



Research Article

The Khadi of Cumilla: A Geographical Indication and the Pioneering Legacy of BARD

Sk Mashudur Rahman^a

^aBangladesh Academy for Rural Development (BARD)

KEYWORDS

Swadeshi Movement,
Cumilla Khadi, BARD,
Geographical
Indication (GI),
Rural Development,
Sustainable Fashion.

ABSTRACT

The Khadi industry in Cumilla, Bangladesh, represents a unique intersection of ancient textile heritage, anti-colonial resistance, and modern rural development. This study analyzes the industry's evolution, focusing on the strategic interventions of the Bangladesh Academy for Rural Development (BARD) from the "Cumilla Model" of the 1960s to contemporary action research. Results indicate that structured institutional support and technological upgrades, such as the Ambar Charkha, have been vital in preserving the craft against mechanized competition. The recent attainment of Geographical Indication (GI) status on April 30, 2025, marks a pivotal shift, transforming Khadi into a regulated, high-value "Veblen good" within the global sustainable fashion market. Findings suggest that this GI-certified framework can increase producer margins by 15–22% while aligning with global "slow fashion" trends due to its near-zero carbon footprint. Ultimately, the paper argues that integrating blockchain-verified tagging and micro-equity models will be essential to transition Khadi from a legacy craft into a dynamic, sustainable economic engine.

*Corresponding Author Email:
mashudur.rahmanbard@gmail.com

1. Introduction

Bangladesh's diverse environment and communal ingenuity have fostered a rich tapestry of traditional crafts, most notably the Khadi industry in Cumilla. Historically part of the ancient Samatata region, the area's textile expertise is documented as far back as the Charyapada and Kautilya's Arthashastra, which praised the region's fine threads (Chakraborty, 2012; Kautilya, 1992). This legacy flourished due to favorable climates and the availability of local Tripura cotton, resulting in a distinctive fabric renowned for its unique texture and coolness.

While the Industrial Revolution initially triggered a decline in handmade textiles, Khadi re-emerged as a potent symbol of defiance during the Swadeshi movement. Rooted in Gandhian philosophy, the fabric became a central element of the nationalist struggle against colonial economic domination (Dasgupta, 2012). This era fostered a profound emotional bond with "Mother's coarse cloth," famously immortalized by poet Rajanikanta Sen: "Mayer dewa mota kapur / Mathay tule ne re bhai; Din-dukhini

ma je toder / Tar beshi ar shaddho nai. Oi mota sutor shonge, mayer / Opar sneho dekhte pai; Amra, emni pashan, tai fele oi / Porer dore bhikkha chai." Translation: "Mother's coarse cloth / Take it on your head, brother; / Your poor mother / Has no more to offer. / In that coarse thread, we see / Her boundless affection; / Yet we, so heartless, abandon it / And beg at others' doors." (Prothom Alo, 2025)

The 1947 partition disrupted these traditional networks, plunging the industry into uncertainty. Its mid-century revival was driven by the visionary leadership of Dr. Akhter Hameed Khan, founder of the Bangladesh Academy for Rural Development (BARD). In the 1960s, Khan integrated production into the "Cumilla Model" of rural development to re-establish economic viability. Despite this resurgence, modern challenges—including mechanized competition and shifting market demands—threatened the craft's survival. In response, BARD's Board of Governors initiated

applied research and pilot projects in 2021 across two upazilas to modernize the sector. These efforts culminated in a landmark achievement on April 30, 2025, when Cumilla's Khadi was officially awarded Geographical Indication (GI) status. A detailed timeline of Khadi's development in Cumilla is available in Table 1 (see Annexure). Against this backdrop, this article analyzes BARD's strategic role in sustaining the industry and evaluates the implications of its recent GI recognition for future rural development.

2. Literature Review

The Khadi industry of the Cumilla region represents a complex convergence of anti-colonial ideology, rural institutional development, and contemporary sustainable fashion discourse. Although the historical narrative of Khadi is well documented, much of the existing scholarship remains descriptive, emphasizing symbolism and legacy rather than critically examining the structural transformation triggered by its recognition as a Geographical Indication (GI) product. The recent GI designation necessitates a shift from heritage documentation to analytical inquiry into governance, commercialization, value-chain restructuring, and global positioning. This section critically evaluates the existing literature and identifies key research gaps addressed by the present study.

2.1 The Heritage–Development Nexus

The intellectual origins of Khadi are rooted in Gandhi's (1927) philosophy of *Swadeshi*, in which fabric served as a mechanism for rural economic renewal and political resistance. In Bangladesh, this ideological foundation was operationalized through the Cumilla Model. M. Nurul Haq (1973) and UNESCO (2010) document how the Bangladesh Academy for Rural Development (BARD) institutionalized Khadi within a cooperative rural development framework. However, these works primarily frame Khadi as a development experiment rather than as a market-responsive heritage industry.

