

# A Study on Circular Fashion as the Next Step in Sustainability

Mr. Huafrid Viraf Bhathena<sup>1</sup>, Dr. (Mrs.) Saumitra Sushil Sawant<sup>2</sup>

<sup>1</sup>Research Scholar: Hinduja College of Commerce and Economics, University of Mumbai, Mumbai, India

<sup>2</sup>Co-Author and Research Guide, Research Centre: KPB Hinduja College of Commerce and Economics

**Abstract-**The research aims to trace the origin of sustainability in fashion and its evolution. This paper also aims to understand the concept of circular fashion and evaluate whether circular fashion can be looked at as the new sustainability. This is a qualitative research with the use of secondary data to show how the burgeoning importance of sustainability on fashion has also impacted the fashion industry and the steps the fashion industry needs to take in order to remain ahead of the sustainability curve. It looks at the different elements that constitutes 'circular fashion' and puts forth the idea that 'circular fashion' may be the new sustainability.

## INTRODUCTION

Before we begin to understand the importance of circular fashion and its role in sustainability, we first need to understand 'what is fashion, the industry and how has it reached a stage of being one of the biggest threats to the environment?'

Clothing – once considered a basic necessity, has slowly evolved from being an essential to cover the human body to a style statement. While different eras have had different ideas of dressing and style, fashion is a collective term which on one hand is something popular in a given culture at a given time and on the other, it is considered as a representation of our selves. Fashion often gets associated with a sense of identity. While more often than not, it is an amalgamation of heritage, environment, culture and other influences. Fashion is also greatly influenced by personal traits. Fashion initially began as a privilege of the wealthy. While Charles Frederick Worth can be credited with the institution of the concept of haute couture, for the longest time, fashion trends were dictated by the wealthiest, which then trickled to the masses. Paris was the epicenter of fashion with Parisian couturiers being sought after for their skills in designing and making clothes for the people

However, with the advent of the Industrial revolution, the face of fashion changed. It stopped being a prerogative of the wealthy and with the introduction of mass manufacturing, fashion in the 20<sup>th</sup> century was not just for the classes but also for the masses. Add to that marketing activities led to an increase in both production and consumption of fashion. Over time, the concept of 'fashion for the masses' has evolved into what is now known as 'fast fashion'. While the growth curve of sustainability is almost parallel to that of fast fashion, in recent years incidents like the collapse of the Rana Plaza in 2013, increase in the amount of clothes being dumped in landfills, increase in pollution levels and labor issues have drawn the attention of consumers and companies alike to the problems associated with the fashion industry and are slowly evoking the need of a response from the fashion industry to evaluate and change the way it works.

## LITERATURE REVIEW

In 2010, V. Bhardwaj and A. Fairhurst, talk about how historically, fashion runways and fashion shows were the inspiration for the fashion industry. However, since this space was restricted only to the buyers and other fashion industry personnel, the designers remained within a closed environment. However, once fashion shows were made public, it was easier for the designs to be copied. (Bhardwaj and Fairhurst, 2010) Another reason why fast fashion has gained so much popularity over the years is because the products often mimic the designs of luxury brands but at much affordable prices. This makes these 'fast fashion' brands extremely attractive to the youth. Overtime with increasing income and therefore more disposable income, youngsters especially can afford these products. There are many social factors at play too; there is an increasing trend of 'not repeating clothes'

and ‘new wardrobe’ that has led to people spending more on fast fashion over the years.

In the decade gone by, the fast fashion model has gained undue popularity. Brands like Zara and H&M which are front runners in this business, churn clothes at a pace of almost 2 weeks. Another contributing factor to this increasing churn rate is the cheap labor available in developing countries like India, Bangladesh and South East Asian countries, where, clothes are produced at an alarming rate. The sad end of this cycle is that these clothes are being dumped at an even more alarming rate.

Sustainability has been at the forefront of the fashion movement since the late 60’s. It probably began with the hippie movement where the emphasis was on natural fibers and a simpler way of life. We then move on to the 70’s and 80’s where gothic trends refused to accept traditional ideas and instead looked at a mix and match style of clothing by using vintage and second hand items. The late 80’s brought in the anti-fur movement. However, it was the 1990’s that changed the course of fashion once again. Rapid production, increased consumption and accessibility to fashion trends, all lead to the birth of fast fashion.

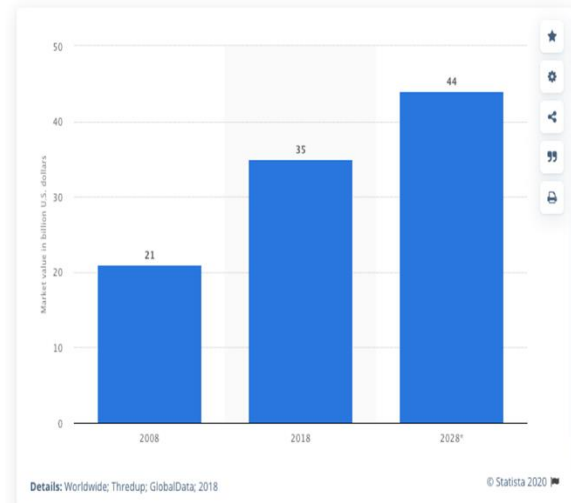
### WHY HAS FAST FASHION BECOME SO POPULAR?

