



Digital Adaptation Challenges and Extent of E-Commerce Adoption in

Manipur's Handloom Sector: Recent Insights

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Abstract:

The handloom sector is important to the socio-economic and cultural landscape of Manipur, providing livelihood opportunities to a large number of artisans, particularly women. However, the sector has encountered many difficulties owing to market disruptions, limited marketing channels, and changing consumer preferences. In recent years, digital technologies and e-commerce platforms have emerged as potential tools for expanding market access and improving the sustainability of traditional industries. This study examines the scale of digital adoption among handloom weavers in Manipur and outlines the main obstacle that hinder the integration of e-commerce within the sector. The uses only secondary data collected from journals, reports and institutional publications. The results indicate that digital technologies provide considerable prospects for enhancing market access and income generation, targeted policy interventions and capacity-building initiatives are necessary to boost digital inclusion among weavers. Fostering digital entrepreneurship, and facilitating e-commerce integration can bolster the long-term viability and competitiveness of Manipur's handloom industry.

Keywords: Digital Adaptation, Handloom, e-commerce and Manipur.

Introduction:

Handloom constitutes the predominant cottage industry in Manipur, engaging its people, particularly women. Second only to agriculture in the state, this industry employs the largest number of people. As such, handloom has enormous economic growth potential. Manipur has 2,24,684 handloom workers, of which 2,12,481 are weavers and 12,203 are allied workers. The Fourth Handloom Census, 2019–2020, which places the state among the top 5 in India for promoting the handloom industry and creating jobs for its people.

Weaving in Manipuri society is deeply rooted in tradition and culture of the people. The weaving culture in Manipur extends back to centuries and provides an intrinsic component of local identity and cultural expression. The region's peculiar designs, themes, and processes are reflected in traditional textiles including phanek, shawls, sarongs, and elaborate silk fabrics

Number of Handloom workers of Manipur

Gender	Weaver	Allied Workers	Total
Male	7,936	5,383	13,319
Female	2,04,508	6,819	2,11,327
Transgender	37	1	38
Total	2,12,481	12,203	2,24,684

(Source: 4th Handloom Census, 2019-2020)

Three Handloom products of Manipur have been given GI Tag under the Geographical Indication Act, 1999 by the Government of India. The three products are namely, *Saphee Lanphee*, *Moirangphee* and *Wangkhei Phee*.

Despite its economic potential and cultural significance, the sector faces several structural challenges. A large part of the industry is unorganised, small household-based units with limited access to capital and technology. Production is dependent on locally available raw materials and marketing is localised. This dependency makes the industry vulnerable to political instability, economic blockades, bandhs, etc. The recent conflict situation has exposed these limitations within the handloom sector. Artists that rely on in-person sales channels incur substantial losses when local markets, fairs, and exhibitions are halted. These interruptions demonstrate the critical need for substitute marketing strategies that can guarantee market access and business continuity in times of emergency.

Review of Literature

Several studies highlight that the sector functions largely through decentralized household production and provides livelihood opportunities to millions of artisans, particularly women (Kumar & Kapoor, 2019). Research based on 4th Handloom Census (2019–20) by the Development Commissioner for Handlooms indicates that the sector remains the second largest in providing employment to its people after agriculture, though many weavers continue to face challenges such as low-income levels, limited market access, and dependence on intermediaries. Studies focusing on the handloom industry in Manipur reveal that despite the rich heritage and unique textile traditions of the state, the sector faces constraints related to inadequate marketing channels, weak institutional support and limited exposure to national and global markets (Devi & Singh, 2018; Banik & Longjam, 2023). Digital platforms and online marketplaces can reduce the role of intermediaries and allow artisans to directly connect with consumers, thereby improving income opportunities and market visibility (Chatterjee & Kumar, 2021; Singh & Bhowmik, 2022). However, many research also highlights that digital adoption among artisans remains uneven due to barriers such as low digital literacy, inadequate internet infrastructure, lack of technical training, and logistical constraints in rural areas (Meher, 2021; Das & Sutradhar, 2022).

Objective:

1. To examine the extent of digital adoption among Manipur handloom weavers in recent years.
2. To identify key challenges hindering e-commerce integration for Manipur's artisans.

