

FASHION IS FASTER, CHEAPER AND DISPOSABLE THAN EVER BEFORE

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ABSTRACT

Fashion is the second most polluting industry in the world after oil. From raw material extraction to the production of textile fibres, the industry's upstream processes rely heavily on our world's finite resources including land, water, and energy.

The paper starts with the discussion on how the fashion is becoming faster, cheaper and disposable. Then paper explains how Recycling is a 'Competitive Business' and is flourishing in almost all countries. Moreover, it explains that retailer recycling program is encouraging consumerism. The paper then discusses what options are available for recycled clothes and the popular practices which are followed in industry while dealing with them.

Paper also proposes options available at consumer level, which are sustainable and eco-friendly. In the end paper concludes that the use of clothes can be prolonged in a sustainable manner so that they are not disposed of by the customers and will increase the life cycle of the products.

Keyword:- recycling, upstream, upcycle, re-fashion

1. INTRODUCTION

Fashion is big business. Estimates vary, but one report puts the global industry at \$1.2 trillion, with more than \$250 billion spent in the U.S. alone. In 2014, the average household spent on an average \$1,786 on apparel and related services.

More styles mean more purchases — and that leads to more waste created. Americans now buy five times as much clothing as they did in 1980. Americans send millions of tons of clothing to landfills every year. Americans recycle or donate only 15 percent of their used clothes.

The increase in the amount of clothes people consume also has consequences for the environment. Statistics suggest that on average, UK consumers send 30kg of clothing and textiles per capita to landfill each year and that 1.2 million tonnes of clothing went to landfill in 2005 in the UK alone.

In a recent UK study, participants estimated that 60 percent of their wardrobe is “inactive” – the clothes are just stored, not worn. Yet we continue to buy new clothes, in part because they are so inexpensive – American consumers spend an average of \$14.60 per item.

Of course, increased consumption leads to increased waste. In the UK and US, a single consumer produces 30 to 40 kilograms of textile waste per year. In the US, 85 percent of textiles are thrown away without being reused or recycled, accounting for 5.7 percent of the solid waste in landfills. Although precise figures for Canadians are not reported, it's unlikely we're doing much better. The average time consumers keep a garment is just three and a half years. Even then, it's only worn frequently in the first year and then slowly phased into that stockpile of unworn clothes in our overstuffed closets.

1.1 Fashion is faster

Fashion brands like Zara, Gap and Adidas are churning out new styles more frequently. Fashion cycles are moving faster with more number of seasons per year, a trend dubbed "fast fashion" by many in the industry. "It used to be four seasons in a year; now it may be up to 11 or 15 or more," says Tasha Lewis, a professor at Cornell University's Department of Fiber Science and Apparel Design.

Fast fashion—low-cost clothing collections based on current, high-cost luxury fashion trends—is, by its very nature, a fast-response system that encourages disposability (Fletcher 2008). Purchase on a weekly basis to introduce new items and replenish stock browse fast fashion stores every three weeks or so in search of new styles limited functional life design and options for repair, design aesthetics that eventually lead to reduced satisfaction, design for transient fashion, and design for functional enhancement that requires adding new product features.

1.2 Fashion is cheaper

The clothes that are mass-produced also become more affordable, thus attracting consumers to buy more. The top fast fashion retailers grew 9.7 percent per year over the last five years, topping the 6.8 percent of growth of traditional apparel companies, according to financial holding company CIT.

If the style is going to be dead in a year, why should I buy a piece that will last longer? In a nutshell, it is affordable pricing and acceptable quality.

In Luxury fashion, the three main themes that emerged were dreams, exclusivity, and beauty/art. Fast fashion allows dreams of luxury to come true. Creating such products takes time, which in turn limits availability. Durability in fast fashion apparel is the kiss of death.

1.3 Fashion is disposable

Journalist Elizabeth Cline writes in her book *Overdressed: The Shockingly High Cost of Cheap Fashion* that disposable clothing is damaging to the environment and the economy. We are more likely to dispose of cheaper, mass-produced fashion garments than pricier ones.

"We don't necessarily have the ability to handle the disposal," Lewis says. "The rate of disposal is not keeping up with the availability of places to put everything that we're getting rid of and that's the problem."

According to the Environmental Protection Agency, 15.1 million tons of textile waste was generated in 2013, of which 12.8 million tons were discarded.

2. RECYCLING A 'COMPETITIVE BUSINESS'

People drop off donations, which includes plastic and paper bags stuffed used dresses, scarves, skirts and footwear. Volunteers, sort and put cloth on hangers.

These donated clothes go on sale next door, and the proceeds will help the needy in the area.

It's a scene played out across the U.S. where people donate their old clothes, whether through collection bins or through large charities, to help others. Many people donate clothes a couple of times a year. People believe that the clothes pretty much stays local. But it doesn't. Charities only have limited room and can only keep clothes for limited time. At some point, charities call in a textile recycling company which collects bales of clothes. Textile recycling is a huge international industry. Small warehouse alone ships tons of clothes each week to buyers throughout the world, including in Central America, South America, Asia, Africa and Europe.