The apparel industry is booming. Every year 62 million tons of clothing are being consumed globally and the estimated figure for 2030 is 100 tons. The recent COVID19 epidemic had an impact on people’s spending patterns on fashion and accessories, but the decrease in this spending trend did not last long enough to make a sizeable impact on any measurable metric, save for maybe revenue figures. These figures only show the wasteful nature of both organizations as well as consumers. The reason fast fashion is becoming even ‘faster’ is because the competition is not restricted just to the brick and mortar spaces but has also spread to the online environment. Shorter supply chain systems, decreased delivery timelines, have all added to the burgeoning problem that is fast fashion. Traditionally, in the luxury industry, the concept of fashion shows is to display the collections that the brand has designed for the upcoming season. Buyers from stores of those brands then place limited orders for the pieces which, is then produced by the brands and shipped to each of the stores.

However, given the increasing use of social media and public nature of these fashion shows, designs are at the desk of the designer of fast fashion companies before the show is even over and since these fast fashion companies have extremely well-designed supply chains, the products are in the stores in a timeline of less than 2 weeks. The reason these companies can produce these products in such short timelines is because:

- (1) the material they use is generally synthetic fibers,
- (2) due to the large quantities they produce, ‘economies of scale’ help them reduce cost of production.

The figures below estimate the growth of the fast fashion industry by the year 2028.



Source: Statista

In 20 years, the growth of this industry will almost double. With this kind of product circulation, it is not difficult to imagine the huge continued environmental impact of this industry.

Now that we have discussed the producer and retailer part of this circle, let us look at the other side – the consumer. The reason of so much production is never ending demand of consumers. These consumers are becoming fashion conscious and are updated about latest trends via influencers, social media and magazines. The short cyclicality of these trends leads to multiple trends and in turn leads to increasing demand. This demand can be easily filled by producers and retailers. The graph below shows the biggest consumers of fast fashion on a global scale.

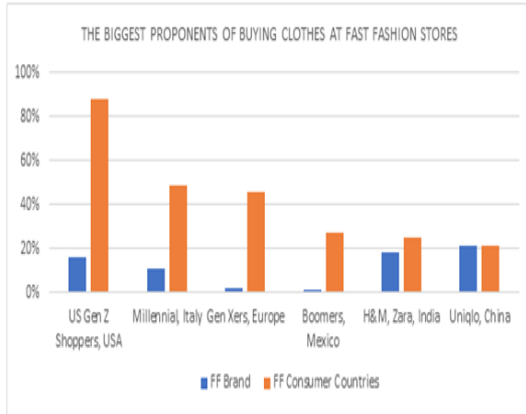


Figure 2: Market leader in Fast Fashion (FF) brands and market share of Fast Fashion in the corresponding country.

Source: TextileToday

There is also an increasing need in people to keep changing their outfits. 1 in 7 people do not want to be photographed twice in the same outfit (McKinsey report 2019). Other psychological factors, the growing trend of influencers who boost new outfits and trends via social media and the increasing number of ‘cheaper’ options available, both online and offline, have led to the consumer increasing their spending. This, in turn increases the number of fast fashion products which ultimately increases wastage.

### WHY IS FAST FASHION BAD FOR THE ENVIRONMENT?

As of 2019, it has been observed that 60% of fibers used in production of fast fashion are synthetic. These fibers are derived from fossil fuels and not easily degradable. Additionally, the “*fashion industry produces 10% of all humanity's carbon emissions, is the second-largest consumer of the world's water supply, and pollutes oceans with micro plastics*”. (McFall-Johnsen, 2019)

In the last 20 years, production numbers have almost doubled. In addition to increasing production is the increase in wastage. 85% of clothes that are produced end up either in landfills or incinerators. The problem, however, does not stop there. If these clothes are burnt,

they release harmful chemicals and toxins in the environment. Even before we reach the stage of wasting, we have already polluted the environment. This is because, tons of microfibers are released into the ocean each year while washing these clothes. Today washing clothes releases 500,000 tons of microfibrils which is the equivalent of 50 billion plastic bottles. This is roughly 16 times the amount of plastic microbeads that are released from cosmetics. Many of those fibres are polyester, which do not break down easily. In addition, this fibre releases two to three times more carbon emissions than cotton. This fibre is found in 60% of the clothes that are on the shelves today. There has been a 157% increase in the usage of polyester between 2000 and 2015, which makes this a number that we need to be cautious about, especially in terms of sustainability and environment.

