The workers are often forced to work at least 14 to 16 hours a day, and during peak seasons, they must work almost all night in order to reach the deadlines set by the fashion companies (Charpail, 2017).

Another problem is that clothing companies are constantly tendering the factories. Permanent relationships are not formed. Therefore, raising the wages is almost impossible, because the factories try to compete at the lowest possible prices in order to keep their customers. The Bangladeshi government claims it would like to improve the wages of the clothing workers, but at the same time, they fear that the companies will start ordering their clothes elsewhere if there is even a tiny increase in the price of the manufactured garment. Bangladeshi clothing manufacturers are even trying to respond to the fierce competition by setting up their own factories in even cheaper countries, and in fact, many

entrepreneurs have set up their own factories in Africa. In other words, for example, when a clothing company orders 100 000 dresses, the Bangladeshi factory may accept the order but the work itself may be done in Ethiopia (Pajari, 2018) (Saramäki, 2014: 28). All this is done only because the fashion companies are demanding unreasonably tight schedules and low prices from the manufacturers.

#### 4.2 Poor conditions, lack of safety

The current working conditions of the fashion workers in Asian factories have been described as “modern slavery” even by the European Parliament. For example, the big retailer Zara, has been accused of using slave labor and sweatshop conditions in its factories. This is because the poor working conditions are cheaper – if working conditions get better in one country, the fashion companies might move to another, in pursuit of cheaper solutions (Charpail, 2017). Also, it is important to keep in mind that the higher price of a garment does not necessarily mean that it is ethical and made in better conditions. Even though the shirt costs €100, it may be sewn in the same factory as the €5 shirt, under the same conditions.

The factories are poorly constructed, and maintenance and safety regulations are neglected. Due to this, many clothing workers have lost their lives in work. Constant fires, collapses and accidents in factories have been common in the clothing industry for a long time, and many fatal accidents still occur every year. The actual amount of the accidents reported is not reliable, because there is no statistics on minor accidents. In addition to collapses and fires, workers are constantly exposed to harmful chemicals and/or sandblasting of jeans. Workspaces are often dusty, and in poor condition. Commonly there are no emergency exits in the buildings, and even if there were ones, they may be locked or unmarked (Lindeberg, 2013).

The BSCI model is one of the most significant systems to monitor the factories, and those fashion companies that have committed to BSCI, conduct regular

inspections in the factories. If deficiencies in working conditions are found, the clothing company may require them to be fixed, by threatening of terminating the contract. However, a truthful and successful inspection is difficult, as the factory management makes every effort to ensure that unpleasant issues are not revealed to the inspectors. The factory employees may be threatened and are therefore reluctant to talk about the actual working conditions. One problem is that usually the focus is only on the problems of the biggest factories, but in addition to them, there are a large number of smaller workshops that no one monitors, and those small factories may conduct work tasks that cannot be conducted in the large factories due to the inspections. Another problem is that BSCI it does not monitor the entire production chain, but only the factory where the clothing is sewed. With so many different intermediaries involved in the clothing manufacturing process, it is very hard to monitor every stage of the production chain, and how the employees are treated in reality. What makes the issue more difficult is that if grievances are found by the inspectors, termination of the contract will also harm the employees, as the loss of a significant customer will drive the plant into severe financial problems. In case of financial problems of the factory, providing decent working conditions and/or wages would be remarkably more unlikely (Karas, 2014) (Lindeberg, 2013).

When it comes to lack of care for safety of the workers, one of the most tragic examples is when in 2013 the Rana Plaza clothing factory collapsed in Bangladesh. 1134 people lost their lives, and 2500 were injured. Those human lives would have been easily saved if the fashion companies had not required such a tight schedule – before the collapse, the workers had seen the cracks outside in the walls and begged the managers that they would not need to go in. The factory management forced them to go inside to work – the fashion companies required extremely fast manufacturing, and there were no room for interruptions on schedules. On the street level of the same building was a bank, whose employees were sent away just in case, due to the cracks. However, according to a local clothing worker, it was also a good day for the Bangladeshi garment industry, as the pressure from consumers forced the clothing companies

to investigate the factory conditions under which their clothes are manufactured. As a result, the factories fixed more than a hundred thousand safety deficiencies (Pajari, 2018) (Saramäki, 2014: 29-30). Another example is when in 2012, 112 workers died in a fire at the Tazreen textile factory. The factory had nine stores, had no emergency exits, and some of the factory gates were locked from the outside. The fashion companies may develop guidelines for their factories to avoid these situations, but in reality, they are not followed. For example, H&M has defined strict fire safety regulations for its factories, but still 21 workers lost their lives in a fire at a factory that made clothes for H&M in 2010 (Lindeberg, 2013).

