Staying 'Eco Local': An Exploration of Fibershed as a Sustainable Supply Chain Alternative

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Background and Purpose: The democratization of fashion, where all classes of consumers can purchase the latest fashion trends at low prices, has led to increasing demand for fast fashion (Thomas, 2019). *Fast fashion* is the term generally used for garments that are mass-produced in large volumes, inexpensive, trendy, and sold in chain stores (Fletcher, 2010). Consumers' demand for the latest trends at low prices has led to the exponential growth of fast fashion retailers, many of which source their products from countries that manufacture at low costs, allowing them to sell these products at competitive prices (Bick et al., 2018). To meet consumer demand, global retailers have sought to establish supply chains with lower costs and compressed lead times. Unintended negative consequences of this push include harmful impacts on humans, the environment, and societies across the globe (Clarke-Sather & Cobb, 2019). Conversely, declines in apparel and textile manufacturing in the US have destabilized economic centers that were once dependent on the manufacturing economy for survival (Thomas, 2019). Moreover, with approximately 10% of all donated clothing being reused and the remaining products sent to low-income countries or ending up in landfills, the disposal of used as well as unsold garments has become a major concern (Ozdamar-Ertekin, 2017).

Awareness of the harmful effects of excess consumption on the environment and society is gradually spreading across the global population (Euromonitor International, 2022). As a result, individuals and organizations are beginning to explore alternative approaches to production. One example is the slow fashion movement, which seeks to reconnect people with their local communities, promote small-scale production, and encourage local, artisanal, and traditional craft techniques (Burgess, 2019). In slow fashion, the design process considers the impact of manufacturing on resource flows, employees, communities, and ecosystems, as it democratizes fashion not by offering access to inexpensive fashion, but by giving consumers more control over the institutions and technologies that impact their lives (Fletcher, 2008). Sustainability, a concept integral to the slow fashion movement, focuses on principles of ethical and sustainable design, livable wages, and safe working conditions (Henninger et al., 2016). One outgrowth of the slow fashion movement is the concept of Fibershed, which is focused on

creating fabrics and garments based on sustainability principles. A locally-oriented, place-based system, Fibershed relies on physical and social resources available within a specific geographical area to produce fashion (Fibershed, n.d). As Fibershed is an emergent phenomenon, and one that has not been explored in depth in the literature, the purpose of this study was to explore Fibershed as a sustainable supply chain system from the perspective of those involved in it.

Conceptual Framework: When a community and its businesses are connected with the place that supports them, a feedback loop occurs that is location-specific, which ties together the actions of the community and accountability for the effects of these actions on the environment and society. This process is called *Eco Localism* (Curtis, 2003). Local businesses, unlike large multinationals, tend to be more focused on community socioeconomic development. As a result, they are embedded in the community and intertwined with the local economy (Calderwood & Davies, 2013; Ciuchta & O'Toole, 2018). Because Fibershed is focused on promoting a local network that enhances the local and regional economies through sustainable practices, the theoretical concept of eco localism was used as the conceptual frame for this study, through which Fibershed was explored as a sustainable fashion supply chain alternative.

Method: Given the lack of available research on the topic of Fibershed, a qualitative approach was employed in this study. Upon receiving IRB approval, in-depth interviews were conducted with ten members of the Fibershed network. Interviews were recorded with the participant's permission and lasted from 60 to 75 minutes. Questions asked during the interviews focused on participants' perceptions of sustainable fashion, ways Fibershed is similar to or different from other fashion sustainability initiatives, and the challenges and opportunities they face in promoting sustainable fashion production. Interviews were conducted virtually and transcribed verbatim. The three researchers worked in tandem to code the data using Atlas.ti, refine the themes, and achieve internal consistency within the analysis (Spiggle, 1994). Analysis generated 18 categories that were grouped into three emergent themes (Rubin & Rubin, 1995).

Findings: *Farm to Finish,* the first theme, reflects participants' overall view of what Fibershed does and why. As RB stated, "We focus on what we can do in our farming systems based on our soil types, our precipitation, our labor laws, and our environmental laws. Everything that we have in place is political, cultural, biological specificity that comes out of a place, and we try to support our farms and ranches." Although the aim is to develop a fully finished product within the boundaries of a given Fibershed, several participants pointed out that the biggest barrier to being fully circular was the lack of a complete infrastructure to process fabric into finished products, and therefore they typically had to outsource some parts of the process to other areas.

