

**Designing Kurtis Using Tribal Motif by Selected  
Printing Methods**

**By  
Renuka, S  
(13PTF011)**

Thesis submitted to the  
**Avinashilingam Institute for Home Science and Higher Education  
for Women, Coimbatore - 641 043**

In Partial Fulfillment of the Requirements for the Degree of  
**Master of Science**  
in  
**Textiles and Fashion Apparel**

**March, 2015**

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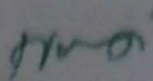
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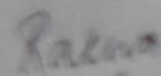
Textiles and Fashion Apparel

March, 2015

Certified as Bonafide Research Work



Signature of the  
Head of the Department



Signature of the  
Guide

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# 1. Introduction

“What we do and how we live  
Its fashion that makes us all perceive  
Fashion is forever, but trends will be new” (Prakesh, 2004).

Fashion is change; the new ideas becoming old and old ideas becoming new again – but always with a fresh twist. The continual search for something fresh is the designer’s greatest challenge (Chauhan and Saboo, 2000). Fashion is the style and custom prevalent at a given time. In most common usage however, “fashion” describes the popular clothing style. Fashion will change more rapidly than the culture as a whole (Claud, 2006). “Clothes make the man” is an old saying which we accept as a truism without giving it much thought.

Fashion means many things to many people. It may be looking good, traffic stoppers, strokes of genius, stunning, beautiful. Fashion is an artistic science and a scientific art of learning to combine color, form, pattern, texture, for the final effect (Prakash, 2004). The term fashion connects the living style of each one of us whether young or old. Fashion keeps on changing along with the times. Fashion can be old styled, traditional, trendy, sober, rigid, practical, customary, experimental, modern and sexy (Okonokwo, 2007).

Clothing is both a basic necessity and an expression of the human spirit. Clothing is worn to convey the creativity and conformity of ideals and standards. Though we may not accept the mantra that “clothes make the person” our dress often does reveal much about ourselves. Some of us may pay more attention to what we wear than others, but all of us are affected and shaped by practice of dress and adornment (Saracino, 2012). Clothing, as one of the most visible forms of consumption, performs a major role in the social construction of identity. Clothing is an indication of how people in different eras have perceived their positions in social structures and negotiated status boundaries. (Crane, 2012).

Comfort may be defined as a pleasant state of psychological and physical harmony between a human being and the environment. All three aspects are equally important, since people feel uncomfortable if anyone of them is absent.

Designers of clothing can take care of psychological and physical aspects of comfort by suitable selection of color, design, texture, style and garment fit (Kulshrestha and Kashyap, 2007).

Designers choose the colors, silhouettes and fabrics of their collections 'what inspires a designer' the entire world. Designers are of great importance when it comes to give an enchanting and intriguing look to the textile products. A fabric with designs is capable of having a more capable impression than the ones without them.

Design involves basic elements like line, form, shape, color, rhythm, unity and space. A well designed garment has beauty and appropriateness which makes it suitable for the wearer and for the occasion. Fashion is the prevailing mode which cannot be ignored, but which can rarely be used as a guide for attractive clothes for everyone. Fashion forecasting is the most important for a designer (Sangama and Rani, 2012). Khadi which draped the humble freedom fighters in the days of yore is today flaunted by cool cats making fashion statement (Asokan, 2009). Epitomizing a cool casual look a few years ago today, it makes the front piece of ramp. Sporting a individualistic look, it has a distinct character and is highly versatile fabric and speaks for itself (Smith, 2010).

Designing is the virtuous features of a fabric or a garment, which creates interesting visual aspects on its surface and beautify its appearance. Khadi is a versatile fabric. The hand spun and hand woven process gives khadi an extraordinary texture and finish that can't be found in any machine made fabric. . They are friendly to the body and do not cause any allergies or irritations to the body like other synthetic fabrics do. Khadi is an alternative lifestyle in tune with the rhythm of nature. Now new design aspects are added to khadi material to promote the khadi materials amount the present generations.

Surface decoration is the patterning of an essentially plain fabric to render it more appealing or to serve a particular purpose. Pattern, color and texture can be added to fabric through techniques that include print, stitch, fabric manipulation, beading and embellishment. It is important to consider the type of technique that best suits the fabric that one is working with (Udale, 2014). The reason for decorating fabric vary with each individual, community or society and may be

done for aesthetic, social, cultural, ritual, religious, political or economic reasons.. The most predominating techniques that enhance the consumer acceptance by beautifying the textile materials are dyeing, printing, painting embroidery and surface finish (Digolo and Mazrui, 2008).

Textile printing is a cyclical business and fashion development. The fashion seasons are becoming shorter resulting in five to six fashion forecast in a year. Thus the world of textile printing is rapidly developing (Jain, 2012). India has the largest variation in textiles, variation in techniques, in the use of material, in the art of printing and dyeing and in form of design expression which is part of its cultural heritage (Jain and Dhamija, 2002).

Stencil printing is one of the important printing process that can be made by hand technique or by machine technique. A sophisticated use of the stencil process evolved as early as A.D. 500 in Japan and A.D.1000 in china. They cut intricate images of great delicacy and complexity from double sheets of thin, waterproof papers. Of all the printing methods in use today, screen printing is no doubt one of the newest, yet it has ancient origin (Ross, 2009). Screen printing transfers an image by allowing ink to pass through opening in a stencil that has been applied to the screen mesh. Multicolor designs are created through the use of different screen for different colors (Lawler and Wilson, 2002). Hand painting is done directly onto the fabric using number of tools, such as brushes and sponges. Hand painting gives a handmade feel to the piece of fabric, and the unique fabrics can be made out of this hand painting (Udale, 2014).

India has always been known as the land that portrayed cultural and traditional vibrancy through its conventional arts and crafts. Every region in India has its own style and pattern of art, which is known as folk art. Other than folk art, there is yet another form of traditional art practiced by several tribes, which is classified as tribal art. The tribal art of India are very ethnic and simple, and yet colorful and vibrant enough to speak volumes about the countries rich heritage. Tribal art generally reflects the creative energy found in rural areas that acts as an undercurrent to the craftsmanship of the tribal people. Tribal art ranges through a wide range of art forms, such as wall paintings, tribal dances, tribal embroidery, tribal music, and so on ([www.archive.india.gov.in/knowindia/culture heritage](http://www.archive.india.gov.in/knowindia/culture%20heritage)).

Considering the above facts, the investigator decide to study on **“Designing Kurtis Using Tribal Motif by Selected Printing Methods”** with the following objectives.

