An interactive Design Study of Namda of Tonk

Need Assessment Survey Report
MSME Design Clinic Scheme, 2012

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Preface

In India, Rajasthan is indisputably recognized worldwide for its traditionally manufactured handicrafts, including wooden, metal-based, stone, ceramics & textile products.

- Investments over `2000 crore have been made in the sector
- Jodhpur and Jaipur are prominent centers for handicraft industry
- Handicraft exports from the State during 2006-07 stand at nearly `2000 crore, accounting for 20% of India’s export.
- Rajasthan stands second in India’s handicraft exports, next to Uttar Pradesh.
- Currently, there are more than 2000 units in the handicraft export business, employing more than 5 lakh people.
- The State’s handicraft sector is witnessing a growth of 10% annually

Interestingly, Namda Manufacturing Industry of Tonk Rajasthan has MSMEs manufacturing mechanically produced woollen felts as well as handcrafted Namda Felt craft clusters working together for many years.

There are MSME units here producing woollen felt sheets for industrial usage like washers, filters etc and the same units do provide felt sheets as raw material to namda craft units who create colourful traditional appliqué handcrafted namdas as floor coverings and variety of accessories.

The combination ‘machine made and hand crafted’ feature was the reason to carry out Interactive design study and Need Assessment Survey under MSME’s Design Clinic Scheme.
### Content

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>1</td>
</tr>
<tr>
<td>Content</td>
<td>2</td>
</tr>
<tr>
<td>Need Assessment Survey</td>
<td>3</td>
</tr>
<tr>
<td>Tonk at a Glance</td>
<td>4</td>
</tr>
<tr>
<td>History of Felt Making</td>
<td>6</td>
</tr>
<tr>
<td>Present Status of Namda Industry of Tonk</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturing Process of Traditional Namda</td>
<td>8</td>
</tr>
<tr>
<td>Woolen Felt Sheets Manufacturing</td>
<td>9</td>
</tr>
<tr>
<td>Semi Manual Manufacturing Process of Felt</td>
<td>10</td>
</tr>
<tr>
<td>Mechanical Manufacturing Process of Felt</td>
<td>11</td>
</tr>
<tr>
<td>Synthetic Felt Sheet Products</td>
<td>12</td>
</tr>
<tr>
<td>Synthetic Felt Sheet Products- Process</td>
<td>13</td>
</tr>
<tr>
<td>List of MSMEs and Their Issues</td>
<td>14</td>
</tr>
<tr>
<td>Core Issues</td>
<td>28</td>
</tr>
<tr>
<td>Issues- Existing Product Range</td>
<td>29</td>
</tr>
<tr>
<td>Issues- Quality of Felt Production</td>
<td>30</td>
</tr>
<tr>
<td>Issues- Expanding Applications &amp; Usage of Felt as Fabric</td>
<td>31</td>
</tr>
<tr>
<td>Issues- Availability of Work Force for Manufacturing</td>
<td>32</td>
</tr>
<tr>
<td>Issues- Health Hazards to Workers and Absence of Attention</td>
<td>33</td>
</tr>
<tr>
<td>Issues- Human Safety at Work, Modification of Tool &amp; Equipments</td>
<td>34</td>
</tr>
<tr>
<td>Issues- Ergonomics &amp; Workstation</td>
<td>35</td>
</tr>
<tr>
<td>Issues- Infrastructure and Absence of CFC</td>
<td>36</td>
</tr>
<tr>
<td>Issues- Under Explored Craft Techniques</td>
<td>37</td>
</tr>
<tr>
<td>Issues- Unchanged Imagery and Aesthetic Detailing</td>
<td>38</td>
</tr>
<tr>
<td>Issues- Visual Merchandising and Display</td>
<td>39</td>
</tr>
<tr>
<td>Issues- Packaging and Transportation</td>
<td>40</td>
</tr>
<tr>
<td>Issue- Marketing</td>
<td>41</td>
</tr>
<tr>
<td>Some More Issues</td>
<td>42</td>
</tr>
<tr>
<td>Conclusions</td>
<td>43</td>
</tr>
<tr>
<td>Existing Inter Cluster Professional Relationship and Marketing Linkages</td>
<td>44</td>
</tr>
<tr>
<td>Proposed Market Expansion after Interventions</td>
<td>45</td>
</tr>
<tr>
<td>Product Range Existing and Proposed</td>
<td>46</td>
</tr>
<tr>
<td>Scope of Interventions at a Glance</td>
<td>47</td>
</tr>
<tr>
<td>SWOT Analysis</td>
<td>48</td>
</tr>
</tbody>
</table>
Need Assessment Survey

Objectives:
The objective of need assessment survey is to generate detailed cluster information to understand the core issues related to:
- Raw Material at different stages of manufacturing
- Infrastructure setup and work station
- Skill and techniques
- Surface design patterns and painting
- Product form, shape and usage
- Tools and technology in use
- Capability of manufacturing unit
- Present Market status
- Customer expectation and behaviour
- Current Competition
- Packaging, logistic and storage
- Exhibition, display and merchandising

Methodology:
- Questionnaire survey of manufacturing and sales units.
- Discussion with unit owner and artisans.
- Process observation
- Find traces from earlier technique and usage of tools and material
- Self observation and analysis.

Expected Deliverables:
This extensive design research is intended to provide qualitative and detail data of the cluster to generate insights about this craft which would help to address the existing problems and future opportunity area for design intervention or scopes which can be further workout and can be taken up during the design clinic workshop and areas taken up as design projects with in and outside the cluster scenario.

Participants
The Need Assessment Study 'the design survey' was conducted by Design Expert Chandrashekhar Bheda in association with
- Rural Non Farm Development Agency, Jaipur,
- National Institute of Design, Ahmedabad
And
Micro Small and Medium Scale Enterprise.
Tonk at a Glance

**Demography** Tonk is situated on National Highway No. 12 at a distance of 100 kms from Jaipur. It is located in the North-Eastern part of the state of Rajasthan Coordinates between 26.17°N 75.78°E. The total area of the district is 7194 sq kms. It is surrounded by 5 districts i.e. in the north by Jaipur district, in the South by Bundi district and Bhilwara district, in the East by Ajmer district and in the West by Sawai Madhopur district.

