CASE STUDY OF KOTA DORIA HANDLOOM CLUSTER, RAJASTHAN, INDIA

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—— ABSTRACT ——

Handloom Industry has an awesome existence in the Indian economy. It signifies the age-old tradition, culture, civilization that exemplifies the richness and diversity of India. This paper aims to study the a subjective assessment of the Kota Doria handloom cluster and impact of various government welfare schemes on the weavers working in the handloom sector taking sample population of eighty weavers from Kaithoon town in Kota district. Cross-sectional descriptive research was used to determine the weaver awareness the various schemes like yarn supply scheme, CHDS, Marketing & Export Promotion Scheme, Health Insurance Scheme, Mahatma Gandhi Bunkar Bima Yojana.

The method of study is subjective assessment by primary and secondary research. It combines the collection and analysis of primary data from fieldwork in this cluster. This study will further help to plan a roadmap for the design development activities undertaken in the Kota Doria Handloom.

Key Worlds: Handloom, Kota Doria, Manufacturing Process, Supply Chain, Swot analysis.

INTRODUCTION

Handloom industry as an economic potential, it is second largest employer after agriculture plays a predominant role in India's socio-economic change at present providing employment to 43 million of the population directly dependent on this sector for livelihood. (Nikhil Kaushik, June 2015).

Handloom industry employed a large skilled and unskilled workforce; provide employment to app. 43.3 lakh persons working on 23.7 lakh handlooms across the nation. It is one of the largest sectors in the world for producing raw material and textile manufacturing base. Presently it contributes 14% industrial production, 4% Gross domestic product (GDP), 17% export earnings provide by this sector. (Chaudhary M, 2015)

Handloom is an important cottage industry among developing countries as if India, Pakistan, Bangladesh, Iran, and China where traditional ways of weaving are significantly practiced (Pandit S., 2013). This industry is self-sufficient and complete in value chain producing everything from fibres to the highest value added finished product of garments (Samar, November, 2002). Its growth and vitality affect on Indian economy at large (Textiles, 2014-15).

The Handloom sector particularly dominant segment as 25% of total textile production and export earnings comes from this sector (Textiles, 2014-15) with 15% cloth production. The Handloom is a traditional and hereditary occupation, to produce goods and fabrics (Soundarapandian, 2002)

Approximate 95% of the world hand woven cloths come from India. Hand spinning and hand weaving were amongst the earliest creative activities of human race. The state of Rajasthan is habitat of wide range rich textiles ranging from brilliant hand spun fabrics to exhilarating range of handicrafts. Rajasthan is home of wide range of ethnic handicrafts and textiles which including hand spun fabrics and handloom products. One of the prominent handloom clusters in Rajasthan is the Kota Doria Handloom cluster, where more over 1,000 weaver families are reportedly engaged in producing handloom saris as well as other types of clothing like home furnishings. (Kapil, 1/2010).

KOTA DORIA HANDLOOM

Kota Doria woven mainly Kaithoon village near 20 kilometres from Kota city. The majorly Muslim minority are specialized in woven skills that passed on from one generation to another and provide livelihood skills to the weaver's community.

Kota Doria is an ethereal square pattern weave fabric. The

key participation in Kota Doria fabric is cotton, silk and Zari (very fine metallic threads). It weaves on traditional pit loom in a practised way that it produces square patterning in the fabrics. The final cloth is remarkably semi-transparent, very fine and lightweight fabric. The literal means of Doria is thread, the threads of cotton and silk yarns interlace to produce fine check pattern resembling as graph paper produced. Kota Doria is light and shears fabric, which is very useful for hot and humid climate like Indian subcontinent. The weavers are primarily located at Kaithoon, though a few still pursue their craft in adjacent Bundi and Baran district at SE Rajasthan. Kaithoon is a town of with a population who are mostly weavers. (Kumar, 2013)

Kota Doria well known brand name among sari wearing women in the country. According to recent market survey of National Institute of Fashion Technology at four major cities, more than half-respondent were aware of and owned of Kota Doria. Linda Lytton has referred to Kota Doria saris as one of the nationally popular hot season garment (Kota Doria, GI(Registration and protection, 1999)).