- To study and select tribal motif
- To carryout printing motif on khadi cotton fabric
- To construct kurti using printed material

## **2. REVIEW OF LITERATURE**

The review of literature pertaining to the study on “**Designing Kurtis Using Tribal Motif by Selected Printing Methods**” is discussed under the following headings:

### **2.1 Significance Of Clothing**

### **2.2 Design Development**

2.2.1 Types Of Design

2.2.2 Elements Of Design

2.2.3 Principles Of Design

### **2.3 Motif**

### **2.4 Surface Decoration**

2.4.1 History Of Printing

2.4.2 Printing

2.4.3 Style Of Printing

2.4.4 Printing Methods

### **2.5 Screen Printing**

2.5.1 History Of Screen Printing

2.5.2 Screen Printing

2.5.3 Screen Printing Process

### **2.6 Stencil Printing**

2.6.1 Stencil Printing Process

2.6.2 Procedure For Printing

### **2.7 Fabric Painting**

2.7.1 Types Of Fabric Painting

## **2.8 Khadi Cotton**

2.8.1 Characteristics Of Khadi

2.8.2 Khadi As Fashion Fabric

2.8.3 Cotton

## **2.9 Kurti**

## **2.10 Tribes Of India**

2.10.1 Tribal Art

2.10.1.1 Chittara Art

2.10.1.2 Gonda Art

2.10.1.3 Santhal Art

2.10.1.4 Toda Art

## **2.1 Significance of clothing**

Clothing is the “second skin” that ranks with food and shelter as essential for human survival. Clothes are an outward expression of how people feel about themselves and the kind of world they tend to live in (Patil and Bendigeri, 2001). Clothing is very ancient technology of fiber and textile material worn on the body and it is one among the most important three basic needs in every human being. Clothing is a feature of nearly all human societies and it protects our body from various climates, toxic chemicals and gives us a good comfort, appearance (Basak and Das, 2012).

Functions of clothing include providing the human body protection against weather- strong sun light, extreme heat and cold, protection against insects, noxious chemicals, weapons, and contact with abrasive substances. Humans have shown extreme invention in devising clothing solutions to practical problems (Narang, 2004). Clothing plays an important role in social development, as definite ideas about clothing likes and dislikes are developing. Clothes convey hue to tone to the environment and give form to the feeling, which are the first and last word of the language that in fashion indicates (Patel and Gupta, 2003)

Clothing depends to a greater extent on aesthetic performance, durability and comfort related properties. Aesthetic and utility performance is desirable in clothing. Comfort may be a state of pleasant psychological, physiological and physical harmony between a human and the environment. All three aspects are equally important, since people feel uncomfortable if any one of them is absent. Designers of clothing can take care of psychological and physical aspects of comfort by suitable selection of color, design, texture, style and garment fit (Kulshresha and Kashyap, 2007).

Clothing and textiles are not desired simply to cover us in style but also reflect the wearer’s status, association, self image and attitude as well as social class (Chitins, 2004). People no longer buy clothes for simply practical reasons. They want added values like look feel and image that express personality (Ya, 2006).

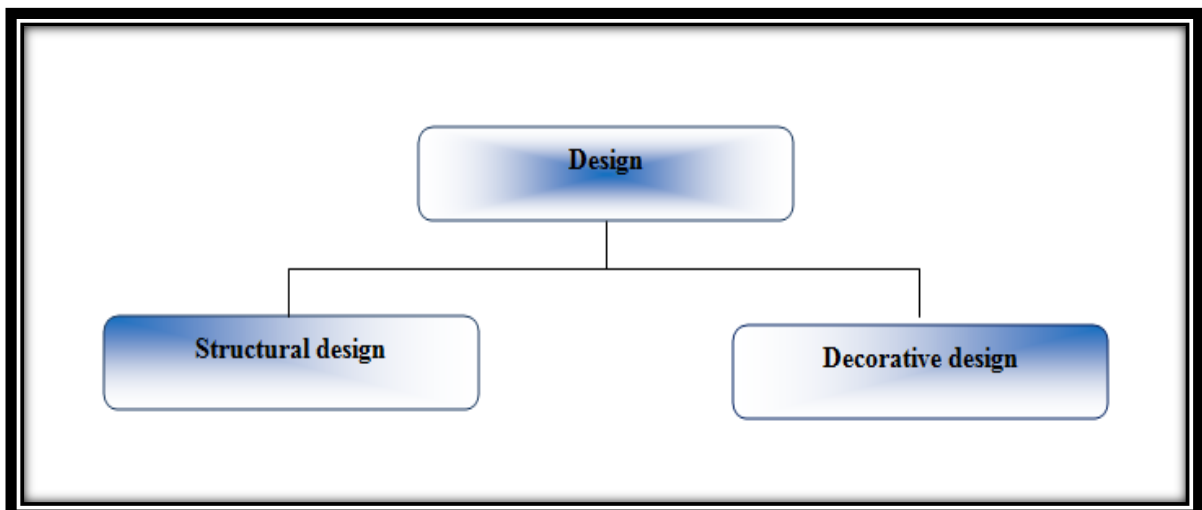
## 2.2 Design development

Design is defined as a particular purpose held in view by an individual or group, it is the arrangement of elements or details in the product or work of art and a pattern (Tortora,2003 ). A design is a composition of silhouette, color, texture and details which create specific version or variations of a style (Kaur, 2010). Design features the elements and principles which are the language of the design and art (Wilson, 2005). The creation of design involves appropriate selection and organization of fundamental elements. The careful and knowledgeable manipulation of art elements to produce and expertise personal idea is the highest level of design (Nidihikalha et al, 2008).

### 2.2.1 Types of design

Design is some way connected with the interest or occupation of an individual. Everything that one use is designed, but not everything is well designed. Good design only comes about when things are made with attention to both their function and aesthetic properties. Design is the art of relating or unifying contrasting elements. (Travallion and Strazzari, 2003).The design principles must be followed to give the formality to the final product a professional touch (Narang, 2004).

**Design can be divided into**



**Structural design** includes the overall design of a garment. It forms a shape plus all details involved in assembling the section of a garment such as darts, pleats and tucks. It may add a decorative quality if emphasized by color

contrast or row of top stitching to outline the basic garment parts. In apparel, structural design is more important because it is the fundamental component of design (Sumathi, 2002).

**Decorative design** is the surface enrichment of structural design. To a structural design line, color or material have been applied for the objective of adding a richer quality to it, constitute its decorative design. Decorative design is added to the luxury of design (Neelima, 2009).

### 2.2.2 Elements of design:

Elements are components that can be isolated and defined in any work of art. They form the structure or work and carry variety of messages (Khurana, 2007). The elements are therefore the raw materials that must be combined successfully. The elements are considered as “plastics” in art language because they can be manipulated or arranged by the designer to create desired illusions. (Sumathi, 2005).