According to the 2011 census Tonk district has a population of 1,421,711. This gives it a ranking of 347th in India (out of a total of 640). The district has a population density of 198 inhabitants per square kilometre (510 /sq mi). Its population growth rate over the decade 2001-2011 was 17.33 %. Tonk has a sex ratio of 949 females for every 1000 males, and a literacy rate of 62.46 %. Tonk has an average literacy rate of 53%, lower than the national average of 59.5%: male literacy is 63%, and female literacy is 43%. In Tonk, 18% of the population is under 6 years of age.

**History of Tonk District**
Tonk district is famous as the `Nawabi Nagari` not only in Rajasthan but also all over India for its historical legends. Tonk has been called Rajasthan ka Lucknow, Adab ka Gulshan, Romantic poet Akhtar Shreerani ki Nagri, Meethe Kharboojo ka Chaman and Hindu Muslim Ekta ka Maskan. It was a result of this secular nature that Tonk could keep an isolated status in Rajasthan. During the regime of Nawabs all the natives were invited to the Islamic function of Miladdunabi without any distinction of caste, colour and creed. The district represents a vision of communal harmony and intermingling of the races. Further details of the district are furnished below.

As per the history, Jaipur`s King Man Singh conquered Tari and Tokra Janpad in the regime of Akbar. In 1643, twelve village of Tokra Janpad were given to Bhola Brahmin. Later, Bhola named these twelve villages as `Tonk`. The history of Tonk is very old as it is connected with Bairath culture and civilization. The first founder ruler of Tonk was Nawab Mohammed Amir Khan. It was known as Sarnwad Lakshya in the Mahabharata period. Following its rule as a part of the Maurya Empire, it was merged into the Malvas. A large part of the region was under Harsha Vardhan. During the regime of the Rajputs>, parts of this state were under the Chavras, Solankis, Kachvahs, Sisodiya and Chauhan dynasty. Later, it was under the regime of King Holkar and Sindhia. In 1806, Amir Khan conquered it from Balvant Rao Holkar. Later, the British government gained it from Amir Khan. It was finally returned to Amir Khan as per the treaty of 1817.
Economy of Tonk district
The district of Tonk is mainly agriculture based, and animal husbandry constitutes the main occupation of the people. Tonk district is quite backward in terms of industries. The state Government office of District Industries is working hard to promote the small, medium-scale and handicrafts industries in the district. The RIICO and Khadi gramodyog offices are also working side-by-side in order to try and provide land to industries. Six RIICO industrial areas are working in Tonk, Newai, Malpura and Deoli Tehsil, and about 600 acres of land have been acquired for industrial purposes. The slate stone industry is fully developed in the district. Based on Slate stone some other industries like quartz grinding, PCC Poles and RCC Pipes are also in operation. Among the other industries developing in the district are readymade garments, engineering works, tyre retraing, woollen carpets, tomato ketchup, animal breeding and washing shop industries. Items exported from the district include slate stone and state tiles, cotton durrih, galicha, namda, beedi, readymade garments and ball bearings.

Tourism in Tonk District
There are a number of tourist attractions offered by the district of Tonk. Most of the places located here are of great historical worth and have each one of the monuments and site located here has a story to tell. The Jama masjid found here is one of the biggest and most beautiful masjids in all of India. Other popular tourist attractions include the Sunahari Kothi, Hathi Bhata, Rajamahal, Bisaipur, Rasiya ke Tekri etc.
Namdas are felted mats made from sheep fleece. The fleece is scoured, teased and fluffed. The contemporary workshops use a carding machine to prepare the fleece but until recently, the ‘painja’, a wooden tool resembling a large bow, was used to beat and fluff large quantities of wool. The fluffed fleece is piled on a large burlap cloth in the required size. The fringes are created by placing separate tufts of fleece along the edges. The mass of fleece is sprinkled with soapy water and rolled and kneaded until the layers of wool are felted. The namda is then soaked in a large cauldron of water and finally laid flat to dry in the sun. Since the techniques is so primitive it can be assumed that it is the same process as was used in ancient times (Wells, 2000). Felted products are an integral part of nomadic life in the northern and central Asian steppes and probably the technique was first discovered in Central Asia.

Nomadic Scythians lived in felted tents in the 5th century B.C. as the Kazakh nomads in Central Asia, particularly in Sinkiang, still do today. In the late 4th century B.C. Nearchus mentions that the technique of felting was known in regions now Pakistan. Namdas were probably introduced to Pakistan as saddle blankets by the Aryans from Central Asia during the iron age. Although their early decorative elements are undocumented, it can be surmised that the types of namdas still crafted as saddle blankets and mats, as in Swat, the Hyderabad District of Sind and Lasbela, Kharan and Mastung in Baluchistan, are reflective of this influence. The Pazyryk finds in the Altai region of the U.S.S.R. circa 5th to 4th centuries B.C. show that the same technique of felting an assortment of dyed fleece into complex decorative patterns, as employed in the Pakistani saddle blankets, was already well developed. Some or their motifs reflected Chinese influence. This particular technique remains traditional to Turkistan, the Subcontinent, as well as Tabriz in Iran, near Western Central Asia. These second decorative style of namdas, characteristics of Kashmir, employs chain stitch embroidery and reflects Eastern Central Asian influence. Chain stitched namdas are still common in Sinkiang. The multicoloured woolen yarns are hooked through the namda with the ‘ara-kung’, the Kashmiri tool used for chain stitching. Geometric and animal motifs and flora scrolls of chenar leaves, grapes, irises, almond and cherry blossoms are popular decorative elements. A document early mentioning the namda in Eastern Central Asia was found in the Khotan excavations in Sinkiang dating back to the 3rd century A.D. It is mentioned that namdas were also imported into the subcontinent by way of Leh in Kashmir during the 19th century (Hamid, 1989).

**Namda in India in history**

In India it is said that a person named Nubi created the first felted woollen fabric to protect horse of Emperor of 11th Century, Akbar’s from cold. The felted piece was very intricately decorated with craftsmanship of Nubi, thus impressed the emperor. The craft was given the title of Namda after the name of its creator Nubi.

The craft of Namda making is followed in very limited areas in Kashmir, Himachal Pradesh and parts of Rajasthan. They can be termed as woollen druggets. The craft is said to have traveled from Iran and Turkey.
The products made are floor coverings of different sizes like 5’x3’, 6’x4’ is the most popular, 5’x7’, 6’x9’ and any other odd sizes as per the order.