Research Methodology

This study is based entirely on secondary data to examine the extent of digital adaptation and the challenges of e-commerce integration in the handloom sector of Manipur. The data are mainly collected from a variety of reliable and authoritative sources including journals, government data, books, policy documents and institutional publications. These sources offered significant knowledge into the framework of the handloom sector, patterns of digital technology adoption, marketing practices and the socio-economic conditions of weavers.

Patterns of Digital Adaptation Among the Weavers

Marketing of handloom products in Manipur have always been through local informal markets. In recent times, with the advancement of technology and emergence of e-shopping, the weavers have gradually adopted e-commerce strategies for selling their products. In addition, the recent conflict situation in Manipur have made e-commerce platform a necessary tool for survival of the Industry. Many weavers and small handloom business owners want to try out digital solutions for communication, marketing and sales. Even if the rate of adoption is still unequal, there are certain clear patterns of digital adaption that have arisen among handloom stakeholders in the state.

1. Use of Social Media for Product Promotion

The most commonly used digital adaptation among Manipuri weavers is the increasing utilisation of social media to market and promote their products. Such platforms allow the weavers to display their handloom products and reach a wider audience. Through these platforms, weavers and small entrepreneurs post images and videos of their products, including traditional textiles such as *phanek*, *Moirangphee* and woven shawls. Social media enables artisans to showcase new designs, announce product availability, and interact directly with potential customers. Unlike conventional marketing channels that require physical presence in markets or exhibitions, social media platforms provide a cost-effective method for reaching consumers across different regions.

2. Communication and order Management through Messaging Platforms

Another important form of digital adaptation is the use of mobile messaging applications for customer communication and order management. Weavers frequently use WhatsApp to send product photographs, share catalogues, negotiate prices and confirm orders with customers. In many cases, customers place orders through WhatsApp after viewing product images posted on social media platforms. The integration of social media promotion and mobile communication has therefore become an important mechanism for facilitating online sales among handloom producers.

3. Adoption of Digital Payment Systems

The growth of digital financial infrastructure in India has also influenced the way handloom transactions are conducted. Increasingly, artisans are adopting digital payment systems to facilitate secure and convenient transactions with customers. Payment platforms based on the Unified Payments Interface (UPI), such as Google Pay, PhonePe and Paytm are most widely used for payments. Digital payments have simplified the transaction process by allowing customers to

transfer money instantly. This is especially advantageous when the weavers sell their products to buyers situated outside the state.

4. Participation in E-Commerce Marketplace

Another emerging pattern of digital adaptation is the participation of handloom entrepreneurs in online marketplaces and e-commerce platforms. Some artisans and cooperative societies in Manipur have begun listing products on major e-commerce platforms like Amazon and Flipkart. These platforms provide access to national and international consumer markets. By listing products online, weavers can get access to a wider customer base who do not have direct access to traditional handloom markets in Manipur. In addition to private marketplaces, government-supported digital platforms like Government e-Marketplace (GeM) are created for artisans to supply handloom products to government institutions.

5. Role of Younger Generations in Digital Adoption

Another notable pattern is the involvement of younger family members in facilitating digital transformation within the handloom sector. Younger individuals who possess better digital skills often assist traditional weavers in managing social media accounts, photographing products, and handling online orders. This intergenerational collaboration enables many household-based weaving enterprises to participate in digital markets despite limited technological knowledge among older artisans. Younger members typically manage online interactions and digital marketing activities, while experienced weavers focus on production.

Digital Adaptation Challenges and Barriers to E-Commerce Integration among Manipur Weavers

While digital technologies and e-commerce platforms are expanding the market reach of handloom products, the adoption of these tools among weavers in Manipur remains uneven and limited. Despite the gradual emergence of digital marketing practices, a number of structural, technological and socio-economic barriers continue to hinder the effective integration of digital platforms into the handloom sector.

1. Limited Digital Literacy among Weavers

A major obstacle to digital adaptation is the limited level of digital literacy among many handloom artisans. A large proportion of weavers in Manipur belong to senior demographics that possess limited exposure to digital tools like smartphones, online marketplaces and digital payment systems. Younger generations are typically more adept at using digital technologies, many traditional artisans still lack the technical skills required to operate e-commerce platforms or manage online marketing activities.

