Field of Study: Textile Engineering and Sustainable Technology

Title: Environmental Sustainability Challenges Driven by Consumer Choices in Fashion

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## **Abstract:**

This study examines consumer habits in the apparel industry and their environmental impacts, focusing on factors like fast fashion, sustainability awareness, purchasing patterns, and being aware of eco-friendly textiles. There were statistically significant correlations between these variables. Stronger sustainable practices, such as regular cold water washing and increased understanding of eco-friendly fabrics, were demonstrated by students, especially those between the ages of 16 and 25. While low-income groups were more likely to wash their garments in cold water and have a great awareness of eco-friendly fabrics, high-income individuals consistently showed a desire to donate their used clothing. Gender disparities revealed that men were more accustomed to eco-friendly materials and more willing to purchase used clothing than female. Another important factor was age, with younger people (16–25) showing a greater preference for eco-friendly apparel and a greater understanding of the environmental impact of synthetic textiles. This study emphasizes the need for focused regulations that encourage the use of eco-friendly materials, provide incentives for second-hand clothing, and teach people about sustainable practices—especially among students and younger people.

## **Keywords:**

Consumer Choice, Environmental Impacts, Eco-friendly Textiles, Fashion, Sustainability Awareness.