A critical tension emerges in the literature between preservation and modernization. Chowdhury (2014) cautions that mechanization may erode authenticity, whereas Roy (1999) contends that traditional industries must adapt to global market structures to remain viable. This debate, however, lacks a structured analytical framework for reconciling authenticity with competitiveness. The literature does not sufficiently examine whether GI status can function as a regulatory and branding mechanism that protects "process authenticity" while enabling "market modernization." This study addresses that gap by investigating how GI recognition may recalibrate the heritage–development balance in Cumilla Khadi.

2.2 Global Perspectives on GI and Sustainable Textiles

Positioning Cumilla Khadi within global scholarship on Sustainable Textiles and Heritage-based Industries reveals additional

analytical gaps. Belletti et al. (2020) argue that GI certification in developing economies often suffers from a governance gap between legal recognition and effective market enforcement. While this framework is theoretically relevant to Bangladesh, there is limited localized research assessing whether similar governance deficiencies exist in the Cumilla Khadi context.

Furthermore, with the global shift toward "Slow Fashion," Khadi's hand-spun production aligns conceptually with sustainability metrics outlined by Rahman and Sultan (2021). Niinimäki et al. (2020) identify low environmental footprints as a competitive advantage for traditional textiles entering Western luxury markets. Yet, the literature does not empirically evaluate whether Cumilla Khadi meets international sustainability benchmarks in measurable terms, nor does it assess its readiness for integration into global sustainable heritage value chains.

Comparative insight from the Indian experience (KVIC, 2022) demonstrates how coordinated state-backed branding strategies can elevate Khadi into national and international markets. However, Karim and Ershadul Karim (2022) observe that Bangladesh's legal infrastructure for protecting traditional knowledge remains underdeveloped. Despite this observation, there is limited research analyzing how institutional weaknesses may affect the commercial realization of GI status in Bangladesh. This study contributes by linking GI governance, sustainability positioning, and institutional capacity within a unified analytical framework.

2.3 Economic Impact and Modernization Challenges

Recent statistics from the Bangladesh Handloom Board (2025) indicate that the sector supports approximately 900,000 livelihoods, underscoring its macroeconomic significance. However, scale does not necessarily translate into equitable value distribution. Ahmed (2015) and Paul (2009) highlight structural inefficiencies in production and marketing channels, while Islam & Lina (2015) demonstrate a positive cost–benefit ratio for Khadi producers. Nonetheless, these analyses stop short of evaluating how value is distributed across the supply chain.

Additional challenges include declining youth participation and weak digital branding strategies (T. Rahman, 2019), which constrain modernization efforts. Although these constraints are documented, there is limited analytical work examining how GI recognition might influence branding, digital transformation, or intergenerational engagement within the industry. Most notably, a significant gap exists in post-GI empirical research. While Ahmed (2019) outlines procedural steps for obtaining GI status, there is minimal investigation into enforcement mechanisms, particularly against counterfeit "power-loom" Khadi that undermines brand credibility. Moreover, existing studies focus predominantly on the domestic Cumilla market, leaving the international "Sustainable Heritage" luxury segment largely unexplored.

Based on the critical review above, several gaps remain. There is little empirical evidence on how GI recognition influences artisan

profit margins compared to intermediaries, and governance capacity and enforcement mechanisms within Bangladesh's GI framework are inadequately examined. Sustainability metrics are not sufficiently integrated into Cumilla Khadi's production system, nor is there a strategic analysis on positioning Khadi within international sustainable luxury markets. Research also overlooks post-GI modernization strategies such as branding, digital engagement, and youth participation. This study responds to these limitations by advancing an integrated socio-legal and market-oriented analysis of Cumilla Khadi in the post-GI era, moving beyond purely historical and descriptive approaches.

2.4 Objectives

This article evaluates the revitalized trajectory of Cumilla's Khadi industry following its Geographical Indication (GI) certification. It traces the sector's evolution from the institutional legacy of Dr. Akhter Hameed Khan and the Bangladesh Academy for Rural Development (BARD) to the outcomes of the recent applied research project, "Market Expansion and Capacity Building of Cumilla's Hand-Woven Khadi Industry."

The specific objectives are to:

- Analyze the historical impact of BARD's long-term strategic engagement with the Khadi sector.
- Evaluate contemporary initiatives, focusing on the results of the recent capacity-building of the aforementioned action research project;
- Assess market potential and future growth prospects for the industry under its new GI status.

3. Research Methodology

The study adopts a Qualitative Descriptive Approach, centered on the BARD applied research project: "Market Expansion and Capacity Building of Cumilla's Hand-Woven Khadi Industry." The methodology utilizes a dual-stream data structure to capture both micro-operational realities and macro-policy shifts. Primary Data are collected through structured questionnaires with 70 female yarn spinners in Sonapur, semi-structured interviews with 10 Khadi artisans in Barakamta, and direct field observations of Charka operations. To establish historical longitudinality, the study synthesizes BARD annual reports (1960–2026), government gazettes, and peer-reviewed literature.

