

ADAPTION AND DEVELOPMENT OF DESIGNS FROM NIRMAL PAINTINGS AND TOYS ON TEXTILES

By

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B. H.Sc. (Home Science)

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(TEXTILES AND APPAREL DESIGNING)

CHAIRPERSON: Dr. D. ANITHA



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2012

DECLARATION

I, **Ms. G. KRISHNAVENI**, hereby declare that the thesis entitled “**ADAPTION AND DEVELOPMENT OF DESIGNS FROM NIRMAL PAINTINGS AND TOYS**” submitted to **Acharya N. G. Ranga Agricultural University** for the degree of **Master of Science in Home Science** is the result of original research work done by me. I also declare that no material contained in the thesis has been published earlier in any manner.

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Place : Hyderabad

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CERTIFICATE

Ms. G. KRISHNAVENI has satisfactorily prosecuted the course of research and that the thesis entitled “**ADAPTION AND DEVELOPMENT OF DESIGNS FROM NIRMAL PAINTINGS AND TOYS ON TEXTILES**” submitted is the result of original research work and is of sufficiently high standard to warrant its presentation to the examination. I also certify that neither the thesis nor its part thereof has been previously submitted by her for a degree of any University.

Date:

Dr.D. ANITHA

Place: Hyderabad

Chairperson

CERTIFICATE

This is to certify that the thesis entitled “**ADAPTION AND DEVELOPMENT OF DESIGNS FROM NIRMAL PAINTINGS AND TOYS ON TEXTILES**” submitted in partial fulfillment of the requirements for the degree of ‘Master of Science in Home Science’ of the Acharya N. G. Ranga Agricultural University, Hyderabad is a record of the bonafide original research work carried out by **Ms. G. Krishnaveni** under our guidance and supervision.

No part of the thesis has been submitted by the student for any other degree or diploma. The published part and all the assistance received during the course of investigations have been duly acknowledged by the author of the thesis.

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ABSTRACT

Indian diverse cultural and social dimensions are perfectly displayed through various forms of art and craft of the regions. India has a glorious tradition in toys and paintings. The “Nirmal Toys and paintings” made at Nirmal of Adilabad district in Andhra Pradesh points out the rich artistic caliber of the ‘Soma Kshatriyas’, the artisans of the craft who combine their imagination and diligence to produce excellent pieces of art forms. Toys are usually models of animals, birds, fruits and human occupations. Paintings are from Hindu epics of Ramayana, Mahabharata and other historical and mythological stories. However the craft restricted itself to the toys and paintings of different forms but was never attempted on textiles.

A survey was conducted in Nirmal town to study the different colours, figures and techniques used toys and paintings of Nirmal. A market survey was also conducted at Hyderabad and Secunderabad which revealed the details of Nirmal toys and paintings, as well as colours and economics of the work. Literature survey indicated that there was no attempt made to adapt the motifs and designs used in Nirmal toys and paintings on textiles. Hence attempt was made by the investigator to give a new dimension to the lesser known craft and to popularize it by applying it on different textile items using weaving, block printing, painting and embroidery technique.

Twenty nine designs were developed from Nirmal toys and paintings and modified for application to kameez materials, kameezs, sarees and utility articles. The designs were selected by a panel of judges. Cotton saree material of $90^s \times 65^s$ count in plain weave and cotton polyester blended material was used in block printing the designs and for appliqué work with woven designs respectively. Double shaded Mangalagiri cotton fabric of $60^s \times 40^s$, and $80^s \times 60^s$ count was selected for kameez materials, while organdy and silk fabrics were selected for utility articles.

Designs were adapted and modified in Corel Draw to suit them for weaving, block printing, painting and embroidery techniques. Motifs and designs were woven in Ikat technique printed and painted in mono colour and multi colour according to the end use. To depict the bright colours used in Nirmal toy and paintings, pigment colours were used in block printing while the bright vat and naphthol colours were used in woven designs. Acrylic colours were used in hand painting technique.

Designed items were subjected for evaluation to know the consumer acceptability of the articles by a panel of 50 consumers, with a tested schedule. Consumers were confined to staff, post graduate students, under graduate students of College of Home Science, Acharya N.G.Ranga Agricultural University, Hyderabad.

From the findings it can be concluded that, animal, bird, floral and other motifs in stylized form were highly accepted. Woven motifs on kameez materials were the first preference by panel of consumers. Designed sarees with woven borders, designed kameezs in block printing, designed sarees in block printing, utility articles received second, third, fourth, fifth preference respectively by the consumers. All the designed items irrespective of technique followed were opined to be at a reasonable cost by majority of consumers. The study revealed that these designed items could be popularized on commercial basis.

Thus, from the study, it was found that ‘Adaption and Development of Designs from Nirmal toys and paintings on Textiles’ was successfully accomplished has opened new avenues for the designers to explore.

Chapter I

INTRODUCTION

“A little town, it occupies a proud and significant place on the handicrafts map of India lies in the district of forests”.

Indian culture and its rich heritage of tradition from different regions are reflected in many ways - the arts, costumes and embroideries. In India, every state has its own unique culture, which is reflected in designs, colours and materials, individualized shapes and patterns that are manifested in the handicrafts of that particular region.

Handicrafts making is not new, but exists since Indus valley civilization (3000 BC – 1700 BC). Handicrafts can be defined as “objects made by the hand which carry a part of creator’s as well as centuries of evolutionary tradition”. For centuries Indian handicrafts have been distinguished for their great aesthetic and functional value. Crafts not only cater to the day- to-day needs of the people but are also used for decorative and religious ceremonies in India.

The tradition of handicraft making is found since generations with a custom of passing on the skills and knowledge of their community to the next generation. And each generation adds something extra to what they have received. This process has helped in flourishing the craft traditions of every region.

Rural folk paintings of India bear a distinctive colorful designs, which are treated with religious and mystical motifs. Some of the most famous folk paintings of India are the Madhubani paintings of Bihar, Patachitra paintings from the state of Orissa, the Nirmal paintings of Andhra Pradesh, and other such folk art forms. Folk art is however not restricted only to paintings, but also stretched to other art forms such as pottery, home decorations, ornaments, cloths-making and so on.

Andhra Pradesh has a rich, fascinating range of art forms which are unique in style, theme, concept, form and expression. A small town called Nirmal in Adilabad district of

Andhra Pradesh is famous for toys and paintings. Nirmal toys and folk paintings are highly stylized and have a striking individuality. A wide variety of articles are made with painting themes centered around their life styles.

Need for the study

Folk arts have been a great source of inspiration for the designers. Folk arts rendered in painting, printing and embroidery play an important role in creating new designs, apart from meeting the ever increasing demand of customers for exclusiveness.

Taste for exclusive designs in the modern society has an increased demand due to the fast changing fashions and their exquisite look. Art of fashion is a vicious circle, with change in its trend from time to time. However, this change has hardly tapped the beauty of the trendy textile crafts of any state completely.

Nirmal toys and painting designs can be tried on different textile articles. The potential use of the application is twofold. Primarily, it helps in the diversification of Nirmal crafts and the artisans who do weaving, printing and painting can be benefited as they can capture the export market due to their ethnic look. Secondly, it contributes to the fashion world by reviving a traditional folk art. The combination of these folk forms with weaving, block printing, painting and embroidery along with the contemporary embellishments was not tried on textiles articles so far.

A pilot study was conducted by the investigator in twin cities of Hyderabad and Secunderabad in order to find out the availability of designs developed from Nirmal toys and painting designs on textile items. The findings of the study indicated that Nirmal toys and painting designs have not been adapted on textile items. Hence, these designs have been tried for its diversified usage on different textile items.

The present study aims to adapt and develop designs from Nirmal toys and paintings on textiles. The objectives of the study are as follows.

- To collect information on different designs used in Nirmal toys /paintings.
- To adapt and develop the designs suitable for different textiles.
- To develop value added products through weaving, printing and embroidery
- To estimate the cost of designed articles and find consumer acceptance.

Chapter II

REVIEW OF LITERATURE

The review of literature provides a brief resume of literature and appropriate theoretical orientation, showing the extent of knowledge regarding the subject. Literature pertaining to the present topic is presented under the following headings.

2.0 Introduction

2.1 History of Nirmal handicrafts

2.2 Nirmal toys and paintings

2.2.1 Toys

2.2.2 Paintings

2.3 Process of production

2.3.1 Toys

2.3.2 Paintings

2.4 Artists of Nirmal toys and paintings

2.5 Designs in Nirmal toys and paintings

2.5.1 Toy designs

2.5.2 Paintings

2.6 Contemporary themes

2.7 Nirmal toys and paintings making – an income generating activity

2.8 A diversify use of traditional folk design onto modern wear

2.9 Folk arts and growing popularity in designing

2.10 Commercialization of folk art

2.0 Introduction

Designers strive to create fabrics and garments that are appropriate and palatable for the most vulnerable group of fashion. To create such designs, designers take inspiration from various sources like nature and man-made objects, which are part of the near environment and that of past traditions. A heterogeneous country like India with its varied cultural and traditional background has taken pride to introduce their culture and traditions through art and crafts of the region. These arts and crafts have gained an important source of inspiration for the textile designers. Adaption of crafts not only helps in the revival of it but also helps in bridging the gap between rural art and modern usage.

Kashyap (1995) pointed out that the ingenuity of the Indian craftsman's survival is primarily at the hands of modern designers. For the survival of the crafts, they need to be redesigned for contemporary use so that they become a part of the present consumers' life style enhancing them with new colorations and patterns.

The state of Andhra Pradesh in the south has a distinction of having all important categories of handicrafts practiced in their traditional locations spread over different parts of the state offering ample astounding handicrafts. The artisans still make these extraordinary handicrafts with dexterity. The eminences of these handicrafts lie in their traditional method of creation. These handicrafts have been produced since ancient times to the present day through their traditional methods. The excellent toys of kondapalli, lacquered toys of Etikoppaka, Red Sandler toys of Tirupati and toys and paintings of Nirmal are some of the different inspiring factors for design development.

The "Nirmal Toys" of Andhra Pradesh points out the rich artistic caliber of the local people who combine their imagination and diligence to produce excellent pieces of art

forms that attracts children and adults alike. These beautiful toys are used as gifts of love and appreciation. They can also be used as a show piece to decorate the drawing rooms of the lavish households.

2.1 History of Nirmal Handicrafts

Nirmal, the land of crafts and craftsmanship is a small town embedded amidst Sahaydri mountain range – beautiful hills and forests of Adilabad District. This occupies the most important place in the handicrafts map of the sub continent, India. Adilabad is situated 210 Kms from Hyderabad, which is the capital city of Andhra Pradesh. It is known to produce amazing paintings, exclusive handicrafts and wooden toys, a famous 400 year old art belonging to the realistic art genre developed and practiced by the ‘Nakkash artisans who had migrated from Karnataka. ‘Nakkash has been the main community, which has contributed to the art who painted brilliant scenes from the Hindu epics like the Mahabharata and the Ramayana. These craftsmen families have prospered until the end of the rule of Nizam of Hyderabad. Originally, Naqqash initiates were trained in the work shop – schools by their seniors. They first needed to meticulously study the physical features of different birds, animals and shapes of fruits. This was followed by a training session that made the student craftsmen attain perfection in terms proportion which was shown through drawings. It was only after mastering drawing; Naqqash was allowed to take up making toys in wood.

Folklores say that Nirmal was renamed after a village headman and a chieftain Neema Naik who migrated to Nirmal town about the 17th century from Rajasthan, who was involved in the manufacture of war weapons. He also encouraged craftsmanship of his workers thereby helping the growth and promotion of art of the wood engraving. Nirmal always enjoyed the patronage of the ruling nobility. The Nizam’s of Hyderabad were greatly inclined towards the ecstatic wooden engravings and craftsmanship. The Nawabs of Hyderabad tapped the skills of these craftsmen and became generous patrons of this craft. Interiors of royal residences were embellished with intricate gilded designs that soon grew to be eponymous with Nirmal.

Another story is that this art came into existence when a king from the state of Rajasthan, known as king Nimmanaidu, taught the local people to imitate and modify Rajasthani wood art according to their own way. There are many fables associated with the origin of this art and exact reason is still unknown. Since, then this art form was continuously patronized by many Deccan Nawabs and subsequently it became famous among local people also.

It was mentioned that once during his visit to Nirmal, the Nizam was given a tremendous grand welcome, where in all the craftsmen decorated the venue; which included an intricately designed banana bud whose petals were coloured gold. This embellishment was suspended above the Nizam's seat, which unfurled and showered a cascade of golden coloured petals on the Nizam. The Soma Kshatriyas or the woodcarvers received the royal patronage of the overwhelmed Nizam.

2.2 Nirmal Toys and Paintings

2.2.1 Toys

Aptly called as the land of toy, Nirmal has a specialty of utilizing simple articles, which are locally available in abundance for preparation of toys. The list of Nirmal goods is endless but the basic material used is wood whether it is furniture, toys, plaques, bangles, jewellery boxes, screens or miniature paintings.

Nirmal toys are mainly made of "Tella Poniki" wood which is light weight and half white in colour, very soft and flexible to work and can be cut into desired shape and size depending upon the toy to be made. This wood is abundantly available in the neighboring forests of Nirmal. The Poniki wood gets shaped in the hands of the artisans who make exact copies of fruits, vegetables, birds and animals. Birds are generally shown flying and a flock of three to five makes a wall plaque (Archana, 2008).

Lacquer chips, bamboo, sand paper, tamarind seeds, water paints, saw dust, sudda mitti, cutting machine and basic carpentry tools are used for preparation of toys apart from “Poniki wood”.

2.2.2 Paintings

For Nirmal craftsmen, painting is a hereditary occupation. They were traditionally painters of Ganjifa playing cards and toys. The Ganjifa cards and the box for the cards are a speciality of the craftsmen. In medieval period, Mughal rulers were so enthralled by the beauty and colorfulness of Nirmal paintings that they extended patronage towards this art form. Five centuries later Lady Hydri brought the craftsmen to Hyderabad and promoted this art for more growth and development.

Paintings are made from Nakkash teak wood which is used as base material consists of lacquering the surface of the board and the painting the chosen design. Nirmal designs have distinctive floral patterns similar to Mughal arabesques. The colour palette is sophisticated and the forms are bound by gold outlines. Moving further away from being mere painters of epics, the artisans today paint motif the style of the old Indian schools. The concept and themes Nirmal paintings suggest influences from Indian schools like Kangra, Ajanta and Mughal miniatures.

Earlier, the craftsmen used indigenous mineral and vegetable dyes for colouring their products. It is believed that they could even produce gold colour from herbal extracts. In more recent products, the floral designs are restricted to the borders. Artists depict the scenes from Hindu epics of Ramayana, Mahabharata and other historical and mythological stories, Teak wood, colour, sand paper, paint brushes, tracing paper, lappam are used for paintings.

2.3 Process of Production

2.3.1 Toys

The wood brought from forest is cut to required block sizes and were soaked overnight then dried to lightening the colour of wood and for natural seasoning. Pieces are cut into various shapes with the help of cutting machine. These shapes are carved into different parts of toy by using carving tools. These parts are joined and the surface area is applied with the use of local glue called 'chinta lappam'. Chinta lappam is made from tamarind seeds by boiling to the consistency of a paste which is mixed with saw dust. The prepared toy is left for drying in sun for a period of 2-3 days. If few cracks appear then they are filled with glue, and left for drying again. This smoothenes any ridges and depressions that may incidentally occur in the toys. They are finally coated with 'sudda mitti'. Sudda mitti is a fine clay gathered from river bank (Godavari), used as a better base coat for painting. The toys are then dried and finally coloured with brilliant hues. Mostly indigenously prepared dyes were used for colouring the toys, but now use of synthetic colours is adopted (Figure 2.1).

The less ornamented toys are made without application of colour. Those decorated lavishly are dominated by gold colour. The peculiarity lies in the way the gold colouring is produced. Juices of two kinds of plants are boiled in linseed oil and the brilliant gold colour is produced. Generally, the base colour is black or natural mud.

2.3.2 Paintings

The making of the wall plaques or the artifacts slightly varies from that of making toys. The painting process consists of lacquering the surface of the item and then painting the chosen design. Teak wood is taken and cut to the required size of art board shape and well finished on lathe before painting. This board is lacquered with 4 or 5 coatings to smoothen the surface and is then dried. Using the spray technique background colour is applied. After drying the design is transferred onto art board by using chalk powder. First light colours are filled in and later bright colours are used (Figure 2.2). The touch up is

done to the painting using gold and finally varnished. The quality of paintings is very high with intricate designs, rare artistry and skill giving rise to breath – taking beauty (Figure 2.3). Experimentation of colours resulted in many transformations, which are very tasteful and became world famous.

2.4 Artists of Nirmal toys and paintings

Artisans of Nirmal were called Naqqash or Jingars. Artisans that their ancestors sculpted numerous sculptures like, Banana bud, fine Kishti (Tray), Khanchibba chowki



Figure 2.1. Artists working on Nirmal toys.



Figure 2.2. Artist painting the design.



Figure 2.3. Artist giving finishing touches to the painting.

(Settee) or Palang (Cot), Ganjifa playing card sets (originated during the Mughal rule) (Figure 2.4) etc. Due to the lack of patronage, they settled in different places of the country. The artisans who make these toys and paintings are “Soma kshatriyas” which is a band of enterprising artisans who migrated to Nirmal town about the 17th century (by Neema naik) from Rajasthan, but even before, the craft was existing in all its finery at Nirmal. “Soma kshatriyas” belong to a backward and minority community, who mainly followed wood carving and painting as their ancestral profession.

In the early times, Nirmal artists received good patronage from the Nizam’s rule. Soon after independence, these artists fell on bad times; most of the artisans gave up their ancestral profession and shifted their professions to other works. So the government came to their rescue and formed a society in 1955 called “The Nirmal Toys and Arts Industries Co- operative Society Ltd” by bringing expert crafts men who make Nirmal toys and paintings to the city to rehabilitate the Nirmal paintings.

2.5 Designs in Nirmal toys and paintings

2.5.1 Toy designs

They are usually models of animals, birds, fruits and human occupations. There are similarities between the Nirmal and Kondapalli toys in the type of wood used and in the manufacturing process. Toys are structured on the desirable notes of the artisan’s imagination by incorporating their culture. The artisans maintain the tradition of churning out the old traditional designs. The toys produced include birds like Parrot, Peacock, Duck, Flamingo, Wood pecker, Crane, Turkey, Parrot eating custard apple, Sparrow, Cock (Figure 2.5), flock of birds (Figure 2.6) etc. Animals like Deer, Tiger, Lion, Horse, Rabbit, Snake, Elephant, Crow and Giraffe etc (Figure 2.7) are also made here. Fruits like Apple, Custard apple, Sweet lime, Guava, Banana, Mango, Water melon etc. and Vegetable species like Brinjal, Onion, Ginger and Cloves etc come into live in the hands of artisans. Mythological idols like Dustasamharaka Durgadevi (Figure 2.8), Radhakrishna Parinayam (Figure 2.9) and Ganapathi, lord Venkateshwara etc. are also among the toys done here.



Figure 2.4. Ganjifa playing cards.



Figure 2.5. Toys of different birds.



Figure 2.6. Flock of birds.



Figure 2.7. Toys of different animals.



Figure 2.8. Dustasamharaka Durgadevi



Figure 2.9. Radhakrishna Parinayam.

Some of their other famous toys include pan tray, mother and child, women milking the cow (Figure 2.10), twin pigeons, look alike quails, standing birds, guinea fowls, snake in mango- This handicraft is crafted by the famous and skilled artisans of Nirmal to amuse kids popularly called as Snake in Mango in which, when the mango is held upright, a snake appears from inside of it.

Though the artisans had started making mythological figures from the past, presently only animals and birds are made in larger quantity and idols are created on demand. Items like jewellery and trinket boxes, screen panels, furniture in exquisite designs over the conventional black background are some of the other popular offerings.

2.5.2 Paintings

Motifs used in paintings include floral designs, frescoes from Ajanta and Ellora and Mughal miniature paintings on themes such Lord Krishna sermonizing Arjuna before the Mahabharata battle, Lord Krishna and the devotee Meera, Radhakrishna (Figure 2.11), Saraswathi, Parvathiparmeshwarulu (Figure 2.12), Dancing Ganapathi (Figure 2.13), Lord Venkateshwara, Vishnu Dasaavataralu, Shakuntala (Figure 2.14), Vishwamitra Menaka pranayaragam, Black queen, Tribal lady (Figure 2.15), Kamal dancer (Figure 2.16), a nymph blowing a trumpet and another one dancing, Yenkinaidu (Figure 2.17), Banjara women (Figure 2.18), lady with a Pot (Figure 2.19), Fisherwoman carrying a basket of fish (Figure 2.20), Flower lady, Deepa Ragini, Yektara, Embossed paintings, Indian lady, Rajastani Radha, Rajugariustavam (Figure 2.21), are some of the nearly 150 odd regular themes that are used in these paintings.

2.6 Contemporary themes

Over the years, Nirmal work has grown to meet new needs. Apart from wall hangings, Nirmal craftsmen produce beautiful lacquered furniture, toys, pictures, trays, bowls, boxes and large screens. A large variety of utilitarian and decorative articles are also crafted in the Nirmal style.



Figure 2.10. Women milking the cow.

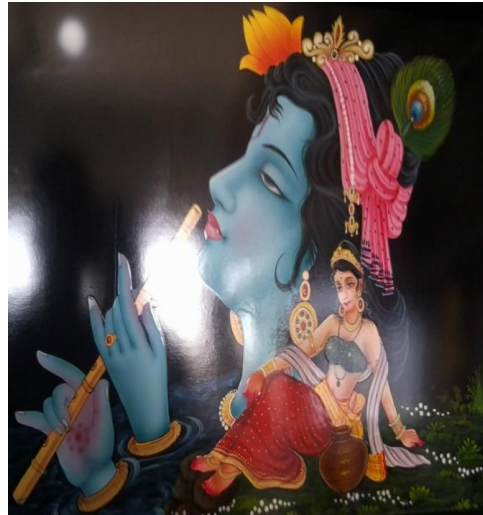


Figure 2.11. Radhakrishna.



Figure 2.12. Parvathiparmeshwarulu.



Figure 2.13. Dancing Ganapathi.



Figure 2.14. Shakuntala.



Figure 2.15. Tribal lady.



Figure 2.16. Kamal dancer.



Figure 2.17. Yenkinaidu.

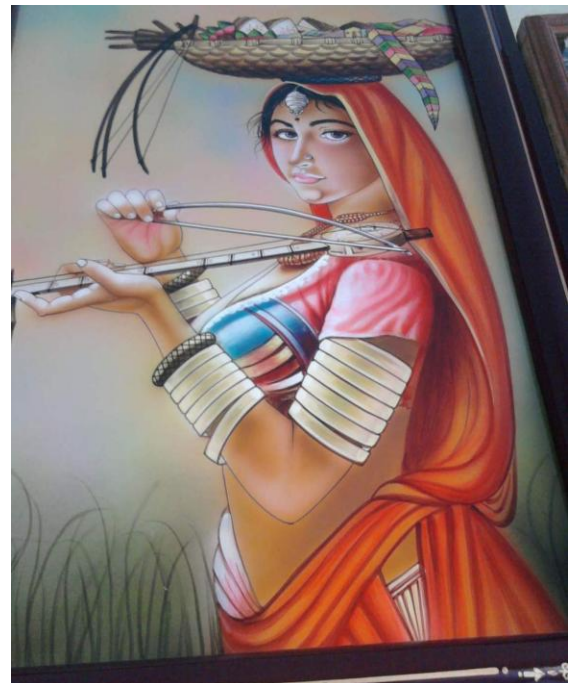


Figure 2.18. Banjara women.



Figure 2.19. Lady with a Pot.