### 4.3 Cotton workers

When it comes to the social sustainability of clothing, attention is usually paid only to what happens in the factories during the sewing phase. Even if the consumer is looking for more ethical clothes and asks in the fashion store about the ethical manufacture of a certain garment, it is often only discussed about the sewing stage, and what happens before sewing, is not even realized to ask or is often unclear. Many consumers do not even know where and how cotton grows. The truth is, however, that cotton producing is a problem to the world. It brings both, social and environmental, problems. Production of organic cotton is much more sustainable, but it is accounting for only about 1% of world cotton production (MDS, 2021).

China and India produce more than half of the world's cotton. Especially in many countries in Africa and Asia, it is a highly important source of income for many people in those poor developing countries. In Burkina Faso in Africa, for example, cotton accounts for as much as 72% of export income. Market prices for cotton fluctuate a lot, but in general on the cotton market, market prices are very low. Because of this, cotton workers in developing countries are having difficulties supporting themselves. Hundreds of thousands of indebted farmers have committed suicide (Loiste Living, 2017) (Aronen, 2019). According to a WWF

study, the toxins used in the cultivation of cotton kill about 22 000 people each year. In addition, about 3 million people are poisoned. Workers in cotton fields are also exposed to large amounts of chemicals and fertilizers, and in developing countries protective equipment is usually not used. The chemicals can cause allergies and diseases to workers, which includes cancer, and other delayed illnesses. Cotton is often harvested mechanically, and in order to do that, the leaves are dropped by using chemicals. With smaller cotton crops, workers harvest the crop by hand, exposing them to even bigger risks of poisoning (Luomupuuvilla, n.d.) (Mediawear, n.d.).

## **5 Environmental problems**

In order for the consumers to enjoy cheap, nearly disposable clothing, nature suffers significantly. In fact, the fast fashion industry is the second largest industrial polluter. The clothing industry consumes a lot of energy and resources, and in the end, the manufactured fast fashion item itself is short-lived and quickly ends up as waste. Also, as a result of making every effort to keep the production costs low, sustainable production is neglected – the unsustainable solutions are cheaper and more convenient than the sustainable alternatives. The fast fashion items have a long supply chain, and each of its stages involve use of natural or other resources, and eventually the waste and chemicals used end up in nature (Dahlbo, Gwilt, Niinimäki, Perry, Peters & Rissanen, 2020). According to Finnwatch, a very few fashion and textile companies require emissions reporting or emission reduction measures from their subcontractors, and this also includes many Finnish fashion companies. From this it can be concluded that the interest in the subject is not high enough for the companies, or legislators. The negative environmental impact of the fashion industry is also a big problem, that needs to be solved.



## 5.1 Emissions, water consumption

When it comes to emissions, fast fashion industry plays a major role. For example, total greenhouse gas emissions caused by textiles production are more than those of all international flights and maritime shipping combined (Ellen McArthur, 2017). The world's annual CO<sub>2</sub> emissions are about 30 billion tonnes, and out of this, the fashion industry accounts for more than a billion tons. The fashion industry's share of global emissions is around 10%, and by 2030, if no improvement actions are made, emissions are going to increase by around 30% (Finnwatch, 2022). Also, the ever-increasing amount of online shopping is also a problem for the environment, as clothing is no longer only transported to the fashion stores, but also directly to consumers. When the clothes ordered online are not suitable or the right kind, they are returned and transported back. This naturally will increase carbon emissions and have a negative impact on the global climate problem.

