

Apparel Disposal: Impact on Consumer Behavior During COVID-19

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Introduction With the increase in population, textile and apparel waste is also increasing and filling landfills worldwide every year. Apparel recycling is one of the sustainable practices in which apparel products are disposed of through methods such as donating, reusing, repurposing, and reselling textiles (Rezaei, 2016). Like other industries, the fashion industry was impacted by COVID-19 because of supply chain disruptions and reduced demands (Casey, 2021). Extended lockdowns and reduced salaries have shifted the preferences and lifestyles of consumers (Casey, 2021). Since consumers' apparel disposal behavior largely determines apparel recycling, it is useful to understand how COVID-19 impacted the consumer's apparel disposal behavior. Therefore, this research aims to identify the factors that influence consumers' apparel disposal behavior and to understand if there has been any change in their clothing disposal practices.

Literature Review A huge portion of textile waste is attributed to the consumer's unawareness or reluctance to pursue sustainable options such as apparel recycling, care for, and disposal of apparel products (Rosa & Jorgensen, 2021). Consumers' apparel disposal recycling intention is significantly influenced by their environmental attitude, impulsive compulsion, and channel integration. Impulsive compulsion is significantly influenced by materialism (Cao & Shao, 2021). Consumers with pro-environmental behavior were highly aware and willing, irrespective of gender, age, or income. However, their disposal methods were found to be not useful and limited to reducing and reusing, with negligible examples of recycling (Mehta & Raval, 2020). Because of the reduced purchasing power, consumers have become more environmentally aware and more accepting of sustainable practices. The online secondhand apparel sector has grown in 2020 (Casey, 2021). Extended lockdowns and reduced salaries have created unprecedented changes in consumers' working habits, consumption preferences, and lifestyles (Casey, 2021). The period of COVID-19 provided a window of opportunity for sustainability behavior transitions (Muhammad et al., 2020; Sarkis et al., 2020; Bodenheimer & Leidenberger, 2020). Future intentions derived from intrinsic motivation can be catalyzed by forced lockdowns (Tchetchik et al., 2021).

Research Framework (Rezaei, 2016) The framework was derived from previous research which indicates four factors for motivation to recycle: financial, helping, accountability and convenience. Convenience has two factors: convenient to recycle at store and convenient to recycle near residence. Purchasing decisions has two factors: social policy and product attributes.

Methods Data were obtained from students at a large southeastern university. Participants' age ranged from 18 to 24. They were given a QR code for an online survey published via Qualtrics. A total of 480 responses were collected, of which 218 complete responses were used for the data analysis. Demographic information was collected. Two sample proportion tests, t-tests, Wilcoxon signed tests, and factor analysis were performed to test statistically significant differences between the factors before and after the outbreak of COVID-19.

Results Two sample proportion tests did not show a statistically significant change in general recycling behavior before and after COVID-19. No statistically significant difference was found in respondents' purchase intention towards textile products made from recycled material before and after the outbreak of COVID-19. Proportion test results showed a statistically significant difference between the groups for buying used clothes and shoes online ($p < 0.05$), with post-online buying greater than before online buying, whereas change in buying behavior for used clothes and shoes from charity was not statistically significant before and after COVID-19.

Respondents were asked to estimate the percentage of time they used different disposal methods before and after COVID-19; changes were not statistically significant. However, the frequency of selling items at garage sales/flea markets/online declined after COVID-19 with a statistically significant difference. There was no statistically significant difference before and after COVID-19 for the *accountability factor and economic factor* ($p > 0.05$). However, the *helping factor* had a statistically significant difference ($p < 0.05$), with post-COVID-19 *helping* motivation being greater than before COVID-19 *helping* motivation. *Convenience to recycle at store* was found to increase after COVID-19, but no statistically significant difference was found for *convenience to recycle at residence*. Product attributes influenced consumers' purchase decisions more than social policy reasons after COVID-19 ($p < 0.05$).

Of the factors that prevented consumers from recycling, 46% of respondents did not recycle because they think their shoes and clothes are not in good condition. 33-39% of the respondents are still unsure which products to donate or where to donate, resell or recycle.

Discussion and Implications In general, respondents' use of different disposal methods did not change after the outbreak of COVID-19, except for the reduction in selling items at garage sales/flea markets/online after the outbreak of COVID-19. Similarly, people participated more in buying used clothes online post-COVID-19, coinciding with the obvious general increase in online sales (Rani et al., 2022). In terms of motivation, people were more motivated to recycle for helping reasons and because of the convenience to recycle at the store. Other factors such as economic and accountability did not motivate people to recycle, resell or donate after the spread of COVID-19. The period of COVID-19 provided a window of opportunity for sustainability behavior transitions (Tchetchik et al., 2021).

Limitations There could be a potential bias in the reported results as people may forget their behavior before COVID-19. Results cannot be generalized because of convenience sampling. There could be influential underlying factors that could be driving consumer recycling behavior.

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