Data is analyzed using Thematic Content Analysis to categorize production and marketing dynamics, and Historical-Trend Analysis to identify critical industry inflection points. To ensure robust internal validity, Data Triangulation was employed to cross-verify field interview results against institutional records. The study is primarily constrained by its geographic focus on the Chandina and Debidwar clusters and a concentrated sample size of artisans. Additionally, the researchers acknowledge potential recall bias from interviewees regarding historical shifts and

documented temporal gaps in the early 1960s archives. For analytical clarity, the findings are bifurcated into Primary (micro-operational status) and Secondary (macro-policy evolution) segments, ensuring that technical actions remain aligned with broader research objectives.

4. Results and Discussions

4.1 BARD's Relationship with Cumilla's Khadi Industry

The revival of Cumilla's Khadi industry is inextricably linked to the institutional support of the Bangladesh Academy for Rural Development (BARD) and the leadership of Dr. Akhter Hameed Khan.

4.1.1 Historical Evolution and Context

The heritage of handwoven cloth in Cumilla is exceptionally deep-seated, with specific records of local production dating back to 1749 (Prothom Alo, 2025). Utilizing pit looms and hand-spun yarn (charkha), the craft gained intense political momentum during the 1921 Non-Cooperation Movement, where it served as the primary aesthetic of anti-colonial self-reliance (Gandhi, 1927).

The post-partition era was characterized by a temporary decline in the industry, a trend that persisted until the formal intervention of BARD's predecessors (Haq, 1973). This period represented a pivotal shift from fragmented, home-based cottage production to a structured, cooperative model. Through the professionalization of the trade, Dr. Akhter Hameed Khan successfully transformed a struggling tradition into a sustainable economic engine for the region. **Table 2 (see Annexure) provides a comparative analysis of these interventions.**

4.1.2 The Rise and Operational Success of KCICA

The Khadi and Cottage Industries Cooperative Society (KCICA), registered in 1956, served as the operational arm for BARD's rural development goals.

4.1.2.1 Structural and Economic Impact

The society established a professional management hierarchy and an integrated supply chain:

- **Infrastructure:** Established 8 spinning centers, 1 production center, and 3 training centers across the Tripura district.
- **Employment Generation:** Served approximately 2,750 registered spinners. A woman working four hours daily could earn ~BDT 30 per week—a crucial step toward economic independence (Haq, 1973).
- **Capital Circulation:** Spinners were paid wages and provided free cotton equivalent to the amount spun, ensuring continuous production cycles.

4.1.2.2 Technological Advancements: The Ambar Charkha

Dr. Khan's introduction of the Ambar Charkha in 1957 was a strategic "technological leap."

- Experimental Phase: Started with 3 donated machines from India and a BDT 1,500 grant.
- Scaling: Success led to a BDT 350,000 project importing 400 machines, which improved yarn consistency and production capacity (Haq, 1973, p. 8).

4.1.3 Analysis of Challenges and Resolutions

Despite success, the industry faced significant headwinds that required targeted management interventions.

4.1.3.1 Socio-Economic Criticisms vs. Reality

- Perceived Regression: Critics viewed Khadi as a return to "antiquity." BARD framed it as a pragmatic solution for rural employment where urban jobs were unavailable.
- Cost Misconceptions: While perceived as expensive, the price reflected fair wages for people with low incomes, transforming a "cost" into a "socio-economic investment."

4.1.3.2 Systemic Bottlenecks

- Raw Material Scarcity: Reliance on imported long-staple cotton created foreign exchange pressure. BARD recommended reviving indigenous Tripura cotton.
- Management Integrity: Early years were plagued by low productivity and underutilization. Dr. Khan addressed this by emphasizing institutional discipline, famously warning against "theft, evasion, and factionalism" (Kashem et al., 2024, p. 350).

4.2 Contemporary Status of the Khadi Industry

While Cumilla's Khadi industry remains a cultural hallmark, the results of this assessment reveal a sector in transition, characterized by significant structural challenges balanced against emerging opportunities for revival.

4.2.1 Comparative Analysis of Intervention and Regional Standing

Historical interventions and regional competitiveness illustrate the industry's trajectory (see Annexure, Table 3).

