P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating (2025): 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 8; August 2025; Page No. 162-165

Received: 12-05-2025
Accepted: 17-06-2025

Indexed Journal
Peer Reviewed Journal

Examining the supply chain and marketing of wood handicrafts: A study of Nagina (Bijnor), Uttar Pradesh

[1]Shivani Sati1, [2]Srishti Kushwaha, [3]Ashutosh Chaturvedi, [4]Mahendra Singh and [5]Unmesha Dhar

[1]MBA in Agri-business Management, Researcher, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

[2]Assistant Professor, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

[3]Assistant Professor, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

[4]Associate Professor, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

[5]MBA in Agri-business Management, Researcher, Acharya Narendra Deva University of Agriculture and Technology, Kumarganj, Ayodhya, Uttar Pradesh, India

DOI: https://www.doi.org/10.33545/26180723.2025.v8.i8c.2258

Corresponding Author: Srishti Kushwaha

Abstract

The wood handicraft industry in Nagina (Bijnor), Uttar Pradesh, is renowned for its traditional craftsmanship and cultural significance. However, despite its rich heritage and economic potential, the sector faces persistent challenges related to supply chain inefficiencies, limited market access, and underutilization of digital marketing tools. This study aims to examine the existing supply chain structure and marketing practices associated with wood handicrafts in Nagina, identifying the key stakeholders, processes, and constraints that affect artisan livelihoods and market performance. Data were collected through field visits, structured interviews, and observations involving artisans, traders, cooperative members, and local officials. The findings reveal that artisans are largely dependent on intermediaries who control both raw material procurement and product distribution, often at the expense of fair pricing and bargaining power. Additionally, the sector suffers from weak logistics infrastructure, outdated marketing strategies, and low digital literacy, hindering its integration into broader national and global markets. Government initiatives such as the One District One Product (ODOP) scheme and the Government e-Marketplace (GeM) have yet to be fully leveraged by local stakeholders. The paper concludes by recommending targeted interventions, including digital skill training, cooperative formation, improved logistics, and policy support to enhance supply chain efficiency and market competitiveness. The study contributes to the growing discourse on rural entrepreneurship and traditional industry revitalization in India.

Keywords: Wood handicrafts, supply chain, marketing channels, artisans, e-commerce, Nagina (Bijnor)

1. Introduction

India's wood handicraft sector plays a vital role in rural livelihoods and cultural heritage, yet its supply chain and marketing systems remain fragmented and underdeveloped. The sector is heavily dependent on traditional supply chains where artisans procure raw materials through multiple intermediaries, often at inflated costs, limiting their profit margins and competitiveness (Dubey *et al.*, 2020) [2]. Marketing challenges are compounded by poor infrastructure, limited design innovation, and insufficient access to direct consumer markets, leaving artisans reliant on middlemen and local traders (Gopish, 2021) [3]. Although digital platforms offer new avenues for outreach, adoption among artisans is slow due to low digital literacy and organizational hurdles (Yadav&Mahara, 2016) [9]. Recognizing these challenges, government initiatives like the National Handicraft Development Programme and the Mega Cluster Scheme have aimed to integrate artisans into formal markets, enhance product quality, and promote participation in trade fairs and e- commerce (IBEF, 2021). As global demand for sustainable and handmade wooden products grows, India's handicraft exports—valued at over US $800 million—present a strong case for reforming supply chain practices and expanding marketing infrastructure to unlock the sector's full potential (IMARC, 2023) [4]. At present, Nagina hosts around 500 small and medium-sized woodcraft units. These include workshops as well as home-based setups, which together provide employment to roughly 2,500 artisans. With an estimated annual turnover of nearly ₹500 crore, this sector plays a key role in sustaining local livelihoods and strengthening the regional economy. Nagina's wooden products have also received recognition beyond national borders, known for their quality, craftsmanship, and sustainability (MSME,

2022) [6]

2. Research Methodology

Uttar Pradesh, situated in northern India, is bordered by several states and stretches between 23°52'-31°28' N latitude and 77°32'-84°39' E longitude. Despite being the fourth largest state geographically, it is the most populous. The landscape includes the Shivalik foothills, the fertile Gangetic plains, and plateau regions, supporting both agriculture and traditional industries. Within this diverse terrain, Bijnor district— particularly Nagina town—was purposively selected due to its prominence in wood handicraft production and the researcher's familiarity with the area, aiding effective fieldwork.

