Fast Fashion's Rapid Rate of Overproduction is Observedly Unsustainable & Unethical: Why and How did we get here?*

Jayden Jung

April 21, 2023

Abstract

Fast fashion is extremely profitable, accessible, and convienient, and equally – if not more – unethical and unsustainable. To illustrates the severity of fast fashion companies' rate of overproduction, this paper scrapes a representative company's online inventory at multiple points in time and finds that old products are being retired and new products added at unbelievably fast rates: too fast to be ethically possible. Secondary research explores this industry's cultural origins and catalysts and its serious negative ethical and environment consequences. Possible solutions are discussed, and the paper concludes on calling for urgent awareness and action to combat fast fashion.

Introduction

"Fast fashion isn't free. Someone, somewhere is paying."

— Lucy Siegle, Journalist and Producer of *The True Cost*, 2015.

Fast fashion is the design, production, and selling of clothing in a very rapid and high volume approach. Companies participating in this practice churn out countless new, trendy products faster than ever at unbelievably cheap prices and even lower costs, reaping profit margins in the hundreds of millions and even billions. Customers are happy, finding it an accessible and affordable way to dress well and constantly update their closets. This situation may appear too good to be true: this is because it is.

As Lucy Siegle's quote suggests, fast fashion does come at a cost, though it may not be obvious. It is made possible only by riding on the backs of unethical labor conditions and catastrophically negative effects on the environment. Despite these truths, many continue to support and buy from fast fashion companies, often as they do not grasp the true severity of these issues or that they feel it is not something that can be challenged.

This paper delves into a case study of the fast fashion company ZAFUL. By documenting all available products in one of ZAFUL's given categories through web scraping and comparing the data collected on different dates over time, we see first-hand the unbelievably fast rate of production and turnover. The extremity of these results are further emphasized when compared to the product retention rate of a sustainable fashion company, KOTN.

The paper then draws on secondary literature to convey how the illustrated severity of fast fashion companies' rapidness in production is inherently unethical and unsustainable, specifically by showcasing the negative consequences that are necessary to achieve those results. Consideration of the cultural origins and catalysts of the fast fashion industry are also provided. Then, discussion of possible solution spaces to these problems are explored, generally suggesting that fast fashion itself should be fought against.

Fast fashion and its ramifications are not as widely understood as it must be for us to societally move away from it. It is this paper's intention to shine light on this topic and call for urgent awareness and action.

*Code and data are available at: https://github.com/jj-andj/fast-fashion-analysis

The gathering of the data used for this paper was done by web scraping through the statistical programming language `R` (R Core Team 2020), the packages `rvest` (Wickham 2022b), `httr` (Wickham 2022a), and the Chrome extension *Web Scraper* (*Web Scraper - Free Web Scraping* 2022) which were conducted on the sites zaful.com and kotn.com. Gathering, cleaning, and further analysis was also supported by packages `tidyverse` (Wickham et al. 2019), `dplyr` (Wickham et al. 2022), `knitr` (Xie 2014), `kableExtra` (Zhu 2021), and `RColorBrewer` (Neuwirth 2022).

Data

talk about data collection process and category (women's clothing only)

web scraper chrome extension for kotn (dynamic webpage)

for looping through pagination for zaful

only property we are using is product name

differences/sameness were found by the exact product name so even the difference in colour or size mean they are diff products (this is a lil unfortunate)

summarize total number of products seen before and after for two stores (table woahh)

Table 1: Total number of Women's Clothing products by store by date

Store	April 2	April 4	April 10
ZAFUL (Fast Fashion)	7319	7379	7499
KOTN (Sustainable)	248	248	248

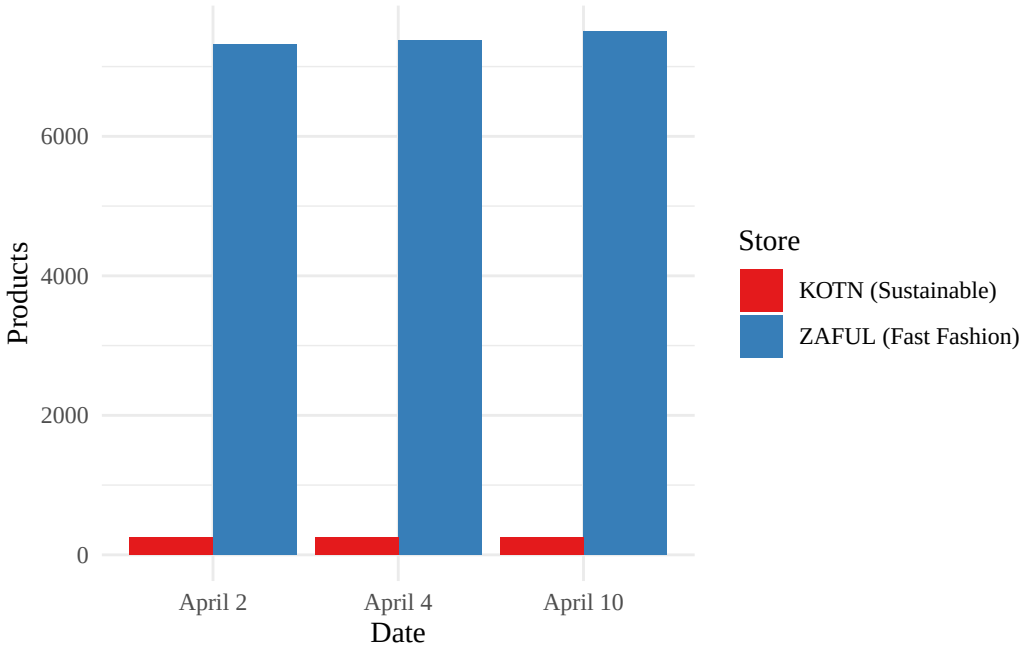

Figure 1: ZAFUL holds much more products overall than KOTN

Results

Table 2: Breakdown of added and deprecated products by date shows severity of ZAFUL's rate of production