In Kaithoon approximate 1500 handlooms provide livelihood to more than 3000 persons with turnover of 35 crore app. The average investment at Kaithoon is about 25000 Rs per handloom. Kota Doria is distinctive hand woven fabric having characteristic of square check pattern called "Khat". Each "Khat" is made of 14 yarns (eight of cotton and six of silk) is Hallmark of this handloom. A 300 "Khat" are there cross the width of the fabric, which is up to 46 inches, A throw shuttle method used on pit looms. Kota Doria is weaves in many villages located in Kota, Bundi and Baran districts of Rajasthan. The major populations of weavers are in Kaithoon at Kota district. There are 47 Master Weavers functioning for the cluster. Annually 82,000 saris are producing annually at this cluster with grounding time of 50 days. The strength of the sector lies in its uniqueness, flexibility of production, openness to innovations, adaptability to the supplier's requirement and the wealth of its tradition

OBJECTIVE OF RESEARCH

- Subjective assessment, product range, documentation and promotion of Kota Doria Handloom cluster.
- SWOT analysis.
- Impact of the government schemes on the Kota Doria weavers.
- Prominent issues at cluster like existing status, source of raw material, sustainability, to assess the extent of dependence for livelihood and support required.

RESEARCH METHODOLOGY

Research is the science of exploring the existing knowledge and examining it to discover or prove results, establishing facts and solving and developing theories. The methodology of this research is qualitative as well quantitative. The primary research did by visiting the crafts persons at Kaithoon and administering a questionnaire to them. The scope of this study will to obtain basic information about traditional craft,

Quantitative approach further classified to inferential approach to form a database from which to infer characteristics of this cluster. As quantitative research, data utilized to obtain information about whole research. Secondary research will also include data available with government, non-government bodies, and literature survey of libraries and studies, which may undertaken in the area

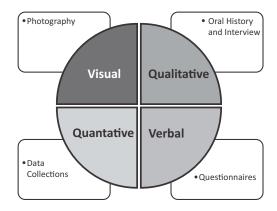


Figure 1: Design Research: Methods and Perspectives,

The data are collected through survey and interview of 100 weavers at Kaithoon .Secondary data collects from geographical indication (GI) reports, books and government agencies like weavers service centre (WSC) and Common facility centre(CFC) at Jaipur and Kaithoon.

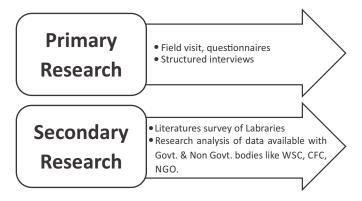


Figure 2: Details of primary and secondary research

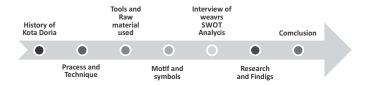


Figure 3: Stage wise break up for Koto Doria Study

After collecting data, the information edited, coded and tabulated to facilitate analysis of data on Microsoft Excel 2007.

REVIEW OF LITERATURE

India's woven textiles know for its richness and diversity. The earliest evidence found a tiny mordant and dyed fragment woven of spun cotton yarn found to a silver jar in an excavation of Mohan Jodaro in the Indus valley at 1750 BC. India is possibly one of the few countries where craft still practiced in its villages and provides livelihood to millions. A cluster is a geographically concentration of (mostly in villages/townships) household units producing handloom. In a typical cluster, such producers often belong to a traditional community, producing the long-established products for generations like Kaithoon.

According to Khadi and village industries commission (KVIC), the term Khadi referred to any cloth, which woven on handloom in India from cotton, silk, or woollen hand spun yarn or a mixture of any two or all such yarns.

The Khadi, khaddar or khada is any cloth woven on handlooms in India from cotton, silk, wool or a mixture of these fibres. The term also used polyester cotton (Edition, 2009).

Khadi or khaddar is one of the handmade fabrics of India for which hand spun yarn is used. During freedom struggle, the development of Khadi and village industries was an instrument to meet twin objective of self-reliance through local production and active participation in freedom struggle by removal of hunger and unemployment. Khadi is not a just a fabric, but a way of life which has been interwoven with great Indian legacy since long (Pl. Commison, 2006).

Mahatma Gandhi presented Khadi as a symbol of nationalism, equality and self-reliance. In his words, "I am a salesman of Swaraj. I am a devotee of Khadi. It is my duty to induce people, by every honest means, to wear Khadi. (Gandhi, 1965)".