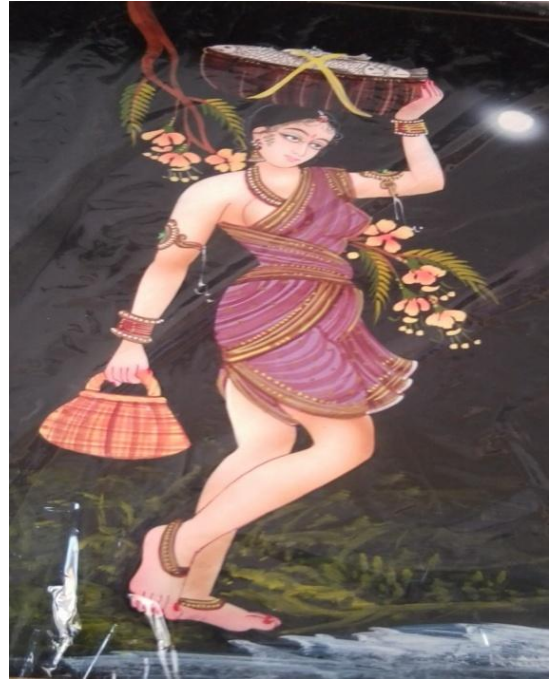


Figure 2.20. Fisherwoman carrying a basket of fish.

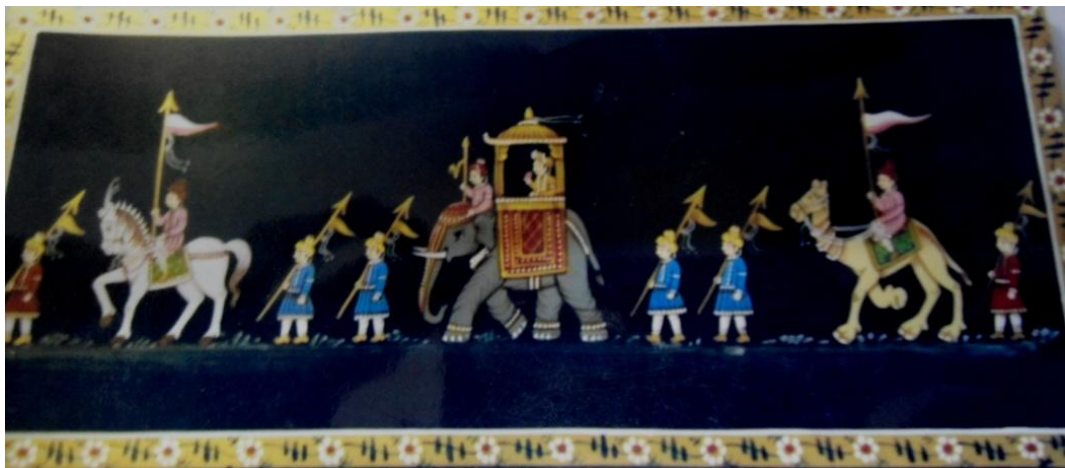


Figure 2.21. Rajugariustavam.

2.7 Nirmal toys and paintings making – an income generating activity

At present, there are only 48 households working on these art forms who formed as cluster under a cooperative. This cooperative was established in the year 1955. The cooperative has given a very organized structure to the cluster. Every year the cooperative on the basis of its quarterly meetings, revises the prices and wages for the cluster. The cluster has established its own niche in the market and most of the times there is a demand-supply gap. The cooperative has increased its bargaining power by organizing the artisans and established raw material and market linkages. The raw material is supplied by the forest department and marketing is done by orders at their own retail shop which is present in Nirmal. Most of the orders are from government agencies like Lepakshi. The society consumes about 4 Lakh rupees worth of wood every year. Artisans working in the cluster, for 8 hours daily are unable to meet the demand. The capacity is already over utilized and scaling up is not possible unless new artisans are added and trained (<http://snlpap.org/node/12>).

2.8 A diversify use of traditional folk design onto modern wear

Jyothi *et al.* (2010) studied on adaption of Mandana design on western dress. A total of 15 motifs were selected and suitably arranged on jeans and capries with “CAD” and Adobe Photoshop softwares. Cotton material was used for capries and denim fabric was used for jeans. Designs were transferred onto garments using screen printing, fabric painting, embroidery and patch work. Design acceptability scores by a panel of judges indicated that Mandana designs can be applied successfully on new fashion products meeting the ever changing demands of the customers.

Jayamala and Sudha (2006) studied on development of saree designs from traditional Mewar paintings. Information on these painting was collected along with the designs from libraries and museum of Udaipur. New designs were adopted from Mewar paintings suitable for embroidery on sarees. The best 15 motifs were finalized by a panel of 20 judges. Designs were embroidered on fine Assam silk fabric using cotton embroidery

threads and folk embroidery stitches of Rajasthan. Finished sarees were evaluated by sixty respondents for consumer acceptability and was found that all five sarees were highly acceptable by the consumers.

Girija and Jacob (2004) conducted a study on design development from Kondapalli toys. Among the Indian traditional folk arts, Kondapalli toys of Andhra Pradesh are one of the lesser known folk arts. Depending on the end use items, 20 designs were developed for each end use of which, three each were selected by a panel of judges. Kondapalli toy designs were adopted on three sarees, three salwar kameez, two bed sheets and pillow covers. Fabric of 40p/60c blended fabric was used for sarees, 67p/33c blended fabric for salwar suits and dyed long cloth for bed sheets and pillow covers. Designs were screen printed using pigment dyes. From the findings it was clear that animal and bird motifs in stylized form have an edge over the occupational toy designs. Designs on saree with blouse had the highest consumer acceptance score followed by salwar suits and bed sheets. The study also revealed that these designed items could be popularized on commercial basis.

Amita and Padma (2003) studied on development of designs from Madhubani paintings on kameez sets. Apart from the regular paintings of Hindu deities, floral, animal, bird and geometrical designs were also used to fill up the gaps in Madhubani paintings. Based on the subjective evaluation of motifs, three motifs comprising a fish, bird and flower with leaf was selected and modified for use on kameez sets. The designs were adopted on the kameez sets using weaving on jacquard loom. Half white silk yarn of 20 denier as warp and 2/140^s mercerized cotton as weft was used in weaving kameez and dupatta while 60^s cotton yarn was utilized for salwar. Four colours of dark shades as predominantly used in Madhubani paintings – green, black, red and yellow were used for the woven designs. It was found that all the designed kameez sets were well accepted by the consumers.

Sreelakshmi and Jacob (2002) studied on adopting Mangalagiri woven designs for salwar kameez sets. Birds, animals and geometrical designs in wide range of colours are the characteristic feature of Mangalagiri saree. In India the most widely accepted garment is

salwar kameez after saree. Hence the motifs, designs colour combinations, technique of weaving were studied and adopted onto kameez sets. Three kameez were woven at Mangalagiri using the selected border designs called by weavers as Nizam, Half diamond and Wavy designs in three different colours green, navy blue and maroon with 80s×60s cotton yarn count. The designs were woven in jacquard technique. The results of the evaluation showed that the designed kameez sets had good acceptance. The study revealed that these kameez sets with woven designs of Mangalagiri could be popularized on a commercial basis.

Pooja and Padma (2002) studied on adoption of Nizam jewelry designs on kameez sets. The fabulous collection of Nizam jewelry from all over the world found in the treasury of the Nizam's of Hyderabad was taken as inspiration in adopting on apparel. The combination of the traditional jewelry designs with contemporary embellishment has not been tried on apparel. Hence Nizam's jewelry designs were adopted on salwar kameez using different embroideries. Five designs were taken up by the Nizam jewelry. Polyester fabric woven in plain weave and finished with silk like appearance was used for the designed kameez sets which were embroidered in Ari embroidery using similar colors as in the jewelry. The study revealed that these designed dresses were well accepted by the consumers who described the dresses to be highly suitable for business purpose.

Seema and Jacob (2001) conducted a study on diversifying Kullu shawl designs on saris. These shawls have unique designs and colour combinations. Designs on these shawls are geometrical and abstract, influenced by the house hold surroundings and nature. Three sarees were designed with three different motifs and patterns adopted from Kullu shawl designs. Ganesh, Mergenda and Chattam were the motifs selected for adoption which were woven in orange and blue, magenta and green, brown and yellow colours combinations respectively. Sarees were designed with three and quarter inch border, half meter Pallu, and small butta motifs. Sarees were woven by the traditional Gadwal saree weaving technique; only zari thread in case of Gadwal saree was replaced by silk yarn. Pallu was woven in extra weft and borders in extra warp.

Vamshipriya *et al.* (2001) studied on adapting tribal art on textiles. Savara wall painting of Andhra Pradesh confined to the interior walls of savara hamlets of Srikakulam district are a source of inspiration for this researcher. In order to popularize the art and to preserve its reminiscent beauty, adoption of these paintings was done on textiles. These wall paintings were adopted on sarees, salwar kameez sets and bed sheets. Two sarees, 2 salwar kameez sets and 2 bed sheets were designed. Traditional Mangalagiri unbleached cotton fabric was the base with painting design done in Kalamkari technique using natural dyes. Color combinations used for both the back ground and the designs were limited to traditional Kalamkari colours. Light reddish orange and light grey colours were used for back ground while indigo, green, maroon, blue, black colours were used in the selected design. The result of the study indicated that the overall consumer acceptance of the designed sarees salwar kameez sets and bed sheets was good. Among three items designed, the bed sheet designs gained highest consumer acceptance. Cent percent of the consumer opined that these could be find a place in the Indian export market.

Dedhia (2001) studied on Computer Aided Designing by the fusion of Konark and Pipli motifs for printing bed sheets. The bed sheet designs were developed in which consumers preferred the combination of animal and bird motifs of Pipli with the ornamental motifs of Konark. A positive response was obtained with regard to the design acceptability in the Indian market and the experts were of the opinion that the created designs would have good scope in the international market.

Khosla and Randhava (2001) studied on design development by an innovative application of Chinese ornamental designs for decorating fabrics. Chinese porcelain bronze and choisonne enamel wear designs were printed using Computer Aided Designing software. Ninety motifs from the above mentioned sources were collected, with thirty motifs in each category of floral, geometrical, animal and bird motifs. The cloth was printed with one colour combination using a colour printer. The study thus rediscovered the dyeing tradition of Chinese ornamentation and at the same time used the latest technology of Computer Aided Designing to get an instant visual representation of intricate designs on fabrics.

Chauhan and Rupal (2000) depicted the unique art of Gothic cathedrals featuring glass patterns onto the present age ladies wear through the medium of painting. Emphasis was laid in the exaggerated height and slenderness through the silhouette design features and the use of embellishment. It was found that designing dress by inspiration taken from the stained glass art of the Gothic cathedrals was a novel application which was successfully accomplished and opened new avenues for the designers to explore.

Srivalli and Jacob (1999) studied on the renowned textile craft of Orissa called Pipli work which is a combination of appliqué work, mirror work and embroidery put together into a very attractive and colorful form. This craft is restricted itself to the articles of different forms used for rituals of Puri temple. The investigator diversified this craft by applying it on salwar kameez sets with value addition. The primary survey conducted by the investigation of Pipli in Orissa received the details of articles, motifs and the economics of the work. Ten salwar kameez designs were selected by a panel of judges. Traditional Mangalagiri cotton fabrics of 3 colors namely blue, green and purple were selected and kameez sets were stitched according to the design and traditional Pipli work was done on these sets by artisans of Pipli. The findings of this study showed that Pipli work could be effectively used on salwar kameez sets. Cent percent of the evaluators opined that it can be popularized. Thus the study gave a new dimension to the dying craft and diversified its usage on salwar kameez sets.

Prasanti and Jacob (1999) depicted the traditional Banjara embroidery on salwar kameez sets. Banjara embroidery, the pride of Andhra Pradesh is one of the lesser known tribal embroideries of India. These embroideries which were initially confined to their traditional apparel, slowly found its way into the market. Investigator made an attempt to study the use of this exquisite embroidery on salwar kameez sets. Twelve sets of salwar kameez were designed using commonly used techniques of Banjara work and stitched in two different colors. These designed salwar kameez sets were evaluated for consumer acceptance and the findings of the study showed that Banjara embroidery could be effectively used on salwar kameez sets. All the evaluators opined that it can be popularized and the study also revealed that salwar kameez sets with Banjara embroidery could be

readily introduced into the market, thereby increasing the chances of employment for more Banjara youth and preserving the ethnic culture.

Usha and Jacob (1998) adopted Venkatagiri designs on salwar kameez sets. Venkatagiri cotton zari saree has pride position in Andhra Pradesh known for its finer count and quality. The wide range of colors and exquisite designs are the characteristics features of Venkatagiri saree. The investigator studied about the motif, designs and colour combinations, techniques of weaving and adopted the same on salwar kameez sets. Six kameez sets were woven at Mangalagiri with predominant light and dark color combinations to suit the designs. The finding of the study showed that the traditional motifs and techniques used for weaving the salwar kameez sets were suitable for commercialization. The study revealed that these exclusive salwar kameez sets woven with Venkatagiri technique could be readily introduced in the market there by increasing the domestic and international market for the diversified products of Venkatagiri industry.

2.9 Folk arts and growing popularity in designing

Radha (2008) studied on Kotadoria fabric with a new perspective in home furnishings. Kotadoria is a famous fine hand woven fabric of Rajasthan and it was hypothesized that there is a great export potential for Kotadoria in home furnishings. Designs were selected to suit on curtains, bed covers, cushion covers, table covers wall hangings and lampshades. Six designs were created for each category and 2 designs were selected by a panel of judges. Kotadoria fabric was selected and using the block printing technique with natural colors like red (alizarin powder form), black, brown, harda, tamarind paste was used as thickening agent.

2.10 Commercialization of Folk Arts

In order to pay exclusive attention for the promotion, development and marketing of the artistic handicrafts to preserve its culture heritage All India Handi Crafts Board and department of Village Industries in Andhra Pradesh is being set up in order to meet the demand of Indian and export market.

Chapter III

MATERIAL AND METHODS

This research work was undertaken to study and adapt motifs and designs commonly used in toys and paintings of Nirmal on to textiles. Motifs and designs were adapted onto sarees, kameez materials, kameezes, lamp shades, cloth murals, decorative roofing and wall partitions, by techniques of weaving, block printing, embroidery and painting. The materials and methods followed during the course of study are discussed in this chapter under the following headings.

3.0 Preliminary study

3.1 Selection of area

3.2 Selection of material

3.2.1 Selection of material for sarees

3.2.2 Selection of material for salwar kameez

3.2.3 Selection of material for utility articles

3.3 Selection of motifs

3.4 Design adoption techniques

3.4.1 Weaving

3.4.1.1 Preparation of warp

3.4.1.2 Preparation of weft

3.4.1.4 Process of weaving designs

3.4.2 Block printing

3.5 Selection of colours for designs

3.6 Description of designed items

3.6.1 Kameez material with woven design

Kameez material - I

Kameez material - II

Kameez material - III

Kameez material - IV

Kameez material - V

Kameez material - VI

Kameez material - VII

Kameez material - VIII

Kameez material - IX

3.6.2 Saree with woven design

Saree – I

Saree – II

Saree – III

3.6.3 Kameez with block printed design

Kameez –I

Kameez –II

Kameez –III

Kameez –IV

Kameez –V

3.6.4 Saree with block printed design

Saree – I

Saree – II

Saree – III

3.6.5 Utility articles in painting

Lamp shade – I

Lamp shade – II

Room partition – I

Room partition – II

Mural – I

Mural – II

Roofing – I

Roofing - II

3.7 Costing of the designed items

3.7.1 Designing through Weaving

3.7.2 Designing through Block printing

3.7.3 Designing through Painting

3.8 Evaluation of consumer acceptance of samples

3.8.1 Pretesting

3.8.2 Final evaluation of samples

3.9 Statistical analysis

3.0 Preliminary study

A preliminary study was carried out at Nirmal, the actual location where toys and painting are done to identify different designs used in both toys and paintings and their processes. A market survey was also conducted at Shilparam and Lepakshi, Hyderabad and at an exhibition fair in Secunderabad and Hyderabad (Andhra Pradesh). The aim of the study was to identify suitable toy and painting designs of Nirmal and to render them on to textiles through suitable techniques.

3.1 Selection of area

The town Nirmal, due to its toys and paintings is known as a ‘land of crafts and craftsmanship’ in Andhra Pradesh. Toy making and painting are a part of people’s daily life at Nirmal. Toys are an exquisite craft in wood with designs and colours inspired by nature and surroundings. Painting is a wonderful art of Nirmal, with designs and colours adapted from the nature. As seen from the available literature, it was found that some designers were inspired by paintings and toy designs but the famous Nirmal toys and painting designs were not adopted onto textiles. The design modifications were found as a thrust area which may promote their artistry into varied items. The largest potential for an ever growing consumer market is folk design and the kind of art and handicrafts from Nirmal toys and painting could cater to the felt needs through adaption of their designs.

3.2 Selection of material

3.2.1 Selection of material for sarees

The material selected for sarees was a plain weave cotton fabric in 90s × 65s count and cotton polyester blended material, for use in block printing and appliqué work.

3.2.2 Selection of material for kameez

The traditional Andhra Pradesh handloom fabric known as Mangalagiri cotton from a town called Mangalagiri, was selected as it is an ever green fashion trend for making the kameez material and finished kameez. Double shaded Mangalagiri cotton fabric of 60s × 40s count with medium thickness was selected as base fabric, over which woven designs were appliquéd and some designs were block printed along with embroidery to give the kameez an ethnic look. Motifs and border designs were woven in cotton fabric of 80s × 60s count.

3.2.3 Selection of material for utility articles

Organdy fabric was selected for lamp shades and roofing, as transparency and stiffness are essential for these articles, while unbleached silk fabric was used for making wall partitions and murals in painting.

3.3 Selection of motifs

Animal, birds, floral and other motifs were selected for adaption into woven, printed and painting designs on various textiles.

Among the toy designs – elephant (Figure 3.1), deer (Figure 3.2), decorative cow (Figure 3.3), rabbit eating carrots (Figure 3.4), parrot (Figure 3.5), flock of birds (Figure 3.6), duck (Figure 3.7), show birds (Figure 3.8), crane feeding baby cranes in a nest (Figure 3.9), forest crane (Figure 3.10), pigeons (Figure 3.11) bird (Figure 3.12), wood pecker eating guava (Figure 3.13) were selected.



Figure 3.1. Elephant.



Figure 3.2. Deer.



Figure 3.3. Decorative cow.



Figure 3.4. Rabbit eating carrot.



Figure 3.5. Parrot.



Figure 3.6. Flock of birds.



Figure 3.7. Duck.



Figure 3.8. Show birds.



Figure 3.9. Crane feeding baby cranes in a nest.



Figure 3.10. Forest crane.



Figure 3.11.Pigeons.



Figure 3.12.Bird.



Figure 3.13.Wood pecker eating guava.

From the paintings - Goddess Lakshmi (Figure 3.14 and 3.15), Goddess Saraswathi (Figure 3.16), Shakuntala (Figure 3.17), Radha Krishna (Figure 3.18), Lord Venkateshwara (Figure 3.19), back ground leaf design of Lambadi women (Figure 3.20), peacock (Figure 3.21), paintings on jewellery box (Figure 3.22 and 3.23), decorative painting (Figure 3.24), vase with rose flower (Figure 3.25), birds(Figure 3.26), floral paintings (Figure 3.27) (Figure 3.28) and leaf with flower and bud (Figure 3.29) were adopted.

The selected toys and painting motifs were modified and designs were developed suitable for weaving, block printing and painting on textiles using coral draw software. Placement of motifs and designs were also visualized in the software.

3.4 Design adoption techniques

3.4.1 Weaving

Yarn tie and dye is also called as Ikat weaving. Ikat technique of weaving was adopted for the motifs and border designs. For weaving, the design was first sketched on paper and then it was transferred onto graph paper.

3.4.1.1 Preparation of warp

The estimated total number of warps required for the full width and length of the fabric was prepared at one time. The yarn was dyed in brown colour, after which it was cleaned and stretched. Later the dyed yarn was dipped in starch solution, and then spread for drying. This process was done to avoid the disturbance of warps ends from its group (Figure 3.30). The dried yarn was wound on a beam ready for placing on the loom. On the loom, the first group of the new warp was pieced to the first group in each repeat in the old warp, and the second group in repeat of the second old warp. This process continued until the entire new warp was joined to the old warp, as planned. Extra care was exercised at the joints/twists of the warp for accuracy. After twisting/ piecing the warp was stretched length wise and spread to the full width in the reed (Figure 3.31).



Figure 3.14.& 3.15. Goddess Lakshmi.



Figure 3.16. Goddess Saraswathi.

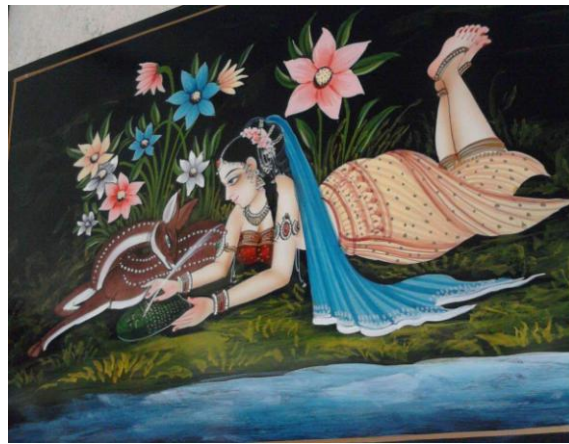


Figure 3.17. Shakuntala.



Figure 3.18. Radha Krishna.



Figure3.19. Lord Venkateshwara.



Figure 3.20. Back ground leaf design of Lambadi women.

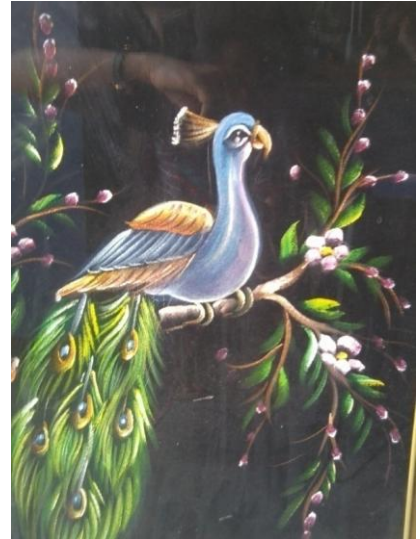


Figure 3.21. Peacock.



Figure 3.22. and 3.23. Painting on box.



Figure 3.24. Decorative painting.



Figure 3.25. Vase with rose flower.



Figure 3.26. Birds.



Figure 3.27. Floral painting.



Figure 3.28. Floral painting.



Figure 3.29. Leaf with flower and bud.



Figure 3.30. Preparation of warp yarn.



Figure 3.31. Twisting of the yarn.

3.4.1.2 Preparation of weft

The off white yarn was used for the preparation of weft. The design to be developed in the cloth was first prepared on a graph. Based on the graph, the number of groups in the design of weft was decided. Locally these groups are known as “chitikies”. It gives an idea to select the number nails on the tie and dye frame, each group representing one nail on the frame. Before preparing the weft on the tie and dye frame, decision on the number of picks continuously in each group, on the basis of the total number of groups (weft wise) in the repeat of the graph design should be ascertained. The weft that was ready on the tin bobbins was transferred onto the tie and dye frame with the help of thread guide, locally called as “asaukoyya”. The picks of first group were kept on the first nail and then it was continued onto the second nail for next group according to the design. This process continued on the frame till sufficient numbers of repeats were completed to weave the required length of cloth (Figure 3.32). A measuring thread was prepared as per the layout of the design, to measure and mark the design on the groups. The marked design was resisted with the help of thin rubber tubes and the yarn was sent for dyeing. Colours were added after resisting each area of the design as per the graph (Figure 3.33, 3.34 and 3.35). The dyed yarn was later spread on the tie and dye frame for removal of resist material. The dyed weft yarn was later wound on the ‘parivattam’ by winder. The weft yarn so wound on the parivattam was transferred on the prins which were organised to facilitate weaving in the necessary manner. Each pick ensures that the design forms on the cloth as anticipated, without any disorder (Figure 3.36).

3.4.2 Block printing

In order to execute the block printing technique, wooden blocks were carved by the block maker with the selected designs using seasoned teak wood.