The elements must be incorporated in a pleasing combination to achieve an appealing look in the garment. The elements of design provide a baseline for designing beautiful garments. (Gupta ., 2010) The elements of design include

- **Silhouette:** Silhouette is the outline of the whole garment. It helps in forming first impression of the garment, which may not be appealing to the eye. A silhouette should complement the body type on which it is worn (Karur, 2010). The outline of the shape or form is the silhouette. Silhouettes employ basic shapes including square, rectangles, triangles and circles. The shapes formed by these silhouettes can be manipulated to create visual illusions that emphasize attractive body shapes and camouflage less attractive attributes. Facial body shapes should be considered in conjunction with garment shapes. (Stewart and Galterson, 2009).
- **Line:** Line indicates the shapes and size of the object. They help to express emotions and attitudes. (Parchule, 2009). Line provides the visual dimensions of length and width. When lines combine, space is enclosed and forms and shapes can be defined. (Sumathi, 2005). Line in clothes are an important part of design when line is used correctly it becomes a very important factor in the development of a pleasing appearance (Gupta et al., 2005).

- **Shape** is defined as an area that stands out from the space next to or around it due to a design or shape that is formed when a line enclose an area. These line enclosures create an illusionary facts termed as shapes. Shapes can vary endlessly and can suggest physical form and direct eye movement based on the directional movement of lines (Neelima, 2009).
- **Form** is an object having three dimensions like length, width and depth. The human body is a form and by viewing it analytically, its various perceptions are revealed that human form changes visually with clothing, especially as fashion changes. (Sumathi, 2005) Form is a structure in art and design. Form is the illusion of three dimensional volume as mass seen in two dimensions careful observation of the forms around, reveals that in nature and in man-mode objects, forms can be described as combination of the basic geometric structures, spheres, cylinders, cones, cubes and pyramids (Wilson, 2005).
- **Color** is a fundamental consideration in the design process. It is often the first element that is noticed about a design and influences how the garment or collection is perceived. Color is often the starting point of the design process (kelney et al., 2006). While creating a design, color should be selected carefully according to the nature and purpose of the design. Color plays a significant role in creating illusions of warmth, wholeness, distance, etc. (J.W. Parchace 2009). Colors are supposedly deception by nature. Some effect of color occurs only in viewer's eyes and brain which have a powerful and enormous impact. (Khurana, 2007).
- **Texture** a term used to describe the surface appearance and feel of the fabric. The most important aspect of designing is selecting the right fabric, is not suitable for making body – hugging evening dress. (kaur, 2010). Texture refers to the handle, appearance, feel and shine of an object or price of fabric. Texture can be seen with the eye as well as felt by touch. The texture of the material used affects the appearance of the product (Trevallion and strazzari, 2003).

### 2.2.3 Principles of Design:

The principles of designs are the ways in which design elements may be used. The principles of design are useful in creating different forms of expression

in an artistic manner, which are pleasing and attractive to the eye. (stecker, 1996)  
It includes Balance, Proportion, Harmony, Rhythm, Emphasis (Surkar, 2013).

- **Balance** is equalization of all reaction on both sides of the center. There are two types of balance a) symmetrical or formal balance, b) asymmetrical or informal balance (Rao, 2005) Balance is the concept to our physical sense of balance. It is a reconciliation of opposing forces in a competition in visual stability. (kate 2013).
- **Proportion** is the consideration of weight, shape and division of an object. It demands that all space divisions should be pleasingly selected to each other's (Rao, 2005). Proportion refers to the relation of the size of the parts of a garment or outfit to the whole and to each other. It includes how the line and shapes divide the garment into parts and how one part as space composes to the sometimes interchangeable term, refers more narrowly to how the size of one shape compares to another. (Galteson and Stewart, 2009).
- **Harmony** means that all elements of a design work together to produces a successful visual effect which is also referred as unity. It is achieved when the fundamental elements of design have been used to express a single concept. The whole dominates the part in implying agreement visually or conceptually, such elements refer to line, shape, color, texture, ideas or themes (Colussy and Greenberg, 2007). Harmony in color is not governed by fixed principles and any combination of hues that is pleasing and gives full satisfaction to the observer may be said to constitute harmony (Grosicki, 2004)
- **Rhythm** is the repeated use of lines as shapes to create a pattern. Rhythm may also be developed when there is orderly arrangement of details according to size. (Davis, 2007) The Rhythm in a garment can be maintained even when the dominant color, pattern, lines as detail is repeated on the garment in distinct locations with as without variations. (Gupta, 2010). Pleasing effect can be achieved by using rhythm as a design tool. Rhythm in design results from lines and masses that form repetitions; these repetitions can either be uniform as a decreasing as increasing size. Rhythmic pattern can be generated by superimposing scales (Sumathi, 2002).

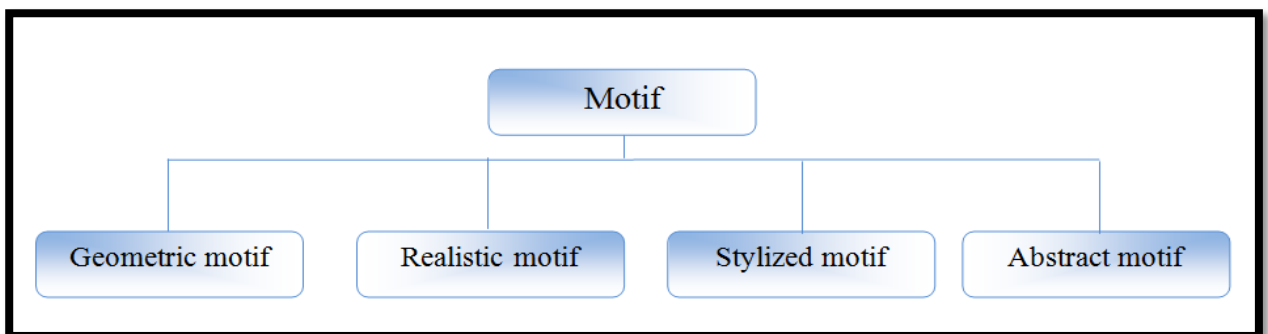
- **Emphasis** is an area that attracts viewers' attention and becomes a focal point. The focal point of interest should be one and should relate to the total garment design. The emphasis should be placed at an area that needs to be highlighted (Travallion and Strazzari, 2003). A centre of interest should be related to the total structure of the garment. All other element must superimpose it by echoing its design message and the attraction of interest must create more visual attraction than any other design element (Frings, 2005).