Foot mats of different sizes, telephone mats, aasan (sitting mat for an individual), wall hangings like Jokers, misha, appu, magazine holders, letter holders, pouches, bags of different kinds are also made mainly to be sold in domestic market. Stuffed toys are also made. Manufacturers do produce Namda though out the year and stock it to sell in winters as woolen Namda is primarily used in winters in household.

Most of these MSMEs producing Namda based items wait to participate in Melas organized by Wool Board, retail exhibitions organized by DIC, o/o DC Handicrafts, buyer seller meets organized by different NGOs. Some SHG’s have managed to participate in IITF held at Pragati Maidan in Delhi. Few of the units have been able to build professional tie ups with shops situated as far as Sikkim in North eastern India and do supply small orders once in a while.

Four MSMEs are producing and supplying namda based products. In accordance to requirements of export market There product largely are stuffed toys used as accessories and Christmas decorations, bags n pouches, cushion covers, rugs etc. The products also are made from felt molding technique. However these ranges of products are mostly done by committed craftsmen to respective MSMEs and are able to maintain secrecy of design. Designs are mostly provided by the buyer and prototypes are done in close co ordination with the buyers of the product and or export trading companies.

Present Status of Namda Industry of Tonk

It is believed that the Namda clusters is n Tonk district collectively form 500 plus Artisans and workers. Office of DIC Tonk, there are about 40 registered MSME involved in Namda based craft, except few non functional, rest are involved in active manufacturing and business.

There are primarily three kinds of units in Tonk related to Namda

Traditional Woollen Namda Producers
Woollen Felt Sheets Manufacturing
Synthetic Sheet Based Products Manufacturers

Traditional Namda manufacturers with appliqué ornamentation

Traditional Namda making consist of first making felt sheets, where all the manual work artisans do in their own premises and carding & hardening or milling with machines is done by the support of the factories providing the required mechanical services.

Primarily thicker dyed felt sheets (from 0.5” to 1” in thickness) are cut to the required basic shapes like rectangles, squares, circular or semicircular as per the need of the product proposed to be finally made. Thinner felt sheets are cut in to smaller shapes according to the requirement of the ornamentation. Some units do use die cutting device for cutting of shapes for faster production. These shapes are placed and held with a glue or locally made adhesive paste as per the layouts. Then these shapes are carefully appliquéd with hemming stitch. Color of the thread is always matched with the color of the shapes to hide the stitch. However the stitch is tightly done resulting dented texture on edge of the appliquéd patterns. The feature adds value & character to the appliquéd piece! Outer edge or selvedge of the piece is finished with buttonhole stitch giving it a thick protective edge.
Manufacturing Process of Traditional Namda

* Natural felt sheets * Dyeing in progress * Inspection & drying * Range of colors as required * Base sheets are cut as per size of the product * Cutting of patterns as per design * Pasting of patterns in layout * Hand stitching of applique patterns * Finished products ***
Woollen Felt Sheet Manufacturing

Raw wool is purchased from Kekri (for coarse quality) and or Jodhpur (for finer quality) in Rajasthan which are wool trading wholesale markets. Shearers supply this wool to the traders through agents (Dalals). Felt Manufacturers in Tonk buy their annual requirements of raw wool twice in a year and stock it in the warehouse. However the buying quantity also depends on the ware house facility available with them. The purchase of wool is done in the month of June and August after shearing season.

The quantity of raw wool is decided in accordance to the size and weight of the felt. The wool is selected and blended according to the characteristics required in the felt. The order of the manufacturing processes is as follows: Willeying, blending, teasing, scribbling, carding, forming, hardening, milling, beaching, dyeing, tentering, drying and finishing.

These Woollen felt sheets are regularly supplied as a base material for industrial use as per the specifications given by the customers/buyers. Usage is of the felt left to the traders who further convert these sheets in utility components needed for various products.

Engineers and designers specify industrial wool felts for numerous applications, including: vibration and shock absorption and noise reduction; bearing strength; weather and dust sealing; wicking or fluid transmission; lubrication, roller bearings; filters; lining and padding; insulation; polishing (glass, stone, jewelry, fiberglass metals, plastics) furniture rubbing, staining; sanding; lamp bases; and countless others.

Felt sheets produced by Tonk manufacturers are with the handmade feature in them and on technical specification do score low hence are utilized in the suitable industrial usage.

In a year they are able to use their factories for about eight to nine months to produce the felt sheets.

Some of These MSMEs have all the equipments and machinery like willeying machine, opening machine, carding machine, forming machine, milling machine as well as and hardening machine and are able to produced felts using fully mechanized process with manual supervision.

However many MSMEs having less number of different combinations of machines are supported by manual processes and do have have sufficient, essential and recognisable component of manual labor and skills and without which the felt making is not possible to be carried out successfully.

Since every unit having different combinations of manual and machine skills applied to felt making, there no standard common process followed by all. Hence each unit approaches felt making slightly different way than the others.

Namda Felt making has been traditional handcrafted art for the artisans families in Tonk and all of them know the process of making namda manually. Only the one which could purchase machines and expand their production base have industrial units.
Semi Manual Manufacturing Process of Felt

* Raw woolen fibers are opened * Carding in progress * forming as per the need of size & weight of felt * Formed layer is ready for initial setting in to loose sheets * Hardening with soap water treatment * Milling * Air drying * Finishing & Packing *
Mechanical Manufacturing Process of Felt

* Willeying and opening of raw wool * Double carding in progress * Number of carded layers are put together as per the desired size weight, density and quality of felt sheets * Hardening with steam and vibration treatment * Milling * Air drying * Storage of sheets
Synthetic Felt Sheets Products

As woollen prices kept growing, about ten years ago someone in Tonk thought of idea of using polyester-viscose felt sheets to manufacture cheaper alternative to woollen Namda foot mats, slippers as well as other products and same appliqué feature was introduced by use of sewing machines and over lock machines for faster production.

These viscose-polyester sheets are procured from Wapi in Maharashtra through agents and are the leftovers from the felt sheets used for business interiors and are available at throw away prices. The synthetic fibre sheets with tougher features compared to woollen namda sheets, easier on handling while making products out of it and obvious price advantage have caught fancy of many traditional Namda manufacturing artisans and they easily accepted the opportunity of quicker business.

