

## Key Factors Influencing Consumer Intent to Recycle Denim Apparel: A Study of U.S. Millennials

Jessica Ganak, Yini Chen, Dan Liang and Ting Chi  
Department of Apparel, Merchandising, Design and Textiles  
Washington State University, USA

Keywords: Denim, recycle, sustainability, value

*Introduction and literature review.* Many initiatives have begun as a result of the growing need for sustainability within the apparel industry (Hawley, 2016). During the cotton and denim production process in particular, excessive amounts of water and dyes are used, ultimately creating and contributing towards large water and carbon footprints that are detrimental to the environment. When considering denim and other cotton apparel products, it is suggested that, “Cotton...is a lot like paper, at least when it comes to recycling” (Sukalich, 2013). In order to cut down on the manufacturing of cotton denim products, many retailers have sought to utilize recycled clothing of the like to avoid further contributing towards the harmful effects that the production process generates and to keep usable materials out of landfills. These products can be broken down to serve as material for new merchandise, which both saves the company capital and prevents further detriment to the environment. Many brands and retailers have begun supporting this initiative by adopting clothing recycling programs. Columbia Sportswear, for instance, makes a “\$1 contribution to a nonprofit organization for every pound of clothing that is recycled and kept out of landfills” while also donating to participating nonprofits of the consumers choice (Columbia Sportswear, 2017). Retailers including H&M group, Levi Strauss & Co., Madewell, The North Face and Patagonia all have similar recycling programs in place.

While many initiatives has begun in hopes to further sustain the denim and cotton production process, perhaps the most important consideration for sustainability within this sector is the reuse of existing denim products given back on part of consumers. With a multitude of recycling programs in existence set on the motion of sustainability, little research has been done to analyze consumers’ perceptions of the end-use of their denim products (e.g. jeans, denim jackets, etc.) in terms of their intention to recycle. This study aimed to contribute to the furtherance of the sustainability movement within the apparel and cotton industries and to find the reasons behind why consumers might choose to recycle their denim apparel to retailers that offer the recycling services.

The theoretical foundation for this study is the consumer perceived value model (i.e., financial benefit, social, emotional, convenience, and green value). When consumers make purchase decisions, they take all the factors important for them into consideration and mentally calculate if engaging in a purchase or a service is a loss or a gain (Gupta & Kim, 2010). For example, younger generations perceived clear economic benefits, such as financial gains they might receive upon taking their clothing back to certain retailers (Armstrong et al., 2015). Moreover, recycling behavior of friends and neighbors serve as social influences and typically have a positive impact in terms of an individual's’ involvement in recycling (Ari & Yılmaz,

2016). Altruistic feelings and concern with the environment also influence consumer decision to recycle their clothing (Fortuna & Diyamandoglu, 2017).

*Method.* This was a qualitative study involving a series of interviews with participants and an analysis of their results by coding their responses. The research method entailed the practice of snowball sampling in order to acquire 15 millennial-aged consumers to interview. These participants were college students from the Pacific Northwest region who were relatively aware of current sustainability and recycling initiatives regarding the environment and more specifically the sustainability and recycling movements within the apparel industry. These interviews were conducted face-to-face or through phone calls. The interviews were voice recorded or transcribed directly onto electronic format. The interview questionnaire involved a series of semi-structured questions, so the respondents were given enough freedom to disclose their personal opinions on recycling denim apparel.

*Findings and Discussion.* Participants are motivated to recycle their denim apparel for the following values which they perceived in recycling behavior: (1) financial benefit, (2) social value, (3) emotional value, (4) convenience, and (5) green value. Most participants claimed that they knew recycling denim apparel had a positive impact on the environment. They expressed delight and responsibility regarding their recycling behaviors.

Some companies have rewards to encourage consumer recycling behavior. Therefore, financial benefit is one of the important factors motivating consumers' recycling intention. Many consumers expressed appreciation for the discount or coupon incentives given by retailers because they ultimately save them money when purchasing new clothing. Contradictory enough, we found that some consumers who recycled their old denim apparel refused the reward incentive provided by companies. This is because these participants felt guilty to purchase more clothing using these incentives, which might impose more negative impacts on the environment. To reduce the guilt, they chose to recycle more old denim while purchasing less new apparel and trying to buy quality products that last longer. This contradictory behavior and mentality may provide retailers a fresh point of view when thinking of their recycling incentives, product development, and marketing programs.

Another significant finding was that retailers need to improve their recycle services by enhancing advertisements and informing consumers more about their services. Many respondents claimed that they had a difficult time in finding relevant information or were not aware of any information about companies' recycling services. Additionally, the participants expressed their need for more convenient recycle services. Thus, an omni-channel recycling service integrating both online and offline is suggested to solve that issue. The participants urged that companies that provide recycling services should inform consumers of how companies will process these donated apparel. Transparency and traceability matter for consumers to participate in recycling programs. Through exploring consumer perceived values of recycling denim apparel to retailers, this study can help companies improve their offered recycling services by providing valuable findings and practical solutions while also providing a valuable insight to future scholars.

**References**

- Ari, E., & Yilmaz, V. (2016). A proposed structural model for housewives' recycling behavior: A case study from Turkey. *Ecological Economics*, 129(C), 132-142.
- Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. (2015). Sustainable product-service systems for clothing: Exploring consumer perceptions of consumption alternatives in Finland. *Journal of Cleaner Production*, 97(1), 30-39.
- Columbia Sportswear expands clothing recycling program - Recycling Today. (2017). *Recycling Today*. Retrieved on March 1, 2018, from <http://www.recyclingtoday.com/article/columbia-sportswear-clothing-recycling-program/>.
- Fortuna, L. M. & Diyamandoglu, V. (2017). Disposal and acquisition trends in second-hand products. *Journal of Cleaner Production*, 142, 2454-2462
- Gupta, S., & Kim, H. (2010). Value-driven Internet shopping: The mental accounting theory perspective. *Psychology and Marketing*, 27(1), 13-35.
- H&M group | Recycle your clothes. (2018). About.hm.com. Retrieved on March 1, 2018, from <https://about.hm.com/en/sustainability/get-involved/recycle-your-clothes.html>.
- Hawley, J. M. (2016). Apparel Recycling. In *Sustainable Apparel*, 251-262.
- Sukalich, K. (2013, May 9). Why T-shirts can't be recycled into new t-shirts. Retrieved on March 2, 2018 from <https://earth911.com/living-well-being/style/recycled-clothing-fabrics/>.
- Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199-214.