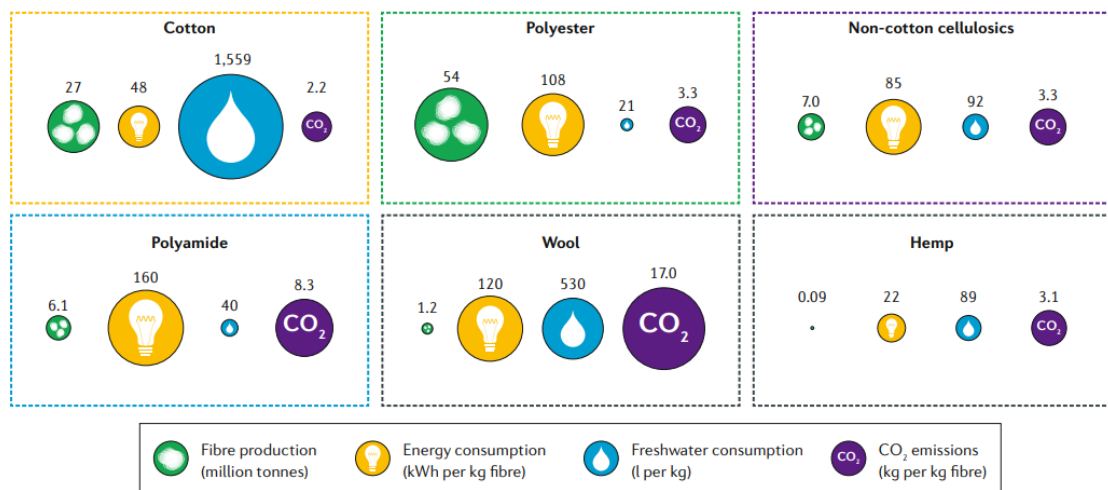
The fashion industry is the second largest consumer of water. 1,5 trillion liters of water is consumed by the industry, every year. Water is used to produce fibers, especially cotton crops. To produce only 1 kg of cotton, up to as much as 20 000 liters of water is consumed. This is the main reason for the huge water consumption of this industry. Making a regular cotton t-shirt takes 2 700 liters of water, and 2/3 of the world's population could face water shortages by 2025 (Luomupuuvilla, n.d.). Cotton requires a lot of irrigation because it thrives in a humid and warm growing climate. The irrigation causes nature's waters to dry out – one of the victims of this is the Aral Sea, which dried up due to the heavy irrigation. In addition to this, continuous watering causes salinization of the soil. Also, the industry is producing 20 % of global water waste, and many times, this wastewater from the production is discharged straight back into the nature. The wastewater contains several toxic substances, making aquatic animals and millions of people living by the water suffer (Charpail, 2017) (Loiste Living, 2017).

## 5.2 Materials, microfibers

Synthetic fibers are industrially produced fibers, and they cover about 72 % of our clothing. This means for example polyamide, acrylic, elastane, and polyester. They are plastic fibers – which means they are also non-biodegradable. When thrown away unsustainably, a shirt made of synthetic fiber can take up to 200 years to decompose. Polyester is the most used synthetic fiber, and it is made from petroleum, which is a non-renewable natural resource. Its production requires a lot of energy and chemicals. In addition, pumping and processing the oil causes lots of emissions to the environment (Lindlöf, 2018) (Charpail, 2017).

When it comes to natural fibers, cotton is the most used one. It is a very common material in clothes and textiles, because the consumers consider it as a soft natural product, and also, they find the products durable and comfortable to wear. Its price is also an advantage when it comes to fast fashion – it does not cost too much. However, as a material, it is a problem, due to its massive water consumption, and use of fertilizers.

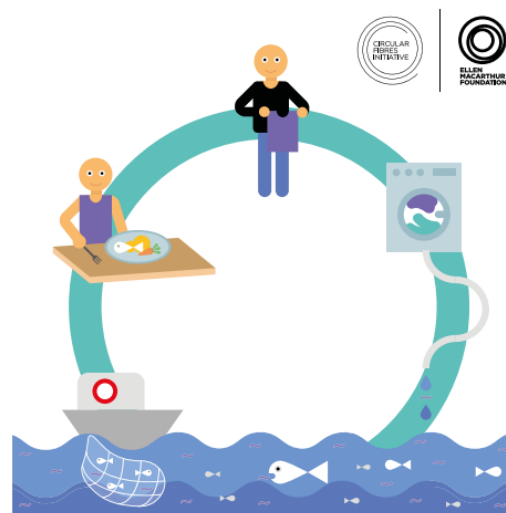
Figure 2. Environmental impacts of six types of fibres (Dahlbo, Gwilt, Niinimäki, Perry, Peters, Rissanen, 2020)



