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UNRAVELING SUSTAINABILITY IN ASIAN FASHION: CHALLENGES, OPPORTUNITIES, AND INTERDISCIPLINARY PATHWAYS

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Abstract

This review examines the multifaceted challenges hindering the growth of sustainable fashion in Asia, a critical region for global textile production and consumption. Identifying structural, cultural, and financial obstacles, the study analyzes 97 peer-reviewed publications from 2019 to 2025 using the PRISMA framework. Key issues include supply chain transparency, labor ethics, consumer awareness, affordability, raw material sourcing, technological constraints, regulatory gaps, environmental impacts, and the adoption of a circular economy. Findings indicate low environmental literacy among consumers in Bangladesh and Vietnam, exacerbated by pricing challenges. Small and medium-sized enterprises (SMEs) face challenges in accessing sustainable inputs due to the geographical concentration of raw material sourcing. Case studies from China, India, Indonesia, and Vietnam reveal persistent inequalities in infrastructure and legislation alongside local innovations. The review advocates for more vigorous policy enforcement, consumer education, technological investment, and collaborative projects tailored to Asia's unique socioeconomic landscape, providing a comprehensive overview of Asia's role in sustainable fashion and identifying key areas for interdisciplinary research and policy development.

Keywords: Sustainable Fashion, Textile Industry, Environmental Impact, Circular Economy, Supply Chain Transparency

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Introduction

The fashion industry is one of the most significant resource-intensive and polluting sectors globally, and it intensifies carbon emissions worldwide, estimated to be 10%, and wastewater discharge is 20% (Filho et al., 2024). To meet global consumer demand, Asia plays a prominent role, accounting for more than 60% of garment products (Sadhna et al., 2024a). More than 40 million workers are involved in this textile sector across countries such as Bangladesh, India, China, and Vietnam (International Labour Organization, 2022). However, a significant number of fashion industries are responsible for degrading the environment through waste and labor exploitation in Asia (Berto, 2022). To improve and adopt sustainability, and support the Sustainable Development Goals (SDGs), the awareness program on environmental issues, climate change, and social responsibilities is continuously increasing pressure in this industry (Shayan et al., 2022; Lu et al., 2021). To develop a sustainable fashion environment, the clothing production environment in Asia needs to be improved by reducing waste, pollution, and unethical labor practices (Saxena, 2022). Despite numerous initiatives undertaken by regulatory bodies, significant challenges persist in achieving genuine sustainability in the fashion industry in Asia (Di Vaio et al., 2024).

The fashion industry has an inherent environmental footprint, as it requires raw materials for production, transportation, and disposal of apparel. Every step in this process involves the consumption of significant resources, with water and energy playing a major role (Islam et al., 2021; Brewer, 2019). The whole process is closely related to greenhouse gas emissions, environmental pollution, and non-biodegradable waste (Velvizhi et al., 2020). However, along with the rise of fast fashion and increased affordability, people are encouraged to purchase clothing and other items, as well as dispose of them, which harms the fashion industry (Shirvanimoghaddam et al., 2020).

Background of Fashion in Asia

The history of Asian fashion is rich and diverse, with roots stretching back to ancient civilizations. From 3000 BCE to 476 CE, ancient societies in the Indus Valley, Mesopotamia, and early China developed clothing styles that reflected their environments, available resources, and social hierarchies (Ding & Kolosnichenko, 2024). In this era, fashion served as a powerful tool for conveying identity through the use of colors, jewelry, and patterns (Kyi, 2024).

During the Middle Ages (5^{th}-15^{th} centuries), religious and cultural beliefs significantly shaped Asian clothing trends. Traditional garments, such as the kimono in Japan and the Hanfu in China, showcased local values and artistic talent (Tomasic, 2023). The Renaissance era (16^{th}-17^{th} centuries) saw Asia selectively incorporating outside influences through trade while preserving its distinct styles. This period also spurred regional advancements in textile production and tailoring techniques (Song et al., 2024).

In the 18^{th} and 19^{th} centuries, Asian elite fashion embraced elaborate patterns, luxurious fabrics, and symbolic attire, mirroring the Baroque influence in Europe by emphasizing luxury and tradition (McNeil, 2023). The late 19^{th} and 20^{th} centuries marked the beginning of modern fashion in Asia, with Western haute couture gaining traction in urban centers. As Asian designers emerged on the global stage, media and film played a pivotal role in disseminating fashion trends worldwide (Ho, 2023; Girard, 2024). Today, in the 21st century, Asia is a prominent force in the global fashion industry, with internationally recognized designers, trendsetting innovations, and a growing emphasis on sustainability in countries such as China, India, South Korea, and Japan (Ling, 2024).

Figure 1 Background of Fashion in Asia (3000 BCE-21st Century)

There is an increasing amount of writing on sustainable fashion, but a significant lack of comprehensive syntheses of these issues with an Asian focus remains. Reviews that already exist tend to generalize results from a global perspective, which overlooks important details about the opportunities and challenges in the fashion industry in Asian countries. Moreover, there are very few recommendations in academic discourse that are transdisciplinary and geographically based. By systematically analyzing the primary challenges to sustainable fashion in Asia, we provide multidisciplinary solutions tailored to the region's complex socioeconomic and policy contexts. The study examines peer-reviewed studies from 2019 to 2025 from nations in Asia, like Bangladesh, China, India, and Vietnam, using a PRISMA-based systematic literature review framework. This review aims to address key questions: What are the significant challenges to achieving sustainable fashion in Asia? Moreover, what multidisciplinary approaches are available to address these challenges? Following this introduction, the challenges are explored in the literature review, while the methodology section details the data collection process. The Results and Discussion section provides a comprehensive analysis of potential solutions, culminating in the conclusion.

