

# **Sustainable Business Practices in Leather Industry: Challenges and Opportunities**

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## **Abstract**

Sustainable leather manufacturing is the production of leather using environmentally and socially responsible practices that minimize the negative impact on the environment and promote ethical treatment of animals and workers. Sustainable business practices continue to receive significant attention in academic, service and manufacturing industries. In a manufacturing industry like leather especially sustainable research has played a significant role in accelerating the adoption of sustainable manufacturing practices. As sustainable operations attain itself a deemed journey rather than a destination, synthesizing present research could assist in effort for future research paths in the journey ahead. Hence, this study aims to identify trends and opportunities for future research in sustainability research in the leather industry. The subject of sustainability is increasingly discussed in day-to-day conversations, especially in businesses. In manufacturing industries like leather, implementation of sustainable manufacturing practices in production activities take place. Sustainable manufacturing is viewed as a component of the broad sustainability concept and defined as the techniques, policies and procedures for a firm uses to create manufactured products that use processes that minimize negative environmental impacts conserve energy and natural resources which are safe for employees, communities and consumers. Due to the serious problem of greenhouse gas emissions in our atmosphere driving global warming, the need for sustainable initiatives has become an imperative for companies which leads to the necessity of operating sustainably. However, to avoid taking a weak approach to sustainability, it is imperative for companies to carry out a transition involving all three dimensions (environmental, economic, and social) of sustainability across the organization.

**Keywords:** Sustainable Business Practices, Leather Industry, Global Warming, Sustainability, Corporate Governance

## **1. Introduction**

India's leather industry, with its immense promise in growth, employment prospects, and fiscal contribution, has steadily risen to prominence. Recognized as a potent conduit for the nation's economic propulsion, the leather sector remains an invaluable foreign exchange asset (Hossain et al., 2016; Moktadir, Rahman, et al., 2018). Yet, its journey is riddled with obstacles—environmental conundrums, technological bottlenecks, and the absence of cohesive policies remain persistent barriers (M. H. Islam et al., 2020). Recent literature has delved into the sector's strengths and frailties (Moktadir, Rahman, et al., 2018), scrutinized policy impacts (Dhar et al., 2022), and underscored the imperativeness of environmental stewardship (Islam et al., 2023). Nevertheless, a holistic examination, encompassing the

interplay of challenges, latent opportunities, and transformative strategies, remains conspicuously absent. Further complicating this tapestry is the upheaval caused by the COVID-19 pandemic, which has ushered in unforeseen disruptions and demands an imperative reconfiguration of industry dynamics (M. R. Islam et al., 2020). Addressing this discernible lacuna in research, our paper embarks on a holistic assessment of India's leather sector. The central research questions this study aim to answer how can the leather industry of India navigate its inherent challenges and harness emerging opportunities to propel its growth?

The objectives of this study are manifold: To analyze the industry's strengths, pitfalls, and prospective growth trajectories. To comprehend the industry's significance within the macroeconomic canvas of India to delineate actionable measures poised to elevate its global standing and competitiveness. Our investigation initiates with a panorama of the Indian leather industry (Section 2), followed by a detailed account of the research methodology employed (Section 3). Subsequent sections delve into the industry's multifaceted challenges (Section 4) and the spectrum of growth avenues (Section 5). Strategic recommendations, entailing sustainable modalities, technology infusion, and human capital enrichment, concluding reflections, encompassing pivotal takeaways, prescriptive advisories, and policy ramifications, are encapsulated. The study culminates with a contemplation on its limitations, paving the way for prospective research trajectories.

## **2. Overview of the Leather Industry in India**

### **2.1 History and Evolution**

India's leather industry, with roots entrenched in the pre-independence era, has evolved as a testament to the nation's resilience and entrepreneurial spirit (Moktadir, Rahman, et al., 2018). The post-independence phase, post-1971, saw the industry metamorphose from a primarily raw-hide and skin exporter to a formidable contender in the global leather goods market (Shahriar et al., 2021). Today, it stands as an economic linchpin, creating myriad employment avenues and bolstering the nation's foreign exchange reserves (M. H. Islam et al., 2020; Khan, 2014).