When a synthetic garment, for example a shirt made of polyester, is washed, approximately 700 000 individual microfibers are released into the water, ending

up in water bodies and thus in aquatic animals. Smallest microfibers can even get into humans' drinking water. 190 000 tons of textile microplastic fibers ends up in oceans each year. This is 16 times more than plastic microbeads from cosmetics (Ellen McArthur, 2017). This is because the microfibers pass through domestic wastewater to sewage treatment plants, where some of the small pieces of plastic end up as part of sewage sludge. The rest flows into rivers and oceans. Those microfibers cause plastic in our food chain, since they are ingested by small fish – which are later eaten by bigger fish. This way, eventually they may end up on people's plates (Charpail, 2017) (Paddison, 2016).

Figure 3. Microfibers from the washing of clothes enter the ocean and food chain (Ellen MacArthur, 2017: 66)



### 5.3 Chemicals, fertilizers

While not many consumers think of this, the fact is that one of the main components in the clothes are chemicals. As many as 3 kilograms of chemicals are used to make only 1 kilogram of clothes (Norokorpi, 2018). This is because fiber production, dyeing and bleaching, for instance, all require use of chemicals, and more than 8000 synthetic chemicals are needed when manufacturing one garment. These chemicals, in addition to the environment, naturally harm the employees who manufacture the clothing, but also the consumer who buys the

garment – the chemicals can cause skin irritation and allergies for the wearer of the garment. These chemicals harm the employees throughout the supply chain, and the workers in the developing countries are exposed to these hazardous substances without proper safety protection (Charpail, 2017).

A study by Greenpeace tested 78 fashion products, which were manufactured in different countries around the world. The results were shocking – 52 of them were found to contain nonylphenol ethoxylates, which is a hazardous environmental toxin. It can cause cancer, hormonal disorders, and fetal damages. The brands involved in this were for example H&M, Gap, Adidas, Calvin Klein, Converse, Nike, and Puma. Only one of them, Gap, had products that did not contain that chemical. One of the test garments was bought in Finland. The brand was Nike, and the amount of the chemical, nonylphenol ethoxylate, found in it was relatively large. This chemical has also been found even in children's clothing (Taloussanommat, 2011).

The farming of regular, non-organic cotton uses very large amounts of fertilizers, chemicals, and pesticides, from which suffers the environment. Millions of animals, especially birds and fish, die from the toxins (Luomupuuvilla, n.d.). Cotton fields are heavily poisoned because they contain a lot of pests. Poisoning can spread over a wide area, as poisoning is most often done by air spraying. Due to the chemicals, it would be highly important to wash the new cotton products before use, because the chemical residues also remain in the finished product.

## 5.4 Waste

Because massive amounts of clothes are made every year, it is clear that the industry is also producing massive amounts of waste – 92 million tons of fashion waste is produced each year. For example, an average western world family throws away 30 kg of clothing, every year. The problem would be much smaller if those clothes were thrown away sustainably. The problem is that at this

moment, only approximately 15 % of the clothes are disposed in sustainably ways. The rest 85 % of them goes straight to the landfills or is burned (Darmo, 2020) (Charpail, 2017). Therefore, the waste problem of fast fashion is severe. Online shopping makes the waste problem even worse – the clothes are so cheap that even if the garment is not suitable, it might not be returned as the return costs may be more expensive than the garment itself. In addition, every garment that is going to be shipped to the customer must be packaged, which increases the amount of waste.

The problem is definitely not only the consumer behaviour, as they are not the only ones behaving unsustainably regarding this – also, many of the retail stores get rid of the unsold clothes in very unsustainable ways. Incinerating them is an increasingly common way to do this. For example, in 2017, even the luxury brand Burberry incinerated clothing worth around 35 million euros (Baraniuk, n.d.). The fast fashion companies use the incinerating method because it is cost effective, and as mentioned, cost friendly methods are incredibly important in the industry. Incinerating is a problem, because when clothes are burned, they release harmful emissions, causing negative impacts on air quality, climate crisis and global warming. Burning clothes releases carbon dioxide and methane, among other greenhouse gas emissions. Dyes and chemicals used in clothing may also release toxins, and clothes made of synthetic materials may release plastic microfibers into the air. In case of a human exposure, this may cause headache, dizziness, and nausea. The incinerated clothes end up in the landfill eventually – after they are burned, the ashes remain, which are taken to the landfill. Taking the clothes directly to the landfill is another option for disposing them, instead of incineration, but this is an even bigger problem because most clothes are not biodegradable. Thus, after many years, chemicals and dyes will start moving from the garment to the soil and groundwater, which makes people who are drinking the groundwater suffer (Weeks, 2020).