Designs with figures 3.4, 3.5, 3.6, 3.8, 3.9 and 3.21 were carved for printing in two colours while figure 3.13 and 3.27 were carved for printing in three colours. The carved blocks were soaked in oil for 10-15 days to soften the grains in the timber, washed and were made ready for use (figure 3.37).



Figure 3.32. Preparation of weft.



Figure 3.33. Dyeing of the yarn with Naphthol dye.



Figure 3.34. Rinsing of the dyed yarn.



Figure 3.35. Squeezing of the dyed yarn.



Figure 3.36. Frame loom.



Figure 3.37. Designed blocks

3.5 Selection of colours for designs

To depict the bright colours used in Nirmal toys and painting, pigment colours were used in block printing while the bright vat and naphthol colours were used in woven designs. Acrylic colours were used in hand painting technique.

3.6 Description of designed items

The motifs and designs selected for sarees, kameez material, kameeze and utility articles were modified using Corel Draw. The silhouettes of kameez were drawn on croqui figures using computer. The developed designs were positioned on them to suit the silhouettes. Placement of designs on sarees was visualized in Coral Draw software. Woven designs were appliquéd on sarees as well as on kameeze.

3.6.1 Kameez material with woven design

Kameez material - I

Pigeon a toy design (Figure 3.11) was selected for the kameez. The design was adapted into a pair of birds in vertical reflection and a suitable geometric border design was developed to coordinate it. Developed bird design was placed in the center front of the kameez vertically and as border at the hem line. Bird motifs and border designs were woven in complementary colours - green and red along with a bright hue of yellow in weft and brown as warp. This kameez has a “V” shaped neck line with the border placed at the neck, hem and at waist. The base fabric, a double shade of yellow and orange was Mangalagiri cotton, over which the woven designs were appliquéd (Figure 3.38 (Design adaption and placement) and Figure 3.39 (Kameez material I)).

Kameez material - II

The motif for this kameez material was adapted from a back ground leaf design in a painting of Lambadi women (Figure 3.20) with some additional features added to the motif. Individual motifs were placed around the neck, facilitating the cut of neckline to be either



Toy



Motif



Fabric swatch

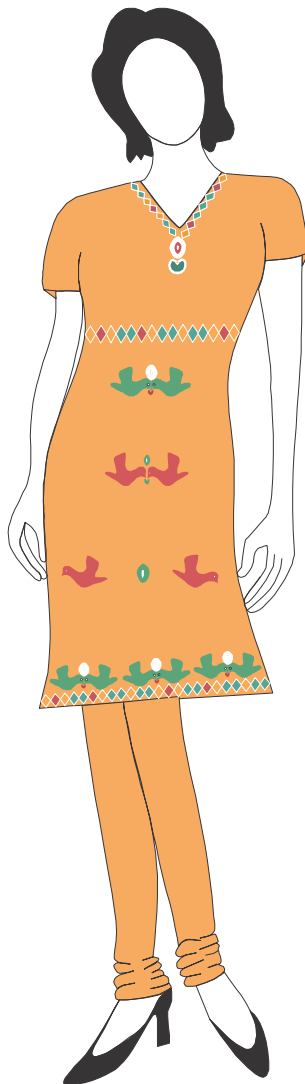


Figure 3.38. Design adaption and placement.



Figure 3.39. Kameez material –I with woven motif.

square or round. At hem line, motifs were distributed in asymmetrical manner. The motifs were woven in beige colour with a central circle of yellow encircled with orange. These motifs were applied on a background fabric of black and maroon shaded shot effect (Figure 3.39 (Design adaption and placement) and Figure 3.40(Kameez material II)).

Kameez material - III

The motif was adapted from a painting of flower vase with roses and buds, and leaf with bud (Figure 3.25 and 3.29). The adopted motifs of flower with bud and bud with leaves were arranged in alternate rows in brick pattern, at the bottom of the kameez material. Around the neckline, flower motifs with buds were placed in a way to finish a round neckline or as per the outline of the motifs in a decorative way. Pink was the prime colour in these weft ikat motifs, which were woven along with an analogous colour scheme of green, yellow and orange. Motifs were cut according to the shape and were appliquéd on a back ground fabric of double shaded maroon and green colour (Figure 3.40 (Design adaption and placement) and Figure 3.41 (Kameez material III)).

Kameez material - IV

The two motifs used adopted on the kameez material were elephant (Figure- 3.1) and a jewel in the crown of goddess Lakshmi (Figure 3.14). Elephants were arranged in translation at the bottom of the kameez in one row facing one direction. Jewel motifs were placed at the centre front of the kameez in a vertical row. The colour used to weave elephant motif was white and the jewel motif was maroon, green and yellow. The design placement permits to stitch as bustier with spaghetti straps on shoulders. These motifs were placed against back ground mangalagiri mixed cotton fabric of blue, purple and green shade (Figure 3.42 (Design adaption and placement) and Figure 3.43 (Kameez material IV)).

Kameez material - V

The same jewel motif as described in kameez material IV was utilized on this kameez material also (Figure 3.14). The developed motifs were placed at the centre front of the

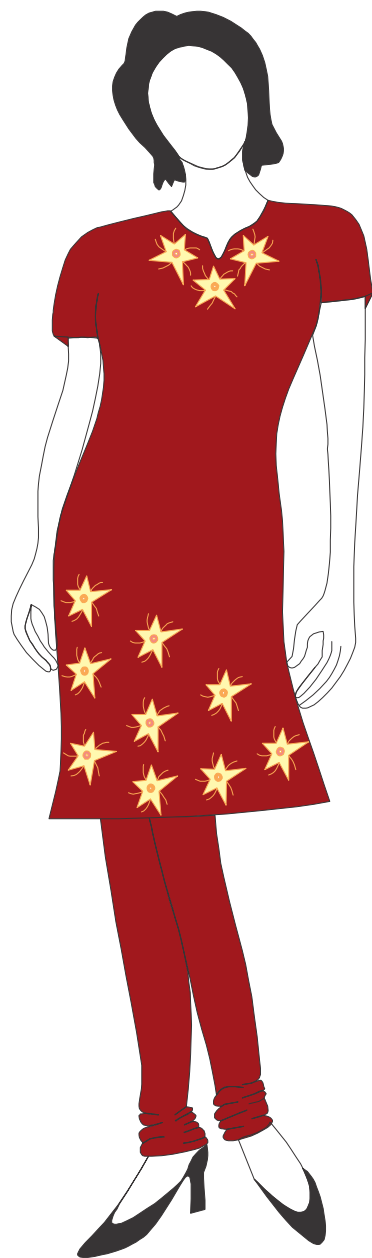
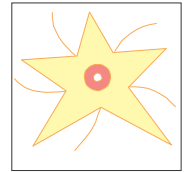


Figure 3.40. Design adaption and placement.



Painting



Motif



Fabric swatch



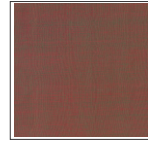
Figure 3.41. Kameez material II with woven motif.



Figure 3.42.Design adaption and placement.



Paintings



Fabric swatch

Motifs



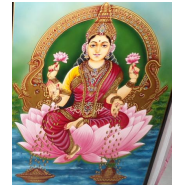
Figure 3.43. Kameez material III with woven motifs.



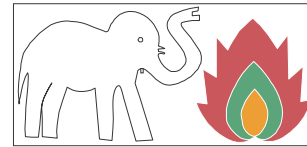
Figure 3.44.Design adaption and placement.



Toy



Painting



Motifs



Fabric swatch



Figure 3.45. Kameez material IV with woven motifs.

kameez. Motifs were woven in three colours – green, red and yellow. These three colours were exchanged within the motif for creating variety. The base fabric was Mangalagiri cotton a shot effect of blue and green (Figure 3.46 (Design adaption and placement) and Figure 3.47 (Kameez material V)).

Kameez material -VI

Bird design with a baby bird (Figure 3.12) was adapted and appliquéd for this kameez material on a base fabric of double shaded red and violet. A suitable geometric pattern border was developed to coordinate it. Bird motifs were appliquéd on hem line of the kameez. A wing of the bird was adapted at the neck line along with the developed border design, creating a square neck design. Birds were woven in four colours - blue, green, yellow and maroon while the border was done in red alone (Figure 3.48 (Design adaption and placement) and Figure 3.49 (Kameez material IV)).

Kameez material - VII

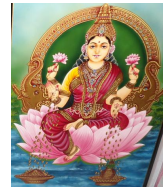
The motif was adapted from a design used on a cow (Figure 3.3). Geometric rhombus shaped motif along with a suitable diamond border in two alternate colours was woven to synchronize it. A part of the border and the motif beneath it was designed as a unit, and was placed in a square layout. The motifs and borders were woven using colour adjacent to each other on the prang colour chart-green and yellow, on a brown background. The placement of design gives scope to garment designer for creating a stunningly designed kameez. The design was woven in the base fabric itself but was not appliquéd as in other kameez materials (Figure 3.50 (Design adaption and placement) and Figure 3.51 (Kameez material VII)). Motifs were woven in the base fabric for this kameez, as it is an all over closely woven geometric pattern which does not require to be applied as appliqué patch on base material.

Kameez material - VIII

The motif was adapted from the wing design of duck (Figure 3.7). Motifs were woven in green and yellow colours which were placed as a group of three in the opposite corners of



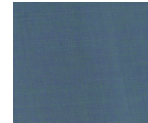
Figure 3.46. Design adaption and placement.



Painting



Motif



Fabric swatch



Figure 3.47. Kameez material V with woven motifs.

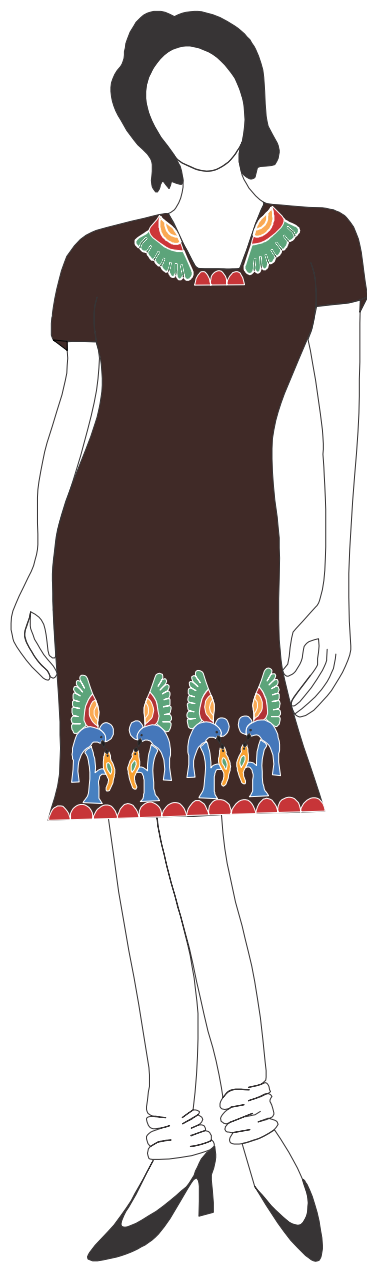


Figure 3.48. Design adaption and placement.



Toy



Motif



Fabric swatch



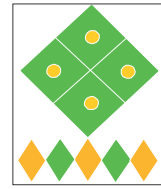
Figure 3.49. Kameez material VI with woven motif.



Figure 3.50. Design adaption and placement.



Toy



Motif



Fabric swatch



Figure 3.51. Kameez material VII with woven motif.

hem line and shoulder line of kameez. Motifs were appliquéd on the base fabric with maroon embroidery thread for highlighting the motif on the back ground. The base fabrics was Mangalagiri double shaded cotton of orange yellow and maroon (Figure 3.52 (Design adaption and placement) and Figure 3.53 (Kameez material VIII)).

Kameez material - IX

The motifs were adapted from an animal used as a decorative toy (Figure 3.2). The design was adapted to create action in the deer motif. A motif with deers facing each other was created as a unit along with a central geometrical sub motif. Design was developed using a straight repeat. The deer motif was placed on yoke in three rows and on the hem line of the kameez in one single row. The base fabric was double shaded grey coloured cotton which was yarn tie and dyed in maroon colour for creating the motifs. This was woven material similar to kameez VIII (Figure 3.54 (Design adaption and placement) and Figure 3.55 (Kameez material IX)).

3.6.2 Saree with woven design

Saree – I

The saree border design was adapted from the traditional Nirmal painting on a jewelry box (Figure 3.22). The floral border was woven with weft in two colours, red and green and brown colour in warp. Colours were used alternately in the flowers. Since weaving was done in weft ikat technique, the outlines of the motifs and curved lines joining floral motifs were in white. The woven design was attached as border on both the sides of a yellowish green coloured saree material. The design was placed in the form of diagonal lines in the pallu region within the rectangular frame of the border (Figure 3.56 (Design adaption and placement) and Figure 3.57 (Saree I)).



Figure 3.52. Design adaption and placement.



Toy



Motif



Fabric swatch



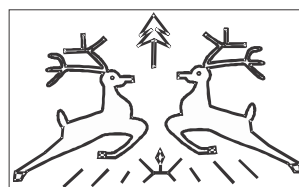
Figure 3.53. Kameez material VIII with woven motif.



Figure 3.54.Design adaption and placement.



Toy



Motif



Fabric swatch



Figure 3.55. Kameez material IX with woven motif.



Painting



Design



Fabric swatch

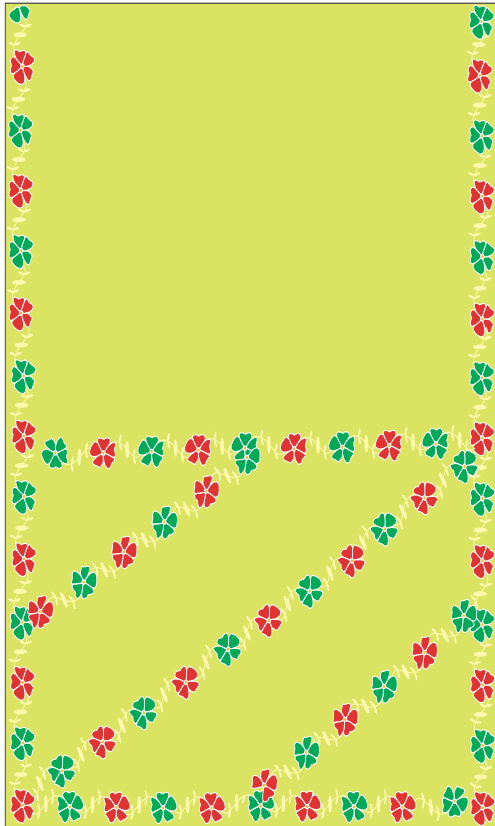


Figure 3.56.Design adaption and placement.



Figure 3.57.Woven border on saree I.

Saree – II

A motif shown on the throne of goddess Lakshmi painting (Figure 3.15) was adapted and developed into a border design. Three colours were used in weaving this border- green, brick red and yellow in weft interlaced with dark brown coloured warp. A double scalloped line was added to the motif at the base and the border was finished with another scalloped line on the other edge. The developed design was attached as a border to a black coloured saree. The pallu was designed with the border placed in a diamond shape in the center. Motifs were placed in the center of the diamond shape and on the corners of the pallu. The top edge of the border was appliquéd onto the saree as a scalloped line, emphasizing the scalloped edge of the woven border (Figure 3.58 (Design adaption and placement) and Figure 3.59 (Saree II)).

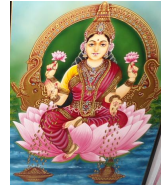
Saree – III

Traditional Nirmal painting on jewelry box (Figure 3.23) was the inspiration for the border design developed for this maroon coloured saree. The floral petals were rendered in geometrical shape with enclosing borders in geometric as well. The weft was tie dyed in yellow colour and woven against brown warp. Woven design was attached as border on both the sides of the saree. In the pallu region of the saree, the border was applied in the shape of square enclosing a diamond. Motifs were placed on the pallu and body of the saree in brick pattern (Figure 3.60 (Design adaption and placement) and Figure 3.61 (Saree III)).

3.6.3 Kameez with block printed design

Kameez – I

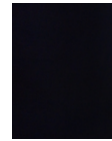
The design was adapted from Nirmal toy - flock of birds (Figure 3.6). The motif was adapted as vertical reflection with two birds facing each other sitting on a branch. Motifs were arranged in an inverted chevron effect at the centre front on the kameez. A small geometric border design developed for saree III was used to border the motifs. Blocks in di-colour were prepared and two colours blue and brown were used in printing, one for the



Painting



Design



Fabric swatch

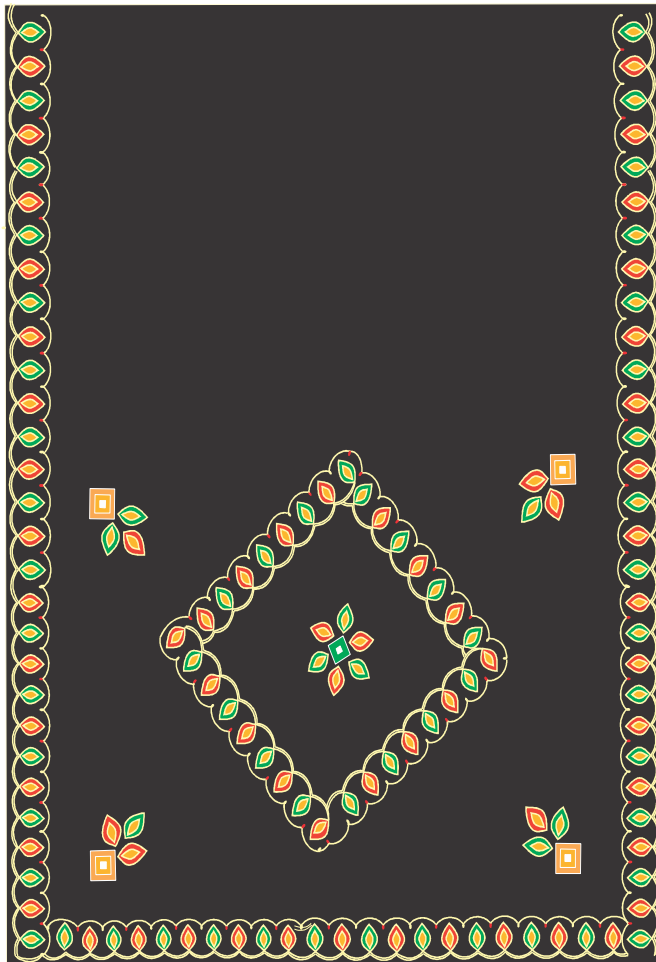


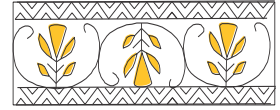
Figure 3.58.Design adaption and placement.



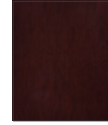
Figure 3.59.Woven border on saree II.



Painting



Design



Fabric swatch



Figure 3.60.Design adaption and placement.



Figure 3.61.Woven border on saree III.

outline and one for filling. Colours were used alternately in printing the motifs. An ancillary motif was also utilized in the design. Yoke part of the kameez was designed separately with small zigzag border dividing it horizontally. Mangalagiri cotton in blue colour was the base material on which printing was done. Zari border of the woven Mangalagiri cotton material was attached to the hem of the sleeves and at the side seam of the kameez for a traditional look (Figure 3.62 (Design adaption and placement) and Figure 3.63 (Kameez I)).

Kameez – II

The design was adapted from a peacock (Figure 3.21) of Nirmal painting. The feather part of a peacock was adopted as a motif and modified in a stylized form. The motif was printed on a kameez according to the desired placement in order to add aesthetic value to the kameez. Motif was printed in peacock blue and maroon colour on a cream color background of Mangalagiri cotton material. The motif was printed as an all over pattern from hemline to neck region at the centre front. Kundans were embroidered for improving aesthetic value of the kameez (Figure 3.64 (Design adaption and placement), and Figure 3.65 (Kameez II)).

Kameez – III

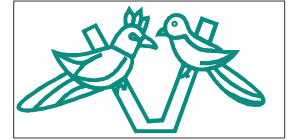
The motif was an inspiration from Nirmal toy -rabbit (Figure 3.4). The motif was developed with two rabbits reaching for carrots between them. The motifs were printed on yellow- orange colored kameez in brick pattern from hem region to waist level of the kameez. Two colours brown and green were used alternately in printing the motifs. Yoke part was printed separately dividing it into three parts, using a small border line. Floral designs also adapted from Nirmal paintings, were printed in the yoke part. Herring bone embroidery was done in different parts of motif for value addition (Figure 3.66 (Design adaption and placement) and Figure 3.67 (Kameez III)).



Figure 3.62.Design adaption and placement.



Toy



Motif



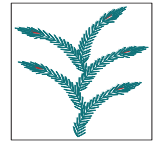
Fabric swatch



Figure 3.63. Block printed kameez I.



Painting



Motif



Fabric swatch

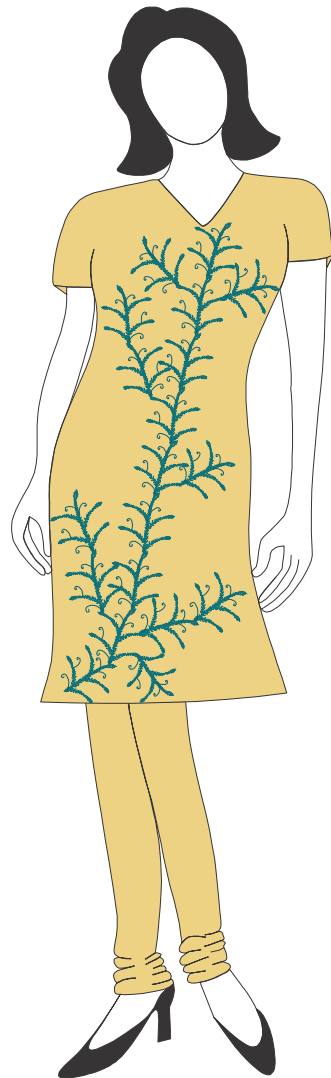


Figure 3.64. Design adaption and placement.



Figure 3.65. Block printed kameez II.

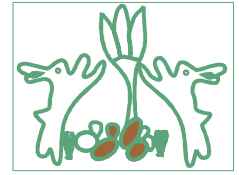


Figure 3.66.Design adaption and placement.

Kameez –IV



Toy



Motif



Fabric swatch



Figure 3.67. Block printed kameez III.

The motif designed from Figure 3.9, was adapted with two birds facing each other in a nest. Only outline block was carved for printing in two colours maroon and black alternately on a double shaded green and brown cotton fabric. The motif was placed in brick pattern throughout the length of the kameez and on the sleeves. Small border was printed at the hem of kameez and sleeves. A small border was developed to coordinate the motif and was printed around the ‘V’ shaped neckline. Small Kundans were embroidered to emphasize the bird’s eyes (Figure 3.68 (Design adaption and placement) and Figure 3.69 (Kameez IV)).

Kameez – V

Parrot (Figure 3.5) was selected to adapt a motif suitable on kameez. A bunch of grape fruits were added to the beak of parrot. A block set in di-colour was developed for this motif. The kameez was divided into three equal halves vertically using a border line printed in maroon. Birds were printed closely in a vertical row in the middle portion of the kameez while the other two sides of the middle part, the motifs were spaced apart. The outline of the motif was done in olive green while brown colour was used for filling on a base material of gray colour. A zari border around the square neck and sleeves was attached to accent the look of the kameez (Figure 3.70 (Design adaption and placement) and Figure 3.71 (Kameez V)).

3.6.4 Saree with block printed design

Saree Design – I

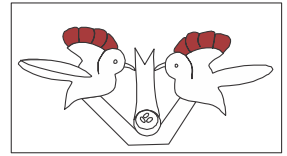
The saree was printed inspired by a toy- a pair of wood peckers facing each other and holding a guava fruit in the centre (Figure 3.13). A floral border from figure 3.27 was also used in combination with the motif. In the developed design, birds were placed on a triangular base over a double border line. The border design was developed from the motif using it in translation and a guava fruit was added between the pairs. One of the developed



Figure 3.68. Design adaption and placement.