### **2.2 Dynamics of the Value Chain**

Spanning a vast spectrum, India's leather sector is orchestrated by a symphony of diverse stakeholders. Tanneries, manufacturers, and exporters form the core, complemented by ancillary support from chemical suppliers to logistics enablers (Moktadir, Rahman, et al., 2018). At the heart of the value chain lies the raw hide and skin procurement, which undergoes transformation in tanneries into myriad leather variants. This leather then becomes the canvas for manufacturers, birthing an array of products—from chic footwear to premium garments and accessories. While a significant share finds its way to global storefronts, a considerable portion state domestic demand (Shahriar et al., 2021).

### **2.3 Governmental and Associative Pillars**

Guiding the industry's trajectory are the combined efforts of the Indian government and pivotal industry associations like the Indian leather producte Association (ILPA) and beyond mere policymaking, their roles extend to infrastructural fortification, export facilitation, and cultivating symbiotic relationships across the industry's echelons. Additionally, their stewardship ensures the industry's alignment with international benchmarks, while also championing financial accessibility for the burgeoning MSME segment (Moktadir, Rahman, et al., 2018; Mollik, 2022).

### **3. Methodology**

#### **3.1 Introduction**

The intricate dynamics of the leather industry in India necessitate a comprehensive qualitative approach to uncover the nuances, challenges, and opportunities inherent to the sector. Qualitative research is instrumental in understanding underlying reasons, opinions, and motivations, providing insights into the problem (Creswell & Poth, 2016).

#### **3.2 Research Design**

This study is predicated on a twofold research design encompassing a literature review and an analysis of secondary data. Literature reviews furnish a synthesis of existing knowledge and can identify gaps or inconsistencies in a body of knowledge (Webster & Watson, 2002). Consequently, a thorough review was undertaken spanning academic articles, governmental documentation, industry reports, and international publications. The secondary data, providing quantitative underpinnings, was analyzed to contextualize and corroborate findings from the literature review.

#### **3.3 Data Collection**

To ensure the breadth and depth of sources, a rigorous data collection strategy was implemented. Databases such as Google Scholar, Scopus, and Web of Science were mined for pertinent literature (Papaioannou et al., 2016). Beyond academia, the ambit extended to industry fraternities, governmental portals, and international bodies like The Council for Leather Exports (popularly known as CLE).

#### **3.4 Data Analysis**

Embracing thematic analysis provided a structured means to distill salient themes from the amassed literature and data (Braun & Clarke, 2006). This technique unearthed prevailing patterns, challenges, opportunities, and industry trajectories. In navigating this analytical journey, it was paramount to remain attuned to India's unique industry milieu and the myriad stakeholder viewpoints spanning governmental agencies, industry bodies, and labor unions. Such a holistic perspective aimed to enrich the comprehension of India's leather sector dynamics, setting the stage for pragmatic and informed recommendations.

### **4. Challenges Faced by the Leather Industry in India**

#### **4.1 Environmental Issues**

The leather industry in India grapples with profound environmental issues, notably pollution and waste mismanagement. The tanning process, reliant on harmful chemicals, and the absence of adequate waste disposal facilities have exacerbated environmental concerns and posed tangible public health risks (Chowdhury et al., 2015; Islam et al., 2017; Moktadir, Ali, et al., 2018; Moktadir, Rahman, et al., 2018). While initiatives like the Jajmau Tannery Estate relocation project signify governmental intervention, they've been encumbered by infrastructural lags and rogue non-compliant tanneries (Gulfam-E-Jannat et al., 2023; Jiang et al., 2016).