Literature Review

Challenges of Sustainable Fashion in Asia

Although achieving sustainable fashion in Asia is very challenging, this literature review has highlighted various obstacles to sustainable fashion, including limitations on raw materials, cost constraints, consumer behavior, supply chain issues, regulatory compliance issues, and the need for a digital platform.

Consumer Behavior and Awareness

In Asia, cultural traditions, concerns about pricing, and confidence in sustainability promises all influence consumer attitudes toward sustainable fashion (Khan et al., 2024). Although awareness among consumers is increasing compared to before, the numbers are still insignificant, especially in countries such as Bangladesh, Vietnam, and China (Kuah & Wang, 2020). High price sensitivity and limited local availability continue to be significant obstacles to green purchasing in Bangladesh, according to Sobuj et al. (2021), despite increased awareness, particularly among educated customers. Young customers in Vietnam are interested in sustainable fashion, but actual purchases are hampered by low product appeal and price, according to Tran et al. (2022). Wang & Walker (2023) observed that, although government

initiatives and eco-labels have increased knowledge in China, consumer trust remains low due to concerns about greenwashing.

Purchasing Capacity

One of the biggest challenges to the adoption of sustainable fashion in Asia is the issue of affordability. Particularly in lower-income economies like Bangladesh and India, many customers place a higher value on price than on environmental impact (Bashir et al., 2023). Due to limited access to green resources and reduced economies of scale, local sustainable firms frequently struggle with pricing. For instance, to minimize expenses, the Indian company Brown Living partners with local craftspeople to implement a low-margin, high-volume model (Shah et al., 2020). In the studies by Bläse et al. (2024) and Riesgo et al. (2023), when consumers perceive the prices of sustainable garments as too expensive compared to those of fast fashion, they become more willing to purchase non-sustainable products, such as fast fashion items. The articles published by Khurana & Muthu (2022) and Cerchia & Piccolo (2019) have demonstrated that sustainable materials and ethical labor practices are consistently more expensive than those used in fast fashion products.

Sourcing of Sustainable Materials

For Asian fashion designers, obtaining sustainable raw materials remains a significant challenge. India produces more than 50% of the world's organic cotton, making it the primary supplier of one of the most popular eco-materials (Textile Exchange, 2024). China is a major supplier of eco-dyed textiles and recycled polyester. Likewise, recycled polyester requires more energy consumption than usual, which also poses issues related to microplastic pollution (Periyasamy & Tehrani-Bagha, 2022; Özkan & Gündoğdu, 2021). To compete with fast fashion, acquiring sustainable raw materials poses a significant challenge for eco-friendly companies (Aithal & Aithal, 2022). On the other hand, promoting sustainable materials, such as organic cotton and recycled polyester, has a positive environmental impact (Ruschel-Soares et al., 2022). Due to limited local production of essential commodities and reliance on imports, which raises costs and leads to longer lead times, small and mid-sized firms in nations like Bangladesh and Vietnam encounter supply chain bottlenecks (Limon & Sarker, 2023).

Supply Chain Ethics

Concerns about ethics persist in Asia's fashion supply chains, particularly in Bangladesh and Vietnam, where reports of substandard working conditions, low wages, and inadequate labor laws are standard (Baroi & Alam, 2025; Uddin et al., 2023). India has initiated blockchain-based trial programs that track the origins of clothing and working conditions throughout the value chain to address transparency gaps (Agrawal et al., 2021).

The supply chain is commonly associated with several stages, from collecting raw materials to distribution and retailing, and ultimately to the retail level, where tracking sustainable compliance issues and ethical standards becomes increasingly complex (Venkatesh et al., 2020). According to Gardner et al. (2019), the lack of transparency is common in the industry at the retail level, and most brands do not have proper monitoring of their supply chains.

Environmental Impact

The environmental impact of the fashion industry is disproportionately felt in Asia, which is the world's greatest center for clothing manufacturing (Farhana et al., 2022). In nations such as Bangladesh, India, and China, the production of textiles consumes a significant amount of energy and water, resulting in substantial pollution (Parvin et al., 2020). Over 200 million liters of untreated effluent are released into rivers every day by Bangladesh's dyeing industry alone (Dutta et al., 2022). Although some brands attempt to reduce the use of harmful chemicals, such as synthetic dyes, pesticides, heavy metals, chlorine bleach, and CO_2, in their production factories, they still face challenges in effectively addressing these issues (Andraos & Matlack, 2022). As stated by Suraci (2021) and Moran et al. (2021), the fashion industry generates

approximately 1.2 billion tons of CO_2 emissions annually, a significant contributor to global climate change, with more than 60% of these emissions occurring in Asia.

Regulatory Policy

Governments and regulators can play a significant role in promoting sustainable practices within the fashion industry; however, their efforts are often insufficient and inadequate (Choi & Luo, 2019). Sustainability rules are in place in South Asian nations such as Bangladesh and India, but their implementation remains inadequate due to a lack of industry incentives, fragmented governance, and insufficient regulatory capacity (Qudrat-Ullah, 2023; Rafique & Islam, 2025). Regulators and governments in South Asian countries are more reluctant to address these issues because they believe the cost of fashion products will be higher, and they will lose work orders from Europe and America due to competitive market prices (Bradford et al., 2019). Researchers Pastran et al. (2021) stated that a firm policy, along with its mandatory implementation, can ensure an improved and sustainable fashion industry.