In the second theme, *Bioregional Place-based Stewardship,* participants talked about the ways that a focus on bioregional aspects of nature and defined local boundaries make Fibershed

unique as a sustainable production alternative. As LY explained, "the localness… because you know, I can buy something from somebody in [another state] and it could be sustainable. But it's not local to me." Once the end of life of the product is reached, the aim is to be able to compost the item and return it to the soil, thereby creating a soil-to-soil closed-loop system that takes into account the principles of sustainability at each step of the process. As RB stated, "The localization forces…conversations and agreements and protocols, and a certain kind of dignity and professionalism between people." The facets of eco localism that support and facilitate these interactions safeguard people and the community from exploitation, unlike global supply chains.

The final emergent theme was *Cooperative Marketing*. That is, participants think that Fibershed could facilitate the formation of a cooperative marketplace where members collectively sell their products to consumers. As HP said, "Collective marketing has been something a lot of our producers have expressed a need for. So, I think one model that's worked well for some of the smaller producers is Fibershed…advertising the marketplace…and creating those opportunities for people…kind of like a farmer's market model." Fibershed emerges from and promotes the eco localism perspective by creating opportunities for members to engage with others in the community in ways that benefit the local economy while also spreading awareness.

Conclusions and Implications: As findings of this study show, Fibershed is an alternative sustainable fashion movement that is grounded in the ideas of eco localism. Fibershed is focused on achieving a closed-loop fashion production system, wherein the fiber from local farms is processed into yarn, which is then converted into fabric and used by designers to create apparel products. The concept of Fibershed centers around the impact of the supply chain on the local environment, labor, and economy, with particular attention paid to stewardship and accountability. As this study found, the goal of achieving a local sustainable fashion cycle is impeded by the lack of availability of some of the parts that are necessary to the whole within the boundary of a given Fibershed. Concentrated efforts by stakeholder groups, including Fibershed members, local government, policymakers, and consumers are necessary to ensure the success of Fibershed as a fashion system. As this study was based on the perspectives of Fibershed members, the viewpoints of other stakeholder groups should be explored in future studies.

References

Bick, R., Halsey, E., & Ekenga, C. C. (2018). The global environmental injustice of fast fashion. *Environmental Health: A Global Access Science Source, 17*, 1–4. https://doi.org/10.1186/S12940-018-0433-7

Burgess, R. (2019). *Fibershed: Growing a movement of farmers, fashion activists, and makers for a new textile economy*. Chelsea Green Publishing.

Calderwood, E., & Davies, K. (2013). Localism and the community shop. *Local Economy, 28*(3), 339–349. https://doi.org/10.1177/0269094212474870

Clarke-Sather, A., & Cobb, K. (2019). Onshoring fashion: Worker sustainability impacts of global and local apparel production. *Journal of Cleaner Production, 208,* 1206–1218. https://doi.org/10.1016/j.jclepro.2018.09.073

Ciuchta, M. P., & O'Toole, J. (2018). Buy local? Organizational identity in the localism movement. *Business and Society, 57*(7), 1481–1497. https://doi.org/10.1177/0007650316648642

Curtis, F. (2003). Eco-localism and sustainability. *Ecological Economics, 46*(1), 83–102. https://doi.org/10.1016/S0921-8009(03)00102-2

Euromonitor International. (2022). *Passport: World market for apparel and footwear.* https://www.euromonitor.com/world-market-for-apparel-and-footwear/report

Fibershed. (n.d.). Retrieved February 23, 2022, from https://fibershed.org/community/

Fletcher, K. (2008). *Sustainable fashion and textiles: Design journeys*. London: Sterling, VA, Earthscan.

Fletcher, K. (2010). Slow fashion: An invitation for systems change. *Fashion Practice, 2*(2), 259–265. https://doi.org/10.2752/175693810X12774625387594

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.

Ozdamar-Ertekin, Z. (2017). The True Cost: The bitter truth behind fast fashion. *Markets, Globalization & Development Review, 2*(3), Article 7. https://doi.org/10.23860/MGDR-2017-02-03-07

Rubin, H. J. & Rubin, I.S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage

Spiggle, S. (1994). Analysis and interpretation of qualitative data in Consumer Research. *Journal of Consumer Research, 21*, 491-503. https://doi.org/10.1086/209413

Thomas, D. (2019). *Fashionopolis: The price of fast fashion and the future of clothes*. New York: Penguin Press.