

The Impact of Sustainable Practices in Organic Clothing Production by Textile Industries

¹Dr. E. Dhanasekar, ²Mr. Mohammed Fazil

¹(Associate Professor, Department of Commerce with International Business, Dr.N.G.P. Arts and Science College (Autonomous), Coimbatore- 641048. Mobile: 9789120037,
<https://orcid.org/0000-0003-4043-7103>)

²(Student, Department of International Business, Dr. N.G.P. Arts and Science College, Coimbatore)

Abstract: Due to environmental concerns and demand for eco-friendly products textile industries are focusing on organic clothing. The textile industry most significantly affects the environment through more usage of water, pollution, and generation of waste. This study explores the key sustainable practices adopted in organic clothing production and their environmental and economic benefits. Investigation shows that sustainable development improves techniques of water saving, dyeing in an eco-friendly manner, and using organic materials. Challenges faced in organic clothing such as production cost, limited organic raw materials, and consumers are not aware of hinder widespread adoption. bringing sustainable practices into textile industries will help to reduce pollution, conserve resources, and also brand reputation The study highlights the importance of creative solutions and support from government and consumer education to promote sustainable textile production. By using eco-friendly practices, the textile sector may hit a balance between economic expansion and environmental responsibility, ensuring a more sustainable future for the manufacture of organic apparel.

Keywords - Sustainability, Organic Clothing, Textile Industry, Environmental Impact.

I. INTRODUCTION

Growing customer demand for green products with increasing knowledge of the degradation of the environment has led to a considerable increase in interest in the creation of organic apparel throughout recent years. Because of their extensive use of chemicals, water, and trash, the textile industry is one of the biggest sources of degradation in the environment. Businesses may improve their eventual profitability and lessen their impact on the planet by implementing sustainable procedures in the creation of organic clothes. With an emphasis on both economics and the environment, this study seeks to find out how sustainable practices in the textile industry affect the creation of organic clothes

II. OBJECTIVES

- ❖ To identify the key sustainable practices adopted in organic clothing production by textile industries.
- ❖ To analyze the environmental benefits of implementing sustainable practices in organic clothing production.
- ❖ To examine the economic impact of sustainable practices on the textile industry.

III. RESEARCH METHODOLOGY

- ❖ **Research Design:** Descriptive Research
- ❖ **Area of Study:** Tirupur
- ❖ **Sampling Technique:** Simple Random Sampling
- ❖ **Data Collection:** Primary Data (**Sample Size:** 120 respondents)
- ❖ **Tools for Analysis:** Percentage Analysis, Ranking Analysis

IV. LITERATURE REVIEW

1. **Kate Fletcher and Mathilda Tham (2023)** – Fletcher and Tham (2023) introduced "Earth Logic," emphasizing the need for systemic changes in business models and consumer behaviour rather than just material innovation. They recommend slowing down fashion cycles, promoting product durability, and encouraging local textile economies to enhance sustainability and reduce waste.

2. **Timo Rissanen and Holly McQuillan (2022)** – Rissanen and McQuillan (2022) highlighted that zero-waste pattern-making techniques can reduce fabric waste and production costs. Their study finds that adopting zero-waste designs improves resource efficiency, lowers production expenses, and reduces environmental harm in the textile industry.

3. **Marsha A. Dickson and Suzanne Loker (2012)** – Dickson and Loker (2012) stressed the importance of ethical labor practices, fair trade policies, and organic Fiber use in sustainable apparel production. They highlighted that improving labor standards and environmental responsibility can enhance brand reputation and consumer trust.

4. **Sandy Black (2011)** – Black (2011) noted that eco-friendly materials and reduced water consumption improve the sustainability profile of clothing production. The study indicated that increasing consumer awareness of sustainable practices boosts demand for organic clothing, encouraging more brands to adopt environmentally friendly methods.

5. **Nayak and Padhye (2018)** – Nayak and Padhye (2018) found that using natural dyes and reducing water use can significantly decrease textile industry pollution. They concluded that using eco-friendly dyeing methods leads to lower water contamination and improves product appeal in the sustainable market.

V. ANALYSIS AND INTERPRETATION

Section A: Percentage Analysis

TABLE NO: 1 TO IDENTIFY THE KEY SUSTAINABLE PRACTICES ADOPTED IN ORGANIC CLOTHING PRODUCTION BY TEXTILE INDUSTRIES.