#### **4.2 Technological and Skill Gaps**

Although India's leather industry has seen expansion, it grapples with issues relating to modern technology adoption and a qualified workforce (Moktadir, Ali, et al., 2018). Numerous tanneries and producers in this sector still depend on archaic equipment and methodologies, resulting in compromised efficiency and product quality (Dixit et al., 2015; Shahriar et al., 2021). Such technological stagnation curtails the industry's potential to stand out in the international arena (Moktadir, Ali, et al., 2018). In addition, there's a palpable deficit of adept labor and managerial insight within the Indian leather

industry (Moktadir, Ali, et al., 2018). This dearth in expertise and management prowess further diminishes its competitive edge (Tumpa et al., 2019). While efforts like the Centre of Excellence for Leather Skill India Limited (COEL) aim to bridge these expertise gaps, their influence remains minimal (Moktadir, Ali, et al., 2018).

#### **4.3 Market Access and Competitiveness**

International rivals, including nations like India, China, Bangladesh and Vietnam, intensify the competitive landscape (Rahman & Ogunleye, 2019). Ensuring product quality, aligning with global standards, and crafting potent marketing strategies become pivotal. Diversification, both in terms of export geographies and product spectrum, is essential to diminish dependence on conventional markets and low-profit commodities (Akter et al., 2018).

#### **4.4 Regulatory and Policy Challenges**

The Indian leather industry, a significant contributor to the country's export earnings, often grapples with regulatory and policy challenges that have, at times, hampered its potential for growth. These challenges arise from inconsistency in policies and regulations (Khan, 2014). On one hand, there are policies meticulously designed to boost local production in the hopes of fortifying the domestic industry, creating jobs, and stimulating the local economy. Such initiatives encompass incentives like tax breaks or grants to domestic producers (Khan, 2014; Moktadir, Ali, et al., 2018). Conversely, there are other regulations which, although unintended, end up favoring imports. Such policies might involve reduced tariffs on imported goods or bureaucratic red tape that inadvertently makes importing easier than local production (Shahriar et al., 2021). This dichotomy creates a complex and often ambiguous business environment for industry players. Navigating this labyrinth of rules and regulations can deter potential investors and impact the industry's overall trajectory.

#### **4.5 Supply Chain Inefficiencies**

Supply chain disruptions, influenced by factors like raw material shortages and transportation bottlenecks, adversely impact production timelines and delivery commitments.

### **5. Opportunities and Strategies for the Leather Industry in India**

#### **5.1 Infrastructure Development and Environmental Compliance**

Modernizing infrastructure remains paramount, particularly the expeditious completion of the Central Effluent Treatment Plant (CETP) at the Jajmau Tannery Estate, ensuring sustainable strides in the leather industry of Bangladesh (M. H. Islam et al., 2020; Moktadir, Rahman, et al., 2018; Rouf et al., 2013). Beyond heightened competitiveness, such infrastructure enhancements will align the industry with global environmental benchmarks, magnetizing discerning buyers and conscious investors.

#### **5.2 Human Capital Development and Skill Enhancement**

Tackling the expertise deficiencies in the leather sector is vital for its sustained prosperity (Singh & Gundimeda, 2021). This can be realized through focused training initiatives and capability-enhancement programs (Jiang et al., 2016). Partnership among industry representatives, educational entities, and research bodies is equally pivotal (Moktadir, Rahman, et al., 2018; Wohlin et al., 2011). By bolstering the administrative capabilities of [ijbm.ccsenet.org](http://ijbm.ccsenet.org) International Journal of Business and Management Vol. 19, No. 2; 2024 123 industry staff and promoting an innovative ethos, the leather sector can position itself more robustly in the international arena (Pati et al., 2014).

#### **5.3 Market Diversification and Value Addition**

The leather sector in India stands poised to capitalize on the escalating global appetite for leather goods

by broadening its export horizons and honing in on products with a higher value-add (Leonidou, 2004). To realize this, the sector must channel investments into research, embrace cutting-edge technologies, and cultivate robust ties with international clientele (Moktadir, Ahmadi, et al., 2020). Furthermore, venturing into up-and-coming markets, such as those in Africa and Latin America, and deepening its footprint in unconventional areas like the automotive and aviation sectors can amplify its growth trajectory (Chokera & Mutambara, 2023).