0.5 meters to 3 meters leftover sheets are cut in to required sizes. Smaller colourful pieces are appliquéd with machine stitching as per the design and edge finishing is dime with over locking machine to make doormats, telephone mats, letter holders, bath mats and slippers and converted in to cheaper fast moving products. The wholesale price of such low quality mat starts Rs.11/- when bought in hundreds. In retail exhibitions such mats can be bought for Rs.15-20 apiece. Depending on the design and intricacy of craftsmanship the prices for the mats vary.

Units manufacturing these products carry on production through out the year and stock it well to generate sales during winters. There are hawkers who also buy these products in quantity and sell door to door all over Rajasthan.

These products are sold through retail exhibitions organized by various marketing agencies like DIC, Wool Board, o/o DC Handicrafts and state agencies especially in winters. One of the unit tell us that he is able to produce and sell 30,000 products a year.

Some of the units are able to do traditional namda production as well as synthetic felt sheets products too, to keep the momentum going of work though out the year.

Slowly this craft has converted 50% of the hand applique craftsmen in to machine applique producing workers and they are nearly detached from the traditionally inherited craft skills.
Synthetic Felt Sheets Products - Process

* Cutting of base sheets as per the size of the product
* Cutting of patterns
* Applique is done with zig zag machine stitch
* Over lock to finish the edges
* Finishing and packing
* Slippers patterns cutting
* Stitching/ overlocking
* Products displayed for daily sales
List of MSMEs and their Issues

O/o DIC. Tonk, provide the list of MSMEs in Tonk. This list included

Recently registered Self Help Groups

Small family based units

Entrepreneurs who manufacture export oriented products and supply to exporters

Small technical processing units

Mechanized felt manufacturing factories

Unregistered units who later managed to register themselves

Some had registration as old as 1962 but had not modified their papers

While interacting with them some have responded very positively and shared information, some were completely against entertaining any outsiders as for them processional secrecy was most important and some were not interested in any Govt based interventions as their previous experience not been positive.

While stating the list of MSMes, specific issues being faced by them also have been stated.
MSME’s of Tonk

1 - Mohit Self Help Group
Sangh Pura, Jata Pada, Purani Tonk

Contact Person-Tasleem   Telephone -9261357048

SHG of 10 women   Assets - 2 embroidery machines

Fabrication Skills- Hand made felt making, Appliqué Namda, Poly felt sheet product and screen printed felt products like Doormats, wall hangings, floor coverings, aasan, key rings and felt based toys and Christmas decorations, Misha hangings

Sales during 2011- Rs. 2,50,000/

Issues- Products lack quality and novelty as every one in Tonk is making similar products. Additional craft skills needed to expand applicati

2 - Asha Self Help Group
Sangh Pura, Jata Pada, Purani Tonk

Contact Person- Asha   Telephone - SSHG of 10 women

Fabrication Skills- Hand made felt making, Appliqué Namda, Poly sheet products, 3D stuffed toys, Doormats, wall hangings, floor coverings, aasan, key rings and felt based toys and Christmas decorations

Issue- Absence of novel products, training for craft additional skills suggested.
MSME's of Tonk

3 - Santosh Self Help Group
Sangh Pura, Jata Pada, Purani Tonk

Contact Person-Santosh   Telephone -        SHG of 10 women
Assets - 1 embroidery machine

Skills- Hand made felt making, Appliqué Namda, Acrylic sheet
products s- Doormats, wall hangings, floor coverings, aasan, key rings
and felt based toys and Christmas decorations
They also work as production support for some of the MSNEs in Tonk.

Issues- Their own products are similar to other groups in Tonk

4 - Laxmi Swayan Sahayata Samuha,
SanghPura Jata Pada Purani Tonk   SHG of 10 women

5 - Mahima Swayan Sahayata Samuha,
SanghPura Jata Pada Purani Tonk   SHG of 10 women

6 - Indira Swayan Sahayata Samuha,
SanghPura Jata Pada Purani Tonk   SHG of 10 women

7 - Jagriti Swayan Sahayata Samuha,
SanghPura Jata Pada Purani Tonk   SHG of 10 women

8 - Phool Swayan Sahayata Samuha,
C/0, Sulabh International Organisation Centre, Sindhi Colony, Tonk

SHG of 10 women Contact- Akilesh Singh
2000 sq feet training center, Production for Exports for last 5 years

Issues- Additional training to diversify craft skills needed.
**MSME’s of Tonk**

**9 - Ruby Namda Manufacturing**  
Bambor Gate, Purani Tonk  
Contact Person- Bundu Miyan  
Telephone  01432-688588/683000  
Assets  6000 sq feet premises workshop / factory supported with Opening Carding, hardening and milling machine, etc  
Workers- 8 workers with multiple skills  
Woollen Felt sheets of natural shades for industrial use  
Production last years- 8000 kg of felt sheets  
**Issues**- Constant fiber flying in the air creates breathing problems for workers, manual milling process is laborious and extremely stressful on arms and knees, hardening / calendering machine being open has a risk of accidental incidents and cause injuries

**10 - Islamuddin Namda Manufacturing**  
Sunaronka Mohalla, Bambor Gate, Purani Tonk  
Contact Person- Islamuddin  
Tele  01432-243359  Shahbuddin  
Assets  6000 sq feet premises workshop/factory with felt making machines supported by 10/12 workers  
Products- Woollen Natural white Felt sheets up to 50" width used for packing, insulation, washers and other industrial use  
Production last years- 30 lakhs  
**Issues**- health hazards due to constant inhaling of fiber particles  
Catalogue and sample brochure is absent. Larger range of feltsheets needed.
MSME’s of Tonk

11 - Taiyab Ali Kalatmak Namda Udyog
Malpura Gate, Mahavir Chowk, Purani Tonk

Contact Person- Tayab Ali      Telephone

Assets  own premises of 1000 sq feet, carding and Milling machine
Workers- 4 family members and 2 workers
Products- Woollen Felt sheets of natural colours
Production last years- 4000 kg 25 kg a days production

Issues- Breathing problems in long run, looking to expand the range of felt for additional market

12 - Abdul Gafar Namda Handicraft
Babaronka Chowk, Kelonka Neem, Purani Tonk

Contact Person- Abdul Gafar      Telephone  9929131186

Assets  Owns 400 sq feet house
fabrication of synthetic felt products and applique Namda
Workers- 8 workers in the family
production last year 6 lakhs

Issues- Lack of space, face storage problems, marketing avenues are not enough, wants to participate more in exhibitions to sell more, limited range of products
MSME's of Tonk

13 - Kiran Namda Handicrafts
Mehandwas Gate, Purani Tonk
Contact Person- Abdul Wahid          Telephone  09414640339

6 family members work together supported with 5 more workers

Stitched synthetic products and Namda with appliqués, Slippers, foot
mats, handmade Namda

Production last years- 5000 pieces
Marketing through state exhibitions.