Technology and Innovation Barriers

Despite its potential, the fashion sector in Asia continues to encounter several obstacles to the adoption of sustainable technologies. Small and medium-sized enterprises (SMEs), which dominate the clothing industry in countries such as Bangladesh, India, and Vietnam, continue to face significant challenges due to high capital investment requirements (Kabadurmus, 2021; Gallagher et al., 2021). Technical knowledge and skills are also lacking, particularly in less urbanized areas. Due to this knowledge gap, manufacturers are unable to utilize cutting-edge technologies such as blockchain for traceability, automated waste sorting, and waterless dyeing (Haq et al., 2025).

Inequality in digital infrastructure is another important problem. While big businesses in China may have access to cutting-edge AI or IoT systems, these technologies are largely unavailable in the rural or underdeveloped manufacturing zones of South and Southeast Asia (Dathe et al., 2023; Mukherjee & Satija, 2020). Cybersecurity issues have also become increasingly prevalent in the apparel industry, and the security monitoring systems are often inadequate (Islam & Rafique, 2024). However, the absence of incentives and regulatory uncertainty in many nations, such as Bangladesh, India, and Vietnam, deters investment in long-term technical solutions, thereby increasing the gap between innovation potential (Tri & Hoa, 2024).

Circular Fashion Barriers

Circular fashion is gaining popularity worldwide, but it presents some operational and structural challenges to its implementation in Asia. In important manufacturing nations such as Bangladesh, Vietnam, and India, a significant challenge is the inadequate infrastructure for collecting, sorting, and recycling textile waste (Nayak et al., 2021; Ponnambalam et al., 2023). Implementing this circular model on a large scale in this region presents both financial and logistical challenges, necessitating changes in both production and retail customer habits (Winkelhaus & Grosse, 2019; Bosona, 2020). According to researchers Sandvik & Stubbs (2019) and Bartkutė et al. (2023), the completion of the circular economy of fashion and the recycling of textile infrastructure must be ensured, which is currently unavailable in most fashion production countries in Asia.

Research Biases, Gaps, and Synthesis

Numerous research studies that are now available on sustainable fashion in Asia exhibit methodological and regional biases. Major exporters, such as Bangladesh, China, and India, are frequently the focus of research; however, underrepresented nations like Cambodia, Myanmar, and Sri Lanka are also present (Rahman & Moazzem, 2022). Furthermore, a significant percentage of research uses qualitative techniques, including case studies or interviews, with few cross-national comparisons or large-scale empirical data (Wagenaar et al., 2022).

Significant variances can be seen when comparing results from different countries. For example, Bangladeshi customers are primarily motivated by price sensitivity (Sobuj et al., 2021), but Chinese consumers are more attentive to eco-friendly products (Zhang et al., 2021). Similarly, technology-led traceability systems have been introduced in China and India; however, their adoption in smaller Southeast Asian economies remains relatively low.

These results highlight the variety of issues across Asia, which are influenced by regional economic circumstances, cultural norms, and the level of policy development. A comprehensive understanding reveals that sustainable fashion in Asia is a multifaceted issue that requires context-specific strategies rather than being a single problem. Although they manifest differently depending on the national context, common issues, including inadequate regulation, infrastructure deficiencies, and affordability concerns, are prevalent throughout the region.

Research Methodology

Systematic Literature Review Framework

This section describes the review process of sustainable fashion, with a focus on the challenges of sustainable fashion in Asia. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework has been used to ensure transparency, replicability, and methodological accuracy (Page et al., 2021).

Searching Strategy

The review method has been used to collect information from secondary data. Several databases, including Textile Exchange, Google Scholar, Scopus-indexed journals, peer-reviewed journals, Web of Science, reputed publications, research journals, thesis papers, trade articles, and internet sources, have been considered to examine the recent developments in sustainable fashion in Asia from 2019 to 2025.

The key terms that are used to search the articles with the combination of “sustainable fashion” OR “ethical fashion” OR “green fashion”, AND “Asia” OR “Bangladesh” OR “China” OR “India” OR “Vietnam” AND “sustainable fashion challenges” OR “barriers” OR “Policy” OR “consumer behavior” OR “purchasing capacity” OR “supply chain” OR “sustainable material” OR “Technological innovation” OR “regulatory policy”.

According to the PRISMA framework, the inclusion and exclusion criteria were applied to select articles from various databases, as outlined in Table 1 below.

