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Research Paper :

Hand embroidered and *Jamdani* patterned Dharwad Sarees: A comparative study

SHAMEEMBANU A. BYADGI **AND SHAILAJA D. NAIK**

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See end of the article for authors' affiliations

Correspondence to:

SHAILAJA D. NAIK
Department of Textiles and Apparel Designing, College of Rural Home Science, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

ABSTRACT

Kutch situated in the border region of Gujarat state is a drought-prone area which is famous across the world for its exclusive hand embroidery done by the native women. Embroidery of various kinds is part of their traditional dresses, turbans, shawls, sarees and other accessories. In the present study, an attempt has been made to develop selected Gujarat (Kutch) embroidery motifs woven as *Jamdani* patterns on Dharwad sarees. The designs were incorporated in the body and pallav of Dharwad polycot sarees using jacquard shedding mechanism. Further, the cost aspects of these trendy *Jamdani* Dharwad sarees was calculated by comparing with the hand embroidered saree.

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Key words : Handloom, Jacquard shedding mechanism, Jamdani patterns, Gujarat embroidery, Dharwad sarees

Indian culture and its rich heritage of tradition are reflected in many ways – the art, music, sculpture, folklore, traditional costumes and embroideries of various region of the country. Art is a means of communication in all societies. People express their emotions and feelings through various media, their emotions and visual expressions, are termed as art.

From time immemorial, man felt an urge to decorate the fabrics by various techniques – painting, printing, dyeing, weaving, stamping, embroidery, appliqué and many more. However, creating woven patterns on handlooms was perhaps the earliest method of fabric embellishment, a means of self designing.

Handloom weaving is the oldest known form of producing cloth manually. Though the handloom textiles are matchless and differ from monotony of mill-made textiles, they need to be encouraged to uplift the weaver's communities (Barua and Gogoi, 1997). Many innovations were made in handloom to overcome the laborious and time consuming activity. Dobby shedding mechanism is such an invention where small designs were woven using a pattern chain – a link of series of lattice. With passage of time, Joseph Marie Jacquard invented Jacquard shedding technology in 1801, through which it was possible to produce large and intricate designs and was adopted for producing self designs on textile made-ups, home textiles, floor coverings etc.

Jamdani is fine hand woven cotton muslin of Bengali origin, with coloured stripes and patterns. Though mostly used as sarees, *Jamdani* technique is also adopted for scarves, stoles, turbans and handkerchiefs. The word *Jamdani* is of Persian origin, where *'Jam'* means flower and *'Dani'* means a vase or a container. The earliest mention of *Jamdani* and its development as an industry is found in *Kautikaya* (about 3rd century BC), which indicated its use in Bengal. The *Jamdani* (swivel) weaving technique used to produce small floral motifs, dots, circles and other figures on the fabric surface, while weaving is in progress. It is an extra weft figuering produced with an aid of tiny shuttle/s known as 'swivel'. Each swivel carries a small bobbin of extra weft, colours may be at times different, one for each pattern because each swivel shuttle works independently and is responsible to weave a single motif.

Karnataka, one of the Southern states of India, is famous for the distinctly produced cotton, silk and synthetic sarees. Among them, Dharwad sarees are quite popular that have demand in international market too. These sarees are woven using harmonious combinations of body, border and pallav. Presently, the polycotton sarees are produced on powerloom in vivid colours, suitable for all seasons, functions, age groups of both rural and urban folk. The use of polyester as weft makes the saree light in weight, adds sheen and improves the resiliency as well

as durability. Further, the care and maintenance practices are also simplified. The pleasing colours in the body, contrast border and pallav, add beauty to the saree giving it an elegant look and thus adopted as casual as well as party wears. Earlier the traditional Dharwad sarees were plain cottons with contrast borders on either sides but today are embellished with traditional hand embroidery thereby boosting the value and popularity for these sarees in domestic as well as international markets (Vastrad and Naik, 2004).