Indian handloom sectors given main concern in the mid eighty with the advent of Textile Policy. Henceforth, various economists started conducting research from 1982 onwards.

Srinivasulu K. (1996) analyzed the impact of 1985 Textile Policy on handloom sector. He found that the objective of

NTP (New Textile Policy) is to increase output and efficiency of mills and power-looms to meet national as well as international market demand. Due to implementation of NTP, there was fear of job loss of artisan communities engaged in handloom weaving. In spite of their numerical strength, they could not protest and resist, and fail to listen and their limited organization fails to pressure the electoral prospects of the governing elite. (Srinivasulu, 1996)

Niranjana S. (2001) raised the major issues faced by weavers in three states namely, West Bengal, Kerala and Andhra Pradesh. According to the study, weaver's sole dependence about what the weaver wove on organizational structure, inferior technology for cotton and yarn processing; high yarn procurement cost and yarn shortage has been a major problem for handloom weavers. (Niranjana, 2001)

Mukund K. and Syamasundari B. (1998) conducted a study to explore reasons for poor functioning of weavers' cooperatives in Andhra Pradesh. The function of co-operatives was to distribute yarn at subsidized price to the weavers. However, the amount of yarn supplied was inadequate due to which weavers had to buy yarn from open market at a higher price. (Mukund, Vol. 32, No. 52, 3323-3332).\

Devi L. (2014) studied the socio-economic conditions of the handloom workers in India. It found that handloom sector has gradually deteriorated over the years. Handloom weavers were facing severe income crisis because of adverse government policies, globalization and change in socio-economic conditions. Ineffective implementation of government schemes has increased undue competition from the power loom and mill sectors, which are responsible for the crisis. (Devi, April - June, 2014).

This study is limited to find out the impact of Government schemes for handloom sector in the Kaithoon town in Kota district of Rajasthan.

GEOGRAPHICAL INDICATION

The exclusive characteristic of the Kota Doria fabric produce on handloom encouraged the Kota Doria Development Haduuti Foundation (KDDHF) to apply Geographical Indication (GI) with the help of United Nations Industrial Development Organisation (UNIDO). Under the geographical registration act 1999 in 2005, the GI registration accorded for the restricted geographical region of Kota in class 24 & 25 of Handicrafts.

GOVT. HANDLOOM SCHEMES

Some of the government handloom schemes implemented for development and welfare of handlooms providing holistic and sustainable development to weavers and enhancing their products in domestic as well as in global markets are: Yarn Supply Scheme: Yarn Supply Scheme aims to aid in constant supply of basic raw materials and varieties of yarn to handloom weavers at a sustainable level off the mill gate price. This scheme constitutes three elements namely, supplying yarn at mill gate price; providing 10% subsidy on price of domestic silk, wool and cotton hank yarn and lastly.

Centrally Integrated Handlooms Development Scheme (CHDS): it is a merger of four schemes implemented during the X Five Year Plan namely, the Deen Dayal Hathkargha Protsahan Yojana (DDHPY), Integrated Handloom Training Project (IHTP), Integrated Handloom Cluster Development Scheme (IHCDS) and Workshed-cum-Housing Scheme. The CHDS came into existence in the XI Five Year Plan (2007-08) with the main objective to form self-sustainable weaver's groups by including weavers within and outside the cooperatives in selected handloom clusters. It involves upgrading the skills of handloom weavers to produce diversified products meeting quality and market requirements and facilitating credits from financial institutions/banks.

Marketing & Export Promotion Scheme (MEPS): it is a centrally sponsored scheme initiated during the XI Five Year Plan. It constitutes promotion in the areas of marketing and handloom exports. This scheme aims to create awareness

regarding fabric variety and design trends in handloom sector among consumers.

Health Insurance Scheme: It is applicable for all handloom workers involved in dyeing, printing, finishing, sizing, Jhala making, jacquard cutting, warping and winding. This scheme covered (a) weavers along with their wife and two children, (b) all pre-existing diseases as well as new diseases and (c) has great provision for OPD. The scheme is approved up to 30th November, 2012

Mahatma Gandhi Bunkar Bima Yojana (MGBBY): it implement through Life Insurance Corporation of India (LIC). The scheme caters to handloom weavers providing them insurance cover under either natural or accidental death and total or partial disability.