Issues - Products are similar to every producer around. Need more
marketing avenues

14 - Jain Handicrafts
Industrial Area, Tonk
Contact Person- Sushilkumar Jain          Telephone  9414249013

Assets  two factories
Skills- Carding, hardening, milling, dyeing etc, appliqués, 3D products
as per buyers needs, all the skills of Namda and felt making
Production last years- Domestic 35 lakh + Exports 15 lakh

Issues- Looking to increase network of buyers
Training for the craftswomen in more variety of techniques and skills.
Showroom design is needed. Website needed.
15 - Anis Abdul Majid Kalatmak Namda
Mohalla Chudigaran, Badwali Haveli ke andar Tonk

Contact Person- Anis  Telephone  01432-246306 / 9252720108

Assets  Common area, few rooms
Workers- 4 family works together
Products- Four coverings, doormats and cheaper quality of products
Production last years- 2 lakhs

They are producing cheapest variety of asans used for distribution as gift in memory of dead.

Issues -Lack of variety and upgradation of craft skills

16 - Mohammad Saeed Namda Handicrafts
babronka Chowk, Purani Tonk

Contact Person- Mohammad Saeed  Telephone  9251167005

Assets  own house and milling workshop

Milling job work, Products- Four coverings, doormats and Felt making for own purpose and job work. Synthetic felt appliqué products
Workers- 5 family members
Production last years- 8 lakhs

Issues - Milling work is carried out in a small crammed area, space management difficulties, absence of storage racks, proper drainage solution required, expansion of business is not feasible as storage capacity due to lack of space is poor.
MSME’s of Tonk

17 - Bundu Kalatmak Namda
Babronka Chowk, Purani Tonk

Contact Person- Bundu Abbas         Telephone  9414273622
4 family members make namdas & synthetic felt sheet based products and sell through the exhibitions
Shoes and Slippers, jokers, wall hangings
Marketing through state exhibitions.

Issues - Lack of novelty in the products, color scheme are not appealing.

18 - Imamuddin Design Namda Industries
Lakironki Gali, babronka Chowk, Purani Tonk

Contact Person- Imamuddin         Telephone  09269127482
Makes Smaller Namda appliqué products
Last year production of 2 lakhs
Marketing through state exhibitions.

Issues - Though quality of craftsmanship is good, lack of novelty in the products and larger range of colors need to be introduced
MSME’s of Tonk

19 - Vikash Namda Handicrafts
Lakironki Gali, babronka Chowk, Purani Tonk

Contact Person- Mohammad Saeed         Telephone 9413285034

Self made felt used for making products
Bathroom slippers, jokers, self design namda, appliqués, misha
Selling through exhibitions and melas
Produced 1.5 lakh last year

Issues- Sameness of products, novelty is needed

20 - Mohammad Sharif Namda Handicrafts
Panchkuiyan Darwaza, Opp Income Tax Dept, Tonk

Contact Person- Mohammad Sharif         Telephone 8946988409

Synthetic felt products producing group
7 family members with 8 more workers help the production
Eight months in a year is production and 4 months to sell the products
through exhibitions, Two sewing machines and 1 over lock machine.
30 thousand pieces are produced in a year
Annual turnover 6 lakhs

Issues- Placement of motifs on the products is randomly done, hence variations occur, workmanship and stitching skills need improvement. Newer ideas of product and ornamentation needed.
MSME’s of Tonk

21 - Alia Handicrafts
Panchkuiyan Darwaza, Malpura Gate, Tonk

Contact Person: Mohammad Tahir        Telephone  8946988409

Namda making group, make their own Namda, has dyeing hardening milling machines. Also produce Synthetic slippers and sell thru exhibitions Dyeing job work for other needs.

Issue- Dyeing color range is limited. Needs training on color matching to expand the range of shades.

22 - Nizamuddin Namda Handicrafts
Bharat Namda Kala Kendra, SanghPura, Mehndwas Gate   Tonk

Contact Person: Nizamudin                   Telephone  8104730504

Having their own showroom in the market, products are retailed throughout the year.

Issues - The one and only MSME having own showroom in the heart of Purani Tonk. Needs better and attractive display at the shop along with the novelty in the products. Overall quality of workmanship is better in comparison with others.
MSME’s of Tonk

23 - Mahavir Design Namda Art
Chhota Takhta, Gali Teliyan, Tonk
Contact Person- Mahavir Prasad Nama    Telephone  9418551208
Make products out of outsourced namda - appliqués, slippers and shoes, bags, pouches, hand painted Namda products
3 family members and 4/5 additional workers involved in production
Selling through exhibitions and melas
Annual production of 3 lakhs

Issues- Good workmanship, inputs on colors needed, has done lot of experimental work, needs variety of applications to realize in to better products.

24 - Nadafi Design Namda Handicrafts
Miyanka Chowk, Purani Tonk
Contact Person- Mohammad Sharif    Telephone  8946988409
2 family members and 15 workers involved in production
Foot mats, slippers, Woollen Namda with appliqué
Excellent craft skills and colour sensibility
4 lakhs annual production

Issues- Though Good workmanship, but lacks of newer ideas, repetition of ideas make product look the same.
25 - Eslam Nudafi Handicrafts  
Babaronka Chowk, Purani Tonk  
Contact Person - Eslam Nudafi  
Telephone 9928382240

Making jokers, woollen felt products, foot mat, wall hangings, telephone mats, aasan etc.  
Selling through DIC melas  
Last year Production 1.5 lakh

Issue - Lacks novelty, workmanship is good.