When the shipment arrives overseas, a wholesaler will break down the bales and send the clothes into different markets. At each step along the way in this process, someone makes money from the donated clothes.

It is an extremely competitive business. Items are bought and sold by the pound, and one can literally make or lose a deal over half a cent a pound, quarter of a cent a pound. He says the business has changed dramatically over the years. Customers in foreign markets are now setting up their own operations in the U.S., cutting out a middleman.

Textile recyclers are still finding strong demand for used clothing. But she says selling cheap garments, like those made in Bangladesh is becoming increasingly difficult. One of the problems when they're trying to sell the clothing abroad is the distinction between what's good-quality used clothing versus clothing that has maybe not been manufactured to the highest standards. We hope that more clothes — of good quality — are donated every year as 85 percent of all the clothing sold each year ends up in landfill.

3. DO RETAILERS' RECYCLING PROGRAMS ENCOURAGE CONSUMERISM?

Several clothing retailers have announced take-back programs that collect used garments from customers to be recycled, sold or remade into other clothing. H&M, for example, has allowed customers to bring unwanted garments — which will be transformed to recycled textile fibers for new products — since 2013.

- a) **Resell:** Some companies aims to have "zero garments going to landfill." For example Patagonia also recycles and sells used Patagonia products in its stores. It plays into the concept of extended producer responsibility, which means the manufacturer has to take into consideration the product's afterlife. But does it actually encourage more consumerism?
- b) **Store credit and vouchers:** For many stores, customers can get store credit and vouchers for sending in used clothing eg: Big bazaar etc.
- c) **Discounts:** Customers bring back products to the store and when they select something new to buy, they get discounts. So, shoppers are actually giving a buying moment to the customers which they may not have had before because are being brought back at your store.

4. HOW TO DEAL WITH ALL THIS TEXTILE WASTE? – THE DONATED CLOTHES

One way developed nations get rid of their excess clothing is by donating it to developing nations. According to the United Nations, the United States is the biggest exporter of used clothes, and the top importing countries of used clothing are India, Russia and Pakistan.

1. **Sorting:** Fast fashion and the disposable culture also hurt sorting companies that export second-hand clothing. Adam Baruchowitz, founder of Wearable Collections in New York City, collects second-hand clothing and sells it to sorting companies. The companies then sort through the clothes, separating those that will be made into other low-grade fiber products and those that will be exported.
2. **Sending to second's market:** Baruchowitz says the most valuable part of a sorting company's business is in selling reusable second-hand clothing. But if the quality is questionable, more of the garments collected might have to head to the shredding bin rather than the second-hand clothes market.
3. **To burn clothes:** In some countries (Norway is one example) the solution has been to burn the textile waste and produce energy. But the energy gained is much, much less than what goes in to the production of the same textiles; could they be effectively recycled, reused or upcycled – the energy-gain would be much greater.
4. **Disassembling clothes:** But disassembling garments is complicated and much of what is recycled in to new clothing or accessories today comes from pre-consumer waste (cuttings on factory floors being one such resource).
5. **Recycle:** Teijin, a Japanese polyester supplier, offers Ecocycle™, maybe the best chemical recycling program for apparel. Their process allows polyester garments to be recycled into new PET polymer that is virtually undistinguishable from virgin PET. When our clothes become worn and unfashionable, we throw them away. From an environmental perspective it seems that the best thing to do is to recycle them, either by giving them to the appropriate organization or to sort and reuse the clothes for e.g. production of yarn, cotton waste, mattresses etc. Garments coated with plastisol inks do not decompose and they are difficult to recycle. The result is that you may soon grow tired of your Rolling Stones concert t-shirt and trash it, but it will live on in immortality in the local landfill.

6. **Made into wiping clothes:** About 80 percent of the donations are carted away by textile recyclers, says Jackie King, the executive director of Secondary Materials and Recycled Textiles (SMART), a trade association for textile recyclers. She says that means about 3.8 billion pounds of clothing that is donated each year is recycled. "Thirty percent of the materials are made into wiping cloths that are used in commercial and industrial use," she says.
7. **Upcycle the denims:** The benefits of up-cycling include reusing materials that have already been used to create a non harmful garment/accessory which has gone through no manufacturing processes in the production stage. Creating one-of-a-kind items which may have previously been seen as waste and encourages designers to be more efficient with waste materials and give pre-loved clothing a second chance to be trendy again.

All use denim as their main source of material and practice the techniques of customisation, which involves traditional and historical hand embellished and manipulated techniques, a unisex appeal which offers gender neutral collections, and ethical production where brands are looking towards ethically sourced and produced fabrics. Interestingly enough there are designers who even up-cycling denim for furniture and also home wares. For up cycling some people gather pre clothing and vintage materials from recycle and use the materials as the lining or feature panels in our bags.