Table 1 Article inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Region	Study conducted in Asia or the Asia Pacific countries	Excluded the articles that were not focused on Asia
Topic	Consider the topics that were related to sustainable fashion, production, consumption, challenges, and regulatory policies.	Irrelevant records and articles that were not focused on the Asia Pacific zone were excluded.
Publications	Peer-reviewed journals, reports, and conference papers are considered.	Editorials, non-peer-reviewed papers, blogs, and non-academic sources were excluded and do not have complete access.
Language	English	Non-English articles were not considered.
The period of articles	Publication period from 2019 to 2025	Excluded the publications before 2019

These standards were used to ensure the review focused on current, pertinent, and scholarly research on sustainable fashion in Asia. Excluded were studies conducted outside of Asia or without a distinct sustainability focus. Initially, research articles (n = 428) were selected and downloaded for this review paper study purpose with the above-mentioned keywords, where similar topics and titles were considered. In the end, (n = 97) relevant publications and articles were chosen for the analysis, the majority of which were released within the last seven years. Sometimes, we studied the abstract and conclusion of the papers to check whether they met our criteria or not. Based on the impact factors of the journals, citations, reviews, conferences, and website quality, the writers selected 330 papers (n = 330) after removing duplicate records from a total of 428 publications. The exclusion criteria also followed such as (1) papers that were not focused on the research in Asia (n = 51), (2) papers that are non-review research papers (n = 73), (3) papers that do not have full access (n = 55), (4) Papers which not related to the fashion or apparel sector (n = 75), (5) papers that were duplicated (n = 43), (6) papers that were not published in English (n = 8), and (7) Abstract were not aligned (n = 26). To view and better understand, the systematic literature review framework has been followed, as illustrated in Figure 2 below.

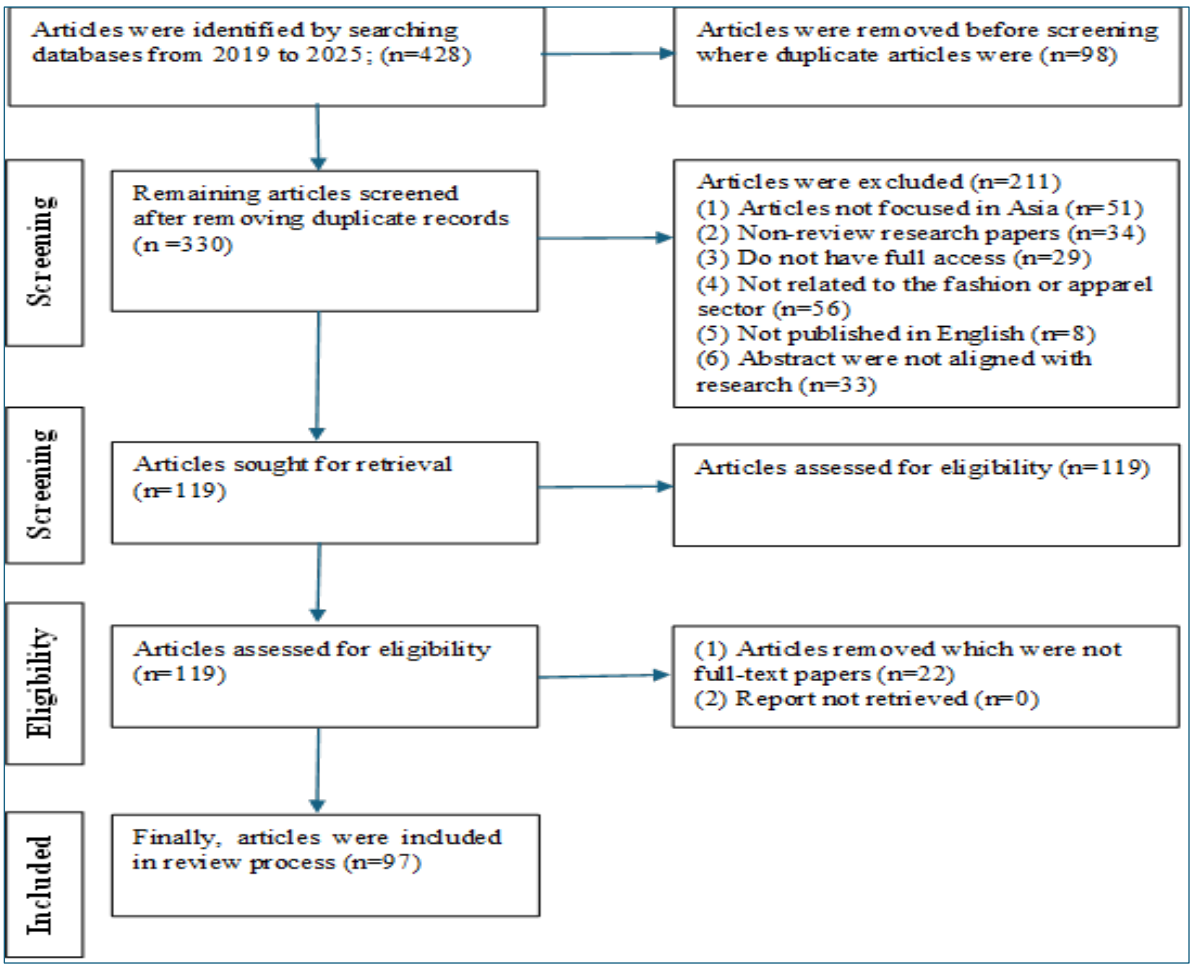

Figure 2 Systematic Literature Review PRISMA Framework

Results and Discussion

The results of the 97 included research are summarized in this section, which is organized around nine major issues facing the advancement of sustainable fashion in Asia. To emphasize regional dynamics, it incorporates case studies particular to each nation and analyzes data visualizations (Figures 3-7) in the Asian context.

Consumer Awareness

One of the primary challenges to the adoption of sustainable fashion in most Asian markets is customer ignorance and a lack of environmental awareness. Research from Vietnam (Tan & Le, 2023) and Bangladesh (Zahan et al., 2020) shows a recurring discrepancy between actual purchase behavior and favorable sentiments toward sustainability.