26 - Modern Namda Factory  
Address Malpura Gate, Purani Tonk  
Contact Person - Mohammad Kalam  
Telephone 9269343769

Industrial felt making fully mechanized factory.  
20 workers in the factory at any given time  
Last year Production 25000 kg

Can produce felt sheets with thickness of 1mm to 25 mm  
2 mm cotton felts for stamp pads and shoulder pads in the jackets

Issue - Wishes to expand business with additional factory as lot of space available for additional machinery in case of novel products or range.
27 - Mahak Namda Handicraft
Near Jama Masjid, Purani Tonk

Contact Person- Anand Nama       Telephone  9887838184

Five Family members are involved in production.
Make patchwork and inlay technique namda wall hangings with portraits and animal forms

Issues- This unit has started recently, looking to market patchwork and inlay technique which is different compared to other producers. So far only samples made business has not srtsed yet

28 - Anuraj Handicrafts
Plot No.2/135, Rajasthan Housing Board colony, Tonk

Contact Person- Raj Tiwari       Telephone  9414284123

Owns a factory where 30 women with hand applique and crafts skills sit supported by 3 cutting pasting crafts women.
Supplying applique namda products to exporters specifications

Good quality of craftsmanship and usage of colors and patterns

Issues - Looking to develop website as well as e commerce site for promotion of products.
MSME's of Tonk

29 - A1 Namda Manufacturers
Malpura Gate Purani Tonk
Contact Person: Abdul Hafiz  Telephone: 9252968325
Export oriented unit making 3D products as per buyers requirements on order, felt making is done in own factory
20 workers at factory and 25 outsourced 20 men 25 women
Last year production 12 Lakhs
Issues: As export production is managed within six months it is difficult to keep workers occupied through out the year and it is difficult to source alternative after workers leaves the job
Can not manage even dyeing, dyeing skills upgradation needed
Face difficulties in creating patterns for 3D objects, training required

30 - Cotton Woollen Industries
Industrial Area, Tonk
Contact Person: Mohmmmd Latif  Telephone
Fully Mechanized Felt production unit

31 - Super Industries
H-56, Industrial Area, Tonk
Contact Person: Mohammad Salim
Fully Mechanized Felt Production unit
Core Issues

Core issues with MSMEs units which are common to all of them and addressing these shall help the cluster in totality.
Issues - Existing Products Range

**Issues** - On this page the photographs of products are from about 15 MSMEs and similarity of designs and application is evident in the range.

Traditional look of the Namda from Tonk continues to suffer from sameness for many years and lack of novelty in terms of product range, colors, application of craft techniques and quality.

**Recommendation of Training workshop on Product Development** -
Most of the MSMEs and its teams of craftspeople will require guidance on product innovation, use of colors, upgradation of craft skills, innovative craft skills, dyeing skills up-gradation etc.
**Issues: Quality of Felt production**

**Issues** - Felt sheet manufacturing with machines seems to fulfill the needs and suffice the needs of industrial usage as it is purely utilized for functional applications and do not have aesthetic value or does not come directly in contact with human. But the same felt or the one which is handmade, has its own structural features at a question. Main complain about Namda is that it keeps shedding its fibers throughout its use in domestic interiors. It has poor rubbing strength compared to carpets and durries, hence often not preferred for domestic use. It also get infected with moths in moist conditions and does require regular sunlight exposure ensure longer life.

However Namda being available at much low price compared to other woolen woven products like durries and carpets and shawls, many household prefer it to be used specially in winters, as it serves purpose and comes cheap.

Most of the Namda products made for domestic market have a base sheets of namda of a coarser quality and that is the one which primarily sheds its fibers. Finer quality of felt sheets only used for applique part of ornamentation.

**Recommendations on quality felt and research on better construction** - There is need to carry out research to control fiber shedding feature of handmade as well as machine made felt. The compression method and the soap solution used are the key factors involved and will need a research for possible modifications.

A method of manufacturing or a treatment of Namda with better fiber construction may enhance its utility in domestic interiors for Indian markets.

Use of best quality felt sheets is also important. Value addition achieved by use of greater quality felt sheets will be much more than the cost increase of raw material.
Issue- Felt making MSMEs have been producing woolen felt sheets for a large variety of usage as per the technical specifications provided by their buyers primarily for domestic market all over India. However, the end use of the felts is not in control of the felt producers neither they are aware of it.

Recommendations of developing newer fabrics- Newer and finer variety of felt fabrics need to be developed with blends of yarns, fabrics and newer applications.

Apparel as well as home fashion industry has definitely huge potential for such a novelty of fabrics.
Issues- Availability of Work Force for Manufacturing

**Issue** - Amongst the prominent businesses in Tonk Beedi manufacturing is one the prominent one. Interestingly in the months of second half of April, entire May and fist half of June there is a sudden requirement of large numbers of workers for beedi manufacturers. Tendu leaf are tender in these months are required to be taken off from tress dried ad collected from the nearby jungles. This activity is important as tendu leaf drawn in this period is only useful for desired quality of beedies hence workers are given very attractive money to carry out this seasonal job. Workers are able to earn twice or more during this period. Hence as much as 80% of the work force from Namda sector is unavailable over the period of about two months.

Some of the Felt making factories to close down their production as the owner themselves are involved in a contract of executing collection of tendu leaves for beedi manufactures. They are able to do business of as much as 60 lakhs in two months so the opportunity of making quick assured money is never lost.

**Recommendations of utilizing this time for product development**
With small dedicated team of artisans this time can be utilised for newer developments of product and rest of the time can be utilised for product and promotion through out the year.
Issues: Health Hazards to Workers and Absence of Attention

Issue - While willeying, opening and carding of wool small fiber particles keep flying all over the premise, unwanted inhaling of woollen dust can not be avoided even after covering mouth and nose with a cloth. Often the workers are found affected with respiratory deceases having risk of TB in long run. (Dr. Narendra Vijay, TB Hospital Tonk)

Recommendation for equipment design - Suitably developed protective masks and or preventive devices to contain and ensure stoppage of dust flying around need to be introduced here.

Issue - At Tonk, ‘Kacchi Gulavat’ manual hardening process of felt from carded wool is the most strenuous and involves extreme physical labor. Workers do complain of long term damage to knees and arms.