To ensure depth and relevance, six leading wood handicraft enterprises in Nagina were selected through purposive sampling based on their craftsmanship, market experience, and willingness to participate. These firms reflected diverse production and marketing practices within the sector. A total of 120 artisans were then chosen using stratified random sampling, with 20 respondents from each enterprise, to ensure balanced representation and data reliability.

The study focused on examining the supply chain and marketing structure of the local wood handicraft industry, tracing the flow from raw material sourcing to final sales. Emphasis was placed on identifying the roles of middlemen, wholesalers, retailers, digital platforms, and government support schemes. To analyze the data, percentage analysis was used to compare respondent choices regarding raw material sources, sales outlets, and pricing practices. This method helped identify common patterns and supply chain gaps. Percentages were calculated using the formula:

$$\textbf{Percentage (\%)} = \frac{f}{N} \times \textbf{100}$$

- where f is the frequency of a response
- N is the total number of observations.

3. Results and Discussion

Supply-chain & marketing analysis of Nagina's wood-handicraft cluster

This section outlines the upstream (raw material sourcing) and downstream (marketing) channels of the handicraft cluster.

The primary source of raw material for the artisans is salvaged or auctioned timber from the Nagar Nigam, which accounts for 50% of the supply. Generic timber traders and local artisan clusters (community-owned sawmills) each contribute 17.9% to the supply. Nagina-specific timber traders provide the remaining 14.3%.

Table 1: Up-stream raw-material sources

Supplier	Count	Share (%)
Nagar Nigam (salvaged/auctioned timber)	14	50.0
Timber Traders (generic)	5	17.9
Local Artisan Cluster (community-owned sawmills)	5	17.9
Nagina Timber Traders	4	14.3

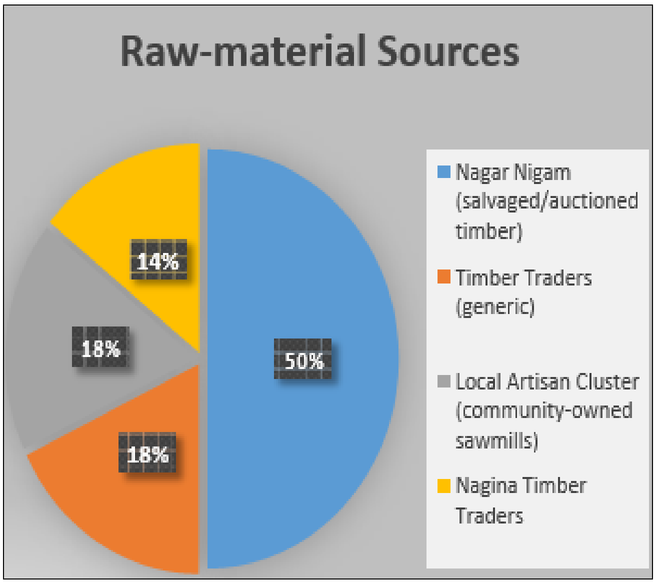

Fig 1: Up-stream raw-material sources

A variety of woods are used in the craft. Sheesham and Mango wood are the most popular, each used by 25% of the enterprises surveyed. Teak is used by 17.9% of enterprises, while Rosewood and Neem are each used by 14.3%. A small percentage (3.6%) use a combination of Bamboo and Wood.

Table 2: Wood species used

Wood type	Count	Share (%)
Sheesham	7	25.0
Mango	7	25.0
Teak	5	17.9
Rosewood	4	14.3
Neem	4	14.3
Bamboo + Wood	1	3.6

The marketing channels for the finished products are diverse. The most significant channel is local markets and fairs, utilized by 32.1% of artisans. Other niche outlets, including school and book outlets, represent 25.1% of the marketing mix. B2B exhibitions and online retail webstores each account for 14.3% of the channels used. Global e-commerce platforms like Etsy and Amazon (7.1%) and contract sales to furniture stores (7.1%) are also part of the marketing strategy.