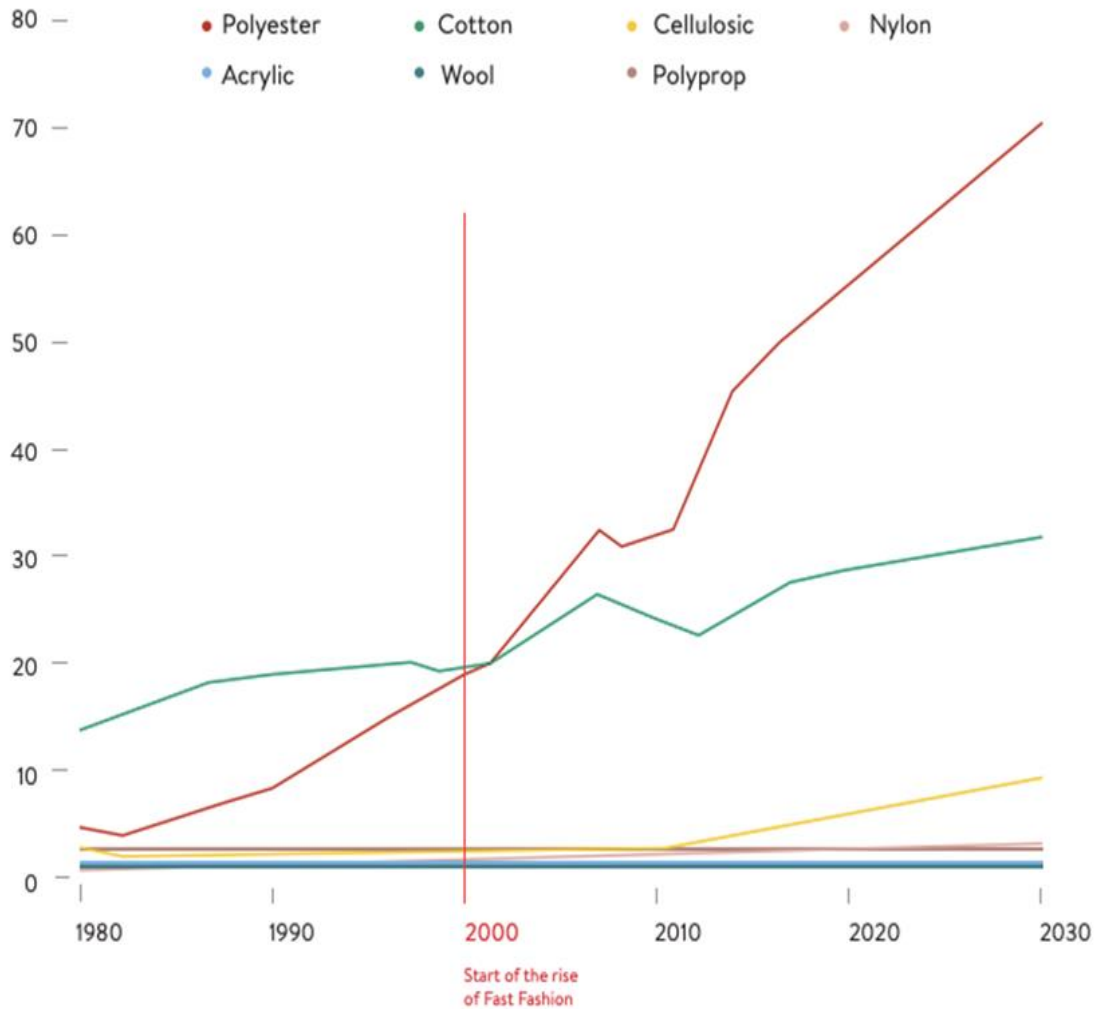
A 2017 report from the International Union for Conservation of Nature (IUCN) estimated that 35% of all microplastics — very small pieces of plastic that never biodegrade — in the ocean came from the laundering of synthetic textiles like polyester.

An estimated USD 500 bn worth of clothing is either barely worn or recycled and instead ends up in a landfill. It is also estimated that by 2050 the fashion industry would have used up close to half the world carbon budget. synthetic microfibrils are released from clothes when they are washed, eventually making their way into rivers and seas, where they can potentially take decades to degrade. Microfibrils can have a range of impacts once they reach the aquatic environment, such as impacts on feeding activity, or carrying invasive bacteria that can be harmful to humans.

In addition to this environmental impact, there is also the impact on human capital that is employed in this industry. From being paid low wages, to having to work with harmful chemicals and dyes, this faction of the industry is almost collateral damage in the multi-billion dollar industry.

The graph below shows how use of polyester has increased over the years and implied environment impact of this rise will be catastrophic for our planet.

**Polyester - Fast fashion's favorite material is on the rise**



Increase in global fibre demand - million tonnes  
43.5% of the textiles fibres are for clothes - Graph adapted from Textile World (2015)

Source: Greenpeace

The question now is, given the increasing rise in dependency of both industry and consumers on fast fashion, how the system as a whole slowly move towards an area which tries to work backwards to slowly disconnect from the harmful practices that dominate the industry and instead move towards more environment and human friendly practices.

