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Kumar, Saurabh and Menon, Gayatri

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Navigating Disruption and Fostering Sustainable Development: Systemic design approaches for the handicraft sector in India

Saurabh Kumar and Gayatri Menon

Indigenous craft—the traditional craft practised by indigenous communities are an integral part of Indian society. These crafts are deeply rooted in the cultural heritage and reflect their unique knowledge, expressions and a fine sense of craftsmanship. Many of these craft practices are repositories of cultural knowledge. There is a deep connection between nature- the local environment and the craft. This often results in an inherent respect for nature and an in-depth knowledge of the local environment and resources.

Crafts are good examples of culturally rich, environmentally friendly designs. However, the industrial era and its aftermath have adversely affected the craft sector. The research study uses a multiple case study method to analyse three indigenous craft practices from India to highlight the various challenges faced by them and to draw upon them to look at patterns of disruption in the craft ecosystem. While putting forth possible design interventions at the level of a craft cluster, it is recognised that a multi-cluster design intervention approach encompassing many crafts would be required to make a significant difference.

The paper argues for a need to develop a systemic multi-cultural intervention for craft rejuvenation, encompassing systemic macro interventions across clusters such as creating awareness, promoting cultural significance of the crafts, common market platforms, financial support systems, policy interventions etc. These interventions are essential for the survival, sustainability, and growth of the sector. The findings elaborated here may serve as a basis for coming up with

effective strategies and intervention models for policymakers and design innovation practitioners.

KEYWORDS: Handmade in India, Policy design, Disruptive forces, Sustainability, Equity and Inclusive growth

RSD TOPIC(S): Entanglements of Policy and Power

Introduction

The Indigenous craft sector in India encompasses a diverse range of crafts. The sector is known for its rich cultural heritage, skilled craftspeople, and unique craftsmanship techniques. Many of these crafts have a long history and cover functional, expressive, and votive aspects of design. They are organised informally and work from community clusters. Although the handicrafts sector contributes significantly to the export market and revenue generation, it is far below the actual potential.

The handicraft sector in India is a significant component of India's economy and culture. Even today, more than 200 million people are employed in this sector. "India's so-called informal economy comprises the bulk of the nation's livelihood opportunities. The recent acknowledgement of creative and cultural industries as perhaps the largest sector globally gives even greater importance to India's informal economy because these industries are located here. Of India's creative and cultural industries, the handmade sector is clearly the largest and impacts anywhere up to 200 - 250 million participants." says Ashoke Chatterjee, Former Director of the National Institute of Design (Business of Handmade, n.d.)

In fact, the handicraft sector is the second largest employer in the country after agriculture. According to the State of Livelihoods, Report 2020, 90 million jobs are needed in the non-farm sector by 2030 and the role of micro and small enterprises MSME should be revisited so that it can act as a bridge between the formal and nonformal. It is noteworthy that 3000 out of the 5600+ micro, small and medium enterprises in India are from the handicraft sector.

United Nations Development Program 2020 observes that nature-based solutions can unlock \$10 trillion in financial opportunities and create 395 million jobs by 2030 (UNDP, 2020). The handicraft sector in India has \$100 bn of the global share and reports 20% growth YoY in exports. The potential of the handicraft sector has not been fully realised. The wide range of prevailing handicraft clusters in India and the number of artisans with traditional skills need to be revitalised in multiple ways.

Sustainable practices in the handicraft sector promote the long-term viability of traditional crafts by preserving and sustainably using natural resources used in the crafts. They also support the overall well-being of the craft practitioners, preserve cultural heritage and embodied knowledge in the craft products, and contribute to a more environmentally sensitive and socially responsible intervention.

