A Study on Consumer Awareness of Textile and Apparel Waste Utilization

[1]Mrs. Poorva Tamrakar, [2]Mrs. Dr. Mamatha G Hegde

1. M. Des. Fashion Design Student, 2. Assoc. Prof and Head, Dept. of Fashion Design Faculty of Art and Design

[1]Art and Design,
M.S. Ramaiah University of Applied Sciences, Bangalore Karnataka, India.

Abstract: The textile and apparel industry are one of the largest contributors to global waste, posing significant environmental challenges. This study investigates consumer awareness of textile and apparel waste utilization and explores their attitudes and behaviors towards sustainable practices. A mixed-methods approach was employed, comprising a survey of consumers and in-depth interviews with industry experts. The survey assessed consumer knowledge, perceptions, and practices related to textile waste, while the interviews provided insights into industry trends and challenges. The study also highlights the role of education and marketing in bridging the awareness-action gap. Effective communication strategies by brands and policymakers can enhance consumer engagement in sustainable practices. Recommendations for future research include longitudinal studies to track changes in consumer behavior over time and the exploration of incentives to promote sustainable consumption. Overall, this study underscores the need for increased consumer education and the development of infrastructure to support sustainable textile waste utilization, aiming to reduce the environmental footprint of the apparel industry.

Index Terms - **Awareness, Sustainability, Textile waste, utilization.**

INTRODUCTION

The issue of textile waste is a major concern in the modern world, encompassing environmental, social, and economic aspects. It includes a broad variety of abandoned textiles, such as textiles from garments, homes, and industries, among others. Global textile waste generation has reached concerning levels as fast fashion culture endures and consumption habits continue to climb. Fundamentally, there are several phases in the textile lifecycle that give rise to textile waste. This applies to the manufacturing process as well, as leftover fabric, trimmings, and offcuts are frequently thrown away. Furthermore, consumer behavior is important since clothes and other textiles are often thrown away because of things like outgrowing products, wear and tear, or shifting fashion trends. Textile waste has a significant negative impact on the environment. Synthetic fibers, which are frequently used in clothing, can pollute landfills and take hundreds of years to disintegrate. In addition, the manufacturing of textiles uses a lot of energy and water, as well as chemicals that are bad for the environment and people's health.

There are social and economic issues with textile waste as well. The production of textiles creates jobs in many regions of the world, and how these industries dispose of their waste can have an impact on nearby communities. Additionally, since many textiles may be recycled, upcycled, or found new uses, throwing them in the trash constitutes a waste of money and important resources.

The problem of textile waste needs to be approached from several angles. This entails supporting eco-friendly fashion methods including cutting back on consumption, creating long-lasting, recyclable clothing, and advocating recycling and disposal that is done responsibly. Furthermore, while generating new economic opportunities, advancements in textile recycling technologies and circular economy efforts can help reduce the textile industry's environmental impact. In the end, combating textile waste necessitates cooperation between various industries, government action, consumer education, and a change to a more circular and sustainable method of producing and consuming textiles. In the future, textiles will be valued, reused, and recycled in a way that benefits both people and the environment if we address the underlying causes of textile waste and adopt creative solutions.

NEED OF THE STUDY.

The escalating environmental impact of the textile and apparel industry necessitates urgent attention to waste management and sustainable practices. Textile waste contributes significantly to landfills and environmental pollution, with detrimental effects on ecosystems and human health. Addressing this issue requires a comprehensive understanding of consumer awareness and behavior regarding textile and apparel waste utilization.

this study is essential to address the pressing environmental challenges posed by textile waste. By understanding consumer awareness and behavior, we can develop targeted strategies to promote sustainable practices, ultimately contributing to a more sustainable future.

LITERATURE RIVIEW

Clothes that generate little to no textile waste during production are referred to as zero-waste fashion. It can be considered a component of the larger push towards sustainable fashion. Pre-consumer and post-consumer are the two general categories into which it can be divided. Zero waste fashion before consumption eliminates waste during production. Postconsumer zero-waste fashion reduces waste at what would typically be the end of a garment's product use by creating apparel from postconsumer items like second-hand clothing. The textile and apparel industries are facing significant challenges due to production waste, as waste management expenses are rising.

This research employs a mixed-methods approach, addressing both pre-consumer and post-consumer waste is critical for a sustainable textile industry. Strategies for reducing and managing these wastes include better manufacturing practices, innovative recycling technologies, consumer education, and stronger regulatory frameworks. By enhancing awareness and implementing effective waste management practices, the textile industry can move towards a more circular economy, minimizing its environmental footprint

RESEARCH METHODOLOGY

This study employs a mixed-methods approach, combining quantitative and qualitative research to provide a comprehensive understanding of consumer awareness and behavior regarding textile and apparel waste utilization.
a. Quantitative Method:
Survey:
Instrument: A structured questionnaire designed to assess consumer awareness, attitudes, and behaviors related to textile waste utilization. The questionnaire includes multiple-choice questions, Likert scale items, and demographic questions.
Sampling Technique: Stratified random sampling to capture diverse demographic groups (age, gender, income level, education, etc.).
Data Collection: Online and offline distribution of the survey to reach a wide audience. Online platforms include email lists, social media, and consumer panels, while offline methods involve distributing surveys in shopping malls, community centers, and public events.
b. Qualitative Method:
In-depth Interviews:
Participants: Industry experts, boutiques including sustainability officers from major apparel brands, textile recycling professionals, and policymakers involved in environmental regulations.
Sample Size: 8-10 interviews to achieve data saturation.
Interview Format: Semi-structured interviews to allow for in-depth exploration of participants' insights and experiences.

RESULTS AND DISCUSSION
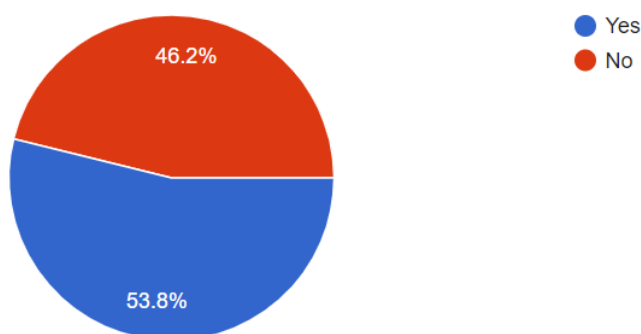
After doing survey regarding awareness of textile and apparel waste Only 53% people are aware of the harmful effect of textile waste. Over all people are not aware about the harmful effect. Social media is the most influential source of information, indicating the potential for targeted campaigns to raise awareness and promote sustainable practices. While a majority of consumers are aware of the environmental impact of textile waste, actual engagement in sustainable practices such as recycling and upcycling is relatively low.

CONCLUSION

Growing consumer awareness of the environment and ecological issues has prompted the apparel manufacturing sector to recycle waste and produce environmentally friendly goods. The quality of clothing created from recycled textile materials was thought to be significantly inferior to that of products produced from virgin materials. The use of recycled raw materials for textile production has a number of important benefits, the two main ones being cost and environmental conservation.

As a result, less waste is dumped in landfills, which lowers the need for landfill space. This is especially important since synthetic materials do not naturally disintegrate, whereas natural fibers such as wool take time to decompose and release methane, which contributes to global warming. Additionally, the least number of fresh resources are used, which lessens the impact on the

environment. By enabling the transformation of fibers that are not easily accessible locally, textile recycling lessens the need for lengthy international travel. Waste disposal management is crucial to the textile and apparel industry's ability to produce goods more quickly, maintain a stable working environment, and reap financial rewards

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