Gujarat is not only famous for its culture and tradition but also for its exclusive matchless embroidery. The embroidery has earned name and fame because of the versatility and creativity by the women artisans. The most important centres of embroidery in Gujarat are located at Saurashtra and Kutch and are admired for the excellent handwork. Many internationally renowned fashion designers, designed the embroidered ensemble for celebrities, models, film stars and royals as ethnic wear. The women folk work day-in and day-out on the stitchery to make it an exquisite wear. This thread work along with exclusive accessories is highly praised for the distinct style of embellishment, quality of raw material and the unique technology involved in it. In fact, Gujarat thus displays the craftsmanship of the local artisans.

The application of Gujarat embroidery is mostly limited to articles of rural use and home decorations like *chaklas* (wall hanging), *ghagra choli*, trappings for cattle, *torans* or door hangings, bed linen all indicating pastoral mode of life, but has never extended to other textile made-ups. Hence, the researchers made an attempt to develop Gujarati motifs into *Jamdani* patterns and weave on Dharwad sarees as well study the cost of production of these sarees with the following objectives: to explore the possibility of digitizing the traditional motifs of Gujarat suitable for hand woven Dharwad sarees, to weave Dharwad sarees with *Jamdani* patterns and to estimate the cost of *Jamdani* patterned Dharwad sarees.

METHODOLOGY

The present study was conducted at College of Rural Home Science, University of Agricultural Sciences, Dharwad during 2007-09. The methodology adopted was divided into the following sub-headings:

Design development:

A total of seventeen conventional motifs used in traditional Gujarat embroidery were selected and grouped into three categories *viz.*, main motifs, buttas and borders. The motifs were sealed according to the simulations and digitized using the software GC Kala – 2008 with interface Paint Shop Pro (PSP). The output of digitized motifs were taken on point paper and accordingly punch cards (Fig. 1) were prepared and the pattern chain was developed.

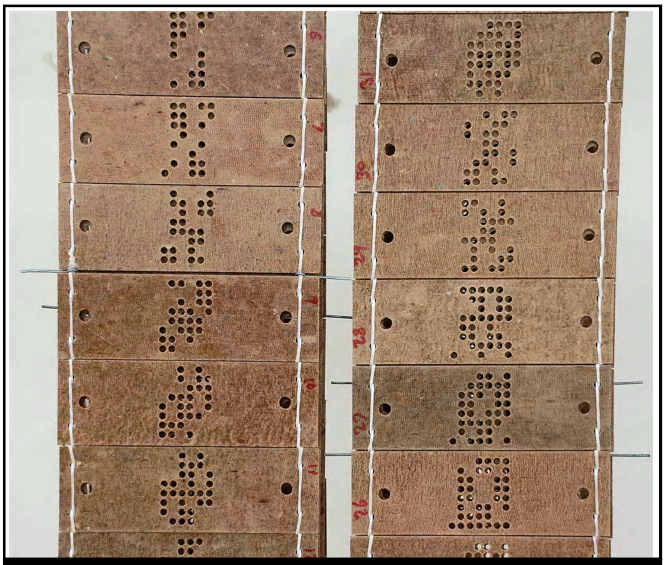

Fig. 1 : Laced punch cards

Raw materials:

Two ply mercerized cotton of 100s as warp and multi-filament polyester of 110d as weft was selected to weave the ground cloth. The extra weft figuering was produced by using four folds of the ground polyester multi-filament yarn. The border warp constituted of two ply mercerize of 64s and extra warp figuring was produced with two ply rayon of 80d.

Weaving:

Handloom with jacquard shedding mechanism (Fig. 2) of 172 needle capacity was employed to produce weft