8. **Converted into fibers:** About 20 percent of the donated clothes and textiles are converted into fibers that are then made into a variety of other products, including carpet padding, insulation for autos and homes, and pillow stuffing. King says nearly half the donated clothes — about 45 percent — is exported. "Pretty much you can pick any country and there's a market for these items," he says

5. WHAT CUSTOMERS CAN DO?

Consumers always feel that what they can do to avoid disposing of clothes. They have lot of options available which can be opted for to avoid discarding clothes and sending them to landfill. Some of the options are listed below.

1. Swap and Share

One person's trash is another person's treasure, right? Create a clothing exchange among your friends. Have a party where each person brings clothes that he or she no longer wants. Trade with your friends so that everyone leaves with fresh items for their wardrobe – without spending a dime or sending anything to the landfill

A year ago, a few users began uploading YouTube videos of themselves exchanging clothes with friends. It was either that, or they were showcasing how they made new styles out of their old, scrappy clothes. It was an activity that was part of the larger Fashion Revolution movement started in the United Kingdom that aimed to bring awareness to the source of our garments — as well as the waste created by our consumerist habits.

San Francisco was aware of this problem in 2002 — and pledged a goal of reaching zero waste by 2020 by encouraging the recycling of clothes, shoes and linen.

2. Re-Fashion

With the popularity of Pinterest and online blogs, DIY has never been so exciting and creative. Check out online DIY resources for creative ideas on how to turn an old t-shirt into something fresh and new. Or come up with your own ideas to re-fashion your clothing.

3. Rags to Riches

Why not make a couple of extra bucks from nice clothes you no longer want? Resell your clothing online or at your neighbourhood consignment shop.

4. Donate, Feel Great

Donating your clothing is a great way to give back to the community while also clearing out space in your closet. Donations are often tax-deductible, too.

5. Don't Scrap It

Turn your unwanted clothing into functional products. Oversized or faded t-shirt? Great for comfy pajamas Ripped t-shirt? Might be great for household cleaning. Outdated skirt? Could be a great apron. As you begin your spring cleaning, keep in mind that your clothing can be kept out of the landfill and recycled, reused or repurposed for the greater good

6. Prolonged use:

The use of the clothes can be prolonged so that the lifecycle of the clothes is increased. This can be done in number of ways:

- **Low impact washing procedures**
All clothes and products should be made in a way so they can be maintained by using low-impact washing procedures. Just by washing clothes half as often, overall energy consumption is almost cut by a factor of two. A study done by Woolite found that a majority of American throw clothes in to the clothes hamper after wearing them one or two times, and hardly ever check if they are dirty.
- **Textile that retain quality**
It is important that the designers choose a type of textile which will retain its quality even after frequent washing. The washing and drying of a polyester blouse uses around six times more energy as that needed to make it in the first place. Wool is generally washed at low temperatures and air dried, if washed at all. Just airing a wool garment will generally remove smells. To select materials that wash well at low temperatures and dry quickly without tumble drying.
- **Detailed good care advice**
Only 7.5 % of laundry is thought to be "heavily soiled" – so the consumers also need to alter expectations of how often they need to change their clothes and the tendency to wash everything that is not in the wardrobe. If you print the washing instructions on the garment itself, rather than on a label (which is often cut out by the consumer), you could give more pertinent advice and tell them to line-dry rather than tumble-dry! Also, most clothes have no problem becoming clean at 30 degrees Celsius, so adding a recommended wash temperature to the maximum temperature could be a good idea. The carbon emissions created to generate the electricity used to wash clothing in warm temperature water and warm temperature tumble dryers exceeds the carbon emissions created during the growing, manufacturing and shipping of clothing. And this doesn't include the electricity needed to iron clothing. We tend to iron both linen and cotton clothing which wrinkles easily or feels stiff when not ironed. So giving your customer good care-advice should be part of your over-all strategy.
- **Free repair**
It is done for sold clothing, it is another way in which we can increase the life of sold clothing.

6. CONCLUSIONS

So we understand that fashion is faster, cheaper and disposable. Fashion cycles are moving faster with more number of seasons per year. The clothes that are mass-produced also become more affordable, thus attracting consumers to buy more. Clothes are disposed of faster than ever before. In paper we also understand how recycling is a 'Competitive Business' and is flourishing in almost all countries. Moreover we also understand in the paper that retailer recycling program which is supposedly sustainable, is actually encouraging consumerism. The recycling clothes is a vast industry and lot of options are available with recycled clothes which were discussed in the paper. At consumer level lot of option are available which are sustainable and eco-friendly. In the end paper discusses how the use of clothes can be prolonged in a sustainable manner so that they are not disposed of by the customers.

The re-use of clothing is by far better than recycling or disposal. Recycling is significantly better than sending textiles to landfill and energy recovery, and, compared to other components in the household waste stream, the CO₂ benefit of textile recycling versus disposal is second only to that of aluminium.

7. REFERENCES

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