## 6 Solutions / reducing the problem

There are many problems, but there would be also many solutions. Naturally, it is clear that the sustainable alternatives are not as cost-effective and that is the main reason why the fashion companies and factories do not favor them.

### 6.1 Organic cotton

Switching normal cotton production to organic cotton production would solve many of the problems associated with fast fashion, both social and environmental. This is because organic cotton is environmentally friendly as it does not poison the environment. Organic cotton is toxic free, while normal cotton uses 10-16 % of the world's pesticides. Genetically modified seeds of normal cotton are treated with pesticide and insecticide, while organic cotton uses seeds that are not treated with toxins. In addition, in the organic cotton production weeds are removed by hand, which means toxins are also not used in the fields. Pests are controlled by crop rotation and biological plant protection methods, instead of toxins or pesticides. Organic cotton would also solve the water consumption problems, as more than 80 % of the water used to irrigate organic cotton comes from rainwater – which means there is no need for heavy water consumption. Also, as organic cotton is toxic and chemical free, the used water is safer for the environment. Companies and consumers should also prefer other fibers with low water consumption, such as hemp, linen, or recycled fibers, instead of regular cotton or synthetic fibers, which consume a lot of chemicals, energy, and natural resources. The use of organic cotton instead of regular cotton would also solve some of social problems, as people who work with organic cotton are healthier, as they are not exposed to toxins and chemicals (Luomupuuvilla, n.d.).

### 6.2 Improving life qualities

When it comes to workers' rights and wages, it is almost self-evident that the live qualities of those workers could be improved by raising their salaries, and at least

the living wage should be paid, without needing to work inhumane long working hours. Consumers may be concerned that if the workers were paid more, the price of fast fashion would rise unreasonably, and they could no longer afford the garments as before.

In reality, if the salaries of the workers would be raised from 2 cents to 11 cents per clothing, it hardly affects the selling price of the shirt – but the life quality of workers would be greatly improved. As mentioned, the clothing workers are most often paid the country's minimum wage. If that money could provide everything necessary for living and decent life quality, it would not be a problem. The problem is that even in developing countries, the minimum wage is not enough to support themselves and their families. If their salaries would triple, the consumer would pay roughly only 2,50 euros more for his or her t-shirt (Saramäki, 2014; 53). A price increase of two euros would hardly affect the consumer's purchase decision – but the human, who has sewn the garment, would be able to buy nutritious food, medicine, and education for his/her family, and even could be able to save some money for a rainy day.

In case the consumer wants to be more assured, that his/her clothing is sewn by a worker with proper working conditions and wages, it is advisable to favor locally manufactured clothes. When buying a garment that is manufactured locally instead of developing countries, the employee who sewed the garment has more likely received proper compensation for the work, and child labor has not been used. In other words, the consumer would be supporting fair labor practices, and the risk of child labor and poor working conditions would be minimized. The garment sewn in developing countries does not necessarily tell anything about its quality, because a Bangladeshi worker does sew as good a garment as a Finnish worker, if she/he is given enough time to sew the garment, and a decent working environment. On the other hand, this subject is difficult, because the fast fashion manufacturing is a major source of income in developing countries, and without the industry, many of these poor people would be completely jobless. If the consumers stop buying the fast fashion clothes, the demand decreases, and it is

also likely to reduce the need for labor. In other words, if less clothes were bought, the number of jobs would either be reduced, or the same number of workers would make less clothes – but with better quality, humane working hours, and better working conditions.

Another problem is that many of the workers probably do not even know about their own rights. For this reason, the fashion companies should organize programs for the factory workers, which would increase the workers' awareness of their rights.

### 6.3 Increasing transparency

One reason why consumers are unaware of the problems of fast fashion is that brands are not transparent enough – when a consumer buys a shirt from a store, the price tag does not contain information on how much its production has consumed water, for instance. Currently, therefore, purchasing decisions are not much affected by these issues, as they are not known.