Systemic approaches

Systemic approaches include considerations of life cycle management and interventions at various levels of design. The life cycle includes an approach which considers right from raw materials to production, marketing, distribution and user experiences. (Sustainable Development Knowledge Platform, n.d.). Sustainable business models are understanding the potential of handmade craft clusters towards developing unique, customised, eco-friendly ranges of products. However, a lot of interventions are isolated and do not consider the product life cycle requirements as a whole. Secondly, the scope of the project itself requires to be broadened. The handicraft sector requires a combined environmental-social-economic model to make it sustainable and ready for the needs of the future. Currently, a lot of interventions are isolated, and there is no framework which would help enable a holistic sustainable model for development. Holistic development of the handicraft sector would require a positive impact at various levels: social, economic, and environmental. Intervention in all these levels would help make a sustainable handicraft economy.

Research study

The primary research approach taken was qualitative study and research through practice. "Practice-led Research is concerned with the nature of practice and leads to new knowledge that has operational significance for that practice. The primary focus of the research is to advance knowledge about practice," Candy, L. (2006). Reflecting on design practice is a critical aspect of design (Schon, 1983).

The practice-led approach used was a multiple case study method. Existing examples of good interventions were written as case studies relevant to this study's requirements. Research methods to conduct the study included long interviews and observational studies. Patterns were analysed through multiple case study frameworks to arrive at learnings and findings, thus connecting practice to theory (Menon, 2015).

Case study 1

Stringed Musical Instruments craft cluster from Miraj, Maharashtra, India

The stringed musical instrument-making craft cluster is an indigenous craft of the region, representing the high level of craftsmanship and sensibility embedded in making musical instruments by hand. They also connect with the ancient traditions of classical Indian music and practitioners of the musical heritage. (Figure 1).



Figure 1: Craftsperson assembling a stringed musical instrument in his workshop, Miraj

Project context

A needs assessment survey for the Stringed Musical Instruments Cluster in Miraj was conducted by the author. The project attempted to address the identified issues and empower the crafts persons of the Stringed Musical Instruments Cluster in Miraj. The systemic interventions proposed aimed to bridge the gaps and foster sustainable growth for the cluster.

During the need assessment survey, the project team gained a deep understanding of the crafts persons' challenges and aspirations. This resulted in an in-depth study and identification of several issues hampering the craft.

Concerns

Environmental

The raw materials used were gourd and wood. Earlier, wood was easily available from the surrounding forests. However, due to forest policy and restrictions, it was not possible to choose and get wood from the forest for a period of time. They had to buy it from the market, often with little choice in terms of quality.

Economic

Craftspersons faced challenges such as an incapability to set business goals, financial insecurity leading to an inability to take risks for business growth, and a lack of fundraising and fund management capabilities.

Social

Furthermore, there was a disconnection with the market, as craftspeople were not equipped to sense the changing lifestyle of customers. A reduced number of people were learning classical music and consequently buying musical instruments. Additionally, these craftspeople belonged to the underprivileged and marginalised communities.

Cluster level interventions

As part of the project, design intervention was carried out both in terms of soft and hard interventions.

Training program: Crafts persons were provided training in setting business goals, financial planning, risk management, and market research. These interventions equipped them with the necessary skills and knowledge to address their financial insecurities, take calculated risks, and make informed business decisions.

Craft persons received training on market sensing and consumer behaviour, enabling them to align their products with changing customer preferences and lifestyle trends. This market-oriented approach facilitated greater market acceptance, increased demand for their instruments, and improved sales.

Setting up of a common facility centre: The subsequent hard interventions were designed to provide the necessary infrastructure and support systems to foster

sustainable growth. A dedicated Common Facility Centre (CFC) was established to address the crafts persons' infrastructural needs, such as R&D, pilot production, and scaling up. The CFC became a hub for innovation, equipped with state-of-the-art facilities including workshops, labs, and design studios.

Systems/ institutional setups: To address the social challenges faced by the crafts persons, the interventions focused on inclusivity and empowerment. Craft-based institutions were established, providing support and guaranteed livelihood assistance to underprivileged and marginalised individuals. These institutions created a nurturing environment for skill development, fostering entrepreneurship, and empowering crafts persons to overcome social barriers.