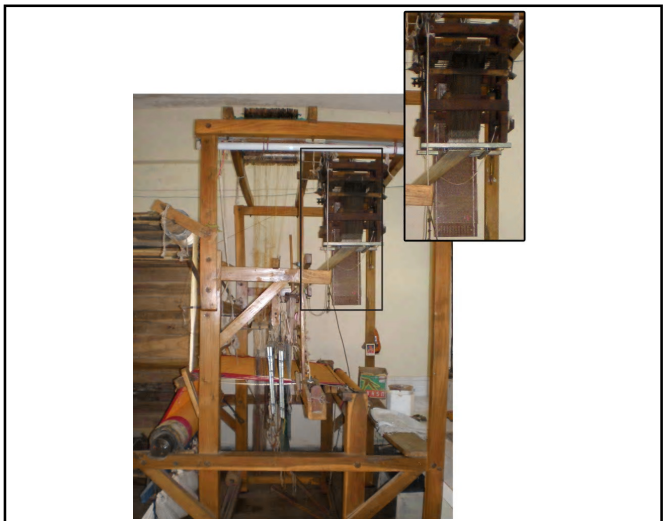

Fig. 2 : Handloom with jacquard shedding mechanism

Jamdani patterns on Dharwad polycot saree with reed count 68. The extra warp figuring in the border on either sides of the saree was produced by dobby shedding mechanism. The *Jamdani* patterns were woven in Dharwad sarees by means of small swivel shuttles (Fig. 3). These shuttles were inserted through a separate Jacquard shed operated manually. After the insertion of extra weft, the shed was closed and the ground weft was beaten to the fell of the cloth. In the sequential order of processing, the pattern was completed.

Fig. 3 : Swivel shuttles

FINDINGS AND DISCUSSION

The findings obtained from the present study in the following sub heads:

Weaving *Jamdani* patterns in Dharwad sarees:

The hand embroidered saree was considered as 'control saree' in the present study which comprised of all the main motifs, buttas and borders, arranged systematically and embroidered sequentially that added beauty and enhanced the appearance. On the other hand, total four sarees were hand woven with *Jamdani* patterns, the main colours being purple, yellow, orange and green produced as shot effect. The colour of the *Jamdani* patterns in these sarees were decided accordingly to match with the respective border colour. Further, care was taken not to repeat either the main motifs or buttas as well as border designs in each saree. A combination of bird, animal and floral designs was planned and accordingly the sarees were woven (Table 1).

Cost of *Jamdani* pattern Dharwad sarees:

Table 2 reveals about the cost of production of the sarees. Various factors like fixed cost (depreciation) and variable costs (repairs and maintenance, cost of yarns, preparatory processes, punch cards, embroidery thread; wages for weaving and embroidering) were taken into account while determining the cost of production (Fig. 4).

It is clear from Table 2 that the fixed cost remained same for all the five sarees with variation in the variable costs. Similarly, the cost of raw materials and preparatory processes also remained same. The variation existed mainly with the wages paid towards embroidering and

Table 1 : Details on Dharwad sarees woven with *Jamdani* patterns

Sr. No.	Sarees	Colour of the yarn		Colour/s of the motifs	Arrangement of motifs	
		Warp	Weft		Body	Pallav
I.	Control					
1.	Hand embroidered saree	Yellow	Purple	Green, yellow and purple	All main motifs*, buttas** and borders***.	Six bands of lines with stylized star and geometrical flower.
II.	Sarees with Jamdani patterns					
1.	Purple saree	Yellow	Purple	Purple	Mirrored fish, confronte parrots and four petal flower.	Four stripes interspaced with four petal floral border
2.	Yellow saree	Yellow	Yellow	Red	Festooned elephant, affronte parrots and chrysanthemum.	Three bands of effronte peacocks.
3.	Orange saree	Yellow	Orange	Red	Saddled horse, reflective peacocks and concentric flower.	Three bands of freehand floral border.
4.	Green saree	Yellow	Green	Brown	Prancing deer, stylized parrots and flower shoot.	Multi colour rich pallav with stylized star and geometrical floral buttas.