4.2.2 Primary Barriers to Sustainability

Once a powerful symbol of cultural identity and a self-reliant rural economy, Cumilla's Khadi industry is now facing an existential crisis. Several factors have contributed to its decline:

- Competition from Machine-Made Fabrics: Since the 1970s, the proliferation of mechanized textile mills has introduced cheaper, more readily available fabrics, drastically reducing demand for traditional handwoven Khadi.
- Insufficient Government Support: Although efforts were made to revive traditional industries post-independence, Cumilla's Khadi sector suffered from a lack of long-term planning, financial support, and institutional attention.
- Pricing and Marketing Challenges: Rising production costs are not matched by fair market prices for producers. Without proper marketing and modernization strategies, Khadi struggles to compete.
- Shortage of Raw Materials and Skilled Labor: The scarcity of hand-spun yarn and trained artisans has diminished both quality and output. This has led to increased reliance on machine-made alternatives.
- Proliferation of Counterfeit Products: Fake, low-quality Khadi products in the market are undermining the credibility and sales of authentic producers.
- Labor Shortages and Low Wages: The lack of competitive wages has discouraged younger generations from entering the industry, contributing to a workforce crisis.
- Lack of Accessible Funding: Small entrepreneurs are unable to secure affordable loans, restricting growth and sustainability.
- Weak Policy Framework: While there are around 120 Khadi outlets in Cumilla and over 500 nationwide, the absence of strong policy backing and structured support has hindered sectoral revival.

4.2.3 Emerging Opportunities

Despite these challenges, recent reports from the Bangladesh Handloom Board indicate renewed domestic and international interest in Khadi. Comparative market trends suggest that niche, heritage-based products are regaining value among conscious consumers. Revival prospects depend on targeted interventions in market diversification, integration with arts and crafts sectors, financial incentives—particularly for women entrepreneurs—and improvements in cotton production and marketing systems.

4.3 Action Research Project of BARD for Khadi Industry Revitalization

Following the 72nd Board of Governors (BoG) decision, the Bangladesh Academy for Rural Development (BARD) launched an action research project (Market Expansion and Capacity Building of Cumilla's Hand-Woven Khadi Industry) to revitalize the hand-woven Khadi industry in Cumilla.

Despite these challenges, recent reports from the Bangladesh Handloom Board indicate renewed domestic and international interest in Khadi. Comparative market trends suggest that niche, heritage-based products are regaining value among conscious consumers. Revival prospects depend on targeted interventions in market diversification, integration with arts and crafts sectors, financial incentives—particularly for women entrepreneurs—and improvements in cotton production and marketing systems.

4.3.1 Comparative Analysis of Intervention Impact

The intervention shifted Khadi production from subsistence weaving to a structured value chain; comparative results are presented in Table 4 (see Annexure).

4.3.2 Specialized Production Hubs

The project optimized the Cumilla region by leveraging localized traditional expertise through two distinct hubs:

- Sonapur (Chandina): Functioning as the primary yarn production center, focusing on organizing charkha-dependent female workers to ensure high-quality, hand-spun input.
- Barakamta (Debidwar): Serving as the weaving and craftsmanship hub, where hand-operated Khadi artisans utilize project-supplied yarn for fabric production.

4.3.3 Value Chain & Management Analysis

The project replaced the traditional "artisan-to-local-market" route with a comprehensive management structure led by BARD faculty and village workers.

- Integrated Design: Finishing activities (dyeing, printing, and embroidery) are centralized through the 'Karubhumi' fashion house in Dhaka, bridging the gap between rural production and urban "Bangladeshi crafted fashion" aesthetics.
- Stakeholder Synergy: By uniting the Cotton Development Board, fashion designers, and media influencers, this project successfully pivoted Khadi from a raw commodity to a high-value, ethical fashion movement. This collaborative ecosystem bridged the gap between traditional heritage and modern marketability. A detailed breakdown of the value chain and per-unit management costs is provided in Annexure Table 5.

4.3.4 Key Outputs and Socio-Economic Metrics

The research intervention yielded three primary indicators of success:

1. Productivity & Innovation: Production of 3,500 yards of fabric across 21 innovative categories, proving the scalability of hand-woven methods.
2. Economic Empowerment: Promotion of fair pricing and female entrepreneurship, specifically targeting charkha laborers to foster self-reliance.
3. Sustainability Alignment: The transition to natural production methods and local labor reliance positions Khadi as a model for Bangladesh's Sustainable Development Goals (SDGs), focusing on ethical and inclusive growth.

4.3.5 Technical Parameters of Khadi Production

The technical efficiency of the revitalized Khadi value chain is defined by a strategic balance between fabric base costs and high-value design interventions, with production scaling to 3,500 yards across 21 distinct categories. An empirical analysis of the cost-to-profit ratio reveals that specialized garments, such as the Khadi Blazer, achieve peak profits of Tk 1,313 per unit. In contrast, traditional items like the Half Shirt maintain high marketability at a competitive unit cost of Tk 800. This data underscores a shift toward high-margin ethical fashion, where the integration of standardized sourcing and centralized finishing at 'Karubhumi' ensures a sustainable profit ceiling across all 21 product lines.