#### 2.2.4 The Color wheel

The color comes from light; if it weren't light there would be no color. Light rays move in straight path from light sources. The light rays include all of the colors in the spectrum of rainbow. A color wheel is a tool used to organize color. It is made up of primary colors that are Red, yellow and blue (cox, 2000). The secondary and tertiary colors happen when two primaries are mixed to create new colors, such as red and blue make purple. The color wheel is the device that helps artists and designers to combine, contrast or blend colors successfully (Gorden, 2002).

#### 2.3 Motif

A motif is an individual part of the pattern, which can be repeated in different ways to produce patterns (Karur, 2010). Any motif or image can be used in textile design. The choice of the motif very much depends upon the end use of the fabric, as the scale and complicity of an image is often different according to end use. Motifs for clothing tend to be relatively small and are generally arranged as an all-over repeating pattern (Katewells, 2000). Motifs can be classified as



- **Geometric motif:** Various forms of lines such as vertical, horizontal and diagonal and curved lines are joined together to form a geometric motif. They form fabric designs, such as strips, plaids, checks, circles and their associated designs.
- **Realistic motifs:** Realistic motifs portray a direct replica of things as they exist in nature. This motifs lack creativity and require a 3-d platform to copy reality, they do not find wide acceptance in apparel designing.
- **Stylized motifs:** Stylized motifs include variations of natural things. These motifs are full of creativity, as they are the result of interpretation of naturally existing things.
- **Abstract motifs:** Abstract motifs lack any resemblance to natural or man-made objects. They are full of color and add interest to the fabric. (Kaur, 2010).

## 2.4 Surface decoration

Surface decoration is the patterning of an essentially plain fabric to render it more appealing or to serve a particular purpose. The reason for decorating fabric vary with each individual, community or society and may be done for aesthetic, social, cultural, ritual, religious, political or economic reasons. These factors often determine the fabric type, processes, color and motif used. The different ways of decorating a textile includes dyeing, printing, painting, embroidery etc (Digolo and Mazrui, 2008)

### 2.4.1 History of printing

Textile printing, the various processes by which fabrics are printed in colored design, is an ancient art. India exported block prints to the Mediterranean region in the 5<sup>th</sup> B.C., and Indian chintz was imported into Europe during the renaissance and widely imitated. Early forms of textile printing are block printing, stencil work, highly developed by Japanese artists and screen printing is developed by Chinese artists. (Parvathi., 2007)

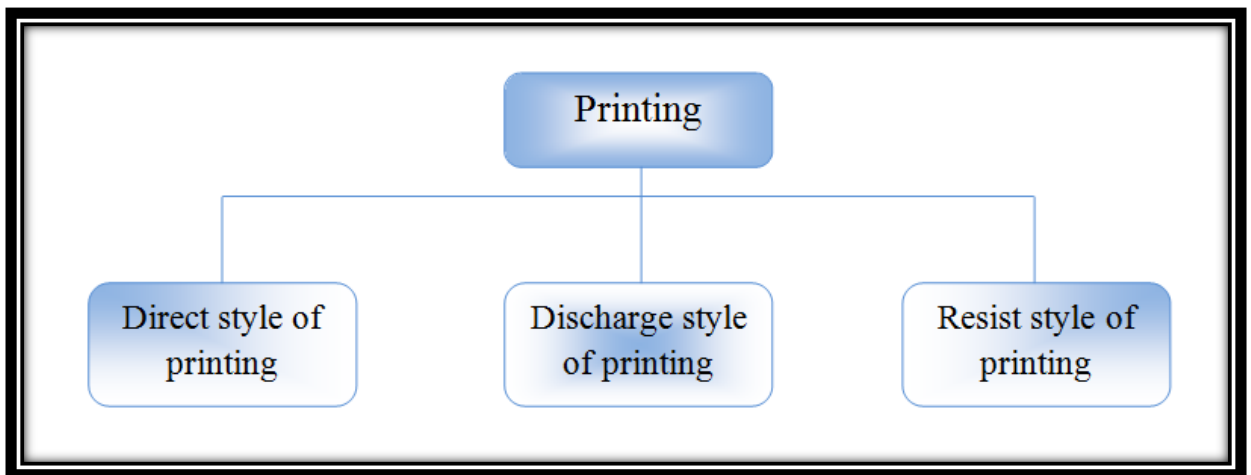
### 2.4.2 Printing:

“Restricted dyeing is known as printing”. Textile printing can often be considered part of finishing industry. It is essentially a decor time pattern as design is applied to construct fabric ([www.slideshare.net/sulimankhan/textile-](http://www.slideshare.net/sulimankhan/textile-)

printing) printing always plays a major means to upgrade the aesthetic quality of textiles material. Textile printing has been a fairly extensive industry in India since more than 2000 years (Diwakar et al, 2013). Printing is defined as dyeing in a localized and patterned all. This is usually achieved by applying thickened paste containing dyes as pigments onto a fabric surface according to a given color design (Maulik, 2009). Colorants used in printing contain dyes thickener to prevent the color from spreading by capillary attraction beyond the limits of the pattern of design (Naik, 2013).

### 2.4.3 Styles of printing

There are three different styles of printing.



**Direct style of printing:** Direct style of printing is suitable thickened colored paste is applied directly on to the surface of the fabric (CSTRI – silk dyeing and printing)

**Discharge Style of printing:** Discharge style of printing is unique in which the patterns are created by removing from the selected areas of the fabric and leaving it devoid of any color or introducing another color from where the discharge paste has removed color. (Kaur, 2010). Bleaching agent is used to remove the previously dyed fabric according to required design.

**Resist style of printing:** In resist style of a substance is applied on the surface of the cloth which prevents the specific area to take up the dye. The areas treated with the resist are not colored, retaining the color of the ground fabric (Paradhan et al, 2015).

#### **2.4.4 Printing Methods:**

The different methods of printing are as follows,

- Hand brush printing
- Block printing
- Screen printing
- Stencil printing
- Roller printing
- Rotary printing
- Spray printing
- Kalamkari
- Batik printing
- Khadi printing
- Maya printing
- Digital printing
- Transfer printing
- Chemical printing
- Tie and die printing

### **2.5 Screen printing**

#### **2.5.1 History of screen printing**

Yarns, fabric and tools for spinning, weaving and surface decoration have been found among the earliest relics of human habitations (Parvathi, 2007). Screen printing is a form of stenciling that first appeared in a recognizable form in china during the sung dynast (Naik, 2013). The development of screen printing to its modern, highly productive form ran parallel with the improvement in the screen themselves. Fabric meshes were not attached to frames for printing until early 1900s, nor were squeegees invented until that time. Despite its fairly recent development, the process evolved from the ancient medium of stenciling, used extensively for artistic and commercial purpose in China and Japan as early as A.D.500 (Stromquist, 2004).