**HOW DOES SUSTAINABILITY INFLUENCE FAST FASHION?**

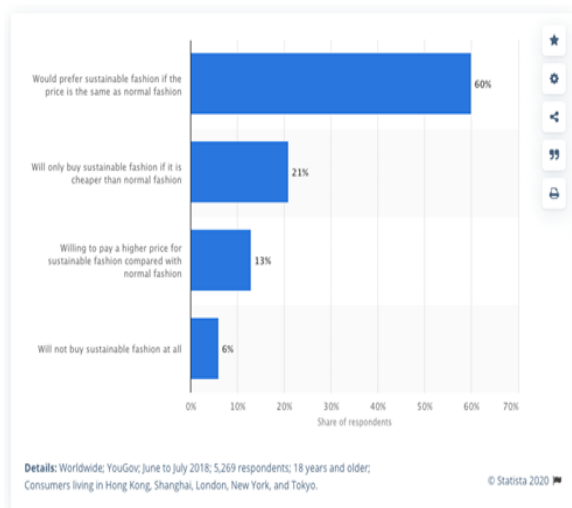
Sustainability is not really an old concept. In the 1990s when the concept of Fast Fashion took form, in parallel another concept called 'eco-fashion' movement also began. While it may not have been at the same scale as today's call for sustainability, those movements set the stage for bringing to attention the need for more sustainable practices in the fashion industry.

Impact of fast fashion on the environment, effect of super-short production cycles on factory workers and wastage are drawing consumers' attention. Companies are realising the impact of their actions and consumers

are realising their contribution to this vicious cycle. This is slowly forging a new path where once again consumers and companies are going back to the concept of sustainability. Sustainability is often mistaken merely for environmental activism but in reality it is much more. It encompasses not only environmental, but also social elements that are integral to this concept.

Within sustainability comes the concept of ‘sustainable fashion’, which may be more relevant, given especially the nature of the industry that this paper aims to address. According to Zhanna Kutsenkova, 2017 “Sustainable fashion implies ethics, durability and the reuse of products. A single definition of sustainable fashion is difficult to pinpoint as there is no current industry standard. The concept of sustainable fashion encompasses a variety of terms such as organic, green, fair trade, sustainable, slow, eco etc. (Cervellon et al., 2012), each attempting to highlight or correct a variety of perceived wrongs in the fashion industry including animal cruelty, environmental damage and worker exploitation (Bin, 2014)”

However, the term ‘sustainable fashion’ is gaining recognition among consumers and the data below shows that consumers are increasingly aware of the concept and are willing to switch to sustainable fashion.



Source: Statista

Zhanna Kutsenkova further elaborated that the ultimate goal of the sustainable fashion movement was to noticeably slow down production and consumption

of garments on the global scale (Flower, 2009). For that, the key component of sustainable production was the ‘replacement of harmful chemicals with environmentally friendly materials’ and also the reduction of ‘waste and resource consumption through apparel recycling’

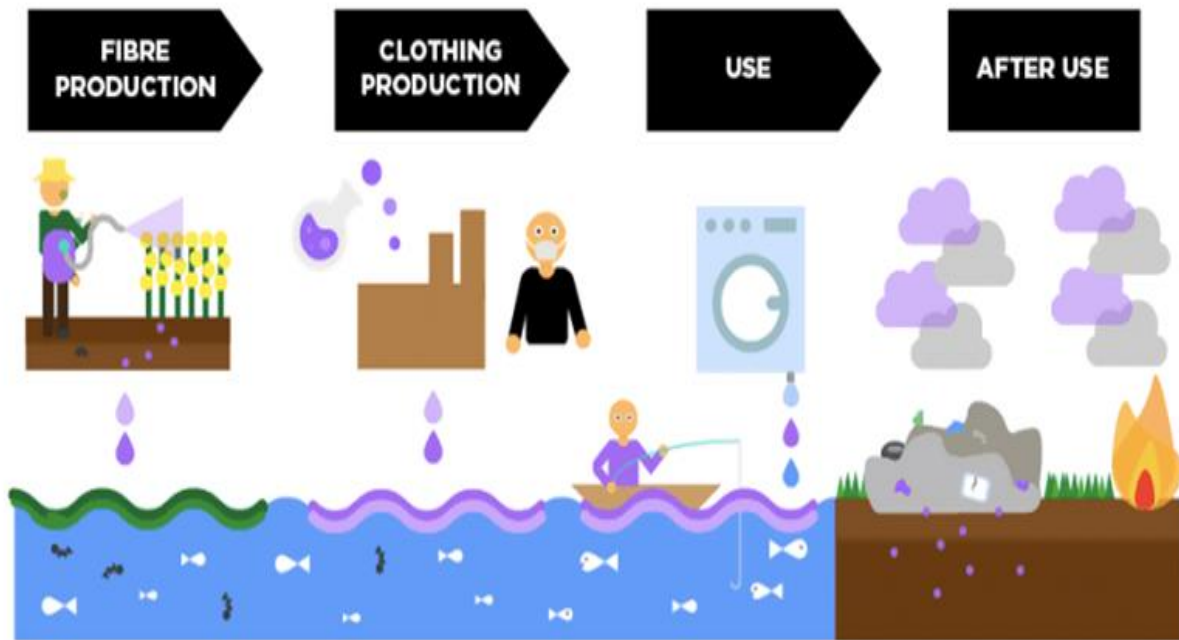
However, given the leaps and bounds by which fashion industry has been growing ‘sustainability’ cannot be used to simply reset the button and bring everything to a standstill. Instead, the concept of sustainability that has been running parallel to the industry all this while has to be slowly integrated into the industry.