China, on the other hand, shows increasing awareness, particularly among younger consumers who have access to digital devices (Zhang et al., 2020). However, behavioral change remains constrained by mistrust of green promises and a lack of clarity regarding certification requirements. East Asian collectivism is a cultural element that can provide a continuous campaign and awareness, offering power for upcoming awareness initiatives (Iannuzzi, 2024).

Economic and Affordability Challenges

In the reviewed literature, affordability is still one of the most frequently mentioned issues. Due to financial constraints, consumers in Bangladesh, Vietnam, and India often prioritize price over sustainability (Hasan et al., 2022; Nayak et al., 2019; Rahman et al., 2021). Because sustainable materials and production methods increase costs, mainstream customers cannot afford eco-fashion. Nonetheless, several Asian companies have developed methods that lower financial barriers:

Greenwear (India) utilizes solar-powered looms and post-consumer waste to collaborate with small textile manufacturers in generating circular fabrics (Kumar et al., 2021). Their concept of community-sourced production reduces labor costs and fosters local employment.

Viyellatex Group (Bangladesh) is one of the world's top-rated green garment factories, certified by LEED for its energy and water efficiency (Das & Shafiquzzaman, 2020). Long-term agreements with environmentally conscious international buyers encouraged the company to invest in green technologies.

According to data from the International Cotton Advisory Committee (2025), the Asian recycled polyester market accounts for 47.80% of the total polyester market size, which is estimated at $15.5 billion (Grand View Research, 2025). This demonstrates a significant contribution to the Asian economy. However, the global market demand for polyester in the recycling apparel industry was 4,480 thousand tons in 2019, and it increased by 12,240 tons in 2023 (Textile Exchange, 2024). The apparel recycling polyester market is shown in Figure 3.

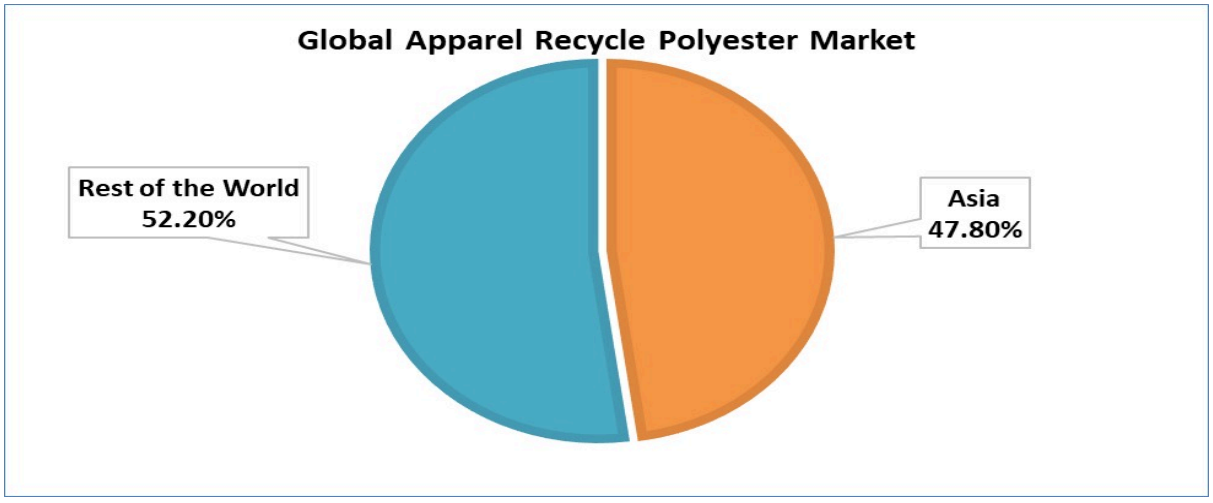

Figure 3 Global Apparel Recycle Polyester Market

Sustainable Material Sourcing

The concentration of sustainable raw material manufacturing in a few nations, primarily China for recycled polyester and India for organic cotton, is a significant supply-side constraint (Singh, 2019). Other nations, such as Vietnam, Cambodia, and Bangladesh, rely heavily on

imports, which increases expenses and causes delays. Research also found that manufacturing raw materials is crucial to supporting consumers' affordability and environmental friendliness, highlighting the need for further research in these areas (Javaid et al., 2021). The adoption of materials is hindered by small enterprises' inability to obtain certified suppliers or their difficulties with large minimum order quantities.

According to the International Cotton Advisory Committee (2025), the Asian continent leads in producing the most significant portion of organic cotton, accounting for 56%, followed by Latin America at 16%, North America at 11%, and the remaining 17% from the rest of the world. This statistic is shown in the pie chart in Figure 4.