In the fast fashion business, transparency means honest information on how, where and by whom the garment is made. Information about the entire production process should be easily accessible to the consumer. This means the process from the very beginning to the very end, in other words, from cotton field to the store shelf (Rauturier, 2021). This way, the consumers would know exactly what they are buying, and can let it affect their purchasing decisions. Making a purchase decision based on sustainability is very difficult if the information is not easily and adequately available. If the consumers started demanding transparency from the fashion companies, it would mean that the changing consumer demand would force the clothing companies to improve the transparency of their operations.



For the transparency to be sufficient, at least the following information should be easily accessible to the consumer:

- **Materials:** what materials have been used and how much, are they of animal-derived and, if yes, how does the company control how the animals are treated
- **People:** Which factory manufactures the clothes and under what conditions, how the brand monitors the safety of the factories, what kind of wage is paid to the manufacturers and is it enough to live on, what kind of working hours they do, what kind of rights they have
- **Environment:** How much water has been consumed in manufacturing, how much emissions and waste have been generated and how waste and wastewater are treated (Rauturier, 2021)

The writer of this thesis randomly selected three companies for comparison: two that she considers as fast fashion (Bik Bok and Sinsay), and one that she considers as a sustainable brand (Pure Waste). One product was randomly selected from all 3 brands, and the comparison was made based on the product pages of the selected products. This is because the purpose of this comparison was to investigate how easily the information is available at the time of purchasing. Sustainability reports can be found usually somewhere on the websites, but if there is not enough information on sustainability on the product page, the information is not easily accessible – it is likely that most consumers do not bother to look for the information elsewhere, if it is not on the product page.

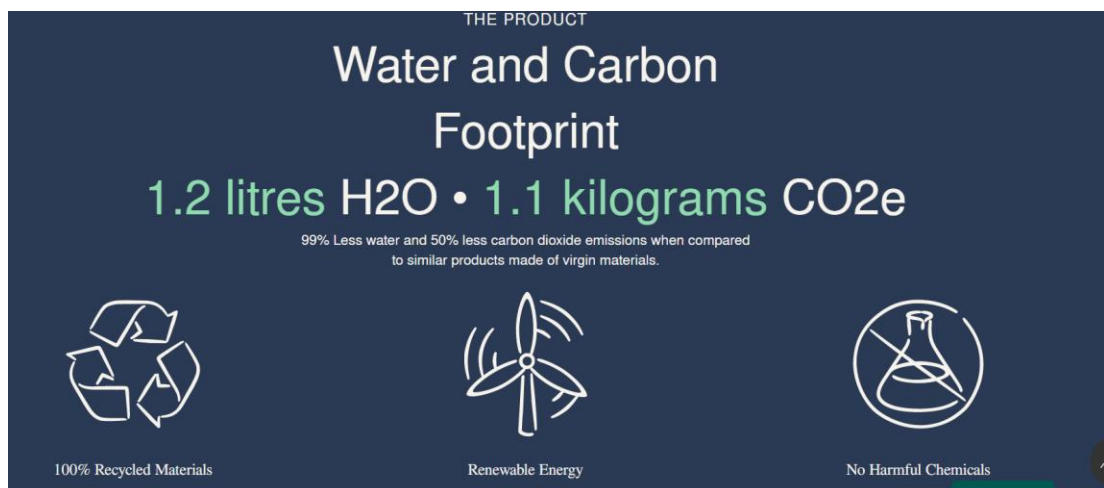
**Bik Bok:** Informs its customer which factory made the garment, and the materials that were used to manufacture it: *“Transparency in the production of a garment plays an important role in creating a better fashion future. The supplier that helped us make this amazing product is Changshu Hongli, China”* and the materials used: *“73% Polyester, 25% Recycled polyester, 2% Elastane”*. The sustainability report is easily accessible on the website. No other information on the supply chain or sustainability is available on the product page, and the name of a factory alone does not tell the consumer much, for example about the worker conditions.

On the other hand, most of the fashion brands do not even mention the name of the factory on their product pages, but only the country of manufacture.

**Sinsay:** Only materials are told to the consumers on the product page: “95% Polyester, 5% Elastane”. Not even the country of manufacture is informed. No sustainability report is available, or at least it could not be found with a quick search.

**Pure Waste:** On product page, it informs the consumer about the exact water and emission amounts that were consumed to make the product. Production process is also available. The sustainability report is easily accessible.