### IS CIRCULAR FASHION THE NEW SUSTAINABILITY?

Sustainability per say is a complex subject. While there is a lot that needs to be managed at the manufacturers end, consumers plays a vital role in accelerating this movement. Consumers today are asking relevant questions. They want to know where clothes have been manufactured, who has been employed to make those clothes, conditions of employees and other relevant aspects, both humane as well as environmental. While incidents, like the collapse of the Rana Plaza, raised questions on working conditions of those right at the bottom of the supply chain, focussed attention of various organizations on how the fashion industry is responsible for environmental and other issues has also resulted in the consumer questioning their choices.

Eco consciousness is on the rise and consumers are looking at alternatives both in terms of brands as well as fabric. There is a growing need for more ‘sustainable’ fabrics, organic materials and eco-friendly materials that will address concerns brought on by the rise of eco-consciousness in consumers. That being said, there is another trend that has been slowly gaining popularity, a trend that can be a new kind of sustainability – circular fashion.

Today’s fast fashion has a more linear nature. It begins with fibre production and ends with the products being dumped as waste. The diagram below is a simple illustration of the current ‘lifecycle’ in the fast fashion industry.



Source: Ellen MacArthur Foundation

Source: Ellen MacArthur Foundation

However, circular fashion aims to change this linear relationship into a system where once clothes are introduced into an ecosystem, they are ‘circulated’ within that system for as long as possible and then disposed-off safely once they are no longer of use. Thus, in circular fashion companies need to be a step ahead. The current stage of product in the lifecycle should be designed keeping in mind the next stage in lifecycle.

Circular fashion finds its roots in the term circular economy; “The circular economy refers to an industrial economy that is restorative by intention; aims to rely on renewable energy; minimise, tracks and eliminates the use of toxic chemicals; and eradicates waste through careful design.” (Ellen MacArthur Foundation)

‘Circular fashion’ can be defined as clothes, shoes or accessories that are designed, sourced, produced and provided with the intention to be used and circulated responsibly and effectively in society for as long as possible in their most valuable form, and hereafter return safely to the biosphere when no longer of human use. (Anna Brismar, Green Strategy, 2017)

Circular economy basically implies that the material and products once introduced into society or an environment are rotated among the members to increase the products usage and longevity. However, circular fashion needs to be disseminated on two levels because, we should not forget that while one aspect of circular fashion includes the eco-friendly and organic matter which is degradable, however, there are still those products that will continue to be produced using synthetic fabric. This part of the cycle needs to be addressed in a completely different manner. Thus, the following concept of biological cycles and technical cycles as defined by the Ellen MacArthur comes into play.

According to the Ellen MacArthur foundation, the difference between two cycles begins at the roots. In biological cycles, the cycle begins with ‘biological’ or ‘organic’ materials which are fed into the system and can thus be circulated without any impact within the economy. Technical cycles on the other hand, look at the synthetic materials that are already present in the system, and a way to recover and restore those products in order to increase the use of the products.

**OUTLINE OF A CIRCULAR ECONOMY**

**PRINCIPLE**

**1**

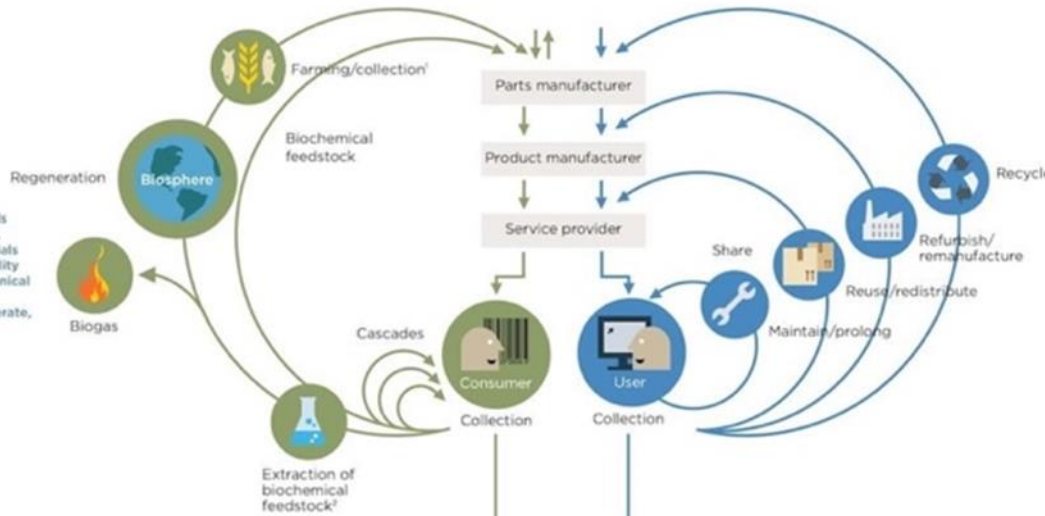
Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows  
 ReSOLVE levers: regenerate, virtualise, exchange