Project Outcome

Life cycle considerations: It took into consideration the production and marketing factors at a training/workshop level, but due to the complexity involved, the sustainable supply of raw materials and promotional /awareness creation aspects required for the craft were not considered.

Case study 2

Warli Painting craft cluster from Jawhar, Palghar Maharashtra, India

The Warli Painting Craft Cluster is a unique and indigenous craft that embodies the rich cultural heritage of the region. Rooted in traditional storytelling and artistic expression, Warli's painting represents the deep connection between the artisans and their ancestral traditions. Passed down through generations, this craft holds immense value in preserving the cultural identity of the community and showcasing its artistic sensibilities. The artisans of the Warli Painting Craft Cluster not only create beautiful artworks but also contribute to the larger narrative of Indian folk art, capturing the essence of rural life, rituals, and folklore. With their intricate brushwork and symbolic motifs, they bring to life the timeless beauty and storytelling traditions of the Warli community (Figure 2).



Figure 2: Warli Painting.

Project Context

A comprehensive need assessment survey was conducted by the author to understand the challenges and opportunities faced by the Warli Painting Craft Cluster. The objective of the project was to address the identified issues and empower the craftsmen of the cluster through strategic interventions. The survey provided valuable insights into the existing conditions and highlighted the key areas requiring attention.

Through extensive research and stakeholder consultations, the author gained a deep understanding of the craftspersons' aspirations and the challenges faced by the Warli Painting Craft Cluster. This formed the foundation for designing targeted interventions aimed at promoting sustainable growth and preserving the craft's rich cultural heritage.

Concerns

The craftspersons of the Warli Painting Craft Cluster face several significant concerns that impact their craft and livelihood. These concerns can be categorised into environmental, social, and economic aspects, which collectively shape the challenges faced by the cluster. Here are some of the top concerns identified:

Environmental

Availability of raw materials: Ensuring a steady supply of quality raw materials, such as canvas, natural dyes, and paints, is crucial for the craft. Environmental factors like climate change and deforestation are also affecting the availability and sustainability of these materials.

Impact of modernisation: The encroachment of modern infrastructure, urbanisation, and changing land use patterns has disrupted the traditional settings where the craft thrives, affecting the craftsperson's connection to their cultural and natural environment.

Economic

Financial instability: Craftspersons are struggling with financial challenges, including limited access to credit, low-income levels, and irregular work opportunities. They lack the ability to invest in the necessary resources, training for new techniques in paintings, design training, and newer ways of market development.

Lack of market linkages: Almost negligible exposure to national and international markets, along with a lack of effective marketing and promotion strategies, has restricted the craftspeople's ability to expand their customer base and generate sustainable income.

Need for skill diversification: Craftspersons face limitations in terms of design innovation and product diversification, which is adversely impacting their competitiveness and limiting their ability to cater to changing consumer preferences.

Social

Limited recognition and awareness: The craft of Warli painting often lacks recognition and awareness among the general public, both locally, nationally, and internationally.

This has hampered the craftspeople's ability to promote their craft and access local and domestic markets.

Inadequate social support: Many craftspeople come from underprivileged backgrounds and belong to minority communities. They lack access to education, healthcare, and social welfare schemes, which disrupts their overall well-being and affects the sustainability of the craft.

Cluster level interventions

Training: To tackle the craftspeople's financial incapability and support their R&D activities, financial literacy and management workshops were organized. Craftspeople were trained in understanding financial mechanisms, raising funds, and managing resources effectively. This intervention enabled them to make informed decisions and access the necessary infrastructure, R&D support, and pilot production facilities.

Awareness program: To promote the craft in both the B2B and B2C segments, comprehensive awareness programs were conducted. Craftspeople were equipped with marketing and branding knowledge, enabling them to connect with potential buyers, showcase their products, and explore new market opportunities. The interventions aimed to bridge the gap between the craftspeople and the market, fostering better business relationships and increased visibility.

