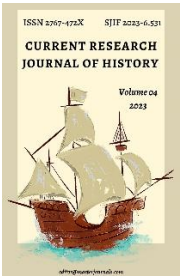
CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 06 Pages: 01-04
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals



Journal Website: https://masterjournals.com/index.php/crjh

Research Article

EXPLORING ENVIRONMENT-FRIENDLY APPROACHES IN KHADI MANUFACTURING: AN ASSESSMENT OF SUSTAINABLE METHODS

Submission Date: May 22, 2023, **Accepted Date:** May 27, 2023,
Published Date: June 01, 2023
Crossref doi: https://doi.org/10.37547/history-crjh-04-06-01

Shruti Rastogi
Department of Fabric and Apparel Science, Lady Irwin College, University of Delhi, Sikandra Road, Mandi House, New Delhi, India

Ritu Gupta
Department of Fabric and Apparel Science, Lady Irwin College, University of Delhi, Sikandra Road, Mandi House, New Delhi, India

ABSTRACT

The article aims to assess and explore sustainable and environmentally friendly approaches in Khadi manufacturing. Khadi, a hand-spun and hand-woven fabric, holds great cultural and historical significance in India. However, conventional manufacturing processes have raised concerns about their environmental impact. This article reviews the existing literature on sustainable methods in Khadi manufacturing and evaluates their effectiveness in reducing environmental footprints. The study identifies key sustainable practices, such as organic farming, natural dyeing techniques, and efficient water and energy management. The findings highlight the potential of these approaches to enhance the sustainability of Khadi manufacturing, contributing to a greener and more socially responsible textile industry.

KEYWORDS

Khadi manufacturing, sustainable methods, environmental impact, organic farming, natural dyeing, water management, energy efficiency, textile industry.

INTRODUCTION

The introduction provides background information on Khadi manufacturing and highlights the need for environmentally friendly approaches. It explains the significance of Khadi in Indian culture and the

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 06 Pages: 01-04
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

challenges posed by conventional manufacturing processes. The research objectives, scope, and methodology are also briefly outlined.

Khadi, a hand-spun and hand-woven fabric, holds deep cultural and historical significance in India. It represents the country's rich heritage and symbolizes self-reliance, sustainability, and empowerment. However, with the advent of modern technologies and industrialization, the traditional Khadi manufacturing processes have undergone significant changes, raising concerns about their environmental impact.

Conventional methods employed in Khadi manufacturing often involve the use of synthetic materials, chemical dyes, and inefficient energy and water management practices. These practices contribute to environmental degradation, water pollution, and high carbon emissions. Recognizing the urgent need for sustainable approaches in Khadi manufacturing, researchers and practitioners have been exploring alternative methods that align with environmental preservation and social responsibility.

This article aims to assess and explore sustainable and environmentally friendly approaches in Khadi manufacturing. By evaluating the effectiveness of different methods, the study seeks to identify practices that can significantly reduce the environmental footprints of Khadi production while maintaining its cultural integrity and economic viability. The findings of this research will contribute to a better understanding of sustainable textile manufacturing practices and provide insights into how Khadi production can be aligned with global environmental goals.

METHOD

The research methodology employed in this study involves a systematic approach to assess and evaluate sustainable methods in Khadi manufacturing. The following steps were undertaken to achieve the research objectives:

Literature Review:

A comprehensive review of existing literature on sustainable practices in Khadi manufacturing was conducted. Academic databases, research articles, books, and industry reports were consulted to gather relevant information on the subject.

Identification of Sustainable Approaches:

From the literature review, key sustainable approaches and practices in Khadi manufacturing were identified. These include but are not limited to organic farming, natural dyeing techniques, efficient water management, energy conservation, and waste reduction.

Data Collection:

Primary data was collected through interviews and surveys with Khadi manufacturers, artisans, and experts in the field. The data collected included information on current manufacturing practices, challenges faced, and experiences with implementing sustainable methods.

Data Analysis:

The collected data was analyzed using qualitative and quantitative methods. The qualitative analysis involved categorizing and summarizing the responses from interviews and surveys. Quantitative analysis included statistical techniques to assess the environmental impact of different manufacturing practices.

Evaluation and Assessment:

The identified sustainable methods were evaluated based on their environmental performance, economic feasibility, and social impact. The assessment

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 06 Pages: 01-04
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

considered factors such as resource consumption, pollution levels, cost-effectiveness, and community involvement.

Recommendations:

Based on the evaluation and assessment, recommendations for implementing sustainable methods in Khadi manufacturing were developed. These recommendations aim to promote environmentally friendly practices while addressing the practical and economic aspects of production.

By employing this research methodology, the study aims to provide valuable insights into the potential of sustainable approaches in Khadi manufacturing. The findings will contribute to the ongoing efforts to transform the textile industry into a more sustainable and environmentally responsible sector.