**PRINCIPLE**

**2**

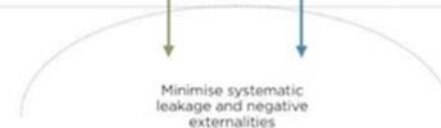
Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles  
 ReSOLVE levers: regenerate, share, optimise, loop



**PRINCIPLE**

**3**

Foster system effectiveness by revealing and designing out negative externalities  
 All ReSOLVE levers



1. Hunting and fishing  
 2. Can take both post-harvest and post-consumer waste as an input  
 Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment, Drawing from Braungart & McDonough, Cradle to Cradle (C2C).

Source: Ellen MacArthur Foundation

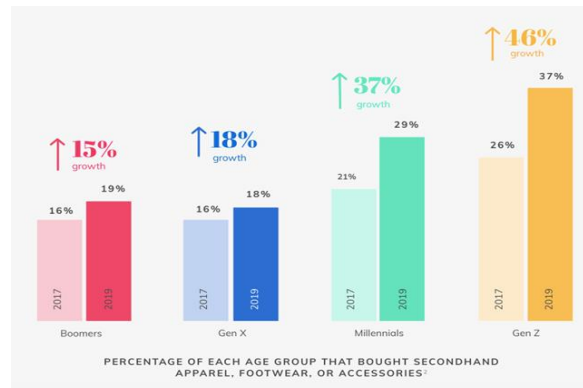
However, there can be no singular approach to circular economy. In a world where the gaps have widened owing to various sociological and cultural factors, different areas of the idea of sustainability have to be plugged in by different approaches of ‘circular economy’. Below are a few approaches of how society and the fashion industry can implement the concept of circular economy. The difference lies in the weight of responsibility shouldered by both industry and society. Keeping the above cycles in mind, this paper would endeavour to address possible solutions under the aegis of circular fashion.

(1) By using biodegradable/organic materials since the beginning of the manufacturing process. This obviously means looking at economical and environment friendly options of producing biodegradable materials. However, the work does not

end with just making the materials. Even today, there are many companies that produce biodegradable clothes, however, there are small elements in the products which may not be degradable – buttons, tags, thread used in the stitching and even the colours used to dye the product. Thus, if a company is looking to manufacture pure biodegradable products, it needs to also ensure that smaller elements are also biodegradable.

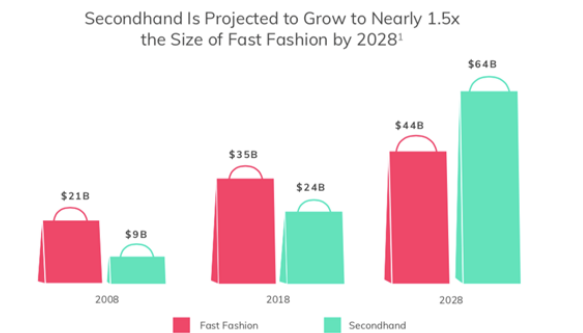
(2) The second option in the concept of circular fashion uses the current products that are already circulating within the economy. Instead of using virgin material, material from existing products should be recycled, returned back to the economy and used once again. However, the drawback of this process is that each time the material is recycled there is a loss in the quality of the material. This throws light on another

new aspect, the material used initially should be chosen basis on the possibility of recyclability. Many brands and designers are looking at new fabrics which can be used in future based on features of recyclability. (3) The third option is again an option that can be applied to the products that are circulating in the economy. However, this option requires more involvement from the consumers themselves. In this option, we look at the concept of keeping the products within the economy for as long as possible. Re-sales and rentals are the two main avenues which can allow consumers to contribute to the idea of ‘circular fashion’. The idea of re-sale has been gaining traction like never before.



Source: ThredUp (2019 Fashion Resale Market and Trend Report, 2019)

While the idea of re-sale has begun with the current generation, even older generations are coming around to buying second hand clothes. The graph below shows that with active consumer involvement, this market can grow even larger than the fast fashion market.



Source: ThredUp

This is also the market that will force fast fashion companies to slow down because with second hand products becoming popular among consumers, there will be a drop in demand for new clothes, which will,

in turn drop levels of production for fast fashion companies.