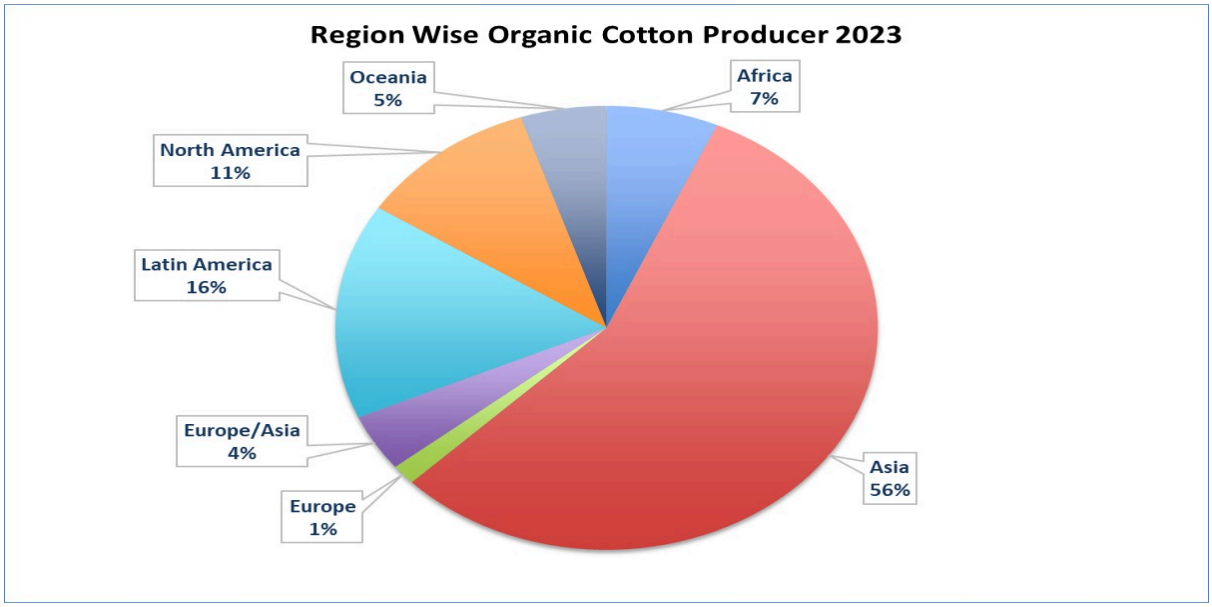

Figure 4 Organic Cotton Production in Asia and other continents
Source: International Cotton Advisory Committee (ICAC)

Supply Chain Ethics and Transparency

The apparel industry in Asia continues to be plagued by unethical labor practices. Research from Vietnam and Bangladesh emphasizes problems such as subcontracting opacity, wage fraud, and hazardous working conditions (Brudney, 2022; Ahmed, 2024).

Blockchain and other transparency solutions, which provide labor conditions and traceability of raw materials, have been tested in India (Venkatesh et al., 2020). However, except for unorganized or second-tier suppliers, the use of technology is still concentrated in large companies and industries focused on exports.

The several stages need to be monitored closely to maintain an efficient supply chain management system from stage 1 to stage 7. All seven stages are shown in Figure 5.