#### **5.4 Sustainable Practices and Green Initiatives**

With sustainability at the forefront of global consumer demands, adopting eco-friendly practices can position the Indian leather industry as a progressive sector. Leveraging vegetable tanning, reducing water consumption, and recycling waste can not only minimize environmental footprints but can also attract a niche of eco-conscious buyers (Moktadir, Ali, et al., 2018).

#### **5.5 Digital Transformation and E-commerce Penetration**

The digitization wave offers a golden opportunity. By integrating digital tools, e-commerce platforms, and leveraging online marketing, the industry can tap into a global audience, enhancing its reach and visibility. Embracing e-commerce can also expedite direct-to-consumer strategies, fostering brand loyalty and enhancing profit margins.

### **6. Discussion**

#### **6.1 Realizing the Untapped Potential**

The leather industry in India stands at the precipice of monumental economic contributions, poised to be an engine of growth for the nation. Yet, the path to such fruition is laden with multifaceted challenges that need comprehensive interventions. The interplay between inherent potential and these hurdles necessitates a nuanced exploration to chart the industry's future trajectory.

#### **6.2 Infrastructure: The Bedrock of Progress**

Infrastructure development emerges as a cornerstone for the industry's resurgence. Vital projects, like the CETP and jajmau Tannery Estate, transcend mere brick-and-mortar establishments; they epitomize the commitment to environmental standards and promise efficient production capabilities (Moktadir, Dwivedi, et al., 2020). The collaborative endeavors between governmental bodies and private stakeholders will be instrumental in ensuring the fruition of such initiatives, thereby setting the stage for global competitiveness.

#### **6.3 Human Capital: The Catalyst for Change**

An industry, regardless of its potential, is only as progressive as its human resources. Hence, the leather industry's global ambitions hinge upon its capacity to nurture and develop its workforce. Instituting comprehensive training programs, fostering industry-academia synergies, and embedding a culture of continuous learning can herald a renaissance in skills and innovation. Such human capital augmentation is not just about numbers but encompasses a paradigm shift in the quality and adaptability of the workforce. (Khan, 2014; Shahriar et al., 2021).

#### **6.4 Market Dynamics: Diversification and Value Addition**

In an ever-evolving global market, relying on traditional bastions of demand could be myopic. The leather industry's growth narrative, thus, must weave in diversification as its central theme. Venturing into untapped markets and innovating on product offerings can catalyze the transition from a volume-based model to a value-based paradigm (Hasan et al., 2021). Such a shift not only ensures robust



revenue streams but also fortifies the industry against market volatilities. In essence, the leather industry in India stands at a crossroad. The direction it chooses will determine its stature on the global stage. With coordinated efforts across infrastructure, skills, and market strategies, the industry has the blueprint to craft a future replete with growth and accolades.

## **7. Conclusions and Recommendations**

### **7.1 Conclusion**

The leather industry in India, despite its abundant potential, stands at a critical juncture. As our exploration has unveiled, this industry's significance extends beyond its economic contributions, serving as a testament to the nation's capacity for innovation, adaptation, and global competitiveness. Yet, realizing this potential is not without its challenges. From significant environmental issues borne from past practices to skill gaps that restrain the industry's quality and efficiency, India's leather sector faces substantial hurdles. The dated technological infrastructure and the need for market diversification further underscore the challenges that need immediate attention. But these challenges, as daunting as they may seem, also offer pathways for growth and innovation. The relocation of tanneries, the emphasis on human capital development, and the potential for diversification into high-value products and new markets are transformative opportunities waiting to be harnessed. Collaborative endeavors between governmental agencies, private stakeholders, academia, and international organizations can amplify the impact of these opportunities. By prioritizing infrastructure, continuously upskilling the workforce, and crafting strategic market interventions, India's leather industry can not only navigate its current challenges but can also reshape its narrative — from an industry battling issues to one that is a beacon of sustainable growth and innovation.