*Main motifs - Affronte parrots, confronte parrots, festooned elephant, mirrored fish, prancing deer, reflective peacocks, saddled horse and stylized parrots

** Buttas – Chrysanthemum, concentric flower, flower shoot, four petal flower, geometrical flower and stylized star

***Borders - Effronte peacocks, four petal floral border and freehand floral border

Table 2 : Cost of production of *Jamdani* pattern sarees (Rs. /saree)

Sr. No.	Particulars	Control	*Jamdani* pattern sarees			
		Hand embroidered saree	Purple saree	Yellow saree	Orange saree	Green saree
I.	Fixed costs					
1.	Depreciation	0.83	0.83	0.83	0.83	0.83
Total fixed costs (a)		0.83	0.83	0.83	0.83	0.83
II.	Variable costs					
1.	Repairs and maintenance	0.60	0.60	0.60	0.60	0.60
2.	Cotton yarn	80.10	80.10	80.10	80.10	80.10
3.	Polyester yarn (ground weft and extra weft)	52.35	52.35	52.35	52.35	52.35
4.	Rayon yarn (extra warp)	15.25	15.25	15.25	15.25	15.25
5.	Preparatory processes	31.66	31.66	31.66	31.66	31.66
6.	Punch cards	-	0.24	0.43	0.47	0.50
7.	Embroidery thread	25.00	-	-	-	-
8.	Wages					
i.	Weaving	100.00	300.00	300.00	300.00	300.00
ii.	Embroidering	400.00	-	-	-	-
Total variable costs (b)		704.36	479.60	479.79	479.83	479.86
Total production cost (a + b = c)		705.79	481.03	481.22	481.26	481.29
Net returns (d)		882.24	601.29	601.53	601.58	601.61
Net profits (d – c = e)		176.45	120.26	120.31	120.32	120.32

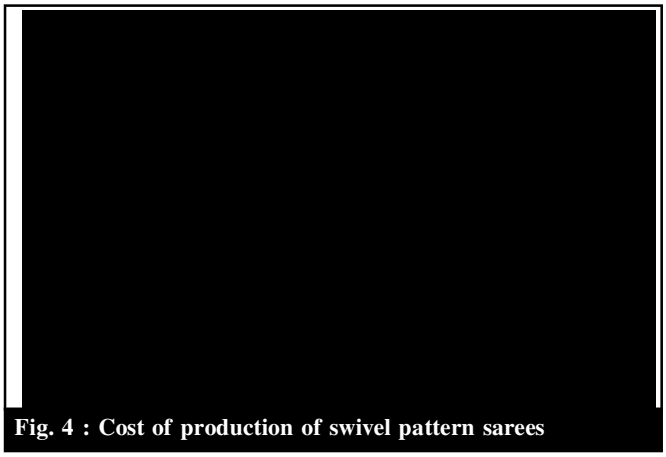

Fig. 4 : Cost of production of swivel pattern sarees

weaving, resulting into difference in the cost of production.

Looking into the total cost of the hand embroidered saree that accounted to Rs. 705.79 where greater amount paid was towards wages for embroidering (Rs. 400.00), since hand embroidery is very elaborate, time consuming, intricate and not only labour intensive but also expresses skill and creativity of an individual. Further, the embroidery threads were also relatively expensive that added to the production cost. However, the net profit earned from embroidered saree accounted to Rs. 176.45 that was about 32 per cent higher than the profit earned from swivel pattern sarees (Table 2).

On the other hand, the total cost of *Jamdani* pattern sarees was relatively lower than that of embroidered saree. Though the amount spent on fixed and variable costs of these sarees was same, a slight variation was observed with respect to the amount spent on punch cards. Further, it is assumed that the weavers earned 25 per cent of net profit per saree on total production cost.

Conclusion:

It requires two days to weave simple plain Dharwad saree on handloom and another ten days to embellish the saree with hand embroidery totaling to twelve days. On the other hand, the entire *Jamdani* pattern saree was woven in three and a half days. Hence, it can be concluded that the total cost of *Jamdani* pattern sarees was relatively less because Jacquard shedding mechanism adopted for producing these patterns not only assisted in creating new designs but also saved time, money and labour. Thus, the handloom weavers can take up the production of these sarees to earn better wages and in turn improve their livelihood. The weavers can even design and produce exquisite home textiles.

Authors' affiliations:

SHAMEEMBANU A. BYADGI, Department of Textiles and Apparel Designing, College of Rural Home Science, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

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