

DOES CIRCULAR ECONOMY AND RECYCLING-FOCUSED WASTE MANAGEMENT STRATEGY PROMOTE SUSTAINABLE GROWTH IN THE FOOTWEAR INDUSTRY?

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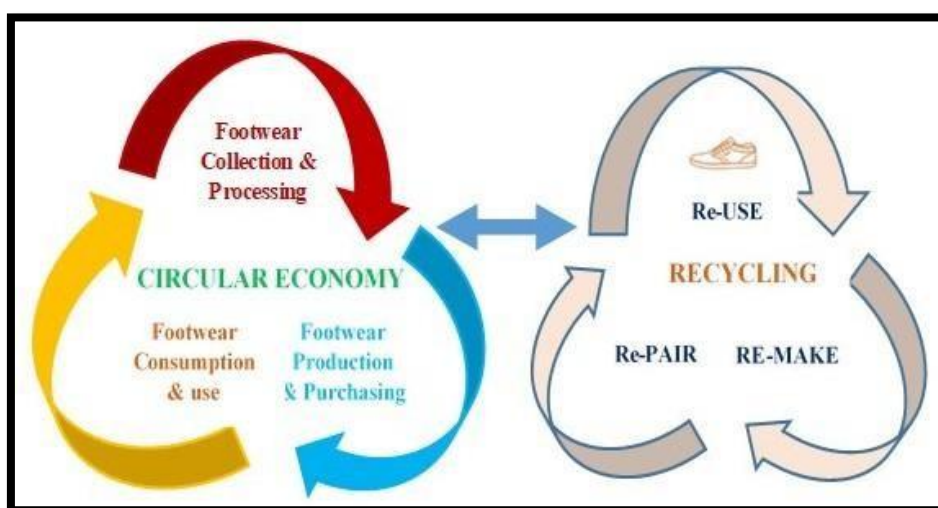
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Graphical Abstract

ABSTRACT

This research reveals a strategic approach on how circular economy approach and recycling strategy plays a crucial role in tackling and prioritizes the most effective solutions to footwear waste management for creating sustainable value chain. This article highlights the significance of recycling and its impact on the waste management strategies within the footwear industry, emphasizing the

production of high-quality footwear that supports healthcare benefits and promotes a circular economy as an innovative approach. The footwear industry faces significant environmental and social challenges, particularly concerning the disposal of excess and waste shoes, which is frequently overlooked.

Extended Abstract

To address the most effective pollution

alleviation strategy of footwear waste management, the present research attempts to reveal the importance of recycling and circular economy approach that influence on footwear industry's waste management strategy. Currently, circular economy is considered as a novel approach of producing quality footwear that ensures sustainable growth overtime and focusing on healthcare benefit. Footwear has a large environmental as well as social impact, which presents a challenge to the footwear industry due to the disposal of surplus and waste shoes mainly rubber and plastic soles that is often disregarded. This article seeks to highlight the significance of recycling and circular economy approach in footwear industry's waste management strategy that fosters interdisciplinary research for breakthrough science and dissemination of related knowledge, focusing on the sustainability and prosperity of the footwear industry. Furthermore, this conceptual article offers insights into the circular economy by outlining the necessary conditions for recycling footwear waste materials. Its aim is to mitigate resource waste by advocating for promotion, reduction, reuse, recovery, and recycling.

Moreover, it is important to emphasize that footwear is an essential component of human attire that should not be disregarded. Concurrently, the role of the footwear industry today extends well beyond simply fulfilling a basic human need (Gustafsson and Lazzaro, 2021). On the other hand, the rising demand for footwear made of organic leather, and emergence of smart shoes, will be some of the other factors impacting the on the global fashion market growth. Consequently, today the commitment of

the footwear industry to promote a circular economy has emerged as a significant strategy for achieving sustainable development (European Commission, 2020). Similarly, it can be argued that the changing views on recycled shoe manufacturing could improve the sustainable value chain in the footwear sector, as consumers become more aware of the negative impacts of their various shopping habits related to footwear (Saha et al. 2024).

In addition, it is mandatory to point out that currently footwear waste management strategy move to quality footwear manufacturing strategy that mainly focusing on healthcare benefit. For example, vegan shoes, plastic running shoes, handcrafted organic cotton shoes, therapeutic medicated shoes and sustainable sneakers from recycled and renewable materials (Yadav et al. 2022). Consequently, the outcome of this study in the long-run identifies the importance of the recycled footwear's sustainable value that is produced in our linear economy via the re-use, re-make and re-pair of resources.

Keywords – Circular economy, footwear industry, environmental impacts, global challenges, recycling process, sustainable value chain, waste management.

Purpose:

The objective of this article is to provide a vibrant overview about the recycling and circular economy approach of waste management for the footwear industry-that considers the waste hierarchy with the purpose of preventing resource waste through promotion, minimization, reuse, and recycling.

- To reveal the coherent strategic approach of recycling and circular economy conception of waste management for the footwear industry that considers the waste hierarchy with the purpose of preventing resource waste through promotion, minimization, reuse, and recycling (Urbinati and Chiaroni, 2017).
- To highlight the primary objective of this study that emphasize the potential solutions for recycling of footwear products that envisioned two key areas of discussion, i.e. sustainable footwear by circular economy and sustainable footwear by recycling – where, the development of an economically sustainable recycling process is required for the footwear industry (Rossi et al. 2024).
- Conversely, **to emphasize that circular economy strategy is one of the essential building block components of managing footwear waste.** As it reflects on following certain conditions of footwear waste management strategy. Such as "design-for- manufacturing", "Cradle to Cradle" and "Cradle to Grave" model.
- Challenges unique to the material.
- Structural and socio-economic obstacles.
- Challenges focused on innovative design.
- Value chain analysis, value proposition, and business models are how fundamentally connected to the circular economy and recycling
 - Thirdly, exploring the study relevant from technological up gradation point of view as well as from the socio-economic benefit point of view
 - Sustainable footwear by circular economy – dealing with the green deal, initiation about the sustainable footwear industry based on the circular economy, life-cycle assessment, and energy efficiency.
 - Sustainable footwear by recycling-intentions to highlight from the point of view of the production and disposal of footwear human health and nature must be considered.

RESEARCH HIGHLIGHTS:

- Firstly, carry out a **systematic study and identify crucial elements** within the footwear industry that emphasize the importance of waste management in relation to recycling and circular economy of footwear industry.
- Secondly, **identify the gap by demonstrating**

Finally, the research assumptions of this study emphasize the importance of recycling and the circular economy as critical factors in waste reduction, which separates sustainable value from material consumption in several ways. For instance, we can help the planet by maintaining our resources within a cycle of reducing, reusing, recovering, retrieving, and remanufacturing (the 5 R's). This approach not only minimizes environmental degradation and the scarcity of ecological resources in our society but also creates distinct opportunities for managing footwear waste.

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