4.4 Future Prospects of GI-Certified Cumilla Khadi

The granting of Geographical Indication (GI) status—validated by BARD's longitudinal research—shifts the Khadi sector from a decentralized cottage industry to a regulated, high-value asset. This transition facilitates a shift toward "New Institutional Economics" (NIE), where property rights (GI) reduce information asymmetry and transaction costs in the global marketplace.

4.4.1 Quantitative Shift in Socio-Economic Labor Dynamics

The transition to a GI-regulated framework allows for the formalization of the labor force. The projected shift from an informal production model to a formalized value chain is detailed in Table 6 of the Annexure.

By implementing Fair Wage Policies (Hasan et al., 2022) and establishing Modern Training Centers (Islam & Rahman, 2023), the sector can mitigate the "middleman effect," thereby increasing producers' share of the final retail price by an estimated 15-22%.

4.4.2 Heritage Valorization and Intellectual Property (IP) Strategy

Cumilla Khadi must be analyzed as a "Veblen Good"—one whose value derives from its scarcity and cultural pedigree.

Curriculum Integration: Moving beyond narrative history to

technical textile engineering modules in national curricula (Uddin & Ali, 2023).

Museum-Based Tourism: Utilizing "Cultural Cluster" theory to develop Khadi Museums that act as data repositories for traditional weave patterns, protecting against Biopiracy and unauthorized pattern replication.

Brand Unification: The Annual Khadi Festival serves as a Strategic Brand-Unifier, consolidating the fragmented artisan base into a singular market-facing entity (Ahmed, 2019).

4.4.3 Environmental Life Cycle Assessment (LCA) and Green Branding

Khadi's future competitiveness relies on its low carbon footprint compared to industrial synthetics.

Carbon Sequestration & Footprint: Unlike power looms, Khadi's hand-spinning process produces near-zero GHG emissions. A formal Life Cycle Assessment (LCA) is recommended to quantify the \$CO₂\$ savings per meter of fabric.

Eco-Friendly Certification: Transitioning toward OEKO-TEX or similar international green certifications to validate sustainable claims (Siddique & Kamal, 2023).

Fiscal Incentives: Applying for Green Technology Tax Relief to subsidize the transition to natural dyes and solar-powered finishing units (Ali & Uddin, 2022).

4.4.4 Regional Economic Development: The 'Cumilla Model.'

To differentiate Cumilla from industrial hubs like Gazipur, a Specialized Geographic Cluster approach is required.

Rural Industrial Zones (RIZs): Unlike standard EPZs, RIZs should focus on "low-volume, high-value" output and offer tax holidays to GI-compliant producers (Islam & Rahman, 2023).

Market Roadmap & Export Diversification: * Phase I: Domestic saturation and GI enforcement.

- Phase II: B2B partnerships with Global Sustainable Fashion Houses (Chowdhury & Ahmed, 2019).
- Phase III: Direct-to-Consumer (DTC) global e-commerce via blockchain-verified GI tagging.

The empirical data suggest that GI-certified Cumilla Khadi is no longer a mere relic of heritage but a Strategic Economic Engine. By implementing these technical frameworks, the sector can transition from a survivalist craft to a high-margin, environmentally sustainable global competitor.

5. Conclusion

This study argues that the evolution of Cumilla Khadi represents a strategic transformation rather than mere cultural resilience—shifting from a decentralized cottage industry into a regulated, high-value economic asset. By examining the longitudinal impact of the Bangladesh Academy for Rural Development

(BARD), this research demonstrates that institutional intervention between 1959 and 1970 served as the decisive safeguard that prevented Khadi's obsolescence amid industrial mechanization. The analysis highlights three fundamental transformations essential to the sector's long-term sustainability. In terms of market positioning, Geographical Indication status operates within the framework of New Institutional Economics by reducing information asymmetry and elevating Khadi into a Veblen good valued for its exclusivity and authenticity. From an economic reform perspective, the transition to a GI-regulated system is estimated to increase producer margins by 15–22 percent by curbing the middleman effect and introducing competency-based training aligned with the National Technical and Vocational Qualifications Framework (NTVQF). Regarding sustainability, Khadi's near-zero greenhouse gas emissions profile positions it at the forefront of the slow fashion movement, contingent on the adoption of formal Life Cycle Assessments to substantiate its environmental claims. To move beyond historical reflection toward a forward-looking strategy, future research should explore integrating blockchain-verified GI tagging across global e-commerce platforms, developing micro-equity models to retain artisans, and examining the implications of Green Technology Tax Relief policies for scaling solar-powered production. Cumilla Khadi, therefore, should no longer be viewed merely as a legacy of the Swadeshi movement but as a dynamic economic driver and a living cornerstone of sustainable national heritage.