Figure 4. A screenshot from [www.purewaste.fi](http://www.purewaste.fi) product page, on 8.4.2022.



In addition, Pure waste clearly informs the used materials: “Made of 100 % recycled raw materials. 60 % recycled cotton. 40 % recycled polyester”. The country of manufacture is told, but the factory name itself remains unknown to the consumer: “This T-shirt has been responsibly manufactured in our factory in India. The logo is printed in Finland”.

In general, it seems that the transparency of companies is moving in the right direction, but there is still a need for improvements or changes in law so that consumers could really make purchasing decisions based on these issues. The

fashion and other textile companies should have a responsibility to make getting information as easy as possible for their customers.

#### 6.4 Avoiding greenwashing

It is necessary to beware of greenwashing and spread awareness of it. When reading about sustainable or environmentally friendly actions or practices of a fast fashion company, advertisements, or reports, the reader should always pay attention to this problem. As more consumers have begun to prefer responsible clothing, it is important for fashion companies to communicate that they are environmentally and/or ethically responsible. Or at least trick the consumers to believe it – with the help of greenwashing. In fact, according to an EU study in 2021, 42 % of responsible environmental claims presented by companies are exaggerated, misleading or fraudulent (Joutsenmerkki, 2021).

As a term, greenwashing refers to a lie or partial truth, when describing the company's social or environmental responsibility. The company or/and its product is presented more environmentally or ethically better way than it really is, making the consumer to consider the company or/and product as responsible. It is common for fast fashion companies to only focus on small details in their reporting, instead of entities. Words such as “environmentally friendly” and “manufactured responsibly” should be considered as valueless if they are not substantiated. If there are sustainability problems in the supply chain, they should be credibly and transparently reported, instead of focusing only on writing about an electric company car, or the recycled materials used in one shirt collection – otherwise it is called greenwashing.

As greenwashing is unfortunately common among fashion companies and several well-known companies are doing it, the consumer therefore needs to be vigilant, if he/she wants to prefer brands that are sustainable in reality. For example, it may advertised that the company has increased responsible materials but does not report whole numbers of materials, and what percentage has been

replaced by a more environmentally sustainable option. The advertisements may mention claims such as "made responsibly" but in its sustainability report, the company does not tell anything specific about the working conditions or salaries of its factory employees. In addition, for example, a popular footwear company claimed it is building a new future where "plastic gets a second life", but the company's sustainability report does not elaborate this any further (Salonen, 2021).

## 6.5 Helping the environment

As mentioned before, most clothes in, especially women's, wardrobes are not being worn. This means a lot of pointless waste when they are eventually thrown away. In other words, if the consumers were to consider purchasing clothing more carefully, instead of buying them on a whim, a remarkable amount of fast fashion clothing would not be purchased to create more waste.

In addition to changing the consumer behavior towards this huge consumption, it would be highly important to emphasize to the consumer the importance of proper disposing of the used clothes. As most of the clothes are made of synthetic fibers, which means they are non-biodegradable, throwing them in the normal trash bins is far from the proper way of getting rid of them – they only end up piling up in the landfills. They could be for example donated, or resold. Positively, at least Finnish people are eager donators of their clothes. For example, UFF received more than 14,6 million kilograms of clothing donations in 2017. UFF resales the clothing or gives them for incineration for energy production. 4,3 % of donated clothing is sold in Finnish UFF's stores (Hiltunen, 2018). Also, for example, in their stores H&M takes its customers' old clothes for recycling. A change in law, that would require all clothing stores to take consumers' old clothes for recycling, would be necessary. The idea is basically the same as the bottle return system – all grocery stores are required to have a bottle return machine, so why could not it be mandatory for the fashion retailers to take the old clothing for recycling? This way, for example, when the consumer cleans his/her wardrobe (which results in many

bags of old clothes that needs to be thrown away), it would be easy to take them only to the nearest clothing store for recycling, instead of needing to think about what to do with them and throwing them into a regular trash bin.

An even more effective solution to help the environment and waste problem is to simply stop buying those poor-quality, disposable, unsustainable clothes. In addition, it might force the brands to improve the quality and sustainability when there is no longer a demand for those kinds of clothes. There would also be other benefits – it would allow the consumer to wear the clothes for a longer time, instead of needing to continue buying new clothes constantly. At the same time, it helps the environment, and would save money. As mentioned before, on average a garment is worn 7 times before it is thrown away, and if this number were doubled and the garments were worn at least 14 times, the greenhouse gas (GHG) emissions would be 44 % lower. Therefore, if the consumers lowered their high turnover in fashion, it would help lowering the emissions remarkably (Ellen McArthur, 2017: 46).