Table 3: Marketing-channel mix

Channel	Count	Share (%)
Local market / fairs	9	32.1
B2B exhibitions & trade shows	4	14.3
Online / retail webstores	4	14.3
Etsy / Amazon (global e-commerce)	2	7.1
Furniture stores (contract)	2	7.1
Other niche / school / book outlets	7	25.1

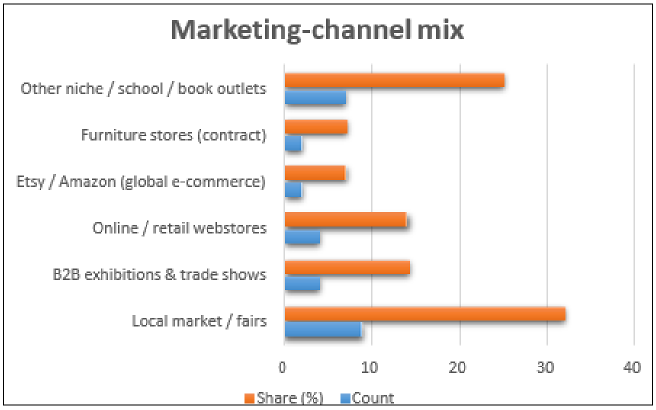

Fig 2: Marketing-channel mix

Half of all sales (50.0%) are direct domestic sales. Exports also form a substantial portion of the business, with 39.3% of sales occurring through merchant exporters or at exhibitions. An additional 10.7% of exports are handled via e-commerce and courier services.

Table 4: Sales modality (domestic vs. export)

Mode	Count	Share (%)
Direct domestic sale	14	50.0
Export (through merchant exporters/exhibitions)	11	39.3
E-commerce export (courier)	3	10.7

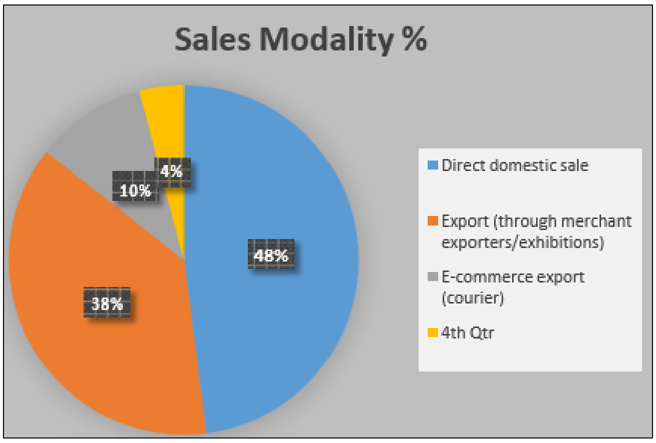

Fig 3: Sales modality (domestic vs. export)

The supply chain involves various types of craftspeople. Local artisans working in family workshops and cottage workers (home-based) each make up 25.0% of the craftsmen typology. Semi-skilled helpers and furniture makers on contract each account for 14.3%. Traditional master carvers and skilled carvers producing export-grade items represent a smaller but crucial segment, each at 10.7%.

Table 5: Craftsmen typology engaged in the chain

Craftsmen type	Count	Share (%)
Local artisans (family workshops)	7	25.0
Cottage workers (home-based)	7	25.0
Semi-skilled helpers	4	14.3
Furniture makers (contract)	4	14.3
Traditional master carvers	3	10.7
Skilled carvers (export-grade)	3	10.7

4. Policy Implications

Findings from this study highlight the need for targeted policy support to address structural weaknesses in Nagina's wood handicraft value chain. Government interventions should focus on:

- Strengthening artisan cooperatives to reduce dependence on middlemen and increase bargaining power.
- Expanding access to digital literacy and e-commerce training, especially for women and younger artisans.
- Establishing common facility centers for standardized cutting, finishing, and packaging.
- Enhancing transport and logistics infrastructure to support faster and safer delivery to both domestic and export markets.
- Providing financial assistance schemes and access to affordable credit tailored to micro and small handicraft enterprises.

Moreover, promoting Geographical Indication (GI) tagging, coupled with branding initiatives through ODOP and international exhibitions, could improve visibility and value realization for Nagina's unique wood products.

5. Data Availability

The primary data used in this research were collected through structured interviews and field surveys conducted in Nagina, Uttar Pradesh. All relevant data generated or analyzed during the current study are available from the corresponding author upon reasonable request. Secondary sources were referenced from published literature, government documents, and official reports as cited in the references section.

6. Conclusion

The analysis of Nagina's wood-handicraft cluster highlights a localized yet fragmented supply chain, with a heavy reliance on salvaged timber from Nagar Nigam (50%) and modest contributions from community sawmills and local traders. The use of various wood types like Sheesham and Mango reflects artisanal adaptability, but also signals a need for more structured and sustainable sourcing practices.