### CONCLUSION

There is no doubt that the future of the fashion industry lies in the industry moving to more sustainable practices. While this paper aims to address the concept of circular fashion from a broader perspective, in order for companies to become truly sustainable, there is a need to evaluate the entire value chain. Each element of the value chain can be re-worked and improved to add sustainable practices which will cumulatively improve this eco-system. We cannot forget that environmental impact is not the only problem of this industry. The other side of the problem is the impact on human capital. Issues in that spectrum are equally bad and the idea of circular fashion should not just address one part of that problem. By improving working conditions, using organic dyes, better labour practices, sustainability can also improve the working conditions and in turn the quality of lives and health of those at the base of this industry.

### THE WAY FORWARD

Given the already exacerbated situation that we find the industry and consumer cycles in, it is not possible to ‘reset’ the industry. The need of the hour is to apply the concept of circular fashion to the current situation and build from there so that even if damage that is already done cannot be reversed, any potential for new damage is greatly minimised. For this to take effect, companies need to be held accountable and consumers need to be made conscious. There should be an increased awareness around the participation of consumers in the concept of circular fashion which will in turn lead to them questioning the companies. Introducing modern day technologies like blockchain is another way to ensure that the customers know where the product comes from and in turn increase the accountability of the companies. Features such as ‘open ledgers’ in blockchain can be genuine enablers in this endeavour.

Companies need to be part of this change by reducing fashion cycles, moving to more environment friendly material and also be closely involved in the entire value chain. This accountability should extend to even those activities in the value chain which are outsourced. New initiatives should be introduced by



embracing all stakeholders including human capital that is an important part of this cycle.

REFERENCE

- [1] *2019 Fashion Resale Market and Trend Report*. (2019). ThredUP. [https://www.thredup.com/resale?tswc\\_redir=true](https://www.thredup.com/resale?tswc_redir=true)
- [2] A Brief History of Ethical and Sustainable Fashion — Solene Rauturier. (2019, April 24). *Solene Rauturier*. Solene Rauturier. <https://www.solenerauturier.com/blog/history-ethical-fashion>
- [3] *A NEW TEXTILES ECONOMY: REDESIGNING FASHION'S FUTURE*. (n.d.). [https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy\\_Full-Report\\_Updated\\_1-12-17.pdf](https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy_Full-Report_Updated_1-12-17.pdf)
- [4] Berg, A., Hedrich, S., Ibanez, P., Kappelmark, S., & Magnus, K.-H. (2019, October 17). *Fashion's new must-have: Sustainable sourcing at scale*. McKinsey & Company. <https://www.mckinsey.com/industries/retail/our-insights/fashions-new-must-have-sustainable-sourcing-at-scale>
- [5] Bhardwaj, V., & Fairhurst, A. (2010). Fast fashion: response to changes in the fashion industry. *The International Review of Retail, Distribution and Consumer Research*, 20(1), 165–173. <https://doi.org/10.1080/09593960903498300>
- [6] Bick, R., Halsey, E., & Ekenga, C. C. (2018). The global environmental injustice of fast fashion. *Environmental Health*, 17(1). <https://doi.org/10.1186/s12940-018-0433-7>
- [7] Black, S. (2015). *Bloomsbury Fashion Central* -. Bloomsburyfashioncentral.Com. <https://www.bloomsburyfashioncentral.com/products/berg-fashion-library/article/bibliographical-guides/fashion-and-sustainability>
- [8] Brismar, A. (n.d.). *Origin and definition of circular fashion*. Www.Greenstrategy.Se. <https://www.greenstrategy.se/circular-fashion-definition/>
- [9] Cobbing, M., & Vicaire, Y. (n.d.). *Timeout for fast fashion*. <https://storage.googleapis.com/planet4-international-stateless/2018/01/6c356f9a-fact-sheet-timeout-for-fast-fashion.pdf>
- [10] Droesch, B. (2020, January 27). *Why Is Fast Fashion Thriving in the Era of Sustainable Shoppers?* EMarketer. <https://www.emarketer.com/content/why-is-fast-fashion-thriving-in-the-era-of-sustainable-shoppers>
- [11] Farra, E. (2019, December 19). *Sustainability in the 2020s Will Depend on a Circular Fashion Economy That Makes New Clothes Out of Old Ones*. Vogue; Vogue. <https://www.vogue.com/article/sustainability-2020s-circular-fashion-textile-recycling>
- [12] Gecseg, O. (2020, January 20). *What is Fast Fashion and Why Is It Still So Popular?* The Sustainable Fashion Collective. <https://www.the-sustainable-fashion-collective.com/2020/01/20/why-is-fast-fashion-still-popular-and-what-is-it-costing-our-planet>
- [13] Gonzalez, N. (2015, February 19). *A Brief History of Sustainable Fashion*. Triplepundit. com. <https://www.triplepundit.com/story/2015 /brief-history-sustainable-fashion/58046>
- [14] Henninger, C. E., Alevizou, P. J., & Oates, C. J. (2016). What is sustainable fashion? *Journal of Fashion Marketing and Management: An International Journal*, 20(4), 400–416. <https://doi.org/10.1108/jfmm-07-2015-0052>
- [15] Herrmann, D. S. (2017). *Building Blocks Of A Circular Economy - Circular Economy Design & Circular Economy Business Models*. Ellenmacarthurfoundation.Org. <https://www.ellenmacarthurfoundation.org/circular-economy/concept/building-blocks>
- [16] K., S. (2019, December 20). *When did Fashion Start? The History of Fashion*. Openiun. <https://openiun.com/style-fashion/when-did-fashion-start-the-history-of-fashion/>
- [17] Kaikobad, N. K., Alam Bhuiyan, M. Z., Zafar, M., & Sultana, F. (2015, August). *(PDF) FAST FASHION: MARKETING, RECYCLING AND ENVIRONMENTAL ISSUES*. ResearchGate. [https://www.researchgate.net/publication/315727340\\_FAST\\_FASHION\\_MARKETING\\_RECYLING\\_AND\\_ENVIRONMENTAL\\_ISSUES](https://www.researchgate.net/publication/315727340_FAST_FASHION_MARKETING_RECYLING_AND_ENVIRONMENTAL_ISSUES)
- [18] Kutsenkova, Z. (2017). *Dominican Scholar The Sustainable Future of the Modern Fashion Industry*. <https://scholar.dominican.edu/cgi/viewcontent.cgi?article=1001&context=honors-theses>
- [19] manufacturing, W. clothing, Down, F. F. A. L. to S., & Ground, I. C. T. S. I. G. (2019, October 9). *Addressing Sustainability Issues in the Fashion Industry*. Impactivate | The Impact Investing