When it comes to avoiding the chemicals, preferring organic cotton is by far the best solution, but the consumers could also help the nature and protect themselves from toxins by buying clothes with fewer chemicals. There are some ethical certificates that indicate the amount of chemicals used in the garment or textile. In Finland, the best-known certificate for chemical-freeness is the Öko-Tex standard, which means that the clothes must not contain harmful residues of pesticides, heavy metals, or formaldehyde (Weekenbee, n.d.). Also, other organic fibres, such as hemp, are a good alternative to the regular cotton or synthetic fibres.

## 6.6 Slow fashion

Although fast fashion is by far the most dominant business model when it comes to the clothing industry, the problems of it has given birth to a new industry: slow fashion industry. Basically, it is the opposite of fast fashion – they make clothes

from eco-friendly, sustainable fabrics, such as hemp, and organic cotton, having less harm for the environment. These sustainable clothing companies have environmentally conscious business models that aim to reduce their environmental footprint as much as possible. To achieve this, many of them use renewable energy to run their factories, and they make the clothes locally. Also, when shipping the clothes, they use recycled materials in packaging, and try to create as little waste as they can (Liquori, 2021) (Aishwariya, 2019). Due to the sustainability, the prices are much higher compared to fast fashion, but on the other hand, it is worth considering: if buying only slow fashion, does it even become more expensive in reality? Fast fashion clothes are cheap, but of poor quality and nearly disposable, and due to this the consumers need to buy more of them all the time. Slow fashion may therefore become even cheaper, as the garment is good quality and lasts a long time, meaning that the slow fashion clothes need to be bought less often.

Table 3. Main differences between slow and fast fashion (Aishwariya, 2019)

	<b>Fast fashion</b>	<b>Slow fashion</b>
Low price	V	X
Mass-produced	V	X
Good product quality	X	V
High focus on animal and human rights	X	V
Eco-friendly supply chain, locally manufactured	X	V

The problem is that the slow fashion stores are not as accessible as fast fashion stores. They can be even hard to find among the thousands of fast fashion stores, and most of them only operate online instead of a brick and mortar store. If the consumer needs a shirt right away, buying slow fashion can get really tricky. It can also be difficult for the consumer to be sure what is really slow fashion – as mentioned, greenwashing is very common.

## 7 Conclusion

The crux of the problem is that there are too many clothes – they are produced too much, bought too much, and thrown away too much. Popularity of fast fashion is a problematic phenomenon – it is a too easy way for consumers to get cheap and stylish clothes, whenever they want. The consumer benefits from this easiness, and gigantic supply, but this way of producing and buying clothes is a big problem, because it is highly unsustainable and involves a lot of suffering, and major environmental issues. The disadvantages of fast fashion are known to most of the consumers at least to some extent, but still buying it attracts them. Also, many consumers would like to be more sustainable, but in the end, money matters the most.

When it comes to the environmental problems, the most critical ones are related to water consumption/cotton producing, emissions, and waste. The planet will not be able to sustain environmental neglects of this kind, and if the production and consumer behaviour continue as they are now, it will have serious consequences in the future.

The social problems are hard to overcome because solving them might affect the price of the clothes, and that is what the clothing companies want to avoid. It is worth considering that for example, for the people in developing countries having a job even in this kind of industry “is better than nothing”, but on the other hand, the workers themselves have no choice but to work for any salary in any working conditions.

When taking all these issues into account, it can be concluded that the change and improving actions must come from the fashion companies and the consumers with their behaviours, but importantly, also from the legislators. However, at the moment, it seems that those parties (fashion companies, legislators, and consumers) are not interested enough in these problems.

Legislative restrictions are needed, at least in terms of human rights, production, regular cotton cultivation and companies' transparency.

Even if the necessary changes were made, the carbon footprint of the fast fashion industry is already so massive that it will not change in an instant. While many large clothing companies have already made their production even slightly more ethical, there is a lot of greenwashing, and the consumers are not told the whole truth. The problems remain significant, and everyone's contribution is needed to improve it.



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