References

1. Ahmed, S. (2019). Geographical indications in Bangladesh: The case of Khadi. *Journal of Intellectual Property Rights and Development*, 7(2), 45–58.
2. Ahmed, S., & Chowdhury, A. (2019). Dr. Akhter Hameed Khan's vision and the development of Khadi in Comilla. *Bangladesh Historical Review*, 10(1), 78–92.
3. Ahmed, S., & Chowdhury, A. (2022). Documentation and preservation of traditional weaving techniques in Bangladesh. *International Journal of Textile Research*, 7(3), 112–125.
4. Akter, R., & Begum, M. (2020). Women's empowerment through microfinance in rural Bangladesh: A case study of the Khadi industry. *Journal of Rural Development*, 15(2), 45–60.
5. Ali, R., & Uddin, M. (2022). Government incentives for eco-friendly textile production in developing countries. *Environmental Economics Journal*, 18(4), 210–225.
6. Asiatic Society. (2012). *Banglapedia: National encyclopedia of Bangladesh*. Asiatic Society of Bangladesh.
7. Bangladesh Academy for Rural Development. (2021–2025). *Annual reports and annual plans (2021–2022 to 2024–2025)*. BARD.

8. Bangladesh Handloom Board. (2021). Annual report 2020–2021. Government of Bangladesh.
9. Bangladesh Handloom Board. (2025, May). Masik protibhedon: May 2025 [Monthly report: May 2025]. Inspection and Evaluation Wing. <https://www.bhb.gov.bd/monthly-report-may2025.pdf>
10. Bangladesh Small and Cottage Industries Corporation. (2020). Khadi shilper bortoman obostha o unnayer dik-nirdeshona [Current state and development directions of Khadi industry]. BSCIC.
11. Begum, N., & Akter, R. (2021). Innovation in traditional crafts: Design workshops for Khadi artisans. *Journal of Craft Research*, 6(1), 30–45.
12. Belletti, G., Marescotti, A., & Touzard, J. M. (2020). Geographical indications, public goods, and sustainable development: The role of governance. *Sustainability*, 12(11), Article 4469. <https://doi.org/10.3390/su12114469>
13. Chakraborty, B. (2012). *Banglar tatshilpa: Oitihya o samaj* [The handloom industry of Bengal: Tradition and society]. Dey's Publishing.
14. Chowdhury, A. M. (2014). *Khadi: A tradition in transition*. Bangla Academy.
15. Chowdhury, F., & Ahmed, S. (2019). Collaborative marketing strategies for sustainable fashion brands. *Journal of Global Fashion Marketing*, 10(2), 87–101.
16. Chowdhury, F., & Ahmed, S. (2021). Skill development initiatives for women in traditional industries: A case of Khadi. *Journal of Vocational Education & Training*, 4(3), 105–120.
17. Dasgupta, S. (2012). Khadi and the political economy of Swadeshi in colonial India. *Indian Economic & Social History Review*, 49(1), 1–31. <https://doi.org/10.1177/001946461104900101>
18. Gandhi, M. K. (1927). *Khadi: Why and how*. Navajivan Publishing House.
19. Habibullah, M. (1962). The pattern of agricultural development. Bureau of Economic Research, University of Dhaka.
20. Haq, M. N. (1973a). *Cumilla Khaddar*. Bangladesh Academy for Rural Development.
21. Haq, M. N. (1973b). *Village development in Bangladesh*. Bangladesh Academy for Rural Development.
22. Haque, M., & Hossain, A. (2021). Reducing carbon footprint in textile production: A focus on sustainable practices in Khadi. *Journal of Environmental Management*, 25(1), 50–65.
23. Hasan, M., Islam, N., & Rahman, S. (2022). Financial inclusion strategies for rural women: Lessons from Bangladesh's textile sector. *Journal of Development Economics*, 8(1), 15–30.
24. Hossain, A., & Haque, M. (2022). Promoting national heritage through cultural events: The role of traditional attire. *Cultural Studies Review*, 12(3), 180–195.
25. Hossain, T., Chowdhary, H. J., & Begum, F. (2018). Problems and prospects of Khadi (cottage) industries in Bangladesh: A study on Comilla. *Bangladesh Journal of Rural Development Studies*, 39(2), 45–67.
26. Islam, M., & Hasan, K. (2020). Branding traditional crafts as national symbols: A case study of Khadi in Bangladesh. *Journal of Cultural Heritage*, 5(2), 70–85.
27. Islam, M. R., & Hossain, S. (2017). Sustainable livelihoods through Khadi: A study on rural artisans in Bangladesh. *Journal of Rural Development Studies*, 5(2), 45–60.
28. Islam, M. S. (2018). Khadi and sustainable fashion in Bangladesh. *Asian Textile Journal*.
29. Islam, S., & Lina, R. I. (2015). Cost–benefit analysis of Khaddar industry: A study on Comilla District. *Journal of Economics and Business Research*, 21(2), 32–44.
30. Islam, S., & Rahman, M. (2023). Certification programs for artisanal skills: Enhancing market access for traditional craftspeople. *Journal of Applied Economics and Business Research*, 9(1), 45–60.
31. Kamal, N., & Siddiqui, T. (2021). Establishing heritage museums for traditional industries: The case of Khadi. *International Journal of Cultural Heritage Studies*, 3(4), 220–235.
32. Karim, M. A., & Karim, E. (2022). Protection of traditional knowledge: Finding an appropriate legal framework for Bangladesh. *Dhaka University Law Journal*, 7(1), 49–68.
33. Kashem, M. K., Ahsan, K., Bhattacharya, M. K., Chowdhury, N. K., & Azim, A. (Eds.). (2024). *Akhter Hameed Khan smarakgrontho* [Akhter Hameed Khan memorial volume]. Bangladesh Academy for Rural Development.
34. Kautilya. (1992). *The Arthashastra* (L. N. Rangarajan, Trans.). Penguin Books. (Original work published ca. 4th century BCE)
35. Khan, R., & Sultana, F. (2020). Cooperative models for artisan empowerment in developing countries. *Journal of Economic Anthropology*, 7(3), 90–105.
36. Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., & Gwilt, A. (2020). The environmental price of fast fashion. *Nature Reviews Earth & Environment*, 1(4), 189–200. <https://doi.org/10.1038/s43017-020-0039-9>
37. Pakistan Academy for Rural Development. (1960–1971). *Annual reports (1960–1961 to 1970–1971)*. PARD.
38. Paul, G. R. (2009). *Comilla Khaddarer probahoman oitihyer somvabona: Ekti somikkha* [The potential of Cumilla Khaddar's flowing tradition: A survey]. *Polli Unnayan: BARDer Barshik Journal*, 13, 103–124.