Store		April 2	April 4	April 10
ZAFUL	**Total**	7319	7379	7499
	Added from April 2		1702	2544
	Deprecated from April 2		1642	2364
	Added from April 4			2162
	Deprecated from April 4			2042
KOTN	**Total**	248	248	248
	Added from April 2		0	0
	Deprecated from April 2		0	0
	Added from April 4			0
	Deprecated from April 4			0

Table 3: ZAFUL's percentage of additions and deprecations of products

	April 2nd to 4th	April 4th to 10th	April 2nd to 10th
Increase (%)	23.25454	29.29936	34.75885
Decrease (-%)	22.43476	27.67313	32.29949

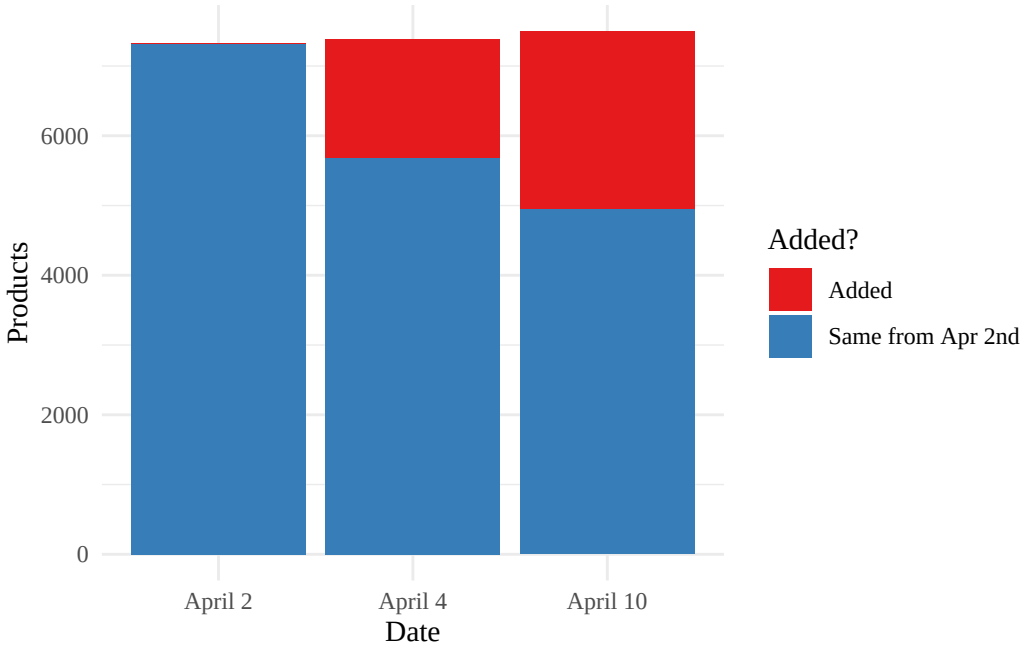

Figure 2: Total num of products seem consistent, but the proportion of added ones are large

Discussion

Findings

Lorem

Why did we get here? Exploring culture-based roots of Fast Fashion

Lorem

At what cost? Reviewing the ramifications of Fast Fashion

Lorem

Defining Solution Spaces

Lorem

Future Research

Lorem

Limitations

Lorem

References

Neuwirth, Erich. 2022. *RColorBrewer: ColorBrewer Palettes*. https://CRAN.R-project.org/package=RColorBrewer.

R Core Team. 2020. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.

Web Scraper - Free Web Scraping. 2022. Riga, Latvia: Webscraper.io. https://chrome.google.com/webstore/detail/web-scraper-free-web-scra/jnhgnonknehpejjnehehllkliplmbmhn.

Wickham, Hadley. 2022a. *Httr: Tools for Working with URLs and HTTP*. https://CRAN.R-project.org/package=httr.

———. 2022b. *Rvest: Easily Harvest (Scrape) Web Pages*. https://CRAN.R-project.org/package=rvest.

Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.

Wickham, Hadley, Romain François, Lionel Henry, and Kirill Müller. 2022. *Dplyr: A Grammar of Data Manipulation*. https://CRAN.R-project.org/package=dplyr.

Xie, Yihui. 2014. "Knitr: A Comprehensive Tool for Reproducible Research in R." In *Implementing Reproducible Computational Research*, edited by Victoria Stodden, Friedrich Leisch, and Roger D. Peng. Chapman; Hall/CRC.

Zhu, Hao. 2021. *kableExtra: Construct Complex Table with 'Kable' and Pipe Syntax*. https://CRAN.R-project.org/package=kableExtra.