On the marketing front, while local fairs dominate (32.1%), digital and global e-commerce channels remain underutilized (7.1% each), showing untapped potential for broader outreach. Although exports account for nearly half of all sales, they are largely controlled by intermediaries, limiting artisans' market influence.

Overall, the findings underscore critical areas for policy intervention. Enhancing cooperative structures can reduce middlemen dependency, while digital and e-commerce training can enable artisans—particularly women and youth—to directly access broader markets. Infrastructure upgrades, both physical (logistics, packaging units) and financial (credit access), are essential to improving operational efficiency. Furthermore, leveraging branding tools such as GI tagging and ODOP schemes could elevate Nagina's craft profile in both domestic and international markets.

7. Acknowledgement
I express my sincere gratitude to all those who supported and guided me during the course of my research titled "Examining the Supply Chain and Marketing of Wood Handicrafts: A Study of Nagina (Bijnor), Uttar Pradesh)." This academic journey has been immensely enriching, and I am thankful for the encouragement and contributions of many individuals.

First and foremost, I extend my deepest gratitude to my research advisor, Dr. Srishti Kushwaha, for her invaluable guidance, consistent support, and constructive feedback at every stage of this research. Their expertise and encouragement greatly shaped the direction and depth of this work.

I am also thankful to my co-advisors, Dr. Mahendra Singh (Head of the Department of Agribusiness Management), Dr. Ashutosh Chaturvedi, Department of Agribusiness Management fostering an academically stimulating environment and for providing the institutional support necessary for the successful completion of this study.

I would also like to acknowledge the cooperation and insights shared by the artisans, traders, and stakeholders in Nagina's wood handicraft sector. Their time, experiences, and openness were instrumental in the fieldwork and data collection process.

To my classmates and peers, Unmesha Dhar, Aarni Singh, Rishi Kumar, Samar Pratap Singh, Antesh Arya, I extend heartfelt appreciation for their camaraderie, brainstorming sessions, and moral support throughout this academic endeavor. Their motivation helped me stay focused and committed to the research process.

Lastly, I am deeply thankful to my family for their constant encouragement, patience, and unconditional support during this journey.

8. References
1. Dalal K. Positioning Indian handicrafts in global markets: Challenges and emerging strategies. Int J Cult Econ. 2023;14(1):33-49.
2. Dubey A, Chaurasia R, Shrivastava R. Value chain analysis of wood carving industry in Saharanpur District of Uttar Pradesh, India. Curr J Appl Sci Technol. 2020;39(30):38-47.
3. Gopish S. Problems and prospects of wood handicraft marketing in India. Res World - J Arts Sci Commer. 2021;12(3):47-54.
4. IMARC Group. India handicrafts market report 2023: Industry trends, share, size, growth, opportunity and forecast 2023-2028. 2023.
5. Kumar A. Supply chain and distribution challenges in the woodcraft industry: A case study of Saharanpur and Bijnor. J Rural Dev Manag. 2019;36(2):105-117.
6. Ministry of Micro, Small and Medium Enterprises (MSME). Annual report 2020-21. New Delhi: Government of India; 2021. https://msme.gov.in
7. Pandey M, Verma R, Choudhary S. Invisible hands: Women's role in the polishing segment of the handicraft value chain. J Gend Econ Incl. 2021;5(2):122-134.
8. Rani S. Artisan-market linkages in Bijnor's woodcraft sector: Challenges in adopting e-commerce platforms. Indian J Handicrafts Rural Econ. 2020;8(3):76-89.
9. Yadav R, Mahara A. Role of e-commerce in value chain of wood carving industry in Saharanpur (U.P.). Paripex - Indian J Res. 2016;5(5):134-136.
10. Yadav R, Gupta A, Singh P. Understanding consumer perception of wooden handicrafts in e-commerce: An extended TAM approach. Int J E-Bus E-Gov Stud. 2019;11(1):45-58.
11. Yadav US, Tripathi R, Tripathi MA, Ghosal I, Kumar A, Mandal M, *et al*. Digital and innovative entrepreneurship in the Indian handicraft sector after the COVID-19 pandemic: Challenges and opportunities. J Innov Entrepreneursh. 2023;12(1):69.