The more advanced Japanese technique influenced the Europeans after these methods spread to the west through the trade route. Soon, these inventive processes were being used in the rapidly advancing European textile industry. Technological advancements followed rapidly, as specialized stencil film and light-

sensitive photographic emulsions were introduced. The development of the squeegee eliminated the need to use stiff brushes to push the ink through the screen. Screen printing thrived as a commercial process by the 1920s, and it was particularly well suited to the textile industry (Board, 2003).

### **2.5.2 Screen printing**

Screen printing is arguably the most versatile of all printing processes. It can be used to print on a wide variety of substances, including paper, paperboard, plastics, glass, metals, fabrics, garments and many other materials. Screen printing is used commercially for printing most types of fabric material. The basic principle of screen printing is stenciling. A stencil is a thin sheet of paper or metal with areas cut out. Color is applied and this passes through the cut areas but not the uncut areas (Rao, 2008).

Screen printing allows for easy and fast printing of an image, to create a repeated designs or a number of separate prints. Once an image is made into a screen, it can be printed on a variety of surfaces. By using different printing techniques, the same image can appear on a surface in different colors or with a different look. And by using a different screen for each color of a design, multiple color designs can also be produced (Thimou, 2002).

Screen printing is a relatively simple method of printing which can be carried out without the use of complicated and expensive equipment.

### **2.5.3 Screen printing process**

The common screen printing processes employed are,

- 1) Preparation of design
- 2) Making the positive
- 3) Preparation of screen
- 4) Frame
- 5) Screen printing table
- 6) Squeegees

### **1) Preparation of design**

In screen printing preparation of screen is the important process. The design that has to be made into a screen has to be planned and prepared accordingly. The drawing is first prepared in black and white. The part that is to be printed will be in black in the drawing that portion will accept the colored ink. Areas that are white in the drawing will remain the color of the fabric or other background material.

Once the black and white drawing of the design is created it can be copied onto clear acetate, also known as transparency film. The design can be transferred to the acetate by drawing using special pens, using stick on letters, shapes cut from opaque paper, etc, or by photo copying the original design. By this method the most exact copy of the design can be produced and this allows producing even the most complicated design to be turned into a screen stencil (Butterworth, 1997).

### **2) Making the positive**

A positive is required for exposing the design on the screen. It is produced by copying the design with opaque ink on a transparent paper or a kodatrace. A kodatrace is a film with an unglazed surface on one side which is used for tracing the design. It withstands all temperatures and neither shrinks nor expands with cold or heat and therefore there is no problem at the time of exposing. The coping is done in full size or in a suitable and conventional unit size. In case of a unit size positive, more exposures are to be given by shifting the positive or the screen after every exposure. The lines, points or the pattern covered by the opaque ink remains unexposed and water soluble even after the exposure and can therefore be washed out after developing. Thus the areas through which the color is to pass are free of the photo solution (Parchure, 2009).

### **3) Preparation of screen**

A printing screen frame is simply any frame over which a fine mesh fabric can be stretched and secured (Bayless, 2007). The quality of the printed design mainly depends on the quality of the screen mesh. Silk has long been the most common screen mesh. While still widely used, other materials are also popular. Inexpensive and disposable screens can be made from organdy. They do not

work very well with water-based paints and should be used only for small runs. Nylon meshes have gained in popularity because of their ease of cleaning and their durability. Silk does not stand up under the strong chemicals used in some photographic methods. Copper, brass, bronze, and stainless steel fabric meshes are used in commercial screen printing because they stand up for long runs (Schwalbach, Mathilda, 2012).

#### **4) Frame**

There are two types of screen frames, metal and wood. Metal frames have been replaced by wood because they do not go out of shape while in contact with water for long durations like wood frames do. Metal screens are made out of aluminum or steel. Aluminum is commonly preferred because it is light weight, yet sturdy. There are some applications where steel is preferred such as very large printing frames used for long printing runs (Rao, 2008).

#### **5) Screen printing table**

The cloth to be printed should be fixed to the table to carry out the printing easily and smoothly. The table is normally 20-60 m long. There are three methods that can be used for fixing the cloth to the screen table. One is by pinning; the second by direct adhesion to the waterproof table top, and the third is by combining the material to a backgrey with a special combining machine (Butterworth, 1997).

If the material to be printed is fastened to the table with pins the water-proof cover may be omitted and the under-cover felt covered with a backgrey. When stretched the material is pinned by selvedges to the under felt. The cloth during printing has tendency to move owing to expansion or contraction, and close-fitting designs are difficult to keep in register. The second method is to fix the material to the waterproof table top with adhesives such as dextrin, British gum or gum Arabic. The adhesive is spread evenly over the table either by the use of a rubber squeegee or by machine. If too much adhesive is used, it penetrates the fabric and has a resisting action on the applied print paste, giving irregular prints.

The third method used is the sticking of the material on to backgreys by combining machine whereby material to be printed can be combined in advance with the backgrey. When printed, the material is removed, the greys are taken

away and another roll of combined material is rolled down without any intermediate washing and drying of table (Sinclair, 2014).

## **6) Squeegee**

A squeegee is a long blade attached to a wooden handle used to spread the ink across the screen. Squeegee comes in varying lengths, blade cuts, and flexibility. The appropriate length of the squeegee is determined by dimension of the screen. The squeegee should at least one inch wider on each side than the image that is planned to be printed. (Stromquist, 2004). The squeegees are made of natural or synthetic rubber or of polyurethane. The squeegee harness is expressed in degree shore, the generally recommended region being 60-75 degree shore harness. Excessive squeegee harness can cause difficulty in maintaining register due to the high frictional drag with subsequent distortion of the screen (Board, 2003).

## **2.6 Stencil printing**

Stencil printing is one of the oldest methods of printing. Stencil printing originated in Japan and is probably one of the most widely used methods. It is a method, in which the color is applied to the fabric not by impression as in other printing methods, but it is done by brushing or spraying the interstices of a pattern cut out from a flat sheet of metal or waterproof or plastic sheet or laminated sheet (Rao et al, 2006).

The modern technique of screen printing is nothing more or less than an adaption of the stencil technique. Screen printing is generally known as resist technique of printing. In any resist style, some technique is employed which will prevent the paint or dye from penetrating certain areas (Lacasse and Baumann, 2004).

### **2.6.1 Stencil printing process**

Selection of motif for stencil is the important process in this type of printing. The design motif is cut out of a thin material. Stencil suffer from the defect that complete rings or circles fall out of the pattern and some form of 'tie' is necessary to link such shapes to the main stencil. Stencils were cut from paper and hair was used to hold to the main design those areas that would otherwise fall out (Padmini

and Venmathi, 2006). These fine lines did not show on the final pattern because the dyestuff diffused sufficiently to cover the thin unprinted line originally protected by hair (Clarke, 2004).