Toy



Motif



Fabric swatch



Figure 3.69. Block printed kameez IV

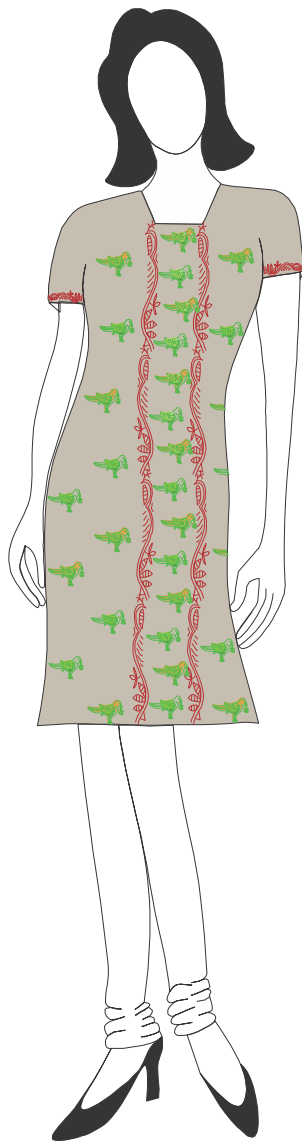
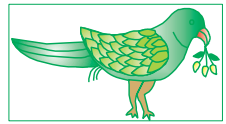


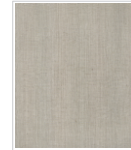
Figure 3.70. Design adaption and placement.



Motif



Design



Fabric swatch



Figure 3.71. Block printed kameez V.

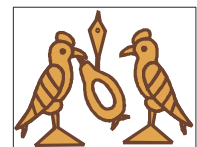
geometric border design (used in other garments) was also utilized in printing with the above developed motif and border. The wood pecker border design was applied on either side of the saree as border while at the pallu, it was repeated in three rows alternately with the floral border and geometrical border. Between the three repeats of the border, motifs were placed. On the body of the saree, motifs were placed in brick pattern. Based on the motif and borders developed, a three colour block set was prepared. Outline was printed in dark brown and filling was done with light brown and maroon. Only outline of the floral and geometrical border were printed as that of the motif outline (Figure 3.72 (Design adaption and placement) and Figure 3.73 (Saree I)).

Saree design – II

The saree was designed with traditional Nirmal toy, show birds (Figure 3.8). The original Nirmal wooden toys were used for the key chains in different colours. A border design was developed with the motif containing a pair of birds facing each other and holding a three petal flower with stalk. Border design was developed using this motif in translation along with a pair of the flowers (facing opposite direction) added between pair of birds. The edges of the border design were enclosed using straight and curvilinear lines. Another small floral border design was also developed to coordinate the developed bird motif border. A block set of two colours was prepared to use on the saree. On the body of the saree, motifs were placed in groups of brick pattern at bottom of the saree, with floral border dividing the groups vertically. Developed border with floral border on either side of it was considered as a unit and two such units were applied in the pallu region. Sleeves of the blouse were also printed with the border design of birds. Outline of the design was printed in light shade of brown and filling was done with green and dark brown on light green coloured saree back ground (Figure 3.74 (Design adaption and placement) and Figure 3.75 (Saree II)).

Saree Design – III

Cream coloured saree was designed with traditional Nirmal floral painting (Figure 3.27) made on the frame of a cot. A border design was developed using the bud, flower and



Motif

Design



Fabric swatch



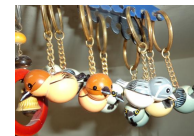
Figure 3.72.Design adaption and placement.



Figure 3.73Block Printed Saree I.



Figure 3.74.Design adaption and placement.



Motif



Design



Fabric swatch



Figure 3.75. Block Printed Saree II.

leaf motifs as class II motif (*pma2*) of border pattern with vertical reflection, two-fold rotation and glide reflection. A motif was also developed to harmonize the border. A geometrical border used on kameez-I was also used along with the developed floral border. The design was repeated in vertical lines (half way) along both sides of the saree edges with the green colour outlines and reddish orange filling. Floral motifs were placed in the central part of the saree, where the vertical lines have ended. Geometrical border was printed at the two edges of the saree in brown colour. Pallu was designed with border running horizontally at the edges and the interiors filled with diagonal lines of border and the developed harmonizing motif (Figure 3.76 (Design adaption and placement) and Figure 3.77 (Saree III)).

3.6.5 Utility articles in painting

Lamp shade – I

The motif adapted for lampshade-I was an inspiration from Radha Krishna (Figure 3.18) painting. The peacock feather and flower motif were painted on the lamp shade in green, red, blue and gold acrylic colours on the panels alternately. The base fabric was a pink organdy material on which hand painting was done. The edges of the lamp shade were embellished with a lace in matching colour to enhance the aesthetics (Figure 3.78).

Lamp shade – II

The motif was adapted from figure 3.19, the border design done in the painting of Lord Venkateshwara. The flower motif was adapted and modified to suit the need. This square shaped lamp shade was developed with a combination of white organdy material and half white raw silk fabric embellished with red embroidery, arranged in the form of alternate panels. The flower motifs were painted on the lamp shade in red and green colours on the white raw silk panels. Acrylic colours were used for painting. The edges of the lamp shade were embellished with a lace (Figure 3.79).



Painting



Design



Fabric swatch

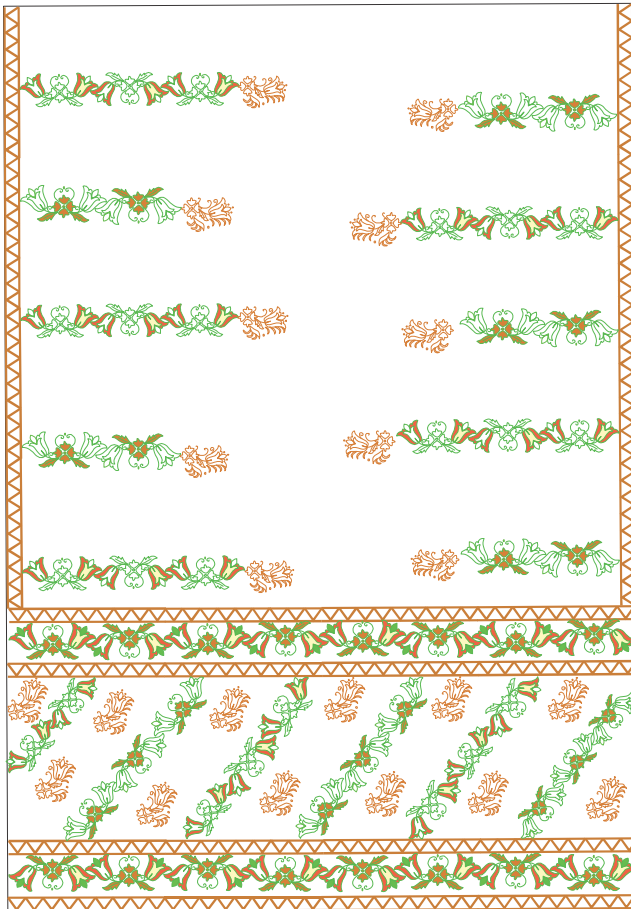


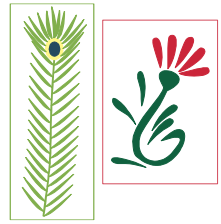
Figure 3.76. Design adaption and placement.



Figure 3.77. Block Printed Saree III.



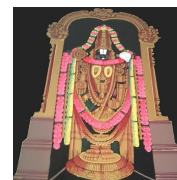
Painting



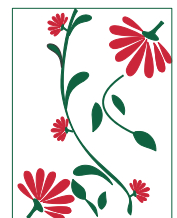
Designs



Figure 3.78. Painted lamp shade I.



Painting



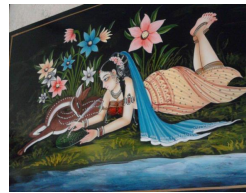
Design



Figure 3.79. Painted lamp shade II.

Room partition – I

The inspiration for developing design on room partition-I was Shakuntala painting (Figure 3.17) done by Nirmal artists. Floral and animal motifs were used from the original painting with a water fall added, replacing human form in the painting. The design was painted on a white silk fabric in red, violet, green, blue and brown colour on a 20"x 20" size fabric. Painting was done in brush strokes on the fabric (Figure 3.80).



Painting



Design



Figure 3.80. Painted room partition I.

Room partition – II

Another painting of Nirmal with birds on stem (Figure 3.26) was adapted and modified for painting room partition-II. The design was painted on white silk fabric in red, violet, green, blue colours on a 20"x 20" size fabric. Similar to room partition-I brush strokes were used in completing the panel. Acrylic colours were used for painting (Figure 3.81).



Painting



Design



Figure 3.81. Painted room partition II.

Mural – I

Motifs from goddess Saraswathi painting (Figure 3.16) was adapted and modified to create the mural painting. Peacock motif was selected and scenery was developed incorporating floral motifs. Peacock was rendered in blue, green, and gold colours while red and green colour was used for flowers and stems on a 20"x 20" size of fabric. Acrylic colours were used in painting the design on a white silk fabric (Figure 3.82).

Mural – II

This painting was adapted from crane a motif and was modified for a painting design (Figure 3.10). A back drop of water falls, green meadow and a tree was created in photo shop. The design was painted on blue, brown, black, white, green and brown colour on a 20"x 20" size of fabric. Painting was rendered with acrylic colours on a base fabric of silk (Figure 3.83).

Roofing –I

Floral designs done on different articles at Nirmal in the bygone years (Figure 3.28) was adapted and modified. An allover pattern was developed in ogee to fill the whole area. Acrylic colours were used for painting on organdy fabric (Figure 3.84).

Roofing –II

This painting design was adapted from the Nirmal wall partition painting (Figure 3.24) and was modified to suit the need. The floral design was painted in green red and yellow colours using acrylic colours on organdy fabric (Figure 3.85).



Figure 3.82. Painted mural I.



Painting



Design

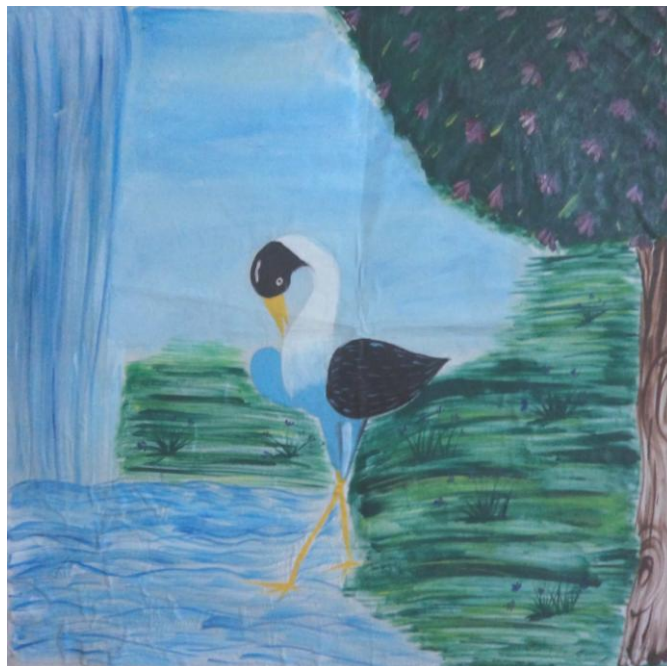


Figure 3.83. Painted mural II.



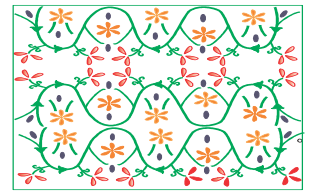
Toy



Design



Painting



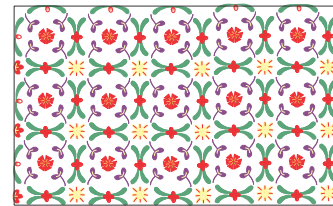
Design



Figure 3.84. Painted roofing I.



Painting



Design



Figure 3.85. Painted roofing II.

3.7 Costing of the designed items

3.7.1 Designing embellishment through Weaving

The cost of the each kameez material was calculated by adding the cost of fabric/saree, woven motifs/ border and appliqué work cost.

3.7.2 Designing through Block printing

The cost of the each kameez was calculated by adding the cost of fabric, blocks, dye cost, labour charge and stitching cost.

Note:

The costs of blocks were taken on an average for production of 10 items using the particular block.

3.7.3 Designing through Painting

The cost of the each article was calculated by adding the cost of fabric, paints, accessories and labour charges.

3.8 Evaluation of consumer acceptance of samples

3.8.1 Pretesting

To find out the consumer opinion about the samples, subjective evaluation was conducted. An evaluation schedule was prepared and it was pre tested by the faculty and post graduate students of Apparel and Textile department. Pretesting was done to remove

any ambiguity in the schedules and to check whether the elicited responses fulfilled the research objectives. The revised final schedule was prepared after pre testing.

3.8.2 Final evaluation of samples

The evaluation of finished garments was done by a panel of 50 consumers, using the final evaluation schedule, which was pretested in (Appendix – III). The panel consisted

of staff, post graduate students, under graduate students of College of Home Science, Acharya N.G.Ranga Agricultural University, Hyderabad, who are well versed in the designing aspect.

The sarees, kameez material and finished kameeze were draped on the dress form to show the overall effect of the samples and for convenience of consumers to evaluate the characteristics of each article. The consumers were requested to look into the characteristics of suitability of the design for the type of garment, suitability of the base fabric for the selected design, suitability of the motif(s)/ border designs to the end use, suitability of the weaving technique for motifs/design, colour combination in motifs/border designs, quality of workmanship and overall appearance and cost factor.

3.9 Statistical analysis

To find out the consumer acceptance, statistical analysis was done. Frequency percentage and mean scores were calculated and overall mean for each designed item was also calculated. ANOVA (One Way Analysis of Variance) was applied to compare the various designs and techniques involved in the development of designs from Nirmal paintings and toys on sarees, kameez materials, kameezes, lamp shades, cloth murals, decorative roofing and wall partitions based on consumer responses.

Chapter IV

RESULTS AND DISCUSSION

The objective of this study was to adapt and develop designs from Nirmal toys and paintings on textiles and to assess the consumer acceptability of the designed articles. A panel of 50 consumers was involved in the evaluation procedure. The finding of consumer evaluation of the designed salwar kameez material, kameezs, sarees and utility articles are tabulated and discussed under the following headings.

4.1 Survey on toys and painting of Nirmal

4.2 Consumer evaluation of designed kameez material with woven motifs

4.2.1 Kameez material –I

4.2.2 Kameez material –II

4.2.3 Kameez material –III

4.2.4 Kameez material -IV

4.2.5 Kameez material –V

4.2.6 Kameez material –VI

4.2.7 Kameez material –VII

4.2.8 Kameez material – VIII

4.2.9 Kameez material –IX

4.2.10 Comparison between designed kameez materials with woven motifs

4.3 Consumer evaluation of designed sarees with woven borders

4.3.1 Saree – I

4.3.2 Saree – II

4.3.3 Saree – III

4.3.4 Comparison between designed sarees with woven borders

4.4 Consumer evaluation of designed kameezs in block printing

4.4.1 Kameez – I

4.4.2 Kameez –II

4.4.3 Kameez –III

4.4.4 Kameez –IV

4.4.5 Kameez –V

4.4.6 Comparison between designed kameezs in block printing

4.5 Consumer evaluation of designed block printed sarees

4.5.1 Saree - I

4.5.2 Saree - II

4.5.3 Saree – III

4.5.4 Comparison between designed block printed sarees

4.6 Consumer evaluation of the utility articles

4.6.1 Lamp shade – I

4.6.2 Lamp shade – II

4.6.3 Room partition –I

4.6.4 Room partition –II

4.6.5 Comparison between painted utility articles

4.6.6 Mural – I

4.6.7 Mural – II

4.6.8 Roofing – I

4.6.9 Roofing – II

4.6.10 Comparison between painted utility articles

4.1 Survey on toys and painting of Nirmal

A preliminary survey at Nirmal town in Adilabad district revealed that the craft is practiced by men while women only help in preparation of lappam- the adhesive for attaching the toys. All the craftsmen were believed to be between the age group of 25-50 years with high school education and an experience of 5 to 10 years and above in the craft. It was found even today, the same poniki wood and teak wood along with other raw material is used for toys and for paintings except for the colours that were natural in the olden days which were replaced by synthetic colours. The raw material required in the craft is gathered from the nearby forests along with some local marketing for colour and few other raw materials.

The old traditional birds and animals figure toys are still prepared to a larger extent while some of the artisans have tried new items like bangle stands, torans, curtain hangings, key chains and the like to satisfy the modern consumer. A wide variety of fruits, vegetables and spices like ginger, cloves are also made depicting the true colours, shapes and textures. Toys that amuse children are now on the forefront. Items also include mythological idols of Hindu worship along with toys about mother and child and some daily chores of the village.

Every toy is generally made in three sizes, small, medium and large in their production. It was noted that within a single person in 15 to 20 days can produce around 100 toys of the same kind. Their average earnings ranged from 6000 to 8000 rupees after working for 6 to 8 hours per day. They work individually and sell their produce both through co-operatives and sometimes individually but the prices are fixed by their local co-operative society. They opined that prices of the toys should be enhanced along with new markets outlets opened for their sustainability and revive the dying craft.

4.2 Consumer evaluation of designed kameez material with woven motifs

4.2.1 Kameez material –I

As evident from Table 4.1 and presented in Figure 4.1, all factors evaluated for the designed kameez have scored ‘good’ ranking followed by ‘very good’. Kameez material adapted and designed from Nirmal toy (Figure 3.11) had woven motif placed at neck line, borders and at centre front line.

Table 4.1. Consumer evaluation of designed kameez material I with woven motif

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	19	38	23	46	8	16	0	0
2.	Suitability of the base fabric for the selected design	20	40	26	52	4	8	0	0
3.	Suitability of the motif(s) to the end use	20	40	24	48	5	10	1	2
4.	Suitability of the weaving technique for motifs	21	42	26	52	2	4	1	2
5.	Placement of developed motif on fabric	20	40	20	40	9	18	1	2
6.	Colour combination in motifs	17	34	31	62	1	2	1	2
7.	Quality of workmanship in application of motifs/ borders	25	50	23	46	1	2	1	2
8.	Overall appearance	19	38	25	50	6	12	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	8	16	33	66	8	16	1	2

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

Majority of the consumers rated colour combination in motif to be ‘good’ followed by suitability of technique to the motif selected and base fabric to the selected design. Quality of workman ship was rated ‘very good’. More than 60 per cent of consumers felt that the

costing was ‘good’ both in terms of designing charges as well as the cost of finished material.

4.2.2 Kameez material – II

Of the eighth factors evaluated, kameez material II received a high rating for five factors with colour combination at the top of the list followed by overall appearance, suitability of base fabric and the design. Workman ship quality and motif selection to end use was rated second to the top list of factors. (Table 4.2 and Figure 4.2)

Table 4.2. Consumer evaluation of designed kameez material II with woven motif

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	23	46	20	40	7	14	0	0
2.	Suitability of the base Fabric for the selected design	24	48	21	42	5	10	0	0
3.	Suitability of the motif(s) to the end use	18	36	23	46	9	18	0	0
4.	Suitability of the weaving technique for motifs	21	42	21	42	8	16	0	0
5.	Placement of developed motif on fabric	19	38	27	54	4	8	0	0
6.	Colour combination in motifs	27	54	18	36	6	12	0	0
7.	Quality of workmanship in application of motifs/ borders	20	40	24	48	6	12	0	0
8	Overall appearance	26	52	21	42	3	6	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	12	24	32	64	6	12	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

None of the consumers rated the kameez material to be ‘poor’ in any of the factors evaluated. This kameez material also received a similar rating to that of kameez material- I in terms of cost factor.

4.2.3 Kameez material – III

As evident from Table 4.3 and Figure 4.3, all the factors evaluated, for the designed kameez material has scored ‘very good’ ranking. Except the factor that dealt with motif selection to end use, all other factors were rated as ‘very good’ by the consumers.

Table 4.3. Consumer evaluation of designed kameez material III with woven motifs
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	23	46	20	40	7	14	0	0
2.	Suitability of the base Fabric for the selected design	24	48	21	42	5	10	0	0
3.	Suitability of the motif(s) to the end use	18	36	23	46	9	18	0	0
4.	Suitability of the weaving technique for motifs	21	42	21	42	8	16	0	0
5.	Placement of developed motif on fabric	19	38	27	54	4	8	0	0
6.	Colour combination in motifs	27	54	18	36	6	12	0	0
7.	Quality of workmanship in application of motifs/ borders	20	40	24	48	6	12	0	0
8.	Overall appearance	26	52	21	42	3	6	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	12	24	32	64	6	12	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

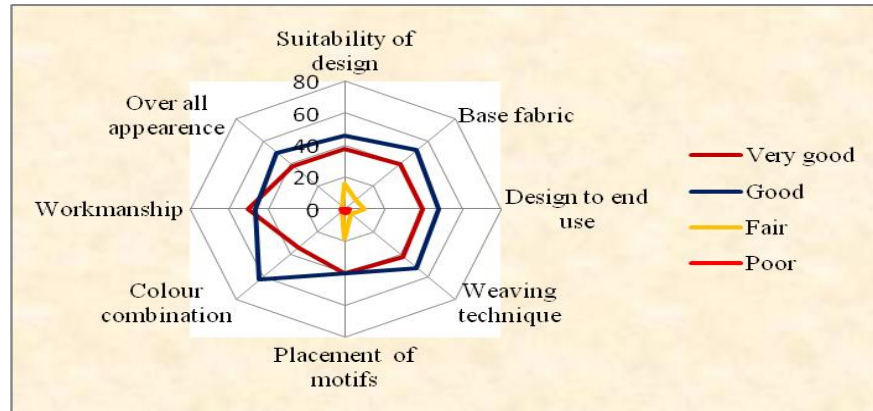


Figure 4.1. Consumer evaluation of designed kameez material –I with woven motif.

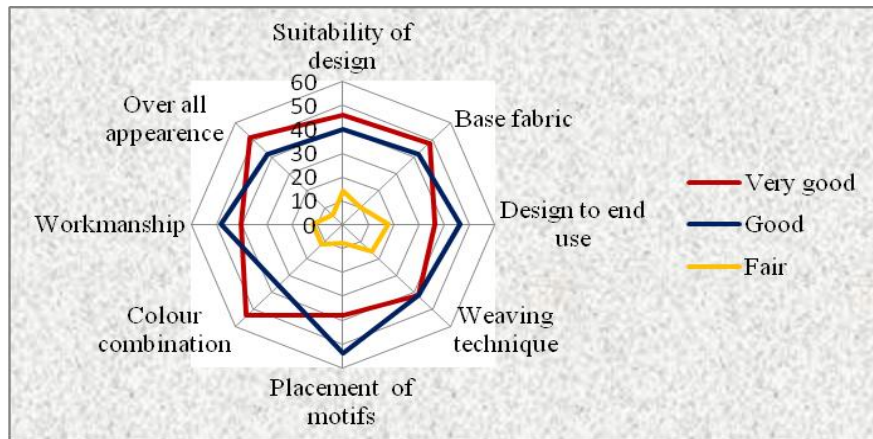


Figure 4.2. Consumer evaluation of designed kameez material –II with woven motif.

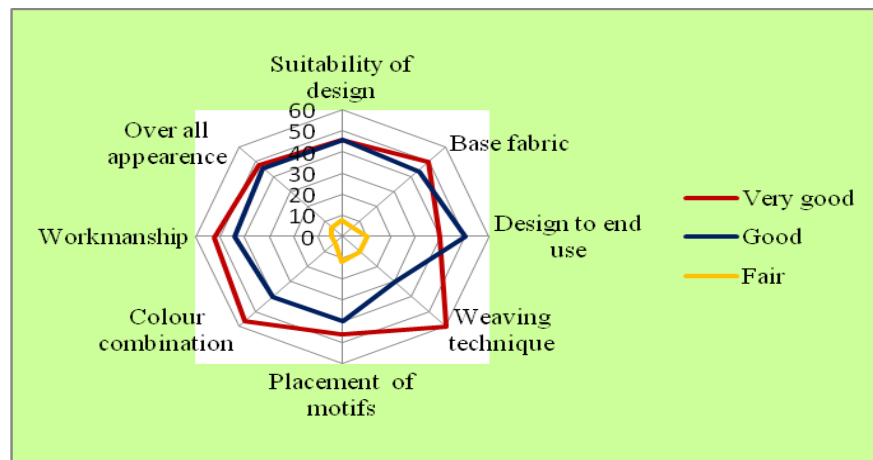


Figure 4.3. Consumer evaluation of designed kameez material –III with woven motifs.