New product development workshop: A design workshop was conducted to help the craftspeople explore processes and possibilities for designing new products while keeping in mind lifestyle trends and market needs. They developed dresses, lamps, back-bags, sling-bags, table runners, ribbons, etc., which incorporated the application of Warli paintings.

Design innovation centre: Recognizing the need for design diversification and finding new applications for Warli paintings, a design innovation centre was established. The set up aimed at providing raw materials, tools and machinery for developing better and painting of higher quality and carrying out R&D on product diversification. As part of hard intervention, long-term intervention was proposed focused on skill development, entrepreneurship training, and access to welfare schemes.

Project Outcome

The interventions implemented for the Warli Painting Craft Cluster had a comprehensive focus, encompassing training and promoting product diversification, fostering institutional networks, and supporting skill enhancement and business growth. Through the adoption of innovative techniques and designs, the craftspersons endeavoured to expand the scope of Warli paintings and explore new applications. However, challenges such as limited financial resources and business expertise hindered the progress of skill development initiatives.

Case study 3

Sholapith Dry Flowers Craft Cluster, Mandirbazar block, South 24 Parganas, West Bengal, India

The Sholapith Dry Flowers Craft Cluster in Mandirbazar block, South 24 Parganas, West Bengal, is a treasure trove of artistic expression and cultural significance. With a rich history rooted in the use of Shola plants, this craft cluster showcases the remarkable skills and creativity of its artisans. The craftspersons masterfully transform delicate Shola material into exquisite dry flower crafts, each piece embodying the unique essence of the region (Figure 3). These intricate creations not only capture the beauty of nature but also serve as a testament to the craftspeople's dedication to preserving their traditional craft. The Sholapith Dry Flowers Craft Cluster is a celebration of art, culture, and the craftsmanship of the talented artisans of West Bengal.



Figure 3: Craftsperson making a shola dry flower.

Project Context

Currently, the Sholapith craft cluster is facing numerous challenges that threaten its sustainability and the livelihoods of the craftspersons. To address these issues, a comprehensive project was undertaken, focusing on understanding the urgent needs and opportunities for systemic interventions to empower the craftspersons and promote the sustainable growth of the cluster. The project aimed to resolve critical issues affecting the Sholapith craft cluster through a multi-directional intervention approach. The craftspersons faced various challenges, including financial poverty, lack of education, limited market awareness, an unorganised sector, ecological destruction, inadequate funds management, and limited design diversification. The project sought to address these challenges by implementing both soft and hard interventions.

Concerns

The craftspersons of the Sholapith Dry Flowers Craft Cluster face several concerns that can be categorised into environmental, social, and economic aspects. These concerns highlight the challenges and issues affecting the craftspersons and the overall sustainability of the craft.

Environmental

Shola Plant Availability: The destruction of wetlands and deforestation threaten the availability of Shola plants, the primary raw material for Shola plant craft. This environmental degradation directly impacts the craftspeople's access to quality raw materials.

Economic

Dependence on Intermediaries: Craftspersons heavily rely on exporters and middlemen for marketing and selling their products. This dependence restricts their autonomy, bargaining power, and profit margins.

Inadequate Infrastructure: Craftspersons face challenges related to workspace, storage facilities, and equipment. The lack of proper infrastructure limits their production capacity, quality control, and efficiency.

Limited Access to Financial Support: Craftspersons often struggle to access financial assistance from banks and government schemes. The lack of financial support hinders

Addressing these concerns requires comprehensive interventions that focus on design awareness, environmental sustainability, social empowerment, and economic development.

Social

Financial Insecurity: Craftspersons in the cluster struggle with financial challenges, earning meagre incomes and facing poverty. Limited financial resources hamper their ability to invest in the craft, procure raw materials, and improve their living conditions.

Limited Market Reach: Craftspersons lack exposure to wider markets and face limited market awareness. This limits their ability to explore new customers, expand their reach, and increase sales.