The 4th Handloom Census (2019–20) conducted by the Development Commissioner for Handlooms, the majority of weavers and allied workers in India have relatively low levels of basic education. This educational gap often translates into limited digital competencies, which in turn affects the ability of artisans to participate effectively in the digital marketplace.

2. Inadequate Digital Infrastructure

Another major challenge affecting digital adoption is the limited availability of reliable digital infrastructure in many areas of Manipur. Access to high-speed internet, stable mobile networks and affordable digital devices varies in different parts of the State. In several remote villages where handloom weaving is widely practiced, internet connectivity may be slow or unreliable, making hard on artisans who engage in online marketing or maintain active social media accounts.

3. Lack of Technical Training and Institutional Support

Effective participation in e-commerce requires more than basic digital access. Artisans must also acquire skills related to digital marketing, product presentation, packaging, logistics, and customer service. However, many weavers in Manipur have limited exposure to such training opportunities. Despite some initiatives by the Government, the training programmes has not reach most of the weavers, and many of them have little to no awareness of available digital marketing opportunities.

4.

5. Trust and Security Concern in Online Management

Trust and security Concerns related to online Transactions represent another barrier to digital adoption among artisans. Some weavers are hesitant to engage in e-commerce for fear the possibility of fraud or delayed payments. Limited awareness about consumer protection mechanisms and digital security practices may further discourage participation in online markets.

Findings and Discussions

The results of the research suggest that while digital tools and e-commerce platforms have begun to influence the marketing of handloom products in Manipur, the extent of adoption remains limited due to gaps in digital literacy, infrastructural constraints and limited institutional support. Government agencies should strengthen capacity-building programmes aimed at enhancing digital skills among weavers. Regular training workshops on digital payment systems and e-commerce management can significantly improve the ability of artisans to participate in online marketplaces. Improving digital infrastructure in rural weaving clusters under initiatives such as the Digital India Programme is essential to ensure reliable internet connectivity and access to digital tools. Institutional support from Government can also facilitate the creation of digital marketing support centres that provide assistance with product photography, online cataloguing, packaging and logistics, thereby enabling weavers to effectively integrate into e-commerce platforms.

In addition, future initiatives should focus on developing cluster-based digital entrepreneurship models where trained youth assist weaving communities in managing online sales through platforms such as Amazon and Flipkart. Such collaborative and technology-driven approaches can help bridge the digital divide within the sector while improving income opportunities and ensuring the long-term sustainability of the handloom industry in Manipur.

Conclusion

The successful integration of digital technologies and e-commerce platforms has the potential to transform the handloom sector in Manipur by expanding market access, improving income opportunities and strengthening the resilience of weaving communities. However, achieving this transformation requires comprehensive policy support that addresses the existing barriers to digital adoption.

By strengthening digital literacy, improving infrastructure, facilitating access to e-commerce platforms and promoting digital branding strategies, policymakers can create an enabling environment that empowers handloom artisans to participate effectively in the digital economy. Such interventions will not only support the economic sustainability of the handloom sector but also contribute to the preservation and global recognition of Manipur's rich textile heritage.

References:

1. Banik, G. G., & Longjam, N. (2023). Study of handloom products of Manipur with special reference to its marketisation. *European Economic Letters*, 13(3), 1601–1607.
2. Bhowmik, S. K. (2012). The handloom industry: Growth, challenges and strategies. *Economic and Political Weekly*, 47(44), 23–26.
3. Chatterjee, S., & Kumar, A. (2021). Digital transformation of small traditional industries in India: Opportunities and challenges. *Journal of Small Business and Enterprise Development*, 28(5), 789–806.
4. Development Commissioner for Handlooms. (2020). *Fourth All India Handloom Census 2019–2020*. Ministry of Textiles, Government of India.
5. Government of India. (2023). *Annual report 2022–23*. Ministry of Textiles.
6. National Informatics Centre. (2022). *Digital India programme: Transforming India into a digitally empowered society*. Government of India.
7. Rao, M., & Reddy, K. (2020). E-commerce opportunities for traditional handicrafts and handloom sectors in India. *International Journal of Management*, 11(9), 1321–1329.
8. Singh, R., & Bhowmik, S. (2022). Digital inclusion and rural entrepreneurship: Evidence from Indian craft clusters. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 8(1), 72–89.