The technique of weaving in adapting toy motif (Figure 3.25 and 3.29) in this kameez was rated high by 60 per cent of the consumers. Use of ‘good’ colour combination in the woven motif was highly appreciated as that of kameez – I and kameez – II. Seventy per cent of consumers felt that the costing was reasonable for aspects of designing charges as well as the cost of finished material.

4.2.4 Kameez material – IV

This kameez motif adapted from Nirmal toy and painting (Figure 3.1 and 3.14) and woven in three colours was rated high in terms of colour combination, technique rendered for motif development and suitability of motif application on the base fabric. Of the eight factors evaluated as shown in Table 4.4 and Figure 4.4 all were rated high except two factors, related to overall appearance and motif suitability to end use. These two were rated as ‘good’ by the consumers.

Table 4.4. Consumer evaluation of designed kameez material IV with woven motifs
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	24	48	22	44	4	8	0	0
2.	Suitability of the base Fabric for the selected design	25	50	20	40	5	10	0	0
3.	Suitability of the motif(s) to the end use	22	44	24	48	3	6	1	2
4.	Suitability of the weaving technique for motifs	31	62	17	34	2	4	0	0
5.	Placement of developed motif on fabric	25	50	18	36	7	14	0	0
6.	Colour combination in motifs	30	60	18	36	2	4	0	0
7.	Quality of workmanship in application of motifs/ borders	34	68	15	30	1	2	0	0
8	Overall appearance	23	46	24	48	2	4	1	2
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	9	18	37	74	4	8	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The same two factors were rated low by only 2 per cent of the consumer. Factors like suitability of base fabric and placement of motif which were rated ‘very good’ by 50 per cent of consumers were also rated to be ‘fair’ by 10 and 14 per cent of consumers. The cost factor was rated to be reasonable by more than 75 per cent of the consumers and 18 per cent of them opined that it was reasonable while none considered it as high price.

4.2.5 Kameez material – V

All the factors evaluated, for the designed kameez V has scored ‘very good’ and ‘good’ ranking. Kameez material adapted and designed from Nirmal painting (Figure 3. 14) had woven motifs placed at the centre front of the kameez.

Table 4.5. Consumer evaluation of designed kameez material V with woven motifs
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	21	42	26	52	2	4	1	2
2.	Suitability of the base Fabric for the selected design	24	48	24	48	2	4	0	0
3.	Suitability of the motif(s) to the end use	24	48	22	44	4	8	0	0
4.	Suitability of the weaving technique for motifs	17	34	28	56	5	10	0	0
5.	Placement of developed motif on fabric	17	34	27	54	6	12	0	0
6.	Colour combination in motifs	23	46	21	42	6	12	0	0
7.	Quality of workmanship in application of motifs/ borders	26	52	22	44	1	2	1	2
8.	Overall appearance	27	54	21	42	1	2	1	2
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	7	14	35	70	8	16	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Motifs adapted in weaving had primarily attracted the respondents followed by its placement and overall appearance of the garment among all other factors. More than 50 per cent of respondents rated quality of workman ship and design suitability be ‘very good’ and ‘good’ while 2 per cent of them rated them ‘poor’. A small percentage of respondents (2 to 12) rated all the factors to be ‘fair’. Similar to kameez material I to IV this kameez material was also opined to be reasonable in terms of cost factor (Table 4.5 and Figure 4.5).

4.2.6 Kameez material – VI

Quality of work man ship was a leading factor in this kameez material followed by design suitability which was rated ‘good’ by 58 and 52 per cent respectively.

Table 4.6. Consumer evaluation of designed kameez material VI with woven motif
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	18	36	26	52	5	10	1	2
2.	Suitability of the base Fabric for the selected design	24	48	15	30	5	10	1	2
3.	Suitability of the motif(s) to the end use	23	46	20	40	6	12	1	2
4.	Suitability of the weaving technique for motifs	27	54	18	36	4	8	1	2
5.	Placement of developed motif on fabric	23	46	21	42	6	12	0	0
6.	Colour combination in motifs	27	54	16	32	7	14	0	0
7.	Quality of workmanship in application of motifs/ borders	18	36	29	58	2	4	1	2
8	Overall appearance	25	50	21	42	4	8	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	7	14	35	70	6	12	2	4

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

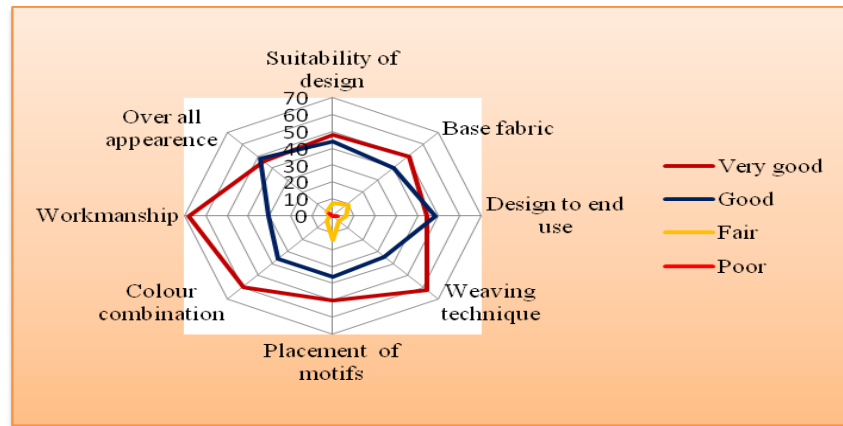


Figure 4.4. Consumer evaluation of designed kameez material –IV with woven motifs.

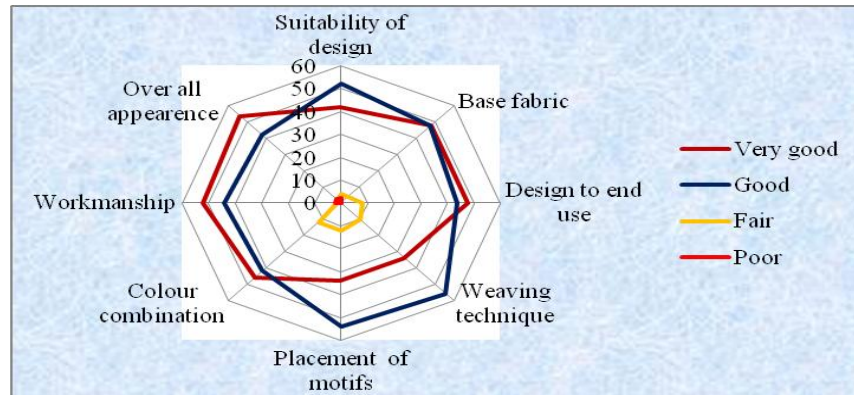


Figure 4.5. Consumer evaluation of designed kameez material –V with woven motifs.

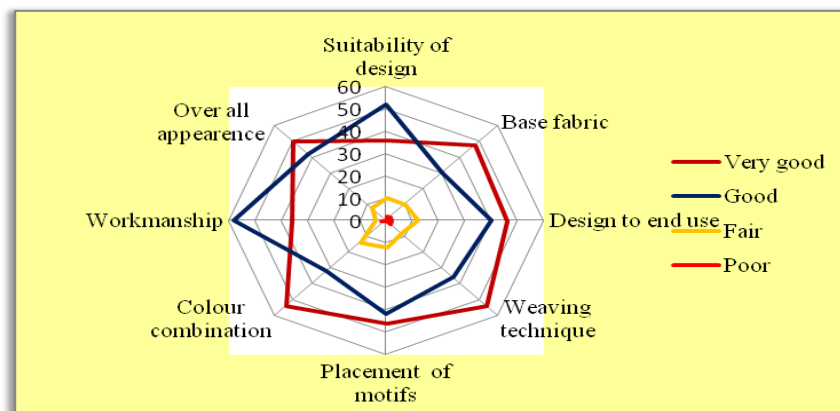


Figure 4.6. Consumer evaluation of designed kameez material –VI with woven motif.

Respondents equally rated the factors of technique suitability in adapting motifs and colour combination used in them as ‘very good’, while 14 per cent and 8 per cent respondents rated the same factors as ‘fair’. About 10 to 15 per cent of the respondents rated as many as five factors to be ‘fair’. Nearly three fourths of the respondents noted the cost factor to be reasonable (Table 4.6 and Figure 4.6).

4.2.7 Kameez material – VII

More than fifty per cent of respondents rated the colour combination to be ‘very good’ followed by suitability of the design for the garment.

Table 4.7. Consumer evaluation of designed kameez material VII with woven motif
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	26	52	21	42	3	6	0	0
2.	Suitability of the base Fabric for the selected design	22	44	23	46	5	10	0	0
3.	Suitability of the kameez (s) to the end use	23	46	20	40	7	14	0	0
4.	Suitability of the weaving technique for motifs	23	46	24	48	3	6	0	0
5.	Placement of developed motif on fabric	15	30	28	56	6	12	1	2
6.	Colour combination in motifs	27	54	19	38	3	6	1	2
7.	Quality of workmanship in application of motifs/ borders	21	42	26	52	3	6	0	0
8.	Overall appearance	21	42	26	52	3	6	0	0
	Cost Factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	12	24	36	72	2	4	0	0

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

A subtle difference was found in respondents’ choice between ‘very good’ and ‘good’ for the choice of base fabric to the design and weaving technique followed in adapting the

design. More than 50 per cent of factors were also rated as ‘fair’ by 6 per cent of respondents. The trend of cost factor being reasonable was observed in this kameez material also which were tabulated in Table 4.7 and presented in Figure 4.7.

4.2.8 Kameez material – VIII

The designed kameez material had received less than 60 per cent of responses for all factors evaluated (Table 4.8 and Figure 4.8).

Table 4.8. Consumer evaluation of designed kameez material VIII with woven motif
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	22	44	24	48	4	8	0	0
2.	Suitability of the base Fabric for the selected design	19	38	26	52	5	10	0	0
3.	Suitability of the motif(s) to the end use	16	32	30	60	3	6	1	2
4.	Suitability of the weaving technique for motifs	20	40	24	48	6	12	0	0
5.	Placement of developed motif on fabric	22	44	22	44	5	10	1	2
6.	Colour combination in motifs	26	52	20	40	3	6	1	2
7.	Quality of workmanship in application of motifs/ borders	27	54	19	38	4	8	0	0
8	Overall appearance	24	48	24	48	2	4	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	13	26	32	64	5	10	0	0

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

The highest response was for the suitability of motif to end use which was rated as ‘good’ by 60 per cent of the respondents. Two factors each were rated as ‘very good’ and ‘good’

by more than 50 per cent of respondents. Fifty two to 54 per cent of the consumers rated colour combination and workmanship to be 'very good' over all other factors. Overall appearance of the designed kameez and placement of motif received equal scores under the first two categories of evaluation. The percentage of respondents rating the factors as "fair" have ranged from 4 to 12 per cent with a highest rating given to placement of motif/ design on the material. More than 64 per cent of the respondents found the cost factor to be reasonable.

4.2.9 Kameez material –IX

This kameez material was rated as 'very good' by 54 per cent of the respondents in terms of quality of workmanship followed by the colour combination used in the motifs. All other factors were rated as 'very good' by 32 to 48 per cent of them. A meager percentage of consumers rated all the factors to be 'fair'. Factors related to suitability of design for the garment and overall appearance of the designed material were rated as 'very good' and 'good' by almost an equal number of respondents. In comparison between scores of 'very good' and 'good', for all factors evaluated, more than 10 per cent variation was found for quality of workmanship, suitability of weaving technique and placement of motif on the fabric. Colour combination in motifs, which received highest rating under the second score was also rated as 'poor' by only 2 per cent of the consumers. None of the consumers reported the cost of kameez material to be high and majority of them indicted the price to be reasonable all these are tabulated in Table 4.9 and Figure 4.9.

Table 4.9. Consumer evaluation of designed kameez material IX with woven motif
(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	22	44	21	42	7	14	0	0
2.	Suitability of the base Fabric for the selected design	20	40	23	46	7	14	0	0
3.	Suitability of the motif(s) to the end use	18	36	22	44	9	18	1	2
4.	Suitability of the weaving technique for motifs	26	52	20	40	4	8	0	0
5.	Placement of developed motif on fabric	23	46	17	34	10	20	0	0
6.	Colour combination in motifs	20	40	26	52	3	6	1	2
7.	Quality of workmanship in application of motifs/ borders	27	54	22	44	1	2	0	0
8.	Overall appearance	24	48	24	48	2	4	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez material	6	12	39	78	5	10	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

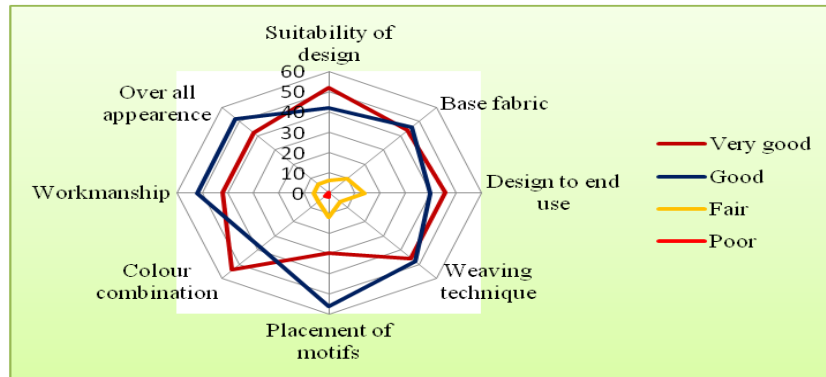


Figure 4.7. Consumer evaluation of designed kameez material –VII with woven motif.

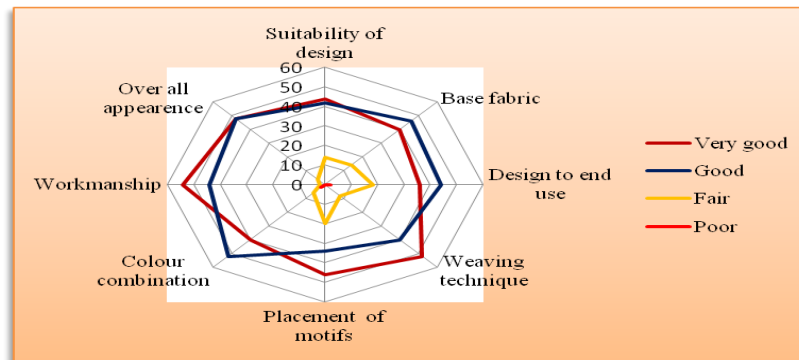


Figure 4.8. Consumer evaluation of designed kameez material –VIII with woven motif.

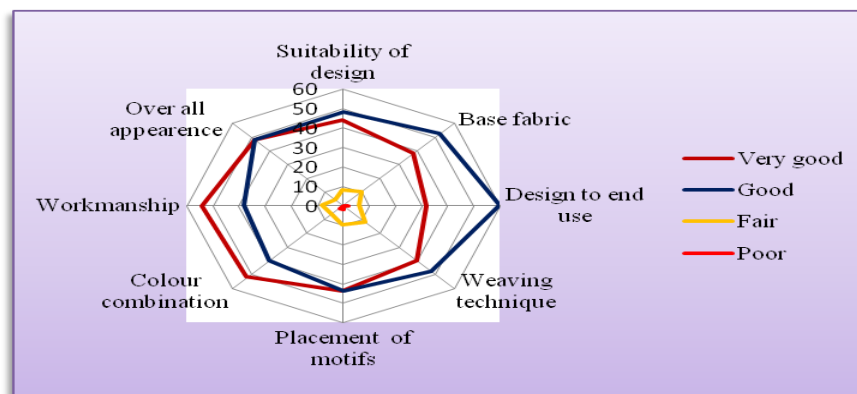


Figure 4.9. Consumer evaluation of designed kameez material –IX with woven motif.

4.2.10 Comparison between designed kameez materials with woven motifs

As seen from the Table 4.10, the mean scores of the kameez materials for all eight factors ranged from 3.14 to 3.66. The highest rating was found for quality of workmanship for kameez material IV. This factor was rated high in kameez materials I, IV, VIII and IX. Of all the factors evaluated, kameez materials II, V and VI received highest scores for overall appearance. Mean scores indicated that design suitability for the garment was high in kameez material VII while suitability of base fabric for the selected design was high in kameez materials III and V. Suitability of the weaving technique for motifs/design received mean scores of 3.3 to 3.4 in kameez materials III to VII. Considering the overall performance of kameez materials for all the factors evaluated it was found that kameez material IV with received overall high scores being highly accepted by consumers followed by kameez material III, V, VII, VI, II, IX, VIII and I. However there is no significant difference between the kameez materials designed by weaving technique.

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table value between factors. Hence it was concluded that except cost factor significant at 5 per cent level and all factors are there was no significant difference between articles was observed.

Table 4.2.10. Mean score of the designed kameez materials with woven motifs

S.No	Parameter/ Criteria	Kameez sets									F cal value	C.D value
		I	II	III	IV	V	VI	VII	VIII	IX		
1.	Suitability of the design for the garment	3.22	3.32	3.38	3.4	3.34	3.22	3.46	3.34	3.36	1.09	NS
2.	Suitability of the base Fabric for the selected design	3.32	3.38	3.44	3.42	3.44	3.34	3.34	3.26	3.22	0.58	NS
3.	Suitability of the kameez motif(s)/ border designs to the end use	3.26	3.18	3.3	3.34	3.4	3.3	3.32	3.14	3.22	1.08	NS
4.	Suitability of the weaving technique for motifs/design	3.26	3.18	3.3	3.34	3.4	3.3	3.32	3.14	3.22	1.02	NS
5.	Placement of developed motif /design on fabric/saree	3.18	3.3	3.3	3.36	3.22	3.34	3.14	3.36	3.3	0.49	NS
6.	Colour combination in motifs/border designs	3.28	3.44	3.52	3.56	3.34	3.4	3.44	3.3	3.42	2.21	NS
7.	Quality of workmanship	3.44	3.28	3.48	3.66	3.46	3.28	3.36	3.5	3.46	0.80	NS
8	Overall appearance	3.26	3.46	3.42	3.38	3.48	3.42	3.36	3.44	3.3	1.04	NS
1.	Cost of designed kameez material	2.96	3.12	3.08	3.1	2.98	2.94	3.2	3.02	3.16	2.56	0.259*

NS – Non significant

* Significant at 5 %

4.3 Consumer evaluation of designed sarees with woven borders

4.3.1 Designed Saree – I

Techniques used in developing the motif and its placement received highest scoring under the first two categories which were tabulated in Table 4.11 and presented in Figure 4.10 Suitability of design for the saree, its use in border and colour combination received high scores by more than 50 per cent of consumers. Suitability of the base fabric for the selected design was evaluated as ‘good’ and so the overall appearance also categorized under similar score. Around 15 to 22 percent variation of scoring was found between the first two categories for suitability of technique in the motif and colour combination in the motif.

Table 4.11. Consumer evaluation of designed saree I with woven borders

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the saree	25	50	22	44	3	6	0	0
2.	Suitability of the base Fabric for the selected design	22	44	23	46	5	10	0	0
3.	Suitability of the border designs to the end use	26	52	21	42	2	4	1	2
4.	Suitability of the weaving technique for motifs/design	28	56	17	34	5	10	0	0
5.	Placement of developed design on saree	20	40	28	56	2	4	0	0
6.	Colour combination in motifs/border designs	26	52	19	38	5	10	0	0
7.	Quality of workmanship in application of motifs/ borders	21	42	24	48	5	10	0	0
8	Overall appearance	22	44	25	50	3	6	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	9	18	37	74	3	6	1	2

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

4.3.2 Designed Saree – II

The factors rated by consumers in evaluating the designed saree II indicated that four factors were rated ‘very good’ while two factors were rated ‘good’ by more than 50 per cent of consumers. Among the three sarees designed, this saree received highest score of 66 per cent for suitability of design to end use. This was followed by suitability of technique for motif/ design and its placement on the saree.

Table 4.12. Consumer evaluation of designed saree – II with woven borders

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the saree	25	50	22	44	2	4	1	2
2.	Suitability of the base Fabric for the selected design	22	44	22	44	6	12	0	0
3.	Suitability of the border designs to the end use	33	66	13	26	4	8	0	0
4.	Suitability of the weaving technique for motifs/design	28	56	20	40	1	2	1	2
5.	Placement of developed design on saree	19	38	28	56	3	6	0	0
6.	Colour combination in motifs/border designs	21	42	25	50	3	6	1	2
7.	Quality of workmanship in application of motifs/ borders	25	50	21	42	4	10	0	0
8	Overall appearance	20	40	26	52	4	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	5	10	41	82	4	8	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Half of the respondents rated colour combination, workmanship and design suitability to be under the first two categories of scores. Overall appearance of the saree was rated to be ‘good’ by 52 per cent of the consumers. A meager per cent of 2 to 12 consumers

evaluated all factors under the score of ‘fair’. High score was also received for the saree over the other two in cost being reasonable (Table 4.12 and Figure 4.11).

4.3.3 Designed Saree – III

Of all factors evaluated for saree II in Table 4.13 and presented in Figure 4.12 six factors were rated by 50 and more per cent of consumers as ‘very good’ and one as ‘good’. Colour combination and overall appearance bagged the highest scores followed by workmanship in the motif/designs and its placement on the saree.

Table 4.13. Consumer evaluation of designed saree – III with woven borders

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the saree	23	46	26	52	1	2	0	0
2.	Suitability of the base Fabric for the selected design	25	50	20	40	5	10	0	0
3.	Suitability of the border designs to the end use	23	46	23	46	4	8	0	0
4.	Suitability of the weaving technique for motifs/design	25	50	24	48	1	2	0	0
5.	Placement of developed design on saree	27	54	20	40	3	6	0	0
6.	Colour combination in motifs/border designs	29	58	19	38	1	2	1	2
7.	Quality of workmanship in application of motifs/ borders	27	54	19	38	4	8	0	0
8	Overall appearance	29	58	17	34	4	8	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	6	12	40	80	3	6	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

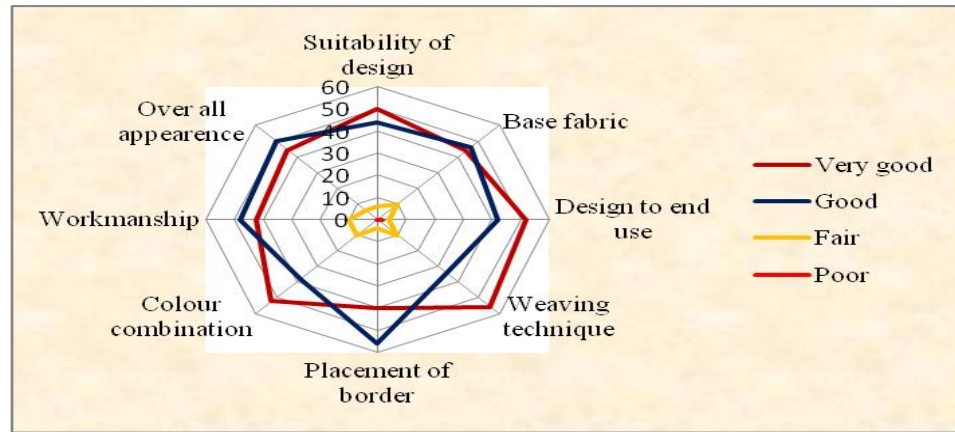


Figure 4.10. Consumer evaluation of designed saree – I with woven borders.