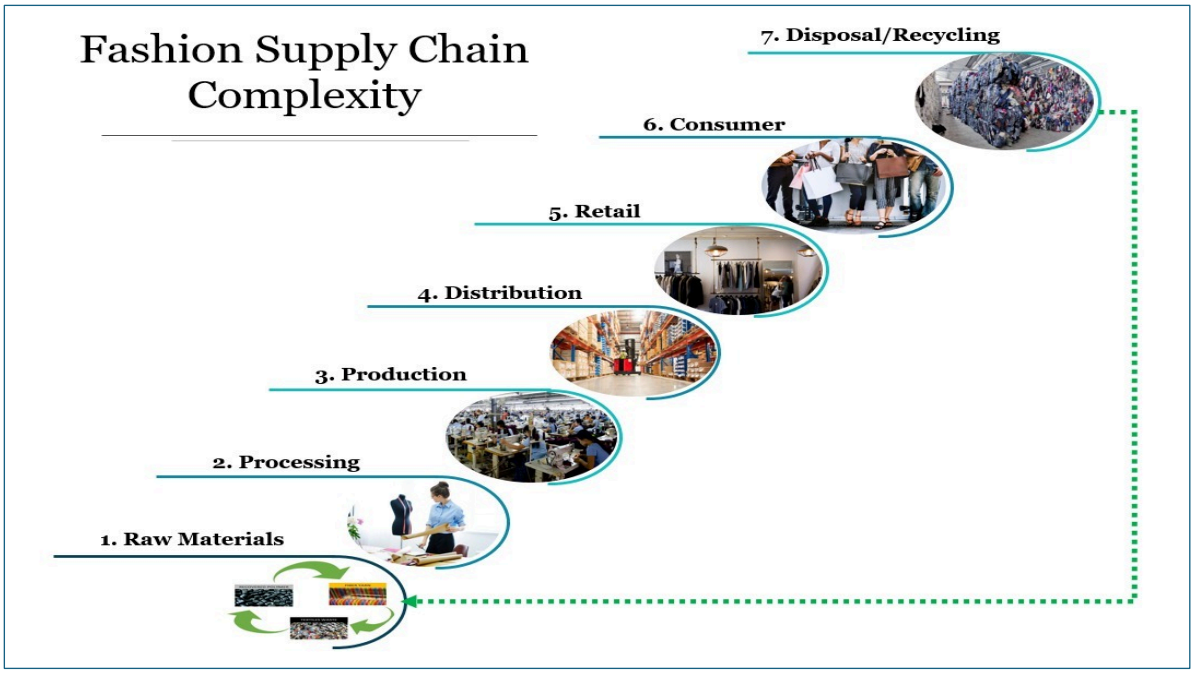

Figure 5 Fashion Supply Chain Complexity

Carbon Dioxide Emissions

According to several studies, the countries that contribute the most to carbon emissions from the textile industry are Bangladesh, India, China, and Vietnam (Sharma & Bharti, 2025). The extensive use of coal-based electricity, outdated equipment, and energy-intensive dyeing processes are primarily responsible for emissions. Despite being a significant emitter, China has made noticeable strides since enacting industrial emissions restrictions in 2018, which required textile manufacturers to use cleaner technology and implement carbon accounting systems (Di et al., 2023). On the other hand, Bangladesh and India continue to produce a large amount of clothing using fossil fuels, with little enforcement of regulations and limited use of energy-efficient techniques, particularly among SMEs (Hasan et al., 2019; Prashar, 2021). The urgency of energy transitions in the garment industry is highlighted in Figure 4, which shows that CO_2 emissions per garment produced in South Asia are much greater than the global average.

Figure 6 illustrates the global statistics of total carbon emissions in comparison to the carbon dioxide emissions of the apparel sector. Globally, the carbon emissions from the apparel industry were 889 million tons in 2019, compared to 37,104.275 million tons from other apparel industries. On the other hand, the total carbon emissions were reported at 37,791.57 million tonnes in 2023, with 918 million tonnes attributed to the apparel industry. However, as shown in Figure 7, the Asian continent still emitted the highest amount of CO_2 globally, accounting for 61.62% in 2023 (International Cotton Advisory Committee, 2025).

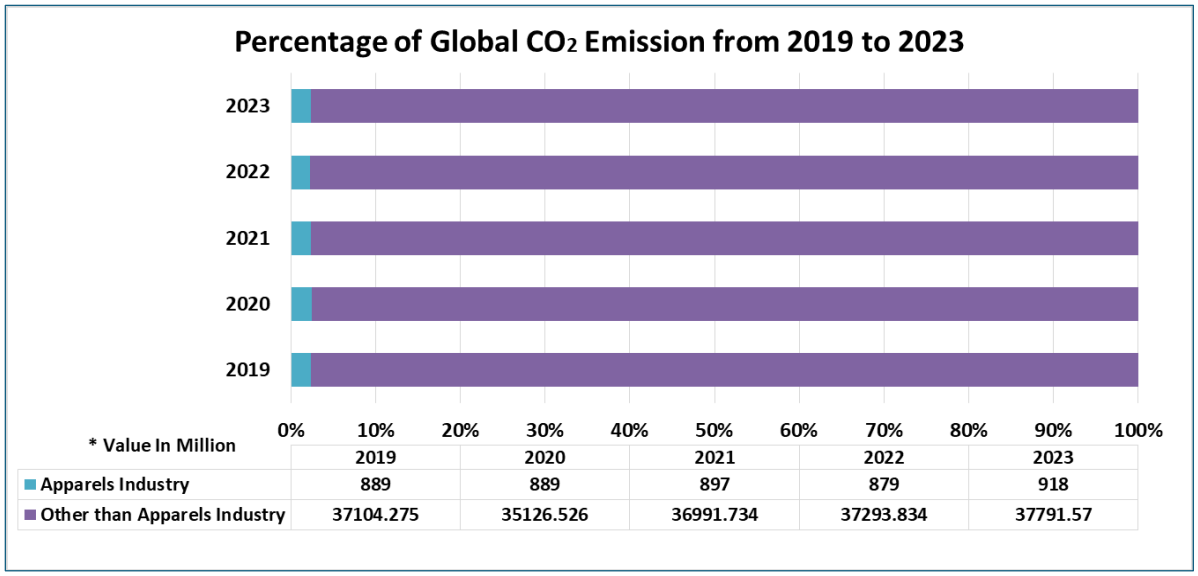

Figure 6 Global Carbon Dioxide Emissions (2019-2023)