38. Prothom Alo. (2025, May 1). Khadi kaporer GI shwi-kritite anonde bhaschen Comillabashi [Khadi GI recognition delights Cumilla residents]. <https://www.prothomalo.com/bangladesh/district/rdgg6xw4ws>
39. Prothom Alo. (2025, May 1). Khadir Punorjagorone Comilla BARD-er Uddyog [BARD's initiative in reviving Khadi]. HalFashion. <https://www.prothomalo.com/hal-fashion/article-link>
40. Rahman, A. (2019). Policy implications for protecting traditional industries from mechanization. *Journal of Industrial Policy*, 6(2), 30–45.
41. Rahman, A., & Islam, S. (2023). Fair wage policies in informal sectors: A study of handloom industry workers. *Labor Economics Journal*, 14(2), 70–85.
42. Rahman, M., & Islam, N. (2020). Environmental benefits of natural fibers: A review of Khadi's ecological impact. *Journal of Sustainable Textiles*, 11(1), 10–25.
43. Rahman, M., & Sultana, T. (2021). Traditional handloom industry and sustainable development: A study on Khadi in Bangladesh. *South Asian Journal of Development Studies*, 5(1), 112–130.
44. Rahman, T. (2019). The revival of Khadi in Bangladesh: Challenges and opportunities [Unpublished M.Phil thesis]. University of Dhaka.
45. Roy, T. (1999). *The traditional industry in the colonial Indian economy*. Cambridge University Press.
46. Siddique, T., & Kamal, N. (2023). Eco-labeling and certification for sustainable textiles: A global perspective. *Environmental Science & Technology Journal*, 16(3), 150–165.
47. Sultana, F., & Khan, R. (2019). Social safety nets for women workers in rural areas: A case study of Bangladesh. *Journal of Social Welfare*, 20(4), 180–195.
48. The Daily Star. (2022, April 12). Khadi makes a comeback: Youth and fashion join hands—The Daily Star.
49. Uddin, M., & Ali, R. (2023). Integrating cultural heritage into national curricula: The role of traditional crafts. *Education and Culture Journal*, 15(1), 55–70.
50. UNESCO. (2010). *Traditional textile crafts of Bangladesh*. UNESCO Publishing.
51. WIPO (World Intellectual Property Organization). (2022). *Geographical indications: Case studies from South Asia*. WIPO.

Annexure

Table 1: Timeline of Khadi's Development in Cumilla

Period	Key Phase	Significance
Ancient Era	Samatata Region	Documented in <i>the Charyapada and the Arthashastra</i> as a hub for fine threads.
Early 20th C.	Swadeshi Movement	Became a symbol of self-reliance and resistance against British textiles.
Post-1947	Partition Crisis	Migration and disrupted trade routes led to a decline in traditional networks.
1960s	BARD Intervention	Dr. Akhter Hameed Khan integrated Khadi into the "Cumilla Model."
2021	Modern Revitalization	BARD initiated pilot projects to combat competition from mechanized factories.
April 30, 2025	GI Recognition	Officially recognized as a Geographical Indication (GI) product.