RAW MATERIALS:

SOURCING OF YARN

The yarn use for Kota Doria is cotton, silk and Zari. Cotton yarn sourced from the Ahmadabad and Maharashtra. The 80-120 English cotton combed (\$) cotton yarn used in warp and weft. The 13/15/20/22 Denier (D) degummed silk yarn source from Karnataka. Zari yarn purchased from Gujarat (Surat).

S.No	Warp	Weft
1.	18/20 D and 100-110 \$ cotton	18/20 D Silk and 100-110 \$ Cotton
2.	18/20-20/22 D silk and 2/100 -	18/20 - 20/22 D silk and 2/100 - 2/120 \$ Or 100 - 110 \$ cotton
	2/120 \$ cotton	

Figure 4: Sourcing of Yarn at Kota doria: Denier(D), \$ Cotton count



Figure 5 Winding of yarn using bags of sand as weighing material

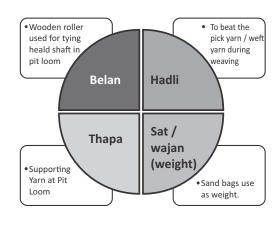


Figure 6: Tools used in Kota Doria cluster

MANUFACTURING PROCESS



Figure 7: The Elegance of Kota Doria at Kaithoon

Pirn winding: The weft yarns transferred from hank to spools by pirn winding. Aesthetic threads like Zari are also inserting during process. The rotary wheel attached to a harness of conveyor belt giving rotary motion to the spool mounted at the other end. Rotation of wheel by hands results in the spool rotation and thread wound on small spindles called pirn.

Warping: The warp yarn is prepared on wooden pegs called Peg Frame. These Peg frame locally called "Pinjars" arrange the warp yarns in crisscross direction to eliminate the broken yarn. The length of Rope is equal to length of warping thread. At least two persons are requiring in warping process. These yarns wound on two iron pegs, dug into the ground by fully stretching the rope.

Dyeing and Sizing: The hank method used for yarn dyeing. The weavers due to compatibility with cotton also use direct dyes. The Sizing process provides strength to warp yarns, which hold the beating action in weaving. The "Maand" or thin rice paste use with onion juice used as size. it is applied by handmade brush on yarn. These brushes made up from coniferous leaves found in Kashmir valley and Himachal Pradesh.

Drafting: It is process to pass the warp yarns through healed eye of healed frame. The Drafting plan depends on the design Plan of handloom.

Denting: The combs like structure made by bamboos found in Varanasi called Reed or locally known as "Ranch". Weaver using traditional skill fills the Ranch with yarn. The Reed is made of special variety of bamboos.

Piecing: Piecing is process in which new yarns are joining to old yarn by help of thumb and index finger using ash. The function of ash is producing friction in the piecing process.

9.7 Design Setting: The "Jala" technique use to make designs in fabric. The sixteen heald frame in dobby and jacquard (100 hooks) also use by weavers to produce fine designs at Kaithoon. The small spindles (locally known 'tills') are use for making design motifs.

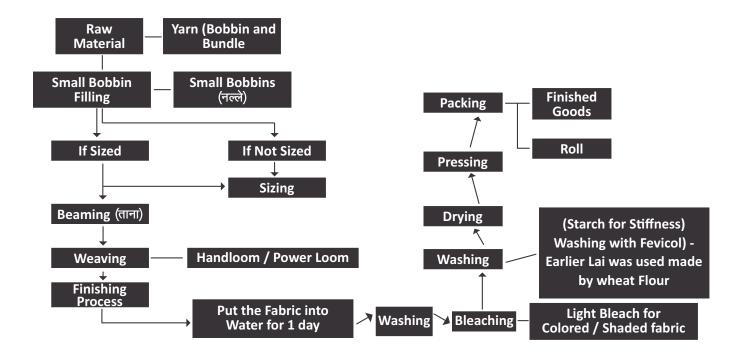


Figure 8 : Manufacturing of Kota Doria Handloom on Pit Loom at Kaithoon

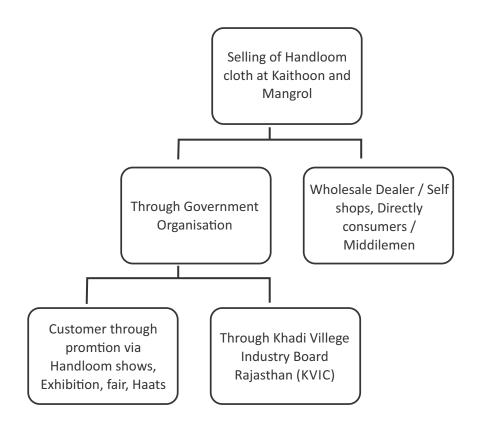
Weaving:

Pit looms use to making handloom fabric at Kaithoon. The wooden shuttle uses for pick the yarn during shedding. These techniques are traditional require considerable improvement as per ergonomic point of view. The traditional designs are transfer on to fabrics by using Jala technique in dobby loom (Document, 2016).

FLOW CHART



MARKETING OF HANDLOOMS PRODUCTS



Major Products of Kota Doria:

Kota Doria: Sari, Suits, Dupattas, Dress material, Home furnishing.

FINDINGS OF THE RESEARCH

In response to the questionnaires, which given to 126 peoples, we got response from 77 weaver and 3 master weavers. As per demographic data showed that rural people practiced more (91.65 percent) than urban in this sector. As far as master-weavers are concerned, all were belonging to rural area. In addition, over two third of the weavers attained little or no schooling.

Nearly one-third and another one-third of the weaver population had completed just primary and secondary schooling respectively. Master-weavers are mainly graduates and post-graduates. The negligible percentages of higher educated people indicates towards educational poverty of the population under study and the lack of scientific practices and technological innovations at par with power-looms can be inferred as one of the consequences undermining handlooms.

Around 72.6 % of weavers and weaver-masters found to be aware of central and state government schemes like Integrated Handlooms Development Scheme, Mahatama Gandhi Bunkar Bima Yojana, Health Insurance Scheme, Marketing & Export Promotion Scheme and Yarn Supply Scheme. Weavers must know benefits of these schemes, especially those living in the back of beyond.

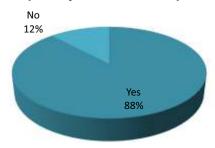
1) The 80% weavers are know about government schemes like CHCDS, yarn supply scheme, health insurance scheme, Mahatma Gandhi Bunker Yojana. They also get benefit from them. Most of the weavers (91.11 percent) are satisfied with this scheme as they get all types of yarn (basic raw materials) at mill gate price. There is low satisfaction of weavers associated with provision of providing margin money for working capital, money to purchase new loom, jacquard and accessories. In case of master-weavers, satisfaction level is low in providing money for purchase of computer aided textile design (CATD) system and creating awareness about the unique handloom products. The 17 % of the population under study found benefited from training programs in weaving and design thereby increasing their annual earnings by 5% to 15%.

- 2) The impact of MEPS on weavers regarding satisfaction of various aspects/ components of the scheme done by using Friedman test (non-parametric test) on ordinal scale. The lower the mean rank, the higher is the overall dissatisfaction level for that component. Low satisfaction noted to be associated with encouragement/support from the scheme towards innovation in designs and awareness of brand identity in the market. However, the provisions of the scheme including organizing national handloom expos, special expos and generating
- The 78% respondent are aware about E-commerce portal and keen to learn the computer training for better knowing and operation online E-commerce portal for selling their cloths.
- 2) The 96% weavers had an account in post office/bank, which is boost during digitalization.

Rank of MEPS		
Parameter	Mean rank	
Organize expos Traditional skills promotion	3.93 3.71	
Brand identity of Kota doria	1.51	
New technology adaptation	4.01	

- 3) Only 38 % weavers, helpers receive skill training and up gradation training.
- 4) Only 40% weavers agree to get subsidy on raw materials.
- 5) The 73% weavers sails products through intermediaries, rest 15% sail through shops and 12% through govt. cooperative stores, fairs and exhibitions.
- 6) The 78 % weavers want training for capacity building, design intervention to expand product portfolio.
- 7) The 88% weaver has raise serious concern regarding cheap power loom product eating their handloom share. The 7% weavers also had raised an issue for getting lower rate products.

Weavers response for questinare (Sample size - 100)



SWOT ANALYSIS OF HANDLOOM CLUSTER:

SWOT analysis is an effective tool for critically analysing about products, market, availability of raw materials, price and promotion and total quality management (TQM).