S.No.	Method	Usage Percentage (%)	Responses (out of 120)
1	Carbon Footprint Reduction Analysis	35.0%	42
2	Water and Energy Consumption Tracking	30.0%	36
3	Waste Reduction and Recycling Rates	25.8%	31
4	Third-Party Certifications	5.8%	7
5	Other Methods	3.4%	4
Total		100%	120

The data shows that organizations primarily focus on Carbon Footprint Reduction (35%), Water & Energy Tracking (30%), and Waste Management (25.8%) for sustainability, while Third-Party

Certifications (5.8%) and Other Methods (3.4%) are less commonly used. This suggests a strong emphasis on internal sustainability measures over external validation.

TABLE NO:2 TO ANALYZE THE ENVIRONMENTAL BENEFITS OF IMPLEMENTING SUSTAINABLE PRACTICES IN ORGANIC CLOTHING PRODUCTION.

S.No	Particulars	No. of Respondents	Percentage (%)
1	Carbon footprint reduction analysis	42	35
2	Water and energy consumption tracking	36	30
3	Waste reduction and recycling rates	31	25.8
4	Third-party sustainability certifications	7	5.8
5	Others	4	3.4
	Total	120	100

The data indicates that organizations primarily focus on Carbon Footprint Reduction (35%), Water & Energy Tracking (30%), and Waste Management (25.8%) as key sustainability measures. In contrast, Third-Party Certifications (5.8%) and Other Methods (3.4%) are less commonly used, highlighting a preference for internal sustainability practices over external validation.

TABLE NO:3 TO EXAMINE THE ECONOMIC IMPACT OF SUSTAINABLE PRACTICES ON THE TEXTILE INDUSTRY.

S.No	Particulars	No. of Respondents	Percentage (%)
1	Limited availability of organic raw materials	43	36.8
2	Lack of consumer awareness	30	25.6
3	High production costs	23	19.7
4	Government regulations and compliance	16	13.7
5	Others	5	4.2
	Total	117	100

The biggest challenge is the limited availability of organic raw materials (36.8%), followed by lack of consumer awareness (25.6%) and high production costs (19.7%). Regulatory compliance (13.7%) and other factors (4.2%) also contribute, highlighting key barriers to sustainability efforts.

SECTION: B RANKING ANALYSIS (TABLE NO: 4)

S.No	Sustainability Measure	No. of Respondents	Average Rank	Final Rank
1	Impact of reducing the carbon footprint in sustainability	120	3.19	1
2	Role of waste management in enhancing sustainability	120	3.13	2
3	Impact of using organic materials on production	120	3.03	3
4	Effect of eco-friendly dyeing on reducing pollution	120	2.89	4
5	Effectiveness of water-saving methods in production	120	2.86	5

The ranking analysis shows that the reduction of carbon footprint is a top priority, this shows the importance of controlling emissions for long-term sustainability. Waste management follows closely, showing a strong focus on proper disposal and recycling practices. Organic materials usage holds a minimum rank, advising that while profitable, factors like cost and availability may limit its widespread adoption. Eco-friendly dyeing ranks lower, showing that while pollution reduction is valued, other sustainability measures take precedence. Water- saving methods are ranked the lowest, implying that respondents consider broader environmental strategies more urgent than direct production-related actions.

VI. CONCLUSION

The study focuses on the significant growth of green processes in organic clothing production within the textile industry. methods of water saving and eco-friendly dyeing become the top focused on sustainability measures, Highlighting the industry's focus on reducing environmental results. While taking on organic materials and waste management practices is Noted, challenges are production cost is high, organic raw materials availability is low, and lack of consumer awareness hinders widespread implementation. The analysis Puts forward that textile industries can improve sustainability by Including efficient management of resources, eco-friendly production techniques, and third-party certifications. The finding of economic issues through government assistance, consumer education, and cost-effective innovation strategies can encourage the adoption of sustainable practices even more. Sustainability in the production of organic clothes is a big change for a greener future because it improves sustainability and the long-term profitability of the industry. Strengthening sustainable efforts in the textile industry requires ongoing research and legislative changes.

REFERENCES

- [1]. Fletcher, K., & Tham, M. (2023). *Earth Logic: Fashion Action Research Plan*. Routledge.
- [2]. Rissanen, T., & McQuillan, H. (2022). *Zero Waste Fashion Design*. Bloomsbury Publishing.
- [3]. Dickson, M. A., & Loker, S. (2012). *Social Responsibility in the Global Apparel Industry*. Fairchild Books.
- [4]. Black, S. (2011). *Eco-Chic: The Fashion Paradox*. Black Dog Publishing.
- [5]. Nayak, R., & Padhye, R. (2018). *Sustainable Technologies for Fashion and Textiles: Production, Processing and Recycling*. Elsevier.