It is obviously that with suitable planning an all over pattern may be just as easily produced by this process as by hand printing and that moreover, if several plates are used, as many color as plates may be introduced into it. The particularity of stenciled pattern is that they have to be held together by pattern is that they have to be held together by ties, that is to say, certain parts of them have to be left uncut, so as to connect them with each other, and prevent them from falling apart in separate pieces. The necessity for ties exercises great influence on the design and in the hand of a designer they may be very unsightly (Kapoor, 2012).

### **2.6.2 Procedure for printing**

The stencil is laid perfectly flat on the fabric to be printed and the color paste is then brushed through its perforations with the brush. The plate is then lifted when the pattern appears on cloth as a colored silhouette corresponding with the cut-out parts of stencil. In patterns with two or more colors, a separate stencil is required for each color. The cloth is stencil printed throughout in one color first and then the other colors are printed. The color can be brushed, dabbed, sponged or sprayed by means of a spray gun through the stencil to obtain different effects (Rao, 2006).

### **2.7 Fabric painting**

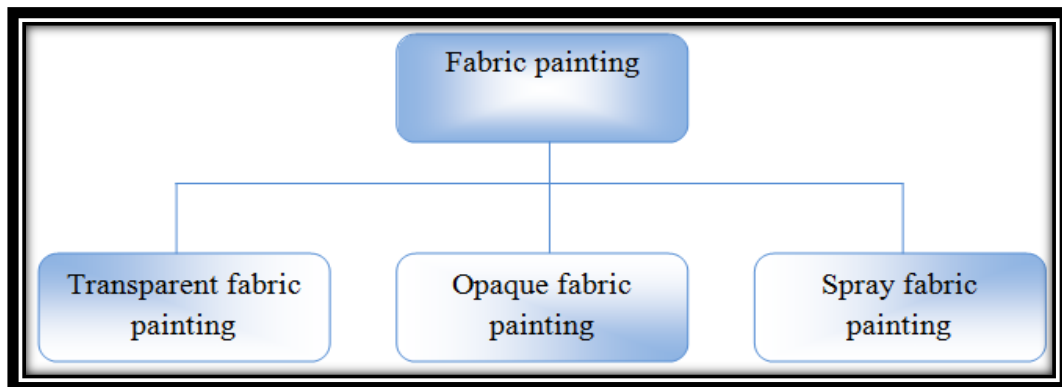
Fabric painting method is probably the simplest of all textile decoration technique. It creates total freedom to make direct marks and strokes onto the fabric (Ratcliffe, 1988). Fabric painting is a unique form of painting that finds vibrant expression on the fabric. With simple techniques and procedures alluring paintings can be made out in an affordable cost. Painting on fabrics has now becoming a popular homemade handicrafts and is practiced by many as a hobby or as a part of livelihood (Walter, 2011)

Fabric painting suits application of dye, discharge medium and paint or foil adhesive, but in every case the designers hand is the force behind the mark, and the effect created will different form all other type of Surface decoration(

Dunnewold, 2013). Fabric painting is all about mixing colors and applying heat in proportions. The work of the fabric painter is like that of a chemist mixing colors and perceiving the reactions. Fabric painting is used in vogue in man shirts, ladies kurtis, skirts, hand bags, cushion covers, upholsteries, and wall hangings and more (Digolo and Mazrui, 2009).

### 2.7.1 Types of fabric painting

The types of fabric painting are listed as



#### Transparent fabric painting

Most fabric paint is transparent. Transparent paint offers more subtle effect than opaque paints when used on light colors; however dark colors are not used. Thin fabric paints will tend to bleed into the fabric around them.

#### Opaque fabric paints

White paints and paints with pearl and metallic effects are usually opaque which are available in standard colors. Attractive effects are obtained by painting with dark colors and applying metallic or pearl color over the top. Mixing of pearl and metallic colors thoroughly as the tiny flecks produces the shimmering effect.

#### Spray fabric paint

Spray fabric paint is specially formulated paint sold in an aerosol spray. This is used to paint large areas of fabric evenly (Walter, 2011).

## **2.8 Khadi cotton**

Khadi –the word derived from “khaddar” means hand reeled, hand spun and hand woven cotton fabric Khadi, the hand woven cloth made of cotton, silk or wool has seen many ups and downs. Khadi is a symbol of unity of Indian humanity, of its economic freedom and equality and ultimately, in the poetic impression of Nehru, the livery of Indian freedom In the words of Gandhi, khadi is a fabric for human values end ethics. It delivers the people from the bond of the rich and creates a spiritual bond between the classes and masses (Jerinabi, 2006).

Khadi over the decades has moved from a freedom fighters identity fabric to a fashion garment. At one time it was scorned as fabric for the farmer and the rural wearer. Today there is such an increasing demand for khadi cloth that despite the million workers all over the country involved in spinning it, they are unable to meet the demands of the market. (Ezekiel. 2005).

### **2.8.1 Characteristics of Khadi**

It is light and soft, making it comfortable to wear. Its weave creates air pockets which make it cool in summers and warm in winters. It has a handcrafted self-texture making each khadi cloth unique and expensive. Its inherent strength makes it highly durable. Certain fine khadi, such as mulmul has a translucent quality (<http://khadi-n-crafts.blogspot.in>). Previously, there were many varieties of khadi with jandani inlayed patterning or extra warp and weft patterning. Khadi drapes very well and are not hard to maintain if they are hand washed and used without starch. (Mehra et all, 1995)

### **2.8.2 Khadi as fashion fabric**

Khadi is redefining itself from a ‘fabric of freedom’ to ‘fabric of fashion’ Khadi is the hand-spun cotton cloth made famous by Gandhi’s ideology and having decentralized units of self-sustaining ecologies. As old as fifty years ago, it has taken interesting, irrational twists and turns. It is stated that ‘the textile tradition of India began with khadi and Gandhi’. Khadi is becoming a changing social fabric. It’s natural, it’s ethnic, and it’s breathing easy. Khadi has always been a fabric with attitude. Khadi has under gone a fashion transformation in the

recent past. From being a dull, coarse material khadi Today bears a multi-colored. Its journey from its eventful birth as the fabric favored by freedom fighter, to designer boutiques and elite consciousness has been an existing one (Ratna, 2006)

Khadi is practically used in every kind of clothing the middle-class has come to patronize-stylish jackets, handbags, skirts, dhotis, curtains, tablecloths, bedspreads, cushions etc.,. The raising cloth and fashion sense amongst youngsters' globalization has given khadi new life. People are realizing its advantage and even adopting it in their clothing (Padmini and Venmathi, 2006).