Strength:

- The distinguishing characteristics of SE handloom is the crisp, coarser feel, specially "Khat" in Kota Doria which produce thicker and thin or slub effect which cannot be produce on power loom.
- 2) Handloom cloth has unique hand due to different beating force by reed during primary motion, which cannot be produce by power loom.
- 3) Electricity consumption is less and more economical then power loom. Flexible working hours, working from home provisions make lucrative the process. The raw material is locally available. Hallmark and GI certification is award to the Kota Doria Handloom.
- 4) Skilled artisan's availability is an added advantage in this cluster.

Weakness:

- The Handloom fabric is expensive then power loom. It requires high skill, more time and patience to produce compare to mechanized loom.
- 2) Old and traditional methods still used in cluster.
- The next generation of artisans showed less importance due to small wages and more time consuming.
- 4) Less consistency, old and traditional design are hindrance of growth this sector.

Opportunities:

- 1) The future lies in the fact that handmade fabric meant for high couture, which constitutes for high-end market.(Brandon R, 2016)
- 2) Product diversification and skill up gradation is the main theme for growth.
- 3) More focus of govt on revives and publicized the handlooms.
- 4) Tap to overseas market, as exporters are keener to buy the handmade product.

Threats:

- 1) The traditional weavers are not keen to continue this profession due to fewer wages, stiff competition from power loom from China, Varanasi and Kolkata.
- 2) New generation is not keen to enter.
- 3) The Fiscal difference exists between retailers, master weavers and weavers.

ISSUES AT HANDLOOM CLUSTER:

- 1. The fiscal differences between weavers and retailers, lack of professionalism and awareness.
- Limited design inspiration, completely depend on intermediaries. The intermediaries are only taking source to give new designs and weavers work only on that design research.
- 3. Less promotional activities, lower literacy rate, no knowledge about basic computers, which help in new design intervention.
- 4. This cluster has lack of product diversification. The number of khadi workers is down due to lack of profit to run the family.

LIMITATIONS OF STUDY

The short duration of the research limited the study of all possible factors impacting the livelihood of weavers of Kota Doria.

Respondents available for study were limited due to the master weaver's apprehensions on losing his workforce to interaction with outsiders on better livelihood opportunities.

There could be bias in the responses of the respondents owing to on their unwillingness towards disclosing personal information.

CONCLUSION

At a time when consumers are preferring natural and

handmade products over synthetic product, Hand spun or Handmade fabrics at this cluster is one of sustainable option to earning livelihood and provide employment to more people, Now more people turning to handmade products with capability of exports. According to Mahatma Gandhi words," The revival of hand spinning and hand weaving will make largest contribution to the economic and the moral regeneration of India." At present, craft sector has supposed 1/5th share of the total domestic industry in the nation. However, regrettably the revenues earned from this sector are not sufficiently getting by the artisans who remain at the mercy of intermediary, trader and exporter for both sustained earning and exposure to the marketable designs with change frequently with time. Today the younger generation is not keen on learning skills to pursue Handlooms. Many external factors such as competitive markets, globalization and deteriorating socio-economic conditions of weavers contribute to this. Consequently, the younger generations look for alternative career options in varied fields.

In order to improvement and address of the problem of these clusters, following suggestion has offered:

- Product development by innovative design by weaving or surface ornamentation is need of hour for value addition of this handloom cluster.
- Training can be impart for weavers for online selling of products by e-commerce to expand the market, direct marketing widen the customer base. Design intervention of through technology for the betterment of product.
- 3. Change the customer aspect or information for genuine handloom products makes difference from power loom products.
- 4. There is need for dedicated market for selling a handloom fabric at Kaithoon, where customers directly purchased the genuine material.
- 5. The ability to produce goods in small volumes, rapid change over to new designs and aesthetically attractive designs are an edge of handloom over the power loom/mill sectors. Understanding of artisans skills required for current markets which require assistance in the application of traditional craft to products of utility and relevance for modern customers to keep the craft flourish and alive.

This change in professions addressed if crafts acknowledged as a respectable and economic occupation and given opportunity to develop them further as entrepreneurs. Thus, there is a need to augment traditional arts with entrepreneurial skills that are the backbone of cottage and

small-scale industries and establish better market linkages, enhance branding and ensure access of credit.

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