In essence, while the road ahead is replete with challenges, the leather industry's resilience, combined with strategic interventions, can catalyze a bright and prosperous future for the sector, benefiting not just the industry stakeholders but also solidifying India's position in the global leather market.

### **7.2 Recommendations**

#### **7.2.1 Strengthening Policy Framework and Implementation**

A robust policy framework is essential for the growth of the leather industry. By focusing on infrastructure development, environmental compliance, and market diversification, the government can ensure sustainable progress. Integrating principles of the circular economy and sustainable manufacturing practices is paramount, as highlighted by Moktadir, Ahmadi, et al. (2020).

#### **7.2.2 Enhancing Access to Finance for SMEs**

Financial accessibility is crucial for SMEs to thrive. By collaborating with financial institutions, the government can develop tailored financial products and services. Credit guarantees, low-interest loans, and technical assistance are essential tools in this context. Furthermore, Ye and Kulathunga (2019) emphasize the significance of financial literacy in promoting sustainability among MSMEs.

#### **7.2.3 Promoting Innovation and Technology Adoption**

With the global market constantly evolving, staying ahead requires embracing technological advancements and rigorous research and development (Moktadir, Rahman, et al., 2018). Efforts should focus on sustainable manufacturing practices, sustainable supply chain management, and fostering academia-industry collaborations as recognized by Barbolla and Corredera (2009).

#### 7.2.4 Ensuring and Enhancing Environmental Compliance

The industry's sustainability is tightly linked with environmental stewardship. Adopting cleaner production technologies and minimizing environmental footprints is non-negotiable (Syed et al., 2010). Moreover, addressing occupational hazards and managing toxic threats are vital in this industry (Dixit et al., 2015; Rastogi et al., 2008). Collaborative efforts should also focus on valorizing waste, as suggested by (Solé et al., 2021).

#### 7.2.5 Developing and Enhancing Human Capital

A skilled workforce is the backbone of the leather industry. Targeted training programs, and the establishment of centers of excellence are vital. Collaborative efforts between public and private sectors can ensure the workforce is adequately trained to meet industry demands (Moktadir, Dwivedi, et al., 2020; Moktadir, Rahman, et al., 2018)

#### 7.2.6 Supporting Infrastructure Development

Infrastructure underpins industry growth. Investments in the Central Effluent Treatment Plant (CETP) and improved transportation networks are vital for enhancing industry efficiency and garnering international trust (Moktadir, Dwivedi, et al., 2020; Moktadir, Rahman, et al., 2018).

#### 7.2.7 Fostering Industry Collaborations

The consolidation of industry associations and labor unions can provide a unified voice for the industry. By representing collective interests, protecting rights, and mitigating political interference, these bodies play a pivotal role in industry resilience.

### 8. Recommendations for Sustainability and Growth

Merging the above recommendations, the future of the leather industry can be envisioned with sustainability and growth at its core. A multi-faceted approach, incorporating the diverse inputs from stakeholders, including government bodies, private sector players, academia, and labor unions, can steer the industry towards a promising future.

### 9. Case Study: Bata India Ltd. – A Step Towards Sustainability in the Leather Industry

One of the most well-known brands in the footwear sector, Bata India Ltd., has led the way in implementing sustainable business practices in the leather sector. Being a division of the well-known Bata Corporation, the business has made sustainability a central component of its operations. Bata India has worked hard to include sustainability into its supply chain, manufacturing procedures, and corporate social responsibility (CSR) programs in recognition of the environmental problems caused by the leather industry.

#### Sustainable Business Practices at Bata India Ltd.

##### 1. Environmentally Responsible Manufacturing

- **Eco-Friendly Tanning and Material Sourcing:** Bata India purchases leather from approved tanneries that use eco-friendly tanning techniques. By using vegetable and chrome-free tanning methods, these tanneries lessen the harmful chemical emissions connected to conventional leather production.
- **Water and Energy Conservation:** By installing water recycling technologies in its manufacturing facilities, Bata has drastically cut down on water usage. In order to encourage the use of renewable energy, the corporation has also erected solar panels at strategic production facilities.