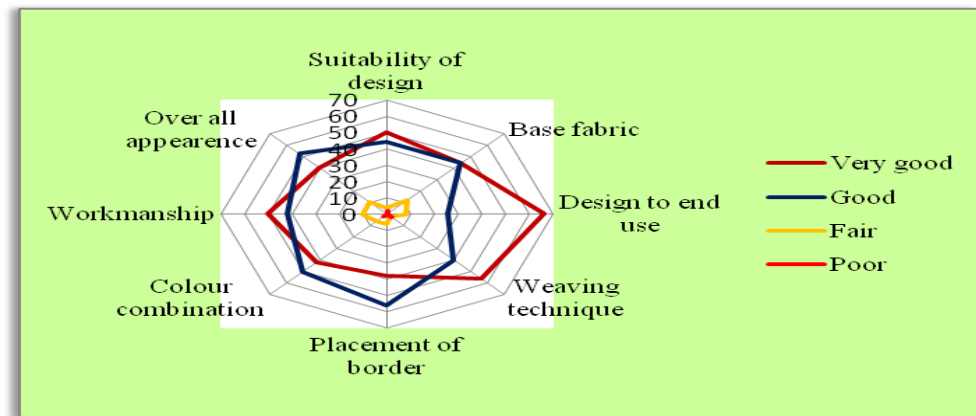


Figure 4.11. Consumer evaluation of designed saree – II with woven borders.

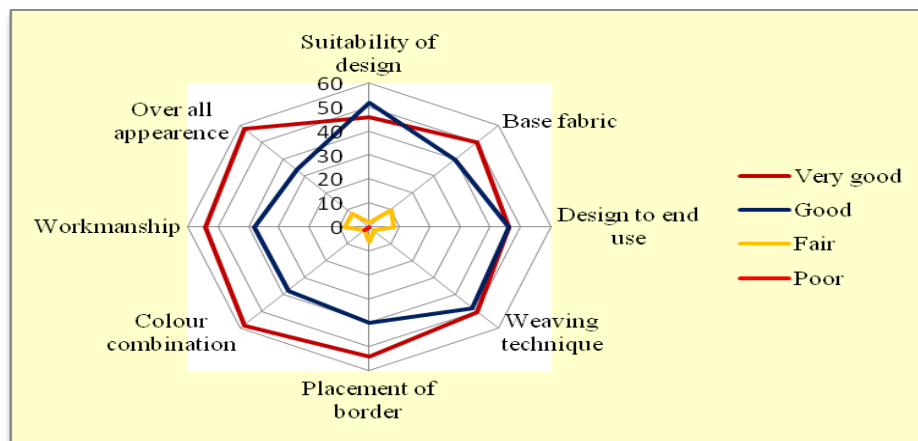


Figure 4.12. Consumer evaluation of designed Saree – II with woven borders.

Except suitability of design for the saree, all other factors received ‘good’ rating by 38 to 48 per cent of the consumers. The percentages of respondents rating the factor as “fair” have ranged from 2 to 10 per cent. Only 2 per cent of respondents rated ‘poor’ to the colour combination in borders. Nearly 80 per cent of them observed cost to be reasonable in this saree.

4.3.4 Comparison between designed sarees

As seen from the Table 4.14, the overall acceptance of all sarees was ‘good’. The mean scores of the sarees ranged from 3.02 to 3.52. The rating scale varied from one saree to another.

Table 4.14. Mean score of designed sarees with woven borders

S.No	Parameter/ Criteria	Sarees			F cal value	C.D
		I	II	III		
1.	Suitability of the design for the garment	3.44	3.42	3.44	1.70	NS
2.	Suitability of the base Fabric for the selected design	3.36	3.32	3.4	1.54	NS
3.	Suitability of the kameez motif(s)/ border designs to the end use	3.38	3.44	3.38	0.94	NS
4.	Suitability of the weaving technique for motifs/design	3.46	3.5	3.48	0.76	NS
5.	Placement of developed motif /design on fabric/saree	3.36	3.32	3.48	0.81	NS
6.	Colour combination in motifs/border designs	3.42	3.32	3.52	1.57	NS
7.	Quality of workmanship	3.32	3.42	3.46	0.52	NS
8	Overall appearance	3.38	3.32	3.5	0.85	NS
1.	Cost Cost of designed kameez material/saree	3.08	3.02	3.02	3.72	NS

NS – Non significant

Among all the factors evaluated, the technique of weaving, the colour combination and overall appearance received high scores over other factors among the three sarees. As the judges considered that the woven design were looking trendy and elegant, saree III scored well, while saree II and I were second and third best accepted ones. The cost was considered to be reasonable by the most of the consumers.

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table value between factors. Hence it was concluded that there was no significant difference between was observed.

4.4 Consumer evaluation of designed kameezs in block printing

4.4.1 Kameez – I

Kameez motif was adapted and designed from Nirmal toy (Figure 3.6). Majority of the respondent voted the design suitability for the garment to be ‘good’. Which was tabulated in Table 4.15 and Figure 4.13 this factor along with the quality of workmanship in printing gave a ‘good’ overall appearance to this kameez. Colour combination in the motifs and design and the printing technique on a suitable base fabric of cotton, which were rated by consumers to be ‘very good’ must have added to the overall appearance of the garment. A maximum per centages of consumers appreciated the costing to be reasonable. A small percentage of consumers rated the placement of motif and suitability of motif to the kameez as ‘poor’ while a slightly greater percentage of consumers evaluated them to be ‘fair’.

Table 4.15. Consumer evaluation of designed kameez - I in block printing

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	14	28	31	62	3	6	2	4
2.	Suitability of the base fabric for printing	22	44	25	50	1	2	2	4
3.	Placement of the motif(s)	18	36	22	44	6	12	4	8
4.	Suitability of the Motif(s) the end use	18	36	22	44	6	12	4	8
5.	Suitability of the block printing technique for motifs	20	40	24	48	5	10	1	2
6.	Colour combination in the selected motif(s)	24	48	21	42	3	6	2	4
7.	Quality of workmanship in the printing	16	32	28	56	7	14	1	2
8	Overall appearance	19	38	25	50	6	12	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez	3	6	41	82	5	10	1	2

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

4.4.2 Kameez – II

The design was adapted and developed from a peacock (Figure 3.21) of Nirmal painting. More than half of the respondent rated the base fabric suitability, motif placement, block printing technique and overall appearance as ‘very good’. Colour combinations of block printed designs were highly appreciated by majority of the respondents. Design suitability and quality of workman ship were rated as ‘good’ by 50 per cent of them. None of the respondents have rated factors to be poor except suitability of motifs for particular end use (Table 4.16 and Figure 4.14).

Table 4.16. Consumer evaluation of designed kameez - II in block printing

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	22	44	25	50	3	6	0	0
2.	Suitability of the base fabric for printing	27	54	20	40	3	6	0	0
3.	Placement of the motif(s)	27	54	21	42	2	4	0	0
4.	Suitability of the Motif(s) the end use	22	44	26	52	1	2	1	2
5.	Suitability of the block printing technique for motifs	25	50	21	42	4	8	0	0
6.	Colour combination in the selected motif(s)	19	38	27	54	4	8	0	0
7.	Quality of workmanship in the printing	20	40	25	50	5	10	0	0
8	Overall appearance	25	50	23	46	2	4	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez	3	6	41	82	5	10	1	2

(Values in parenthesis indicates per centages) (N.R = Number of Respondents)

Nearly 82 per cent of the respondents voted the cost of designed kameez to be reasonable.

4.4.3 Kameez – III

This kameez designed with toy motif – rabbits (Figure 3.4) has scored ‘good’ ranking followed by ‘very good’. Highest rating was recorded for two factors- placement of motif and quality of workman ship in the design. The motifs were arranged in brick pattern and this was highly appropriate in the kameez. Fifty four per cent of respondents rated suitability of the motif to end use to be ‘very good’, while the same percentage of respondents appreciated suitability of the base fabric to be ‘very good’ these were tabulated in Table 4.17 and presented in Figure 4.15.

Table 4.17. Consumer evaluation of designed kameez - III in block printing

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	18	36	26	52	6	12	0	0
2.	Suitability of the base fabric for printing	27	54	20	40	3	6	0	0
3.	Placement of the motif(s)	17	34	30	60	3	6	0	0
4.	Suitability of the Motif(s) the end use	17	34	27	54	6	12	0	0
5.	Suitability of the block printing technique for motifs	25	50	22	44	3	6	0	0
6.	Colour combination in the selected motif(s)	25	50	23	46	2	4	0	0
7.	Quality of workmanship in the printing	17	34	30	60	3	6	0	0
8.	Overall appearance	26	52	19	38	5	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez	8	16	37	74	4	8	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The overall appearance of the designs was rated as 'very good' by 52 per cent and as 'good' by 38 per cent of them. None of the respondents rated the factors to be 'poor' and 10 to 12 per cent of the respondents rated 'fair' for factors of suitability of the design motif and overall appearance. The cost of the designed kameez has fallen in the 'reasonable' category rated by 74 per cent of respondents.

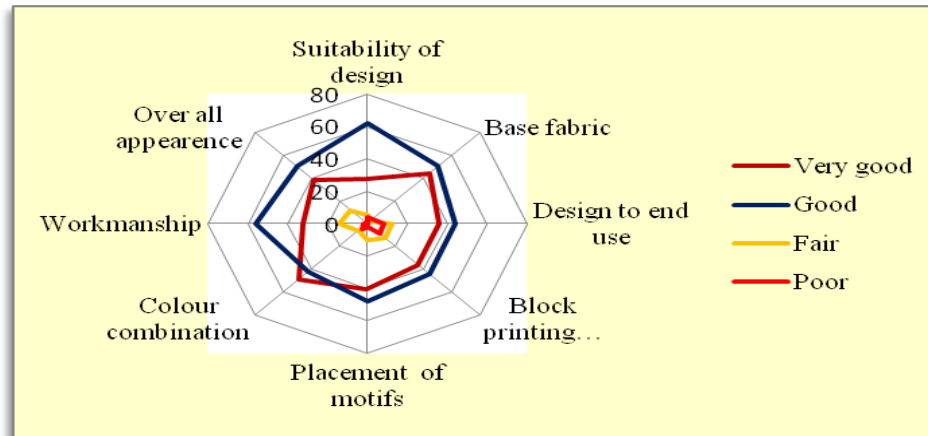


Figure 4.13. Consumer evaluation of designed kameez - I in block printing.

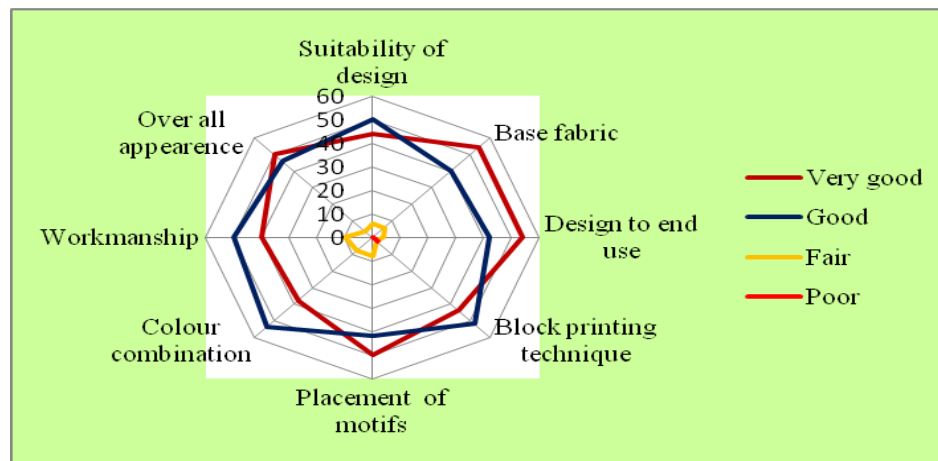


Figure 4.14. Consumer evaluation of designed kameez - II in block printing.

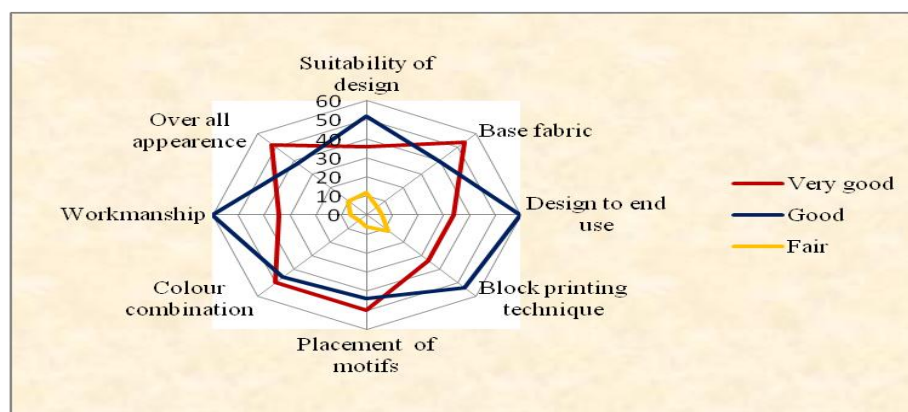


Figure 4.15. Consumer evaluation of designed kameez - III in block printing.

4.4.4 Kameez – IV

The motif on this kameez was adapted and designed from Nirmal toy (Figure 3.9) crane feeding baby cranes in nest. This motif on the kameez was highly appreciated over all other factors. This was followed by design suitability for garment and workman ship quality.

Table 4.18. Consumer evaluation of designed kameez – IV in block printing

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	14	28	27	54	7	14	2	4
2.	Suitability of the base fabric for printing	22	44	24	48	4	8	0	0
3.	Placement of the motif(s)	17	34	22	44	11	22	0	0
4.	Suitability of the Motif(s) the end use	14	28	29	58	7	14	0	0
5.	Suitability of the block printing technique for motifs	20	40	25	50	4	8	1	2
6.	Colour combination in the selected motif(s)	20	40	22	44	6	12	2	4
7.	Quality of workmanship in the printing	18	36	25	50	7	14	0	0
8	Overall appearance	21	42	22	44	6	12	1	2
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez	10	20	36	72	3	6	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Results tabulated in Table 4.18 and presented in Figure 4.16 showed the placement of design, this was the only kameez that was rated as ‘fair’ by 22 per cent of respondents, while 14 per cent of them rated design suitability, motif’s end use and quality of workmanship under the same category. However 50 per cent of the respondents appreciated the technique used for rendering the design and quality aspects of printing to be ‘good’. Three fourth of the consumers opined the cost of the kameez to be reasonable.

4.4.5 Kameez – V

Parrot toy (Figure 3.5) was selected to adopt a motif suitable on kameez. In this kameez motif suitability ranked top of the factors list under second category, while overall appearance topped in the first category ‘very good’. The quality of the workman ship and of printing technique was rated as ‘good’ by 52 per cent of the respondents. Suitability of base fabric for printing ranked the next highest in the first category chosen by 52 per cent of respondents. Great variation was found in the respondents’ choice to factors of motif suitability, quality of work man ship and overall appearance between the first two categories of ‘very good’ and ‘good’ Parrot motif with a bunch of grapes was chosen under fair category by 22 per cent (Table 4.19 and Figure 4.17).

Table 4.19. Consumer evaluation of designed kameez – V in block printing

(Values in numerical scores) N. R = 50

S.No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	15	30	23	46	11	22	1	2
2.	Suitability of the base fabric for printing	26	52	21	42	2	4	1	2
3.	Placement of the motif(s)	20	40	22	44	7	14	1	2
4.	Suitability of the Motif(s) the end use	17	34	27	54	6	12	0	0
5.	Suitability of the block printing technique for motifs	21	42	26	52	3	6	0	0
6.	Colour combination in the selected motif(s)	22	44	21	42	7	14	0	0
7.	Quality of workmanship in the printing	18	36	26	52	6	12	0	0
8.	Overall appearance	27	54	18	36	5	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed kameez	4	8	40	80	5	10	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

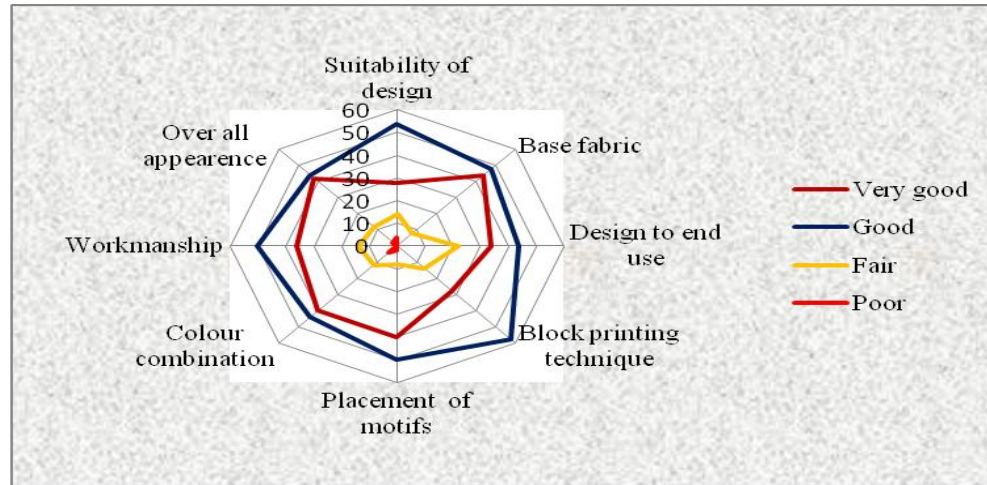


Figure 4.16. Consumer evaluation of designed kameez – IV in block printing.

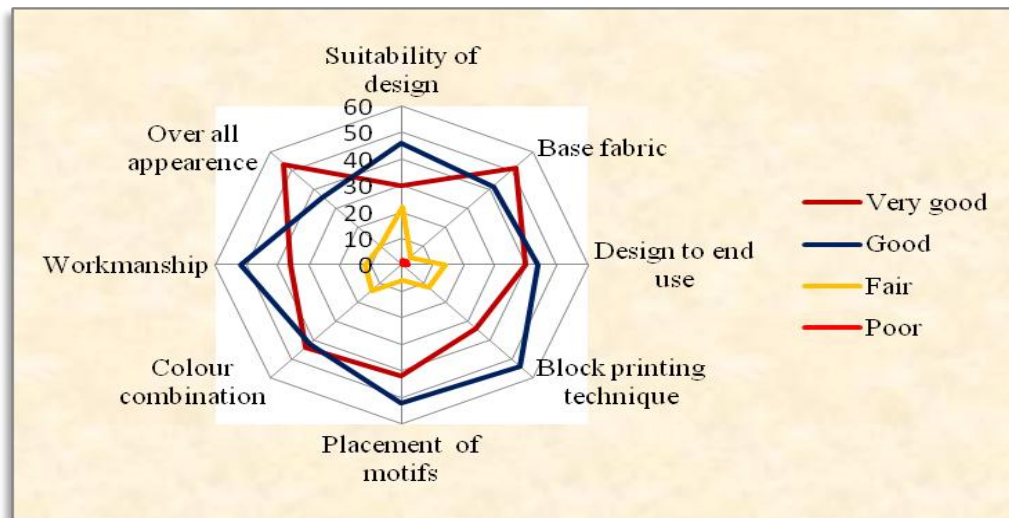


Figure 4.17. Consumer evaluation of designed kameez - V in block printing.

4.4.6 Comparison between designed kameezs in block printing

Among all the factors evaluated, the design of the kameez I was judged as the best factor with the mean score of 3.525. As the consumers considered that the looking elegant, I kameez material scored well, II and III kameezs was second and third best acceptance. The remaining kameezs were ranked in between. The cost was considered to be reasonable by the most of the consumers.

Table 4.20. Mean score of the block printing kameezs

S.No	Parameter/ Criteria	Kameezs					F cal value	C.D
		I	II	III	IV	V		
1.	Suitability of the design for the garment	3.14	3.38	3.24	3.06	3.04	1.09	NS
2.	Suitability of the base fabric for printing	3.34	3.48	3.48	3.38	3.44	0.58	NS
3.	Placement of the motif(s)/border designs	2.98	3.5	3.28	3.12	3.22	1.08	NS
4.	Suitability of the Motif(s)/designs to the end use	3.08	3.38	3.22	3.14	3.22	1.02	NS
5.	Suitability of the block printing technique for motifs/designs	3.26	3.44	3.44	3.26	3.3	0.49	NS
6.	Colour combination in the selected motif(s)/border designs	3.34	3.3	3.44	3.2	3.3	2.21	NS
7.	Quality of workmanship in the printing	3.175	3.3	3.3	3.225	3.175	0.80	NS
8	Overall appearance	3.525	3.375	3.35	3.275	3.375	1.04	NS
1.	Cost Cost of designed kameez /saree	2.92	3.02	3.04	3.1	2.94	9.69	0.162*

NS – Non significant

* Significant at 5 %

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table value between factors. Hence it was concluded that except cost factor significant at 5 per cent level and all factors are there was no significant difference between articles was observed

4.5 Consumer evaluation of designed Sarees in block printing

4.5.1 Saree – I

All the eight factors evaluated for this saree printed with wood pecker motif and design was rated ‘good’ by 50 and more per cent of respondents while less than 45 per cent of consumers rated the factors as ‘very good’.

Table 4.21. Consumer evaluation of designed block printed saree - I

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	22	44	27	54	1	2	0	0
2.	Suitability of the base fabric for printing	22	44	25	50	3	6	0	0
3.	Placement of the motif(s)/ border designs	19	38	25	50	5	10	1	2
4.	Suitability of the Motif(s)/ designs to the end use	19	38	25	50	5	10	1	2
5.	Suitability of the block printing technique for motifs/designs	20	40	28	56	2	4	0	0
6.	Colour combination in the selected motif(s)/ border designs	18	36	28	56	3	6	1	2
7.	Quality of workmanship in the printing	19	38	25	50	6	12	0	0
8	Overall appearance	21	42	26	52	3	6	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	5	10	41	82	2	4	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

As evident from Table 4.21 and Figure 4.18, the highest rating was observed in colour combination and suitability of the technique which were graded as ‘good’. A variation of nearly 20 per cent was observed between consumers choice of colour

combination under the first two categories. Suitability of motif, its placement on a suitable base fabric and quality of workmanship was rated by 50 per cent of consumers as ‘good’. Overall appearance of the saree was rated ‘good’, ‘very good’ and ‘fair’ by 52, 42 and 6 per cent respectively. More than 80 per cent of respondents have opined the cost of designed saree to be reasonable.

4.5.2 Saree – II

As evident from Table 4.22 and Figure 4.19, consumers have evaluated the designed saree and scored the factors to be ‘good’ followed by ‘very good’.

Table 4.22. Consumer evaluation of designed block printed saree - II

(Values in numerical scores) N. R = 50

S.No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	25	50	21	42	4	8	0	0
2.	Suitability of the base fabric for printing	23	46	22	44	5	10	0	0
3.	Placement of the motif(s)/ border designs	21	42	26	52	3	6	0	0
4.	Suitability of the Motif(s)/ designs to the end use	22	44	25	50	3	6	0	0
5.	Suitability of the block printing technique for motifs/designs	18	36	29	38	3	6	0	0
6.	Colour combination in the selected motif(s)/ border designs	16	32	26	42	6	12	0	0
7.	Quality of workmanship in the printing	19	38	25	50	6	12	0	0
8.	Overall appearance	20	40	26	52	6	12	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	5	10	42	84	2	4	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The saree was designed with traditional Nirmal toy show birds (Figure 3.8). Fifty two per cent of the respondents rated that the overall appearance and placement of motifs found to be ‘good’ than other factors. The motifs were arranged vertically in the body of

the saree and pallu, which also scored ranking equal to that of overall appearance. Half of the (50 per cent) respondents voted quality of workmanship as ‘good’ and the design as ‘very good’ followed by base fabric. The base material was chosen to be suitable for the particular designs and motifs. None of the consumers rated any of the factors to be ‘poor’. About 12 per cent observed the factors to be under ‘fair’ category that includes colour combination, overall appearance, quality of workman ship and base material selection. Majority of the respondents valued the cost of the garment to be reasonable.