Although power operated hardening devices are used by some of the units, but other can not invest in it.

Recommendation for equipment or mechanical device design - Simple manually operated inexpensive mechanical device can be developed (may be with bamboo) to speed up the process and save manual extreme labor.

Worker with such a device will be able to give more productive output without putting their physical health at risk.
### Issues: Human Safety at Work, Modification of Tools & Equipments

**Issue** - Raw wool is manually fed to the rollers of opener device, carding device and hardened felt to the rollers of milling device or machines. While hand feeding the material there is always a chance of hand getting stuck between the rollers, there are no hand guards attached to the device. Recently son of Bundhumiyvan of Ruby Namda had gone through couple of surgeries due to multiple fractures as his hand got stuck while working on milling machine.

**Recommendation on Safety device** - Installation of hand guards is a must for all the machines of this kind.

**Issue** - Bales of Carded wool collected on a stick and kept on the floor before taken for hardening. Six of such bales are opened and layers together on the hardening / compressing table.

**Recommendation on infrastructure** - Instead of keeping the bales on the floor, a suspension stand for bales is advisable to keep the opening feasability of the layers intact.

**Issue** - Felt sheets are stored directly on the ground without any cover or platform and left unprotected from dust & moisture.

**Recommendation infrastructure** - Protective measures like perpetual use of plastic bags advisable to protect it from dirt, dust, water & moisture.
Issues: Ergonomics & Workstation

**Issue** - While operating machines of milling where rollers are fed with sheet material, the unsafe sitting postures and method is incorrect.

**Recommendation on Safety and Ergonomics** - introduce suitable safer seat to increase efficiency.

**Issue** - Height of the dye cutting machine is ergonomically incorrect. Workers sit on the floor and does his work and more time is spent on operation as the posture does not support efficiency.

**Recommendation for Productivity and Ergonomics** - The dye cutting machine needs to be raised at a table height to carry out operations easily and productively.

**Issue** - Most of the craft people work squatting / while seated on the floor, and is tiring and cumbersome with cut pieces spread all around.

The space management around every craftsman for efficient and faster production is neglected.

**Recommendation of workstation design** - Need to create suitable assembly line production planning and suitable workstations needs to be created.
Issues- Infrastructure and Absence of CFC

**Issue** - Air Drying of felt sheets after beaching, washing and dyeing is done on the roof, on open ground, walls and hanging devices. On the floor and wall, it tends to catch dust and gets dirty. Also in rainy season drying becomes difficult.

**Recommendation of Common Facility Center with hot chambers drying facility** - Separate controlled drying facility for the whole Namda cluster will look after all MSMEs needs and speedy drying service can increase productivity.
Issues: Under Explored Craft Techniques

3 Dimensional molding

Block printed patterns and Crew Printed patterns

Embroideries

Patterning in the Milling

Issue - Felt Industry and Namda craft at Tonk primarily limited itself making felt sheets of a specific densities and weights and namda based products with applique as a main feature.

The units producing products for export requirements have diversified in to many technique with the inputs of buyers and continue to explore further. However these diversifications have not trickled down to domestic market and domestic market left with same old feature of namda craft for many years.

Recommendations reintroduction and application of potential felt craft techniques and GI registration - This certainly will add spark to not so evolved craft of Namda at Tonk and an array of product directions can be created.

Efforts for GI registration of this craft of Tonk will also give it a required status and respectability on national front.
Issues: Unchanged Imagery and Aesthetic Detailing

Issue - wall decoration pieces like Mischa and Jokers are being produced for last 30 years in Tonk. Many Olympics have passed by but awareness of Tonk craftsmen has been frozen in time many years ago. These cliche motifs are not anymore liked by new generation. Although, somehow even today these pieces seem to sell.

Recommendations of Introduction of contemporary Indian iconography as a design direction - Newer age Icons need to be introduced in Tonk to connect it to the real contemporary world and markets in India.

Issue - While doing appliques be it with machine or with hand, the placements of shapes as per the desired layout is not done well. Shapes often are not placed in its right position and orientation. Most of the designs produced here being symmetrical or mirror imaged the flaws are obviously visible.

Quality of workmanship in stitching the pieces in place too is poor. In the effort of producing maximum in a day the quality seems to be an unimportant issue.

Cliched designs of these products have been around for very long and there is a crying need for novelty. This desire is expressed by most of the MSMEs involved in synthetic felt products.

Recommendation of production aid kit - Product development and innovation workshops with skills upgradation training programs suggested. Setting up of quality parameters and ‘templates and guides kit for effective quality production’ can be developed.
Bharat Namda Udyog in Sangh Pura Tonk is the sole shop where Namda products are retailed. Most of the units are like cottage industry and their homes are often workshops during working hours hence proper display of products is completely absent.

Often finished products are stuffed in a storage, display of products in not given importance by most msmes.
Issues- Packaging and Transportation

**Issue**- Packaging and packing of felt sheets and export needs are done according to specification of the buyers. However, for synthetic sheets based products are not packed well for transportation. Local transportation of packed products is done on open carts and the bundles are uncovered and gather dust.

**Recommendations on packing** - Proper packing of bundles with suitable covers with recycled plastic is advisable.
Issues- Present Market

Namda Item Producers

- Trading Agents
- Retail Shops
- Supply to Export Trading Companies
- Participation State Supported Periodic Retail Exhibitions in Rajasthan
- Participation National Level IITF
- Hawks Selling Door to door
- Felt sheet producers

- Traders of Felt Components for Industrial Use

End User
Some more issues-

**Cataloguing of product ideas** or keeping records of past work as a reference is completely absent with most of the MSMEs. Export oriented units have been able to keep folders containing photographs of products made in the past.

**Lack of work spaces** - All the smaller MSMEs and SHG do face the problems of work space as most work in their domestic environment. Dyeing, Drying, Milling and storage facilities can be provided at reasonable prices if Common Facility Center is set up.

**Running Capital** - There are limitations of capacity to invest in production throughout the year and wait for successful sales during the exhibitions for most small units. Hence growth in the business does not become reality for many.