- Exchange. <https://www.theimpactivate.com/how-is-the-fashion-industry-addressing-sustainability-issues/>
- [20] Matveeva, S. (2020, February 11). *Top Trends In Sustainable Fashion Today*. Forbes. <https://www.forbes.com/sites/sophiamatveeva/2020/02/11/top-trends-in-sustainable-fashion-today/#3879e83464f4>
- [21] McFall-Johnsen, M. (2019, October 21). *The fashion industry emits more carbon than international flights and maritime shipping combined. Here are the biggest ways it impacts the planet*. Business Insider France. <https://www.businessinsider.fr/us/fast-fashion-environmental-impact-pollution-emissions-waste-water-2019-10>
- [22] Mora, E., Rocamora, A., & Volonté, P. (2014). On the issue of sustainability in fashion studies. *International Journal of Fashion Studies*, 1(2), 139–147. [https://doi.org/10.1386/inf.1.2.139\\_1](https://doi.org/10.1386/inf.1.2.139_1)
- [23] Mush, M. (2018, August 9). *Sustainable Shopping: Keeping it Circular - Sustainable Fashion - Luxiders Magazine*. Sustainable Fashion - Eco Design - Healthy Lifestyle - Luxiders Magazine. <https://luxiders.com/sustainable-shopping/>
- [24] Pruden, J. (2017, July 10). *Preference for Polyester May Make Fast Fashion Brands Vulnerable*. The Robin Report. <https://www.therobinreport.com/preference-for-polyester-may-make-fast-fashion-brands-vulnerable/#:~:text=What>
- [25] *Putting the brakes on fast fashion*. (2018, November 12). UN Environment. <https://www.unenvironment.org/news-and-stories/story/putting-brakes-fast-fashion>
- [26] Reiley, K., & DeLong, M. (2011). A Consumer Vision for Sustainable Fashion Practice. *Fashion Practice*, 3(1), 63–83. <https://doi.org/10.2752/175693811x12925927157054>
- [27] Remy, N., Speelman, E., & Swartz, S. (2016, October 20). *Style that's sustainable: A new fast-fashion formula*. <https://www.mckinsey.com/business-functions/sustainability/our-insights/style-thats-sustainable-a-new-fast-fashion-formula#>
- [28] Schlossberg, T. (2019, September 3). How Fast Fashion Is Destroying the Planet. *The New York Times*. <https://www.nytimes.com/2019/09/03/books/review/how-fast-fashion-is-destroying-the-planet.html>
- [29] Segura, A. (2019, April 1). *Circular Economy in Fashion*. The Fashion Retailer; The Fashion Retailer. <https://fashionretail.blog/2019/04/01/circular-economy-in-fashion/>
- [30] Shah MBE, V. (2012, September 15). *The Role of Fashion in Human Culture*. Thought Economics. <https://thoughteconomics.com/the-role-of-fashion-in-human-culture/>
- [31] *Sustai nabl e fashi on A survey on global perspectives*. (n.d.). <https://assets.kpmg/content/dam/kpmg/cn/pdf/en/2019/01/sustainable-fashion.pdf>
- [32] Textile Today. (2018, March 28). *Consumer behaviour, fast fashion, and sustainability*. Textile News, Apparel News, RMG News, Fashion Trends; Textile News, Apparel News, RMG News, Fashion Trends. <https://www.textiletoday.com.bd/consumer-behaviour-fast-fashion-sustainability/>
- [33] United Nations. (2018). *About the Sustainable Development Goals - United Nations Sustainable Development*. United Nations Sustainable Development. <https://www.un.org/sustainable-development/sustainable-development-goals/>