4.5.3 Saree – III

This Saree designed adopted from a traditional Nirmal floral painting. Among the three block printed saree designs this saree considered as the best saree by the consumers. Suitability of motifs and their placement on the saree won the hearts of 66 per cent consumers under the secondary category of preference, while the same factors were rated under the first category by nearly half of them. None have rated all the factors to be ‘poor’. For all most all the factors that were evaluated for this saree (Table 4.23 and Figure 4.20), it was found that there was 2 to 12 per cent of variation in their choice between ‘very good’ and ‘good’ for all the factors. The least difference was found in case of design suitability which indicated that the choice of design was apt for the end use. A meager 4 per cent of consumers rated the factors to be ‘fair’ for this saree.

Table 4.23. Consumer evaluation of designed block printed saree - III

(Values in numerical scores) N. R = 50

S.No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the garment	22	44	23	46	5	10	0	0
2.	Suitability of the base fabric for printing	25	50	22	44	3	6	0	0
3.	Placement of the motif(s)/ border designs	15	30	33	66	2	4	0	0
4.	Suitability of the Motif(s)/ designs to the end use	15	30	33	66	2	4	0	0
5.	Suitability of the block printing technique for motifs/designs	26	52	22	44	2	4	0	0
6.	Colour combination in the selected motif(s)/ border designs	19	38	25	50	6	12	0	0
7.	Quality of workmanship in the printing	22	44	25	50	3	6	0	0
8.	Overall appearance	20	40	24	48	6	12	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of designed saree	9	18	38	76	2	4	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

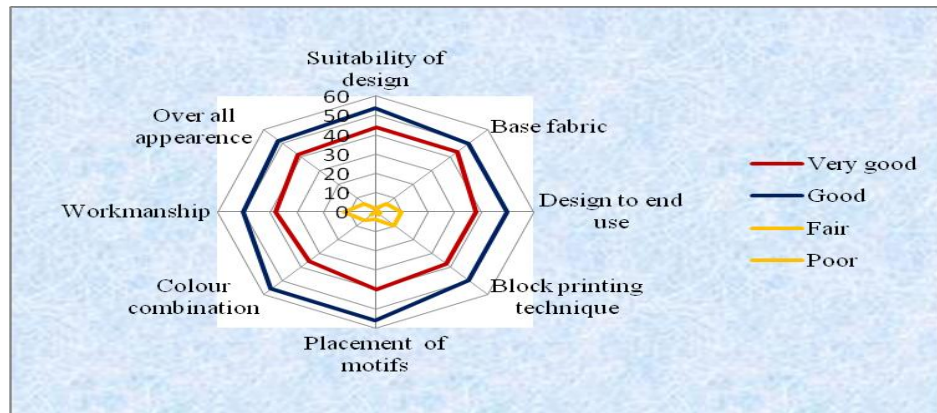


Figure 4.18. Consumer evaluation of designed block printed saree – I.

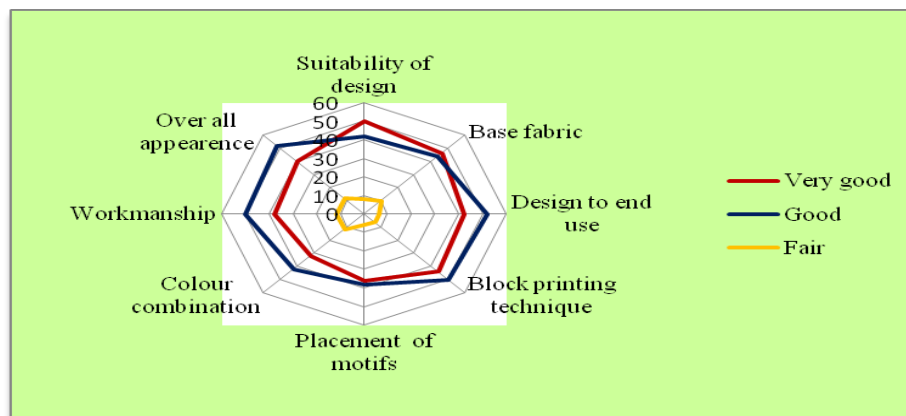


Figure 4.19. Consumer evaluation of designed block printed saree – II.

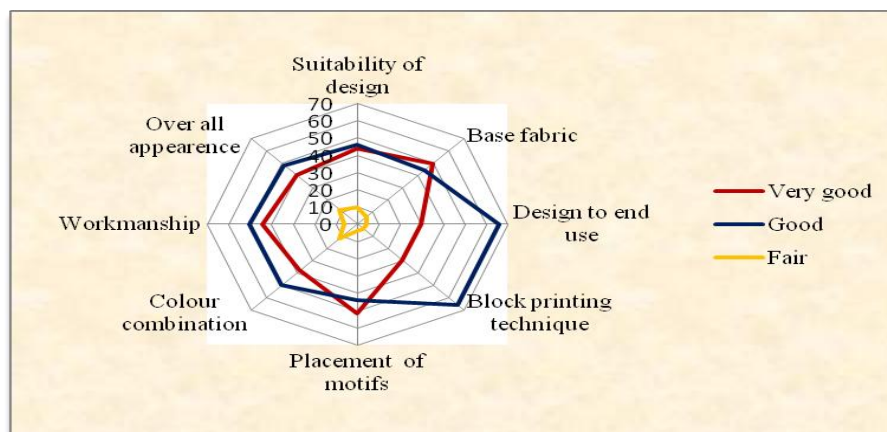


Figure 4.20. Consumer evaluation of designed block printed saree – III.

4.5.4 Comparison between designed block printed sarees

Suitability of the base fabric selection and overall appearance of the saree were judged best along all other factors evaluated for the designed sarees. Both quality of workmanship and suitability of base fabric scored equal rating for saree I and II while suitability of design was the choice between saree II and III.

Table 4.24. Mean score of designed block printed sarees

S.No	Parameter/ Criteria	Sarees			F cal value	C.D
		I	II	III		
1.	Suitability of the design for the garment	3.4	3.48	3.34	1.70	NS
2.	Suitability of the base fabric for printing	3.38	3.38	3.48	1.54	NS
3.	Placement of the motif(s)/border designs	3.36	3.24	3.36	0.94	NS
4.	Suitability of the Motif(s)/designs to the end use	3.26	3.42	3.28	0.76	NS
5.	Suitability of the block printing technique for motifs/designs	3.4	3.36	3.52	0.81	NS
6.	Colour combination in the selected motif(s)/border designs	3.32	3.26	3.28	1.57	NS
7.	Quality of workmanship in the printing	3.3	3.3	3.42	0.52	NS
8	Overall appearance	3.38	3.34	3.3	0.85	NS
Cost						
1.	Cost of designed kameez /saree	3.02	3.02	3.1	37.50	0.096*

NS – Non significant

* Significant at 5 %

Suitability of the base fabric and overall appearance of the block printing technique were highly accepted factors for the designed sarees. Both quality of workmanship and suitability of base fabric scored equal rating for saree I and II while suitability of design was the choice between saree II and III. Consumers considered saree design III to be the best followed by saree-II and sarees I. Costing of the saree was considered to be reasonable by majority of consumers.

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table vale between factors. Hence it was concluded that except cost factor significant at 5 per cent level and all factors are there was no significant difference between was observed.

4.6 Consumer evaluation of the utility articles

4.6.1 Lamp shade – I

The motif adapted for lampshade-I was an inspiration from Radha Krishna (Figure 3.18) painting. The adapted design was painted on the lamp shade. The opinion of the consumers was evaluated and tabulated in Table 4.25 and Figure 4.21. Three fourths (75 per cent) of the respondents have highly appreciated the quality of workman ship while the suitability of design was the first choice for 70 per cent of the respondents. The selected motifs and the painting technique were more suitable than other technique. Both these factors were rated as ‘good’ by 58 and 52 per cent respectively.

Table 4.25. Consumer evaluation of painted lamp shade - I

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	8	16	35	70	7	14	0	0
2.	Suitability of the base Fabric for painting	20	40	23	46	7	14	0	0
3.	Suitability of the Motif(s) to the end use	13	26	29	58	8	16	0	0
4.	Suitability of the painting technique for designs	15	30	26	52	9	18	0	0
5.	Colour combination in the designs	20	40	25	50	5	10	0	0
6.	Quality of workman ship	10	20	38	76	2	4	0	0
7.	Overall appearance	22	44	23	46	5	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	3	6	41	82	6	12	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Though the other factors were appreciated in this in this article, the overall appearance was ranked ‘good’ and ‘very good’ by 46 and 44 per cent respectively. Painting technique adapted for the lamp shades also received a ‘fair’ ranking from 18 per cent of respondents while a slightly lesser per centage of respondents opined the design suitability and base fabric to be fair for the article. None of the respondents rated any of the factors to be ‘poor’. More than 80 per cent rated that the cost of article to be ‘reasonable’.

4.6.2 Lamp shade – II

As evident from Table 4.26 and Figure 4.22, all the factors evaluated, for the painted lamp shade-I has scored ‘very good’ ranking followed by ‘good’. The quality of work man ship the lamp shade was ranked as ‘good’ by 68 per cent of respondents. This may be due to the quality of the painting strokes in the designs which have given good appearance to the lamp shade.

Table 4.26. Consumer evaluation of painted lamp shade - II

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	29	58	15	30	6	12	0	0
2.	Suitability of the base Fabric for painting	24	48	21	42	5	10	0	0
3.	Suitability of the Motif(s) to the end use	24	48	20	40	6	12	0	0
4.	Suitability of the painting technique for designs	21	42	23	46	6	12	0	0
5.	Colour combination in the designs	23	46	23	46	4	8	0	0
6.	Quality of workman ship	16	32	34	68	0	0	0	0
7.	Overall appearance	25	50	21	42	4	8	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	7	14	41	82	2	4	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The dark red and green colours were more apt to the base colour and the painting technique was highly suitable for this selected motif and so it was rated as ‘good’ by 46 per cent of the respondents. More than 55 per cent voted the suitability of the design to the end uses to be ‘very good’ because the motifs are simple and good drawn following the structural lines of the lamp shade. None of the factors were evaluated as ‘poor’ by the respondents. Majority of the respondents accepted that the cost was reasonable. This lamp shade was accepted over lamp shade – I.

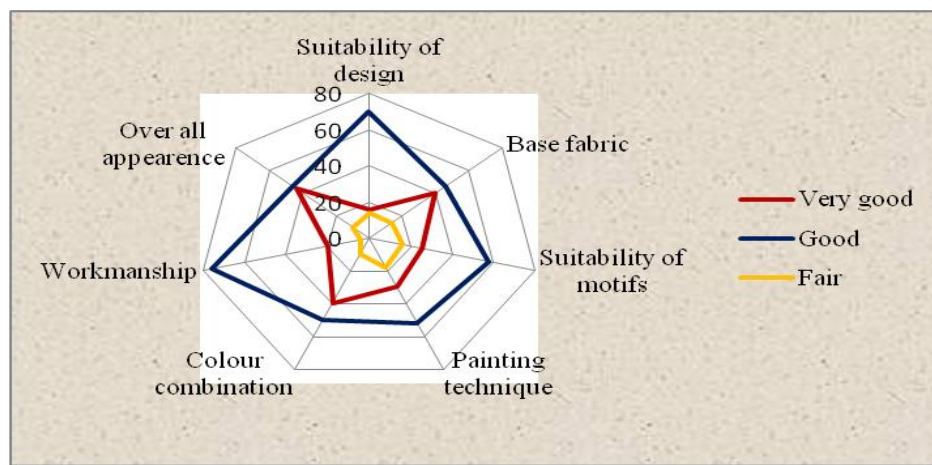


Figure 4.21. Consumer evaluation of painted lamp shade- I.

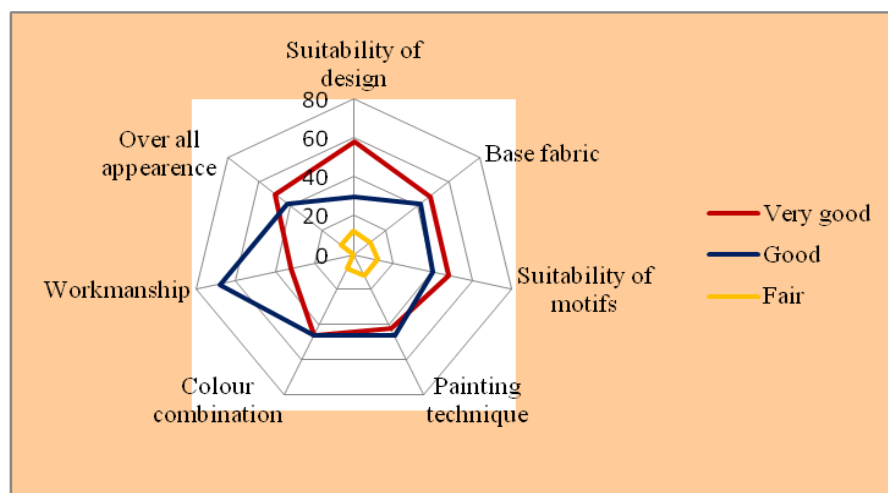


Figure 4.22. Consumer evaluation of painted lamp shade- II.

4.6.3 Room partition –I

Majority of the respondents voted ‘good’ to the overall appearance and selection of design to the end use. All the factors as shown in Table 4.27 and Figure 4.23, for this design received rating factor as ‘very good’ by nearly 32 to 38 per cent of the respondents. The highest factors ranked by them were suitability of motif and workman ship followed by colour combination and overall appearance of the design.

Table 4.27. Consumer evaluation of painted room partition – I

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	17	34	27	54	6	12	0	0
2.	Suitability of the base Fabric for painting	17	34	24	48	9	18	0	0
3.	Suitability of the Motif(s) to the end use	19	38	26	52	5	10	0	0
4.	Suitability of the painting technique for designs	16	32	25	50	9	18	0	0
5.	Colour combination in the designs	18	36	23	46	9	18	0	0
6.	Quality of workman ship	19	38	23	46	8	16	0	0
7.	Overall appearance	18	36	27	54	5	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	2	4	38	76	10	20	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

A ‘fair’ grade was awarded by 10 to 16 per cent of the consumers for all factors evaluated. The technique used, colour combination of the design and the base fabric suitability were ranked equally by 18 per cent of evaluators while only 10 per cent of them rated the overall appearance to be ‘fair’. Majority of the consumers have accepted the cost of painting to be at reasonable level followed by 20 per cent of them who considered it ‘medium’. None rated the factors to be ‘poor’.

4.6.4 Room partition –II

As evident from Table 4.28 and Figure 4.24, all the factors evaluated for the painted room partition-II has scored ‘good’ ranking followed by ‘very good’. The colour combination of the selected designs was found to be ‘good’ by majority of the respondents. Design in this partition was greatly preferred over room partition- I in all aspects except overall appearance of the design.

Table 4.28. Consumer evaluation of painted room partition – II

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	11	22	30	60	9	18	0	0
2.	Suitability of the base Fabric for painting	16	32	24	48	10	20	0	0
3.	Suitability of the Motif(s) to the end use	16	32	26	52	8	16	0	0
4.	Suitability of the painting technique for designs	15	30	25	50	10	20	0	0
5.	Colour combination in the designs	8	16	39	78	3	6	0	0
6.	Quality of workman ship	19	38	25	50	5	10	1	2
7.	Overall appearance	20	40	24	48	5	10	1	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	3	6	39	78	8	16	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Respondents rated both the designs (room partition I and II) similar with respect to suitability of base fabric and motif suitability to end use, under the second category of rating. The per centage of consumers rating factors as ‘good’ were nearly 50 to 80 per cent as compared to that of partition I which scored a maximum of 54 per cent preference. Similar to partition I this painting also was considered reasonable in terms of costing.

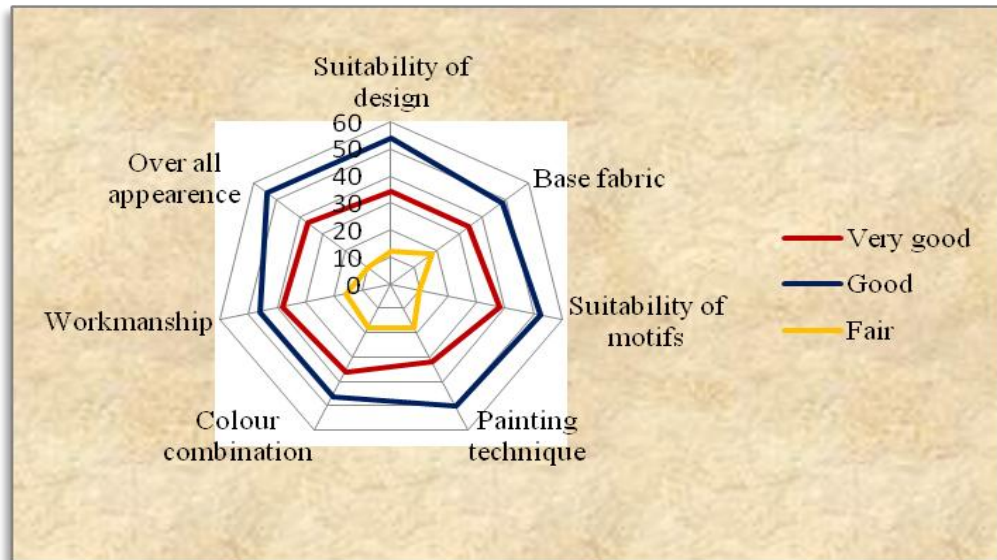


Figure 4.23. Consumer evaluation of painted room partition – I.

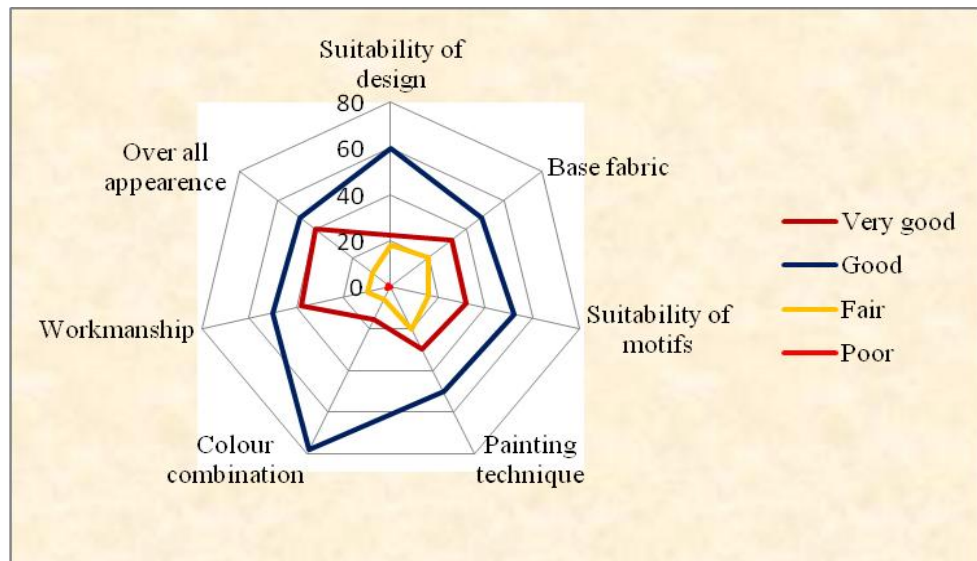


Figure 4.24. Consumer evaluation of painted room partition – II.

4.6.5 Comparison between painted utility articles

As seen from the Table 4.29, the overall acceptance of lamp shades was ‘good’. The mean scores of the lamp shades are ranged from 2.96 to 3.52. The rating scale varied from one lamp shade to another. Among all the factors evaluated, the design of the lamp shade-II was judged as the best factor with the mean score of 3.52. As the judges considered that the painted designs were looking trendy and elegant, lamp shade II and I was first and second best accepted ones. The cost was considered to be reasonable by the most of the consumers.

Table 4.29. Mean score of the utility articles

S.No	Parameter/ Criteria	Lamp shades		F cal valu e	C.D value	Room partitions		F cal valu e	C.D Val ue
		I	II			I	II		
1.	Suitability of the design for the furnishings	3.075	3.525	0.61	NS	3.175	3.025	1.53	NS
2.	Suitability of the base Fabric for painting	3.26	3.38	0.71	NS	3.16	3.12	0.49	NS
3.	Suitability of the Motif(s) to the end use	3.1	3.36	0.69	NS	3.28	3.16	0.12	NS
4.	Suitability of the painting technique for designs	3.12	3.3	0.55	NS	3.14	3.1	0.38	NS
5.	Colour combination in the designs	3.3	3.38	1.60	NS	3.18	3.18	0.80	NS
6.	Quality of workman ship	3.24	3.52	0.95	NS	3.2	3.3	0.21	NS
7.	Overall appearance	3.34	3.42	0.96	NS	3.28	3.28	0.31	NS
1.	Cost factor Cost of painting	2.96	3.1	6.48	0.166*	2.84	2.9	1.10	NS

NS – Non significant

* Significant at 5 %

The overall acceptance of room partitions was ‘good’. The mean scores of the room partitions are ranging from 2.84 to 3.3. Among all the factors evaluated, the design of the room partition II was judged as the first choice with the mean score of 3.3. The quality of

workmanship and overall appearance received high mean scores for both the partitions over all other factors. The cost was considered to be reasonable by the most of the consumers.

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table vale between factors. Hence it was concluded that except lamp shade cost factor significant at 5 per cent level and all factors are there was no significant difference between articles was observed.

4.6.6 Mural – I

Goddess Saraswathi painting (Figure 3.16) was adapted and modified to create the mural painting. As evident from Table 4.30 and presented in Figure 4.25, all the factors evaluated for the painted mural I has scored ‘good’ ranking followed by ‘very good’. Fifty per cent of the respondent rated the design selection, base fabric, motifs selection and overall appearance to be ‘good’.

Table 4.30. Consumer evaluation of painted mural – I

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	16	32	26	52	8	16	0	0
2.	Suitability of the base Fabric for painting	16	32	26	52	8	16	0	0
3.	Suitability of the Motif(s) to the end use	19	38	26	52	5	10	0	0
4.	Suitability of the painting technique for designs	16	32	25	50	9	18	0	0
5.	Colour combination in the designs	13	26	30	60	7	14	0	0
6.	Quality of workman ship	23	46	19	38	8	16	0	0
7.	Overall appearance	18	36	26	52	5	10	0	0
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	4	8	37	74	9	18	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The designs are very clear on the base fabric and were found suitable for the wall painting. Majority of the respondent voted that the colour combinations were ‘good’. Only 46 per cent of the respondent rated the quality of workman ship as ‘very good’. The motifs suitability to the end use and overall appearance were found to be ‘very good’ by 38 and 36 per cent of respondents. Eighteen per cent opined that the painting technique was fair to the selected designs. More than seventy per cent rated that the cost to be appropriate and reasonable.

4.6.7 Mural – II

The painting was adapted from the Nirmal toy- crane (Figure 3.10) and modified suitable for painting. The highest rank was given to the colour combination of the designs and was rated as ‘good’. The modified designs gave a clear picture about the natural location and were rated as ‘good’ by 52 per cent of the respondents.

Table 4.31. Consumer evaluation of painted mural – II

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	18	36	26	52	6	12	0	0
2.	Suitability of the base Fabric for painting	18	36	26	52	6	12	0	0
3.	Suitability of the Motif(s) to the end use	19	38	25	50	6	12	0	0
4.	Suitability of the painting technique for designs	17	34	27	54	6	12	0	0
5.	Colour combination in the designs	10	20	29	58	10	20	1	2
6.	Quality of workman ship	19	38	23	46	8	16	0	0
7.	Overall appearance	19	38	27	54	3	6	1	2
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	7	14	35	70	7	14	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The quality of workman ship was rated as ‘fair’ by few of the respondents. Seventy per cent of the respondents rated that cost to be reasonable, which was less than the mural I (Table 4.31 and presented in Figure 4.26).