Although there are loans available (up to Five Lakhs) for the SHG, lack of business ideas is preventing them from utilizing the facility.
Conclusions
Existing Inter Cluster Professional Relationship and Market Linkages

- Raw wool suppliers and agents from Kekri and Jodhpur
- Industrial and Namda Felt Sheets Manufacturers
- Technical Processing, Dyeing, Milling, Hardening, Service Providers
- Export Oriented Namda Products Manufacturers
- Direct exports & supply to exporters and retail exhibitions in Rajasthan and Delhi
- MSME’s of SHGs of Craftswomen
- Sell their products through Govt organized periodic exhibitions in Rajasthan and Delhi IITF
- Need based supply as a raw material to routine customers for industrial usage all over India
- Fabricators of Synthetic Felt Products and Namda Products
- Synthetic Felt Products Manufacturers
- Namda products manufacturers
- Local Sales, Govt Supported Exhibitions, Agents and Hawkers in Rajasthan
- Local Sales, Govt supported Exhibitions, Agents and Hawkers in Rajasthan
- Synthetic Felt Wastage supply agents and dealers from Wapi
- Local Sales, Govt Supported Exhibitions, Agents and Hawkers in Rajasthan
- Local Sales, Govt Supported Exhibitions, Agents and Hawkers in Rajasthan
- Design Clinic Scheme of MSME: NAS Report by Chandrashekhar Bheda on Tonk Namda Cluster, Rajasthan
Proposed Market Expansion after Interventions
**Product Range - Existing and Suggested**

**Existing product range with Namda cluster for domestic market**

- Namda Rugs - 9’x12’, 6’x9’, 4’x6’, 3’x5’, round different sizes
- Door Mats - of variety of sizes
- Telephone Mats-
- Wall hangings like Jokers & Mischa
- Magazine Holders
- Letter pouches or holders
- Slippers

**For exports**-

- stuffed toys,
- boxes and containers,
- Christmas decorations,
- cushion covers,
- Rugs,
- Mats
- Hats,
- wall hangings,
- place mats,
- Hand Bags
- Pouches,
- Skirts
- Christmas socks
- Molded articles

And any other products as per buyers needs shown through exporters

**Suggested product range for domestic market with finest quality of wool and newer idea and applications to bring in a surprises**

- Finer Felt fabrics for apparels and home furnishings with new blends
- Namda Rugs - of variety of shapes and sizes
- Door Mats - of variety of shapes and sizes
- Telephone mats of different shapes
- Magazine Holders
- Letter pouches or holders
- Slippers
- Shoes and boots for winter
- Shoe racks and holders
- Travel Rugs
- Picnic Rugs
- Tea cozy
- Table mats
- Hats and capes
- Jackets and Capes with finer wool
- Stoles and scarves with finest wool
- Winter yoga mats
- Aasan
- Shoulder Bags
- Evening Bags and Pouches
- Clutches
- Throws
- Stuffed Toys
- Fun products
- Lamps shades
- Space dividers
- Wall decorations
- Window Blinds
Scope of Interventions at a Glance

- **Common Facility Center**: Common facility center addressing the needs of heating chambers and faster drying devices, milling, dyeing and warehousing at fair prices.
- **Business Promotion**: Workshop on display methods and visual merchandising.
- **Operational Quality Enhancement**: Awareness workshop on dirt, dust, water & moisture protective methods.
- **Quality Control Aid**: Design and development of patterns placing tool kit to help improve layouts aesthetically.
- **Packing and Packaging**: Workshop on inexpensive and environment-friendly packing and packaging methods.
- **Training Workshop**:
  - Skills upgradation workshops on quality dyeing and shade matching.
  - Workshop on inexpensive and environment-friendly packing and packaging methods.
  - Workshop on display methods and visual merchandising.
- **Design Clinic Scheme of MSME**: NAS Report by Chandrashekhar Bheda on Tonk Namda Cluster, Rajasthan.
SWOT Analysis

Strength

· Namda craft being a cottage industry, infrastructure investments are minimal.
· Felt making industry in Tonk is well established and supports Namda craftsmen very well in terms of raw material and technical processing.
· Traditional Craft many centuries old heritage.
· Inexpensive woollen products in comparison to other woollen items.
· Secular craft- Many communities involved in this craft and trade Muslims, Jains, Brahmans
· 70% of the workforce is of women in Namda craft and in felt making women are 10%
· Raw material is available at low cost.
· Besides popular traditional appliqué technique, many additional techniques can be combined with the craft.

Weaknesses

· Woollen felts Namda sheds its fibres from its top surface hence not preferred by many.
· In moist conditions Namda gets infected with moths and needs periodic sunlight exposure.
· The traditional Namda designs have not changed for very long time. Artisans are still making them.
· The units do not have marketing arrangement for direct sale of goods; they only have to wait for state organised retail exhibitions / melas during winters.
· Lack of awareness of Govt. Support policies, loans etc.
· Quality of workmanship is an issue with the artisans who work in the domestic market.
· Export oriented units manage to maintain secrecy of newer designs and local artisans do not get to see to get lead from.
· Limited product range and applications of the craft.
Opportunity

- With the proposed contemporary product range and finer quality, it has a great potential to expand its market base.
- Products with innovative value addition and novelty will fetch a better price.
- Un-explored techniques have a huge potential in bringing positive change in the craft.
- Export market further can be explored and demands can be met.
- Easy availability of raw material.
- Provision of loan and profitable policies for small units.
- SHG model for crafts women has a great potential.
- Developing Common Facility Centre for faster and cleaner drying services, raw material storage, milling and dyeing needs will look after many small units’ requirements and will help them expand their business.
- Training workshops and interactive sessions will help increase awareness on importance of quality of craftsmanship.
- GI registration can re-establish this traditional crafts its respectability on national front.
- Any additional business coming Tonk Namda Cluster way surely will benefit both the industries, be it felt producing factories or the Namda craftsmen’s groups.

Threats

- Due to poor quality of craftsmanship chances of high rejections in export based production.
- Synthetic felt based product manufacturing has reduced the number of artisans dedicated to Namda craft.
- Young generation not interested in taking this craft as their profession.
- Poor quality & fibre shedding feature is the deterrent in popularising the craft for usage in domestic interiors.
- Because of less education crafts persons will not be able to follow the proper process of costing and to deal with a buyer.
- Artisans are not able to communicate to buyers about their craft.
- Lack of novelty and absence of innovative products is the main hurdle to increase and attract buyers /customer base.