- **Waste Management and Circular Economy:** Bata has implemented a zero-waste strategy in an effort to reduce production waste. In order to reduce landfill trash, the company recycles leather scrap and other manufacturing by-products to make new products.
- 2. Ethical and Social Responsibility Initiatives**
  - **Fair Labor Practices:** For its employees and supply chain workers, Bata guarantees ethical labour practices, safe working conditions, and fair wages. In order to stop abusive labour practices in the leather business, it actively works with regulatory agencies.
  - **Skill Development Programs:** In order to increase job prospects, the company offers training programs for craftsmen and labourers that emphasise sustainable leather production methods and skill development.
  - **Community Engagement and CSR:** Through programs like the "Bata Children's Program," the business supports healthcare, education, and environmental awareness projects in the communities where it conducts business.
- 3. Innovation in Sustainable Product Development**
  - **Eco-Friendly Footwear:** In an effort to lessen reliance on conventional leather, Bata has introduced a line of footwear composed of recycled materials, plant-based materials, and bio-based leather substitutes.
  - **Sustainable Packaging:** The business has drastically decreased its carbon footprint by switching to recyclable and biodegradable packaging materials.
  - **Challenges Faced by Bata India Ltd. in Sustainable Transition**
  - **Cost Implications:** Investing in renewable energy and using sustainable leather production techniques raises operating costs.
  - **Consumer Awareness and Market Acceptance:** Even while consumers are becoming more concerned about sustainability, their preference for eco-friendly items is still price-sensitive, which makes widespread adoption difficult.
  - **Supply Chain Constraints:** A recurring problem is ensuring sustainability throughout a large and intricate supply chain, especially when obtaining raw materials.
  - **Opportunities and Future Prospects**
  - **Investment in Green Technologies:** By making investments in cutting-edge sustainable materials like mycelium leather (leather made from mushrooms) and bio-fabricated leather, Bata India can further improve sustainability.
  - **Collaborations for Sustainability:** Creating regulations that promote sustainable leather production can be aided by collaborating with governmental and environmental groups.
  - **Expanding Sustainable Product Line:** With the right branding and awareness-raising efforts, a dedicated line of sustainable footwear can draw in eco-aware customers.

## Conclusion

An outstanding illustration of how a traditional leather industry firm can shift to sustainability while striking a balance between financial success and environmental stewardship is Bata India Ltd. Bata has established a standard for the leather industry by incorporating sustainable methods into its supply chain, manufacturing, and community projects. To create a greener and more responsible future, however, the path to full sustainability is still difficult and calls for ongoing innovation, legislative backing, and consumer awareness.



## **10. Further Research Areas**

### **10.1 Comparative Analysis**

Future research can involve a comparative study of the leather industries across various countries, shedding light on best practices and lessons to be learned.

### **10.2 Technological Advancements**

With the rapid pace of technological evolution, there's a need for continuous research on the adoption and impact of new technologies in the leather industry.

### **10.3 Environmental Impact**

Given the environmental concerns associated with the leather industry, in-depth studies on its ecological footprint, cleaner production methods, and sustainable waste management can provide actionable insights.

### **10.4 Workers' Well-being**

While some studies have touched upon occupational hazards in the leather industry, there's a need for more comprehensive research focusing on the long-term health and well-being of the workers.

### **10.5 Supply Chain Dynamics**

With global supply chains becoming more intricate, research focusing on the leather industry's supply chain can yield insights for efficiency, resilience, and sustainability.

### **10.6 Market Trends**

As consumer behavior changes, understanding market trends and preferences can guide the leather industry to better cater to future demands.

### **10.7 Regulatory Compliance**

With international standards and regulations constantly evolving, research dedicated to understanding and assisting the industry in compliance can prove beneficial.

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