Now designers experiment with khadi, the freedom fabric that symbolizes the swadeshi movement and it also flutter on the fashion firmament. (The Hindu, 2014). Purvi Doshi is a young designer she says that she is always excited to work on with hand-spun material that lends itself beautifully to contemporary styling and embellishments. The designer also says that by this way they can support the versatility of this all weather fabric makes it easy to work with it and she also feels that it carries so much pride in its weaves.

Designer Neeru Kumar says that the khadi Fabric was overlooked, but in the past few years, designers and fashionistas have reinvented its ethnic chord. Khadi fabric symbolizes us and it can also make one look trendy. As Deepik Govind says khadi is the symbol of textile heritage. It is hand spun and hand woven from the cottage industry. Khadi with its slubs, brings out the beauty of the human kind.

### **2.8.3 Cotton**

Cotton cultivation and its use in weaving originated in India. The very nature of cotton fiber led to the development of spinning. Using fine yarn super fine cotton fabrics are woven (Geijer 2001). Domesticated cotton first came into widespread use in ancient India around 3000 B.C. Most Indian cotton cloth has a simple weave to take advantage of the materials lightness and airiness (Beckert 2014). Cotton is soft and breathes, providing the wearer with the coolness in hot months and warmth in colder months. It is highly absorbent, dries quickly, inexpensive, washable and extremely durable. High moisture content makes it

static free and is also takes dyes, printing and other surface treatment easily (Gatterson and Stewart,.2009).

## **2.9 Kurti**

The Kurta or Kurti is a type of long shirt worn by both males and females in India, with its length falling either somewhere above or below the knees of the wearer. The Kurti can be categorized as a traditional clothing item and people generally pair it up with loose salwar, churidar pants or trousers. The make of a Kurti is such that it provides maximum comfort to the wearer ([www.iloveindia.com/indian-clothing/kutrta.html](http://www.iloveindia.com/indian-clothing/kutrta.html))

Ladies Kurtis is one of the popular woman wear across the world. Designer Ladies Kurtis are highly demanded fashion wear world over. They come in different designs, styles and patterns using variety of fabrics such as cotton, georgette, chiffon, silk and lot of blended fabrics. Ladies Kurtis are also known in several other names such as Women Kurtas, Salwar Kurti, and Women Tunics. Many ladies presently wear Short Kurtis along with jeans and pants that give a trendy look. Ladies Kurtis can be worn for casual as well as formal wear. However, there are different types of Women's Kurtis available for different occasions ([www.diigo.com](http://www.diigo.com)).

## **2.10 Tribes of India**

The Tribes in India, also referred to as Adivasis (original inhabitants), are spread across the central, northeast, and southern regions of India. These various tribes resided in India long before the Aryans had arrived roughly in 1500 B.C. The tribal's were however socially and geographically isolated, following the entry of the Aryans and then consequently the Muslims and the British. More than six hundred and fifty tribes that make up the Scheduled Tribes speak a multitude of languages. These tribes had varied culture, dance music, art, etc, ([www.artsycraftymom.com](http://www.artsycraftymom.com)).

### **2.10.1 Tribal art**

India had always been known as the land that portrayed cultural and traditional vibrancy through its conventional arts and crafts. The 35 states and union territories sprawled across the country have their own distinct cultural and

traditional identities, and are displayed through various forms of art prevalent there. Every region in India has its own style and pattern of art, which is known as folk art. Other than folk art, there is yet another form of traditional art practiced by several tribes or rural population, which is classified as tribal art. The folk and tribal arts of India are very ethnic and simple, and yet colorful and vibrant enough to speak volumes about the country's rich heritage.

Tribal art generally reflects the creative energy found in rural areas that acts as an undercurrent to the craftsmanship of the tribal people. Tribal art ranges through a wide range of art forms, such as wall paintings, tribal dances, tribal music, and so on ([www.myindiaculture.com](http://www.myindiaculture.com))

Some of the famous tribal art of India are Toda Art, Gonda Art, Chittara Art, Lambani Art, Santhal Art, Madhubani Art. The investigator has selected four major tribal arts such as Chittara Art, Gonda Art, Santhal Art and Toda Art.

#### **2.10.1.1 Chittara Art**

Chittara meaning 'picture' is an expression of the village artist of Karnataka. It is a type of wall art. The motifs are large, clear and very distinct. The unique wall art uses a beautiful mix of geometrical and ethnic motifs.

#### **2.10.1.2 Gonda Art**

Tribal painting, Gonda is a freehand expression of the Gond tribes of Madhya Pradesh. These paintings also tell how colorful their imagination can be. They put colors to the blandest creations of the nature at times. This art is a surreal mix of memories, emotions, experiences, dreams, perceptions and imagination, juxtaposed with an expression of their everyday quest for life.

#### **2.10.1.3 Santhal Art**

The santhal tribe is one of the famous tribes belonging to the Bihar State. This tribe has a typical style of painting, known as santhal art. The bodies of the various forms that they paint are seldom or perhaps never in one shade, they are always striped, dotted or filled with any other geometrical pattern. The inspirations are selected from the natural surroundings or just from the happenings of their day-to-day lives (Prakesh, 1995).

#### **2.10.1.4 Toda Art**

Toda tribes are the inhabitants of Nilgiris or Blue Mountains. These tribes are experts in embroidery called Toda which is famous in the world. This distinct style of embroidery locally called Pugur, which means flower. The shawl adorned with the Toda embroidery is called Poothkuli. The embroidery is done on the stripes of red and black color. Motifs are done by counting the threads. The embroidery is done basically on cotton fabric ([www.fiber2fashion](http://www.fiber2fashion.com)).