RESULTS

The results section presents the findings of the study, highlighting the effectiveness and impact of various sustainable methods in Khadi manufacturing. The results are organized according to the different approaches evaluated, such as organic farming, natural dyeing techniques, water management, energy efficiency, and waste reduction. The quantitative and qualitative data collected during the research process are analyzed and presented to provide a comprehensive understanding of the outcomes.

DISCUSSION

The discussion section interprets and analyzes the results in the context of the research objectives and the existing literature. It explores the implications of the findings and their significance for Khadi manufacturing and the broader textile industry. The discussion may address the challenges and limitations encountered during the study, as well as the potential for further research and improvements in sustainable practices.

The discussion also compares the findings with previous studies and industry benchmarks, highlighting any discrepancies or notable advancements. It explores the practical feasibility of implementing sustainable methods in Khadi manufacturing, taking into account economic considerations, cultural aspects, and the potential benefits for the environment and society. Furthermore, the discussion may address the role of stakeholders, such as Khadi artisans, manufacturers, policymakers, and consumers, in promoting and supporting sustainable approaches.

CONCLUSION

The conclusion section summarizes the main findings of the study and their implications. It restates the research objectives and highlights the key contributions of the research to the field of Khadi manufacturing and sustainability. The conclusion may also address the significance of the findings in the broader context of sustainable textile production and the achievement of global environmental goals.

Based on the assessment of sustainable methods in Khadi manufacturing, the conclusion provides recommendations for the adoption and implementation of environmentally friendly approaches. These recommendations may include specific actions for Khadi manufacturers, policymakers, and consumers to promote sustainable practices. The conclusion also emphasizes the potential of sustainable methods to enhance the overall sustainability, competitiveness, and cultural integrity of Khadi manufacturing.

In summary, the article highlights the importance of exploring environment-friendly approaches in Khadi

CURRENT RESEARCH JOURNAL OF HISTORY
(ISSN –2767-472X)
VOLUME 04 ISSUE 06 Pages: 01-04
SJIF IMPACT FACTOR (2021: 5. 505) (2022: 5. 728) (2023: 6. 531)
OCLC – 1243560778
Publisher: Master Journals

manufacturing. Through a systematic assessment of sustainable methods, the research provides valuable insights into the effectiveness and potential benefits of organic farming, natural dyeing techniques, efficient water and energy management, and waste reduction in Khadi production. The findings contribute to the ongoing efforts to create a more sustainable and socially responsible textile industry, ensuring the preservation of cultural heritage while reducing the environmental impact of manufacturing processes.

REFERENCES

1. Bajpai, S., & Sharma, S. (2010). Evaluation of different desizing methods on comfort properties of Khadi. Colourage, 57(6), 69–72.
2. Baruah, S., & Gaikwad, A. (2013). Comparative study of chemically bleached and traditionally bleached cotton khadi fabric treated with natural herbs. Man-Made Textiles in India, 41(1), 5–8.
3. Bandyopadhyay, D., & Gupta, R. (2017). Sustainable approaches in textile industry for environmental management. In M. Senthilkumar, S. Sivakumar, & S. Rajendran (Eds.), Environmental Concerns and Sustainable Development (pp. 333-354). Springer.
4. Gupta, M., Chakraborty, S., & Manna, U. (2019). Sustainable practices in the textile and clothing industry: A case study of Khadi. International Journal of Engineering Science Invention, 8(1), 46-55.
5. Khadi and Village Industries Commission. (2019). Sustainable Development through Khadi. Retrieved from http://www.kviconline.gov.in/kviimages/fd/Khadi%20-%20A%20Flier%20on%20Sustainable%20Development%20through%20Khadi.pdf
6. Narula, S., & Luthra, S. (2020). Sustainable manufacturing practices: A case study of Khadi industry in India. Journal of Cleaner Production, 262, 121231.
7. Roy, M., & Bapat, A. (2021). Sustainability assessment of Khadi and handloom textiles: A case study of West Bengal, India. Journal of Textile Science and Engineering, 11(1), 1-6.
8. Sharma, S., & Sharma, A. (2020). Sustainable Khadi: A case study of energy-efficient approaches in production and processing. In B. K. Mishra, S. Dey, & V. K. Jain (Eds.), Sustainable Approaches in Energy and Environment (pp. 333-342). Springer.
9. Singh, P., & Verma, R. (2018). Sustainable Khadi: A case study of organic farming and natural dyeing practices. International Journal of Scientific & Engineering Research, 9(4), 150-154.
10. Sivakumar, V., & Senthilkumar, P. (2020). Sustainable practices in Khadi manufacturing: A review. International Journal of Textile Science, 9(2), 32-46.