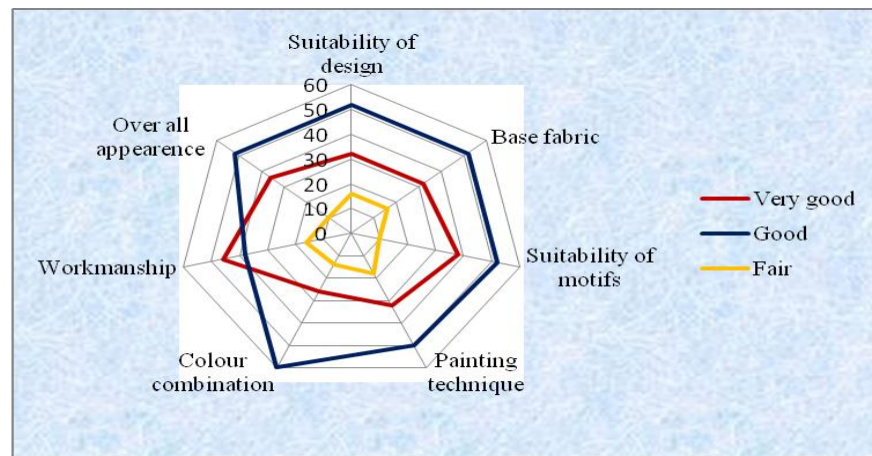


Figure 4.25. Consumer evaluation of painted mural – I.

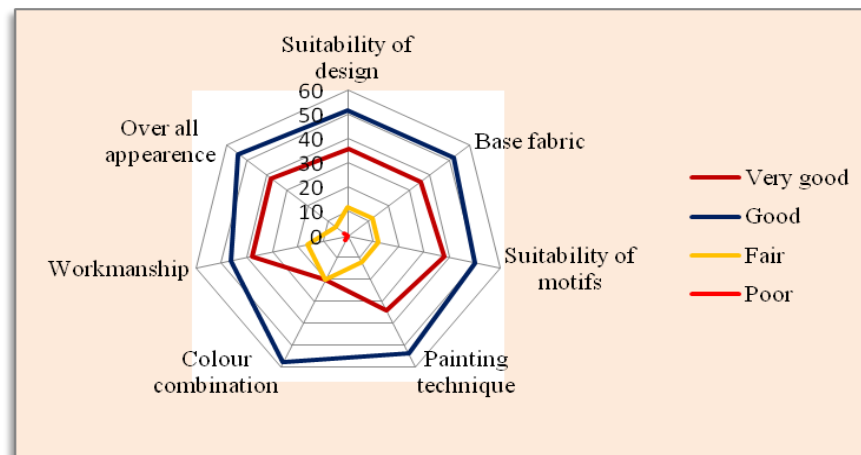


Figure 4.26. Consumer evaluation of painted mural – II.

4.6.8 Roofing – I

As evident from Table 4.31, all the factors evaluated, for the painted mural II has scored ‘good’ ranking followed by ‘very good’. The painting was adapted and modified from the Nirmal floral painting (Figure 3.28). Highest ranking was given to the base material selection. The organandy which is used as base material was transparent the nature of which permits the light making the design clearly visible on the roofing.

Table 4.32. Consumer evaluation of painted roofing- I

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	20	40	24	48	6	12	0	0
2.	Suitability of the base Fabric for painting	17	34	29	58	4	8	0	0
3.	Suitability of the Motif(s) to the end use	21	42	21	42	8	16	0	0
4.	Suitability of the painting technique for designs	21	42	22	44	7	14	0	0
5.	Colour combination in the designs	20	40	22	44	7	14	1	2
6.	Quality of workman ship	16	32	24	48	9	18	1	2
7.	Overall appearance	19	38	26	52	3	6	2	4
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	13	26	31	62	6	12	0	0

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

The overall appearance was rated ‘good’ by 52 per cent of the respondent. About 48 per cent of the respondents rated the design selection and quality of workman ship as ‘good’. The motif selection and selected painting technique were found to be ‘very good’. While 18 per cent of the respondents voted that the quality of workman ship is ‘fair’, 14 to 16 per cent rated the motif selection, painting technique and colour combinations to be ‘fair’ of the selected factors. Sixty two per cent of the respondents suggested that the cost was reasonable (Table 4.32 and Figure 4.27).

4.6.9 Roofing – II

This roofing was painted with design adapted and modified from the Nirmal wall partition painting (Figure 3.24). Majority of the respondents voted that the quality of workman ship was ‘good’. The roofing was clear and neat, which was painted with ‘good’ colours and strokes. The all over appearance of design, suitability of technique used and its appropriateness to end use was rated ‘good’ by 56 per cent of respondents.

Table 4.33. Consumer evaluation of painted roofing – II

(Values in numerical scores) N. R = 50

S. No	Parameter/ Criteria	Very good		Good		Fair		Poor	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Suitability of the design for the furnishings	20	40	20	40	10	20	0	0
2.	Suitability of the base Fabric for painting	21	42	22	44	7	14	0	0
3.	Suitability of the Motif(s) to the end use	15	30	28	56	7	14	0	0
4.	Suitability of the painting technique for designs	16	32	28	56	6	12	0	0
5.	Colour combination in the designs	19	38	22	44	9	18	0	0
6.	Quality of workman ship	12	24	30	60	7	14	1	2
7.	Overall appearance	16	32	28	56	5	10	1	2
	Cost factor	Low		Reasonable		Medium		High	
		N.R	%	N.R	%	N.R	%	N.R	%
1.	Cost of paintings	7	14	34	68	8	16	1	2

(Values in parenthesis indicates per centages)

(N.R = Number of Respondents)

Forty per cent rated the roofing material to be ‘very good’ because it has permitted the light and a clear design visibility. The design suitability was ranked as ‘very good’ by 40 per cent of the respondents and as ‘fair’ by 14 per cent of the respondents. Sixty eight per cent opined that the cost is to be reasonable which is higher than the roofing I. (Table 4.33 and Figure 4.28).

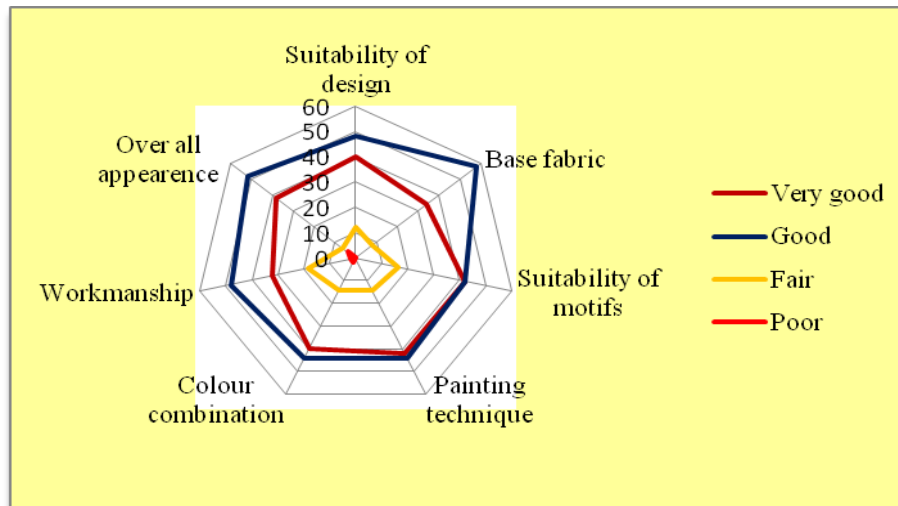


Figure 4.27. Consumer evaluation of painted roofing– I.

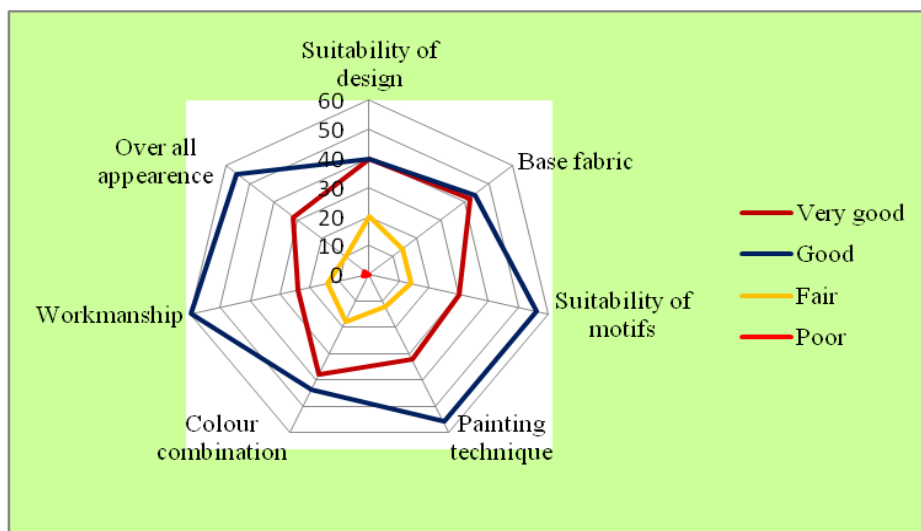


Figure 4.28. Consumer evaluation of painted roofing– II.

4.6.10 Comparison between painted utility articles

As seen from the Table 4.33, the mean scores of the murals ranged between 2.86 to 3.28. Among all the factors evaluated, the design of the murals was judged as the best factor with the mean score of 3.28. All the factors evaluated have received mean scores of more than 3.0 except colour combination in the design which may be due to the dark shades used in painting. Much variation was not found between the two murals for the factors evaluated.

Table 4.34. Mean score of the utility articles

S. No	Parameter/ Criteria	Murals		F cal value	C.D Value	Roofings		F cal value	C.D valve
		I	II			I	II		
1.	Suitability of the design for the furnishings	3.07	3.2	0.24	NS	3.12	3.25	0.59	NS
2.	Suitability of the base Fabric for painting	3.22	3.26	0.47	NS	3.3	3.24	3.57	NS
3.	Suitability of the Motif(s) to the end use	3.28	3.26	0.55	NS	3.16	3.26	0.70	NS
4.	Suitability of the painting technique for designs	3.16	3.22	0.84	NS	3.2	3.28	0.81	NS
5.	Colour combination in the designs	2.96	3.22	1.11	NS	3.2	3.22	0.27	NS
6.	Quality of workman ship	3.22	3.22	1.00	NS	3.06	3.1	1.05	NS
7.	Overall appearance	3.24	3.28	0.70	NS	3.18	3.24	0.82	NS
1.	Cost factor Cost of painting	2.86	2.96	9.66	0.196*	2.94	2.98	0.798	NS

NS – Non significant

* Significant at 5 %

The overall acceptance of roofing done on organdy fabric was ‘good’. Among all the factors evaluated, the design of the roofing I was judged as the best for the choice of base fabric with the mean score of 3.3. Similar to the murals, both the roofing received mean scores above 3.0. The cost was considered to be reasonable by the most of the consumers. However there was no significant difference between the two as indicated in Table 4.33.

F - Calculated value is low –than Table value at 5 per cent level of significance while it was less the Table vale between factors. Hence it was concluded that except murals cost factor significant at 5 per cent level and all factors are there was no significant difference between articles was observed.

Chapter V

SUMMARY AND CONCLUSION

Unchanged from an age called as ‘folk art’ the objects made by the hand bear signs of the creator and his creativity. The folk arts on textiles have found new applications in the fashion field, with commercialization of folk designs gradually gaining popularity. The art forms of Andhra Pradesh bear a unique style, theme, concept, form and expression depicting the local life styles. One among them is Nirmal toys and paintings that are endorsed for their beauty, uniqueness and individuality.

A pilot study was conducted at Nirmal town to identify the toys and painting designs. A market survey was also conducted at Shilparam and Lepakshi, Hyderabad and in an exhibition fair at Secunderabad and Hyderabad (Andhra Pradesh) in order to examine the availability of Nirmal toy figures and painting design motifs on textiles items. It was identified that these motifs and designs have not been rendered on textiles. Literature survey also supported the findings which indicated that no studies were carried out in adaption of Nirmal toys and paintings design on textiles.

Nirmal toys are mainly made of “Tella Poniki” wood collected from the neighboring forests of Nirmal, which are carved by artisans making exact copies of fruits, vegetables, birds and animals. Nakkash teak wood is used as base material for paintings on which the scenes from Hindu epics of Ramayana, Mahabharata and other historical and mythological stories were painted with natural colours in the past but replaced with synthetic colours in the present day.

Lacquer chips, bamboo, sand paper, tamarind seeds, water paints, saw dust, sudda mitti, cutting machine and basic carpentry tools are used for making toys while teak wood, colour, sand paper, paint brushes, tracing paper, lappam are used in creating paintings.

Based on the findings of the preliminary survey, design modification was found as a thrust area to convert toys and painting motifs suitable for textiles. Sarees, kameez

materials, kameezs, lamp shades, cloth murals, decorative roofing and wall partitions, were developed using the adapted and modified designs. Design placement was finalized generating the designs in computer. Woven designs were developed in ikat technique which was appliquéd on different articles using machine embroidery. Vat and Naphthol dyes were used for developing woven motifs and designs.

Material selected for sarees was plain weave cotton of $90^s \times 65^s$ for woven designs and a blend of polyester cotton for block printing. Pigment dyes were used in block printing and painting techniques. Double shaded Mangalagiri cotton fabric of $60^s \times 40^s$, and $80^s \times 60^s$ count material was used for kameez materials while organdy and silk fabrics were selected for utility articles.

Animal, bird, floral and other motifs were selected for adaption into woven, printed and painting designs on various textiles. Modification of motifs was done to suit the various techniques of weaving, block printing, embroidery and painting as well as suitable for various end uses using Corel Draw soft ware.

A schedule to assess the acceptability of designed articles was developed and panel of 50 consumers have assessed the articles. Consumers were confined to staff, post graduate students, under graduate students of College of Home Science, Acharya N.G.Ranga Agricultural University, Hyderabad, who are well versed in designing aspect.

The findings of the study are summarized as below

- The mean scores of the kameez materials for all eight factors ranged from 3.14 to 3.66. The highest rating was found for quality of workmanship in kameez material IV. This factors was also rated high in kameez materials I, IV, VIII and IX. Of all the factors evaluated, kameez materials II, V and VI received highest scores for overall appearance. Mean scores indicated that design suitability for the garment was high in kameez material VII while suitability of base fabric for the selected design was high in kameez materials III and V. Suitability of the weaving technique for motifs/design received mean scores of 3.3 to 3.4 in kameez materials

III to VII. Considering the overall performance of kameez materials for all the factors evaluated, it was found that kameez material IV received overall high scores being highly accepted by consumers followed by kameez material III, V, VII, VI, II, IX, VIII and I. However there is no significant difference statistically between the kameez materials designed by weaving technique.

- The technique of weaving, colour combination and overall appearance received high scores over other factors for the three sarees. As per consumer's evaluation, saree III received high score, while saree II and I were second and third best accepted ones. The cost was considered to be reasonable by the most of the consumers.
- Among all the factors evaluated for block printed kameezs, the design of kameez I was judged as the best with the mean score of 3.52. Kameez II and III kameezs was second and third best accepted once while the remaining kameezs were ranked in between. The cost was considered to be reasonable for all the kameezs by the most of the consumers.
- Suitability of the base fabric and overall appearance of the block printing technique were highly accepted factors for the designed sarees. Both quality of workmanship and suitability of base fabric scored equal rating for saree I and II while suitability of design was the choice between saree II and III. Consumers considered saree design III to be the best followed by saree II and saree I. Costing of the sarees was considered to be reasonable by majority of consumers.
- The overall acceptance for lamp shades was 'good'. The mean scores of the lamp shades ranged from 2.96 to 3.52. Lamp shade II was judged as the best with the mean score of 3.52. Consumers evaluated the cost to be neither high nor low.
- The mean scores of the room partitions ranged from 2.84 to 3.3. The design of the room partition II was judged as the first choice with the mean score of 3.3. The quality of workmanship and overall appearance received high mean scores for both the partitions over all other factors, including the 'reasonable' cost factor.

- Design in the murals was judged as the best factor with the mean score of 3.28. All the factors evaluated have received mean scores of more than 3.0. There was no great variation between the two murals for the factors evaluated.
- Similar to murals, the design of the roofing I was judged as the best for the choice of base fabric with the mean score of 3.3. Similar to the murals, both the roofings received mean scores above 3.0. The cost was considered to be reasonable by most of the consumers.

From the above analysis it could be concluded that the developed designs from traditional folk arts onto apparel and utility articles was accepted by majority of the consumers.

Implications

The study will be helpful to popularize Nirmal toys and painting designs in weaving, block printing, painting and embroidery for textile items. The articles exclusively done in different techniques using Nirmal toys and painting designs can be introduced into the domestic and international market. In addition, this study will also help the government for taking necessary steps in production and export of these items, thereby creating an identity at the global markets besides creating work for hand loom weavers.

Suggestion for future study

- Design modification of different folk arts and crafts of India for dobbies and jacquards.
- A study can be conducted on design development for different textile items by combination of two or more types of folk arts.
- A study of incorporating folk art into knitted designs can also be a new area.

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APPENDIX - I

Interview Schedule on Toys and Paintings of Nirmal

General information

1. Name of the respondent:
2. Age:
3. Address:
4. Occupation
 - a) Primary b) Secondary
5. Sex
 - a) Male b) Female
6. Educational level
 - a) Illiterate
 - b) Primary school (1st- 5th class)
 - c) Upper primary school (6th- 8th class)
 - d) High school (9th- 10th class)
 - e) Intermediate
 - f) Technical education
 - g) Graduation and above
7. Total income
8. How long have you been in this occupation?
 - a) Past 5 years b) 5-10 years c) above 10 years
9. Mode of working
 - a) Individually b) Group/ Association c) Local manufacturing unit

10. What kind of raw materials do you required?

Earlier	At present

11 .Where do you procure raw material?

- a) Local manufacturer
- b) Local raw materials
- c) Co – operative society
- d) Others

12. Are you able to get raw materials in required quantity? Yes / No

13. How frequently do you purchase the raw materials?

- a) Monthly
- b) Quarterly
- c) Half yearly

14. What kind of machineries is used for making toys?

15. What are the designs used for making toys

- a) Traditional
- b) Modern
- c) both a & b
- d) All the above

16. What type of colours do you prefer for painting the toys?

- a) Natural
- b) Synthetic
- c) Both a& b
- d) Any other

17. Mention the type of toy articles generally made?

- a)
- b)
- c)

18. Do you create any own design for making toys? Yes / No

19. How much time do you require to complete the toys?

20. What colours do you mostly use for painting?
- a) Primary colours
 - b) Secondary colours
 - c) Territory colours
21. Who does painting in your family?
22. How long you are been in this occupation?
23. Mention the type of articles do you paintings
- a)
 - b)
 - c)
24. Number of working hours daily spent on
- a) 10-12 hours b) 6-8 hours c) 2-3 hours
25. Do you get any help from your family members? Yes / No
26. What kind of activities do they perform?
27. Do you have any employed workers?
28. Quantity of materials used for making the toys/ painting the articles?
29. Sources of working capital ?
- a) Co-operative society
 - b) Commercial banks
 - c) Private money lenders
 - d) Any other
30. Do you have any welfare schemes? Yes/ No
31. What is the maximum productivity possible in toys?
- a) One day b) One week c) One month

32. What is the maximum productivity possible in painting?

- a) One day b) One week c) One month

33. How do you sell your products?

- a) Agency b) Co-operative c) Shops d) Individuals
e) Markets f) Any others

34. what do you consider for price the product?

- a) Total cost of raw materials
b) Labour charges
c) Over head charges
d) All the above

35. How do you fix the price of the product?

- a) Self b) Local manufacturer c) Co- operative d) Any other

36. Do you have any seasonal variation in production of toys? Yes/ No

37. If yes which is the slack season

- a) Winter b) Summer c) Rainy

38. What kind of finishes do you follow for toys?

39. Do you have any export opportunities? Yes / No

40. Do you find demand for your toys/paintings in the market? Yes / No

41. Do you face any problems for procuring the raw materials? Yes / No

42. If yes mention

43. Do you find any problems in production and marketing of products? Yes / No

44. If yes mention

45. Are you facing any health problems? Yes / No

46. If, yes mention

47. Did you conduct any training programmes ? Yes / No

48. Did you have any branches? Yes / No

49. What are the suggestions do you give for increase the demand of toys making in the market?

APPENDIX - II

Subjective Evaluation for the Motifs

The objective of the evaluation is to elicit information about the consumer acceptability of the displayed motifs Nirmal Toys and Paintings for saree and dress designing.

1. Name of the respondent:
2. Education qualification
3. Select suitable motifs for designing saree
And kameez set in order of preference:

(Give your priority on the basis of number indicated at the motifs displayed)

Weaving			Printing		
Motif no	Rank	Remarks	Motif no	Rank	Remarks
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		
9			9		
10			10		
11			11		
12			12		

Signature of the Respondent

APPENDIX - III

Evaluation sheet

- The objective of the study is to adapt the designs from Nirmal paintings and toys using Weaving, Block Printing, Painting and embroidery techniques.
- Please critically analyse the suitability of the Nirmal paintings and toys designs for the following end use design by giving relevant scores.

Rating scale

Very good - 4

Good - 3

Fair - 2

Poor - 1

1. Name of the Respondent:

2. Education Qualification:

Designing embellishment through Weaving

S. No	Parameter/ Criteria	Kameez material									Sarees		
		I	II	III	IV	V	VI	VII	IIIX	IX	I	II	III
1.	Suitability of the design for the garment												
2.	Suitability of the base Fabric for the selected design												
3.	Suitability of the kameez motif(s)/ border designs to the end use												
4.	Suitability of the weaving technique for motifs/design												
5.	Placement of developed motif /design on fabric/saree												
6.	Colour combination in motifs/border designs												
7.	Quality of workmanship												
8.	Overall appearance												

Rating scale

Low - 4

Reasonable - 3

Medium - 2

High - 1

S. No	Parameter/ Criteria	Kameez									Sarees		
		I	II	III	IV	V	VI	VII	VIII	IX	I	II	III
1.	Cost of designed kameez material/saree (A+B+C+D)												

Estimation of cost

A- Fabric

B- Weaving motifs/border designs

C- Designing charges

D- Appliqué work

9. Please give priority order in preference of designed Kameez material sets/ sarees

Kameez material	Order of preference	Sarees	Order of preference
I		I	
II		II	
III		III	
IV			
V			
VI			
VII			
VIII			
IX			

Block Printing

Rating scale

Very good - 4

Good - 3

Fair - 2

Poor - 1

S. No	Parameter/ Criteria	Kameez					Saree		
		I	II	III	IV	V	I	II	III
1.	Suitability of the design for the garment								
2.	Suitability of the base fabric for printing								
3.	Placement of the motif(s)/border designs								
4.	Suitability of the Motif(s)/designs to the end use								
5.	Suitability of the block printing technique for motifs/designs								
6.	Colour combination in the selected motif(s)/border designs								
7.	Quality of workmanship in the printing								
8.	Overall appearance								

Rating scale for costing

Low - 4

Reasonable - 3

Medium - 2

High - 1

S. No	Parameter/ Criteria	Kameez					Sarees		
		I	II	III	IV	V	I	II	III
1.	Cost of designed kameez /saree (A+B+C+D)								

Estimation of cost

A- Wooden Block

B- Fabric

C- Dye

D- Designing, Stitching

9. Please give priority order in preference of block printed kameez / sarees

Kameez	Order of preference	Sarees	Order of preference
I		Set I	
II		Set II	
III		Set III	
IV			
V			

Painting**Rating scale**

Very good - 4

Good - 3

Fair - 2

Poor - 1

S. No	Parameter/ Criteria	Lamp shades		Wall partitions		Murals		Roofing's	
		I	II	I	II	I	II	I	II
1.	Suitability of the design for the furnishings								
2.	Suitability of the base Fabric for painting								
3.	Suitability of the Motif(s) to the end use								
4.	Suitability of the painting technique for designs								
5.	Colour combination in the designs								
6.	Quality of workman ship								
7.	Overall appearance								

Rating scale

Low - 4
Reasonable - 3
Medium - 2
High - 1

S. No	Parameter/ Criteria	Lamp shades		Wall partitions		Murals		Roofing's	
		I	II	I	II	I	II	I	II
1.	Cost of paintings(Fabric + Paint + Labour + accessories)								

9. Please give priority order in preference of painted articles

Order of preference	Lamp shades	Wall partitions	Murals	Roofing's
I				
II				

10. Do you think that the designed articles can be introduced in the market? Yes / No

11. Suggest the remarks if any