Lack of Skill Enhancement: Craftspersons often lack access to formal education and skill development opportunities. This hinders their ability to enhance their craft skills, adopt new techniques, and stay competitive in the market.

Cluster level interventions

Capacity-building workshops: Craftspersons were provided with capacity-building workshops, technical assistance, and training on product design, packaging, branding, and business development. This program aimed to enhance their skills, knowledge, and market competitiveness.

Systemic Interventions

Financial Empowerment and Infrastructure Development: The project supported craftspersons in managing funds, procuring raw materials at reasonable rates, and developing infrastructure.

Education and Market Awareness: The project emphasised the promotion of education, particularly in creative skills, among the craftspersons.

Strengthening Government Welfare Schemes: The project aimed to bridge the gap between government welfare schemes and the craftspersons by facilitating better access to these initiatives. Craftspersons were guided through the process, ensuring that they could avail themselves of the benefits and support offered.

Design Diversification Workshop and Preservation of Traditional Knowledge: Craftspersons were encouraged to diversify their designs and explore new applications for their craft, moving beyond traditional motifs. The project provided design guidance and facilitated knowledge exchange, fostering innovation and creativity.

Project outcome

The interventions implemented for the Sholapith Dry Flowers Craft Cluster showcased a strong commitment to preserving the indigenous craft, diversifying product offerings, fostering institutional networks, and facilitating skill enhancement and business development. Craftspersons, recognising the cultural significance of Shola as the "fire of love," endeavoured to expand their craft's reach and explore new applications.

However, challenges such as limited financial resources and market awareness hindered the full realisation of skill development initiatives.

Conclusion

Systems thinking in the product life cycle involves the considerations towards various stages of the product life cycle as well as the broader context in which it operates. It includes raw materials acquisition, supply and transportation, storage and other environment/social/economic considerations related to it; manufacturing and production including energy consumption, infrastructure facilities, process, skills and tools, etc. and its impact on the overall system; marketing, distribution and logistics including promotion, packaging, consumer connect, distribution channels etc; user experiences and feedback mechanisms including design features, functionality and overall experiences; end of life including ways of discarding and recycling.

Consideration of the entire life cycle system, along with enablers such as policy, systems for funding/ promotion/ infrastructure support, and marketing platforms, ensure the holistic development of the craft (Figure 4). At the policy level, systems thinking involves understanding and analysing policies and regulations and their impact on stakeholders and the overall ecosystem.