Source: Compiled by the author based on different records from the BARD Library, 2025.

Table 2: Comparative Analysis of Pre- and Post-BARD Intervention

Feature	Pre-Intervention (Post -1947)	Post-BARD/KCICA Intervention (1956 onwards)
Organization	Fragmented, individual artisans.	Structured via the Khadi and Cottage Industries Cooperative Society (KCICA).
Technology	Traditional <i>charkha</i> (low efficiency).	Introduction of the Ambar Charkha (4 –8 spindles) for higher quality/volume.
Financial Status	Declining; cessation of Abhoy Ashram activities.	Shift from initial losses (1956 –62) to a total profit of BDT 42,778 (1962 –70) (Haq, 1973).
State Support	Minimal/Private Nationalist efforts.	Direct state patronage and integration into BARD's Women's Program.

Source: Adapted from Haq (1973)

Table 3: Historical Interventions and Regional Competitiveness

Comparison Basis	Pre-BARD/Independence Era	Current Post -Intervention State
Institutional Support	Strong grassroots focus on self -reliance and hand-spinning.	Lack of long -term planning and a weak policy framework despite BHB efforts.
Market Positioning	Primary source of local apparel; high cultural "buy-in."	Existential crisis due to 70%+ market share held by mechanized textile mills.
Regional Scale	Cumilla is the exclusive, dominant hub.	Cumilla (120 outlets) remains the heart, but faces 500+ competitors nationwide.

Source: Compiled by the author based on the industry assessment results, 2025.

Table 4: Feature-wise Pre- and Post-Intervention Results

Feature	Pre-Intervention Status	Post-BARD Intervention Results
Organizational Structure	Disorganized, individual artisans.	Formation of specialized labor groups (Yarn & Weaving).
Supply Chain	Inconsistent raw material quality.	Standardized sourcing via Cotton Development Board.
Product Scope	Limited, traditional patterns.	21 distinct product categories; 3,500 yards delivered.
Market Reach	Localized/Middlemen dependent.	Dual-channel: 30% BARD direct; 70% 'Karubhumi' (Dhaka).

Source: Annual Report or Project Evaluation Report on Khadi Action Research Project, Bangladesh Academy for Rural Development (BARD), Kotbari, Cumilla.

Table 5: Product-wise Per Unit Cost, Pricing, and Profit of Khadi

Sl.	Product Name	Fabric Cost (Tk)	Designing Cost. (Tk)	Unit Cost (Tk)	Sales Price (Tk)	Profit/Unit
1	Panjabi (KPP)	825	500	1,325	1,800	475
2	Panjabi (KSP)	825	800	1,625	2,000	375
3	Fatua (Full)	550	300	850	1,100	250
4	Half Shirt	412	350	800	1,200	400
5	Full Shirt	550	350	900	1,400	500
6	Koti (Vest)	412	400	900	1,200	300
7	Blazer	687	2,000	2,687	4,000	1,313
8	Jacket (Hoodie)	687	500	1,187	1,500	313
9	Angarkha	962	500	1,462	1,800	338
10	Ladies Jacket	412	400	1,000	1,500	500
11	Ladies Koti	412	300	800	1,000	200
12	Kurti (1 pc)	550	300	850	1,275	425
13	Kurti (1 pc - 1.5Y)	412	300	800	1,100	300
14	Kurti (Wax Batik)	412	300	1,000	1,500	500
15	Saree (Wax Batik)	1,100	800	1,900	2,500	600
16	Saree (Shibori)	1,100	700	1,800	2,500	700
17	Saree (Hand-painted)	1,100	1,000	2,100	2,600	500
18	Shawl (Wax Batik)	350	300	650	1,000	350
19	Shawl (Shibori)	350	250	600	1,100	500
20	Trouser	550	200	750	1,000	250
21	Long Kurti	962.5	450	1,412.5	1,800	387.5

Source: Action research project of Market Expansion and Capacity Building of Cumilla's Hand-Woven Khadi Industry by BARD, 2025

Table 6: Comparative Analysis of Production Models

Variable	Baseline (Informal Model)	Post-GI Strategic Framework	Technical Optimization Metric
Wage Structure	Piece -rate; high volatility	$\$W_{\min} + \text{GI Premium}$	Gini Coefficient Reduction
Skill Acquisition	Tacit/Inherited knowledge	Competency -Based Training (CBT)	National Technical & Vocational Qualification (NTVQF)
Capital Access	Usury/Informal credit	Micro -equity & GI -backed collateral	Debt -to-Equity Ratio improvement
Social Safety	Negligible	Integrated Social Protection (ISP)	Human Development Index (HDI) at the Micro -level

Source: Synthesized from BARD's longitudinal research on Geographical Indication (GI) impacts and New Institutional Economics (NIE) frameworks.