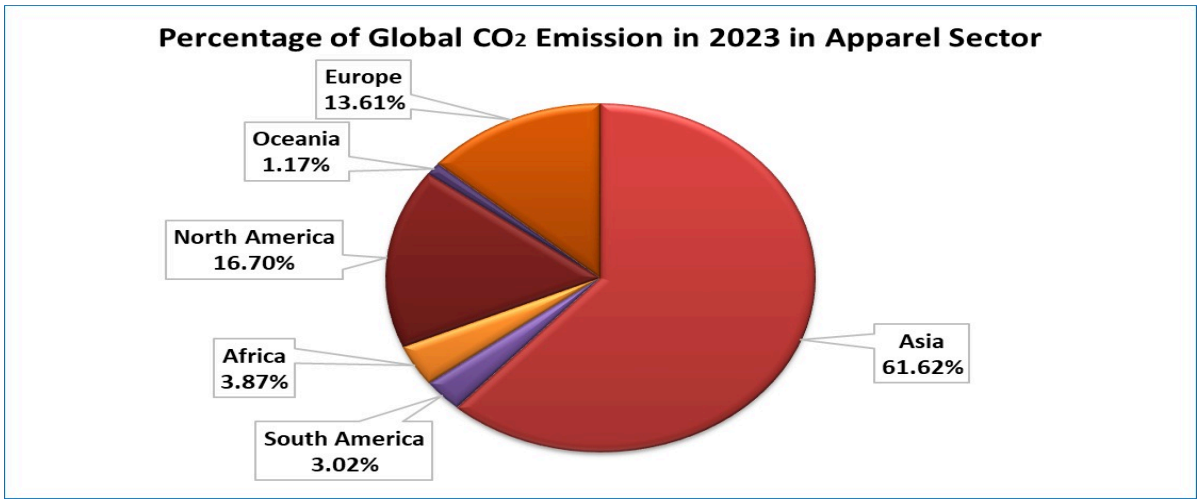

Figure 7 Global Carbon Dioxide Emissions in the Apparel Sector in 2023

Inadequate Regulatory Framework

The regulatory landscapes in Asia are not uniform. Large-scale investments in green innovation have been sparked by China's 2018 textile sector reforms, which included required cleaner production objectives and environmental audits (Yu et al., 2024). On the other hand, South Asian nations such as Bangladesh and India primarily rely on voluntary sustainability initiatives, which are often spearheaded by international consumers (Dey et al., 2023). There is insufficient interagency collaboration and poor enforcement of policies. With its National Action Plan on Sustainable Production and Consumption, Vietnam has taken the initiative and provided a methodical reform roadmap (Hengesbaugh et al., 2021).

Innovation and Technological Challenges

The adoption of technology in sustainable fashion varies greatly. China leads in smart manufacturing and AI-powered planning, partly driven by environmental regulation (Sahoo & Lo, 2022). On the other hand, South Asian SMEs lack the means and expertise to implement tracking systems, automation, or sustainable dyeing (Sadhna et al., 2024b). Large and small manufacturers are experiencing unequal access to innovation due to the growing digital divide. Furthermore, it is uncommon for eco-tech pilot programs to grow beyond donor-funded ventures.

Circular Fashion Models

By encouraging reuse, extending product life cycles, and reducing waste, circular fashion seeks to close the loop in the manufacturing and consumption of textiles. However, as this review has shown, there is still little adoption of circular fashion in Asia, with most efforts being quite dispersed and experimental rather than systemic. Upcycling, textile waste recovery, and natural fiber supply chains are all included in the business structures of Indian firms like Doodlage and ReshaMandi (Aggarwal et al., 2024). These businesses emphasize minimal-waste design and depend on traditional handloom craftspeople. Through REPREVE® production hubs, which convert plastic waste into recycled polyester yarn on a large scale, China, the region's leader in textile infrastructure, makes a substantial contribution to circular fashion (Das et al., 2025). Through eco-batik cooperatives that utilize natural colors, conserve water, and employ community-based production, Indonesia promotes circularity. These initiatives are frequently supported by cultural heritage preservation laws and financed by regional NGOs.

Table 2 Summary of Figures, Tables, and Key Findings

Figure	Title	Key findings	Section
Figure 1	Background of Fashion in Asia (3000 BCE-21st Century	The history of fashion in Asia from 3000 BCE to the 21st century. Fashion trends have been continuously changing based on consumers' behavior and demand.	Introduction
Figure 2	Systematic Review Methodology	Data collection through the PRISMA framework	Methodology
Figure 3	Global Apparel Recycle Polyester Market	The apparel recycles polyester market size is 47.80% in Asia	Results and discussion
Figure 4	Organic Cotton Production in Asia and other continents	56% of organic cotton is produced in Asia	Results and discussion
Figure 5	Fashion Supply Chain Complexity	A flowchart has been created to illustrate the complex supply chain management system, from the collection of raw materials to disposal and recycling.	Results and discussion
Figure 6	Global Carbon Dioxide Emissions (2019-2023)	Emission of CO2 from the apparel industry in tons and percentage through a bar chart from 2019 to 2023.	Results and discussion
Figure 7	Global Carbon Dioxide Emissions in the Apparel Sector in 2023	Global carbon dioxide emissions in the apparel sector accounted for 61.62% of total emissions in 2023.	Results and discussion

Conclusion and Recommendations

This study has identified eight major challenges to sustainable fashion in Asia: low consumer knowledge, financial constraints, lax enforcement of regulations, non-transparent supply chains, and a lack of circular infrastructure. Despite some improvements, such as China's green industrial reforms and India's Khadi Renaissance movement, Asia's contribution to sustainable fashion remains fragmented, underleveraged, and heavily influenced by external demand. As the world's largest center for garment manufacturing and a rapidly growing consumer base, Asia possesses unparalleled potential to shape global sustainability trends.

To empower both large manufacturers and SMEs, governments must move beyond voluntary initiatives and enact enforceable laws with specific goals, financial incentives, and compliance procedures. Companies should engage local artisans, waste handlers, and informal sector workers, while simultaneously investing in green technologies, ethical supply chains, and consumer education. To shift consumer behavior towards circularity, Asian consumers require empowerment through awareness campaigns, clear product labeling, and access to reasonably priced sustainable alternatives.

Future research should focus on bolstering the evidence base to guide effective policymaking. This includes examining the behavioral factors that influence sustainable fashion choices within low-income and rural Asian communities, assessing the scalability of circular economy models across diverse economic contexts, and investigating the dynamics of the informal sector, with a particular focus on waste management and textile recycling. Long-term research is needed to evaluate the effectiveness of industry responses and policy interventions over time. Comparative analyses of policy ecosystems across Asian nations could identify best practices and frameworks applicable elsewhere. By addressing these critical areas, researchers and stakeholders can collaboratively forge a vision for sustainable fashion in Asia that is inclusive, culturally sensitive, financially viable, and actively transforms global trends, rather than simply reacting to them.

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