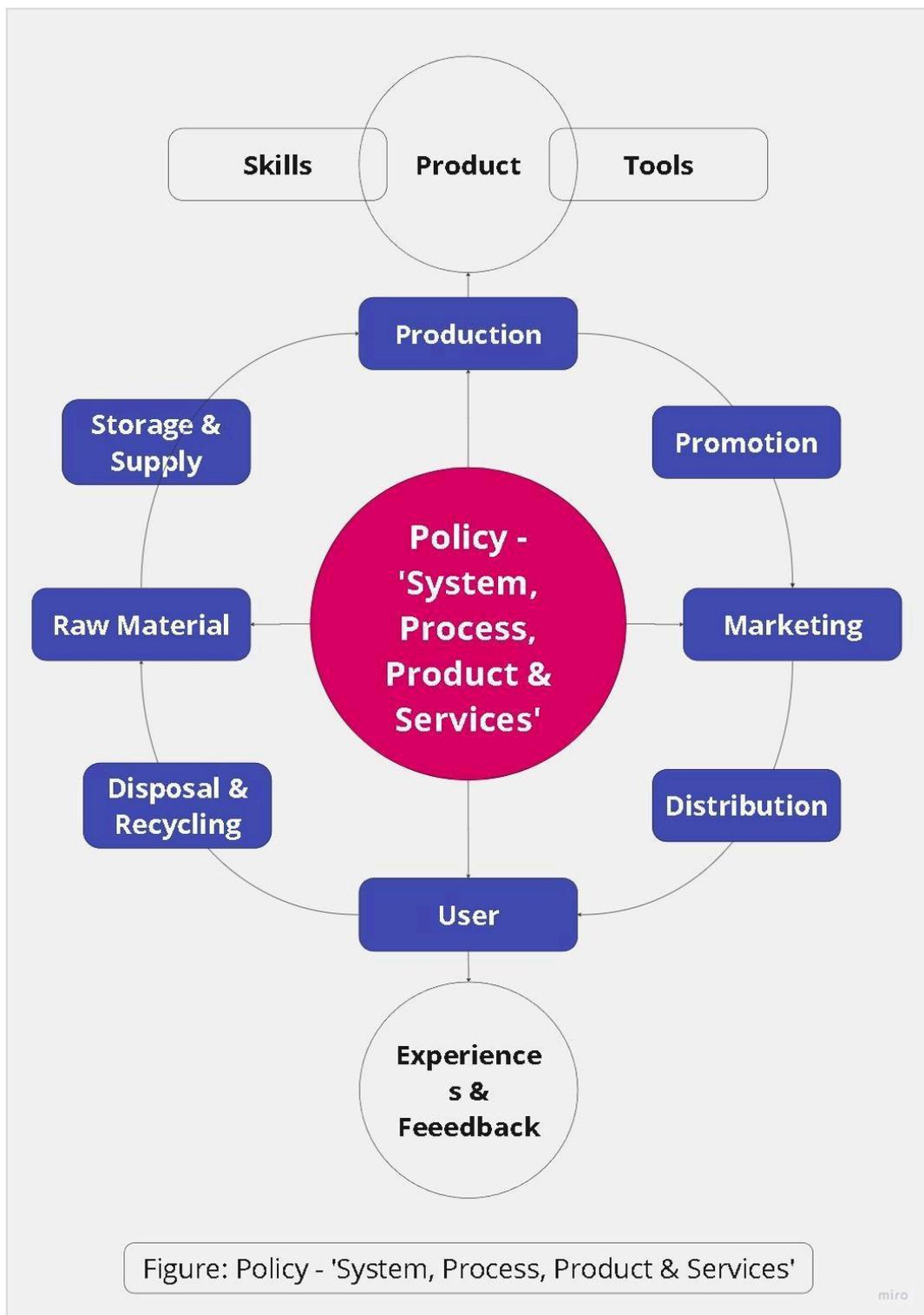


Figure 4: Conceptual framework for design interventions with a life cycle approach in the craft sector.

Systemic interventions can have a transformative impact on craft clusters, resolving the identified issues in the entire life cycle through policy/ systems/process/product level and ensuring sustainability.

Gaps in design intervention in the entire life cycle can be identified and addressed.

Economic Sustainability: Crafts persons can gain the ability to set business goals, manage finances, and take calculated risks. With enhanced financial management skills, they experienced improved financial security, enabling them to invest in business growth. The interventions can also facilitate fundraising for effective fund management, empowering craftspeople to access the resources needed to scale their operations.

Social Sustainability: The intervention can address the social challenges faced by craftspeople belonging to underprivileged classes, minority communities, and lower castes. Craft-based institutions and livelihood support programs can create a level playing field, empowering individuals from these marginalised groups. It can also ensure connection with the changing requirements of the user life styles to design and develop new products accordingly.

Environmental Sustainability: While not explicitly mentioned in the previous sections, the systemic interventions can also incorporate environmental sustainability principles. The emphasis on research and development, innovation, and the use of eco-friendly materials can promote and help develop environmentally conscious practices within the cluster.

Overall, these interventions can help navigate disruption in the current handicraft sector in India to come up with effective design interventions at various levels for the survival, sustainable and growth of the sector.

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Authors

Saurabh Kumar, Dr., School of Design, MIT World Peace University, India

Gayatri Menon, Dr., National Institute of Design, India. www.nid.edu | gayatri@nid.edu