## **3. METHODOLOGY**

Methodology pertaining to the study on “**Designing Kurtis Using Tribal Motif by Selected Printing Methods**” is discussed under the following headings:

### **3.1 Selection Of Samples**

### **3.2 Selection Of Sampling Tool**

3.2.1 Preparation Of Questionnaire

3.2.2 Pre-Test And Pilot Study

### **3.3 Conduct Of Study**

### **3.4 Analysis Of Data**

### **3.5 Standard Body Measurement**

### **3.6 Nomenclature**

### **3.7 Manual Sketching Of Motif**

3.7.1 Preparation Of Manual Sketching

### **3.8 Evaluation And Selection Of Manually Sketched Motif**

### **3.9 Selection Of Fabric**

### **3.10 Pre Treatment Of Fabric**

3.10.1 Desizing

### **3.11 Printing**

3.11.1 Selection Of Printing Style

3.11.2 Screen Printing

3.11.2.1 Preparation Of Screen Printing Frames

3.11.2.2 Screen Printing Process

3.11.3 Stencil Printing

3.11.3.1 Preparation Of Stencil Sheet

3.11.3.2 Stencil Printing Process

3.11.4 Fabric Painting Process

3.11.4.1 Fabric Painting Process

### **3.12 Construction Of Kurtis**

3.12.1 Drafting

3.12.2 Layout, Transferring Of Design And Cutting Of The Material

3.12.3 Construction Of Kurtis

### **3.13 Booklet Preparation**

### **3.14 Cost Estimation**

### **3.1 Selection of samples**

A sample is the part of the universe to be selected for the purpose of investigation (Gupta, 2008). Sampling is a process of selecting a few (a sample) from a bigger group (the sampling population) to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group. A sample is a subgroup of the population you are interested in (Kumar, 2005). Sampling may achieve much response rate and higher co-operation in general when every element in a population has equal chances to be selected (Gupta, 2005).

Simple Random Sampling is the simplest procedure of drawing a sample from a given universe. In this sampling each unit has an equal chance of being selected. It is called an equal probability sampling. The process of selection is random but in practice we note that random sample usually is a representative sample and gives reasonably accurate data (Chaudhary, 2009).

The investigator planned to select the simple random method of sampling to gather information for the study as careful selection of sample will give good results. Hundred females were selected who are adolescents and above adolescent age were selected at random for the study from Coimbatore city.

### **3.2 Selection of sampling tool**

A sample is drawn from a large whole. A sample is taken in order to learn something about the population from which it is drawn. A sample may be drawn from number of ways; one of the ways is random sampling. In which the selected items are drawn "at random" from the population (Tyrfos, 2001).

Data are information that can be collected through different methods. The most popular method is survey. It is a systematic for gathering information from a sample. Survey collect information on a only small part of the population. This small part is called sample (Creswell, 2007). Survey has become a widely used and acknowledged research tool. Survey can be implemented in a timely fashion that is, the survey period can be organized.

Taking the above facts into consideration, survey was selected. Survey has traditionally been divided into two broad categories, questionnaire and

interviews (Swanson, 2005). Questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms (Stawarski and Phillips, 2008).

Most people are familiar with questionnaires because of their wide spread commercial use to collect market information. Here, respondents are asked to read the questions and to answer either by ticking one of the 'answer boxes' provided; or less likely, to write their own 'free response' to a question as suggested by (Roger and Victor, 2006).

From these different methods questionnaire was selected for the investigation to elicit information about the selection of the kurti style and surface decoration preferred by women.

### **3.2.1 Preparation of questionnaire**

The questionnaire represents one part of the survey process. It is, however a vital part of the process (Brace, 2013). Questionnaires are just one of a range of ways of getting information from people, usually by posing direct or indirect questions (Gillham, 2008). The question sequence must be clear off and smooth moving, meaningful. The questions should be easily understood and simple (Kothari, 2010).

### **3.2.2 Pre-test and pilot study**

Before preparing the questionnaire, pretest and pilot study were undertaken. Pretest is a practice of testing something to develop before it is actually used to ascertain the likely problems with it (Kumar, 2010).

It helps to revise the methods and logistics of data collection before starting the actual field work. As a result, a good deal of time, effort and money can be saved in the long run. Pretest is simpler and less time consuming (Corlien and Pathmanathan, 2003).

Pilot study is helpful for examining the length of the instrument and problem with particular time. It allows the development of data collection instruments including questionnaire and equipment state (Falissard, 2011).

So pretest was done on small group of people to form the basis of questionnaire, the pilot test was done to find out if women's are interested to wear kurti and liking about the surface decoration. Based on the result obtained from feedback the questions were modified and prepared. Questionnaire is given the appendix – I.

### **3.3 Conduct of survey**

The questionnaires which were prepared were distributed to 100 respondents who are students, working women's and housewives from Coimbatore city. With the help of the questionnaire, the details of the respondent such as age, occupation, monthly income, purchase preference, color preferences, material preferences, and surface decoration preferences were collected from the selected 100 customers.

### **3.4 Analysis of Data**

The data after collection has to be processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. Technically processing implies editing, coding, classifying and tabulating the collected data, so that they are amendable to analysis. The collected data was consolidated, tabulated and analyzed (Gupta, 2009).

### **3.5 Standard Body Measurement**

Good fit is a combination of two components namely good and comfort. Although the concept of good fit varies depending on different shapes and tastes. The first and most important ingredient for proper fit is the measurement (Sodhia, 2004). In order to construct garment that fit well, standard body measurements were selected by the investigator. Standard body measurement given by Mathews is followed to construct the kurti. The measurement followed is given in the Appendix-II

### **3.6 Nomenclature**

The details of nomenclature for the motif sketching as used in the chapter 3 are presented in the Table –I

**Table- I**  
**Nomenclature**

<b>S.No</b>	<b>Particulars</b>	<b>Nomenclature</b>
1	Manual Sketching	MS
2	Selected Design	SD
3	Kurti	K

### **3.7 Manual Sketching of Motif**

Motif is a general term to describe any number of details of a work of art which is recognizable as a unit. The arrangement of the visual element of an object or a work of art is called a design. A good design shows an orderly arrangement of the motif used and in addition creates beauty in the product (Bhatnagar 2005). Motifs are classified as Geometric Motif, Realistic Motif, Stylized Motif and Abstract Motif.

The tribes in India form an important part of the population. It represents an element in Indian society which is integrated with the culture mosaic of our civilization. The tribal population of India constitutes nearly 8 percent of population. Tribal motif of India takes on different manifestations through varied media such as pottery, painting, metalwork, wall paintings, etc., ([www.yourarticlelibrary.com](http://www.yourarticlelibrary.com)).

Tribal motif is a combination of geometric motif, abstract motif, and realistic motif. There are different types of tribal art all over India and each of the style is different from the other. Investigator has selected tribal motifs from four major tribal arts such as Toda, Gonda, Santhali and Chittara Art.

From the four major tribal arts, motifs were selected for printing on the fabric. Then these fabrics were constructed to a kurti. The motifs were manually sketched and modified for the selected printing method. Then the motifs are selected based on the women's preference.

### **3.7.1 Preparation of Manual Sketching**

The manual sketching of the motifs which were applied on the kurtis was illustrated based on four tribal arts- Chittara, Gonda, Toda, Santhali Art.

#### **Motif I: Chittara Art (Plate – I a)**

**MS 1:** The sketch **MS 1** exhibits the sketching of the motif of chittara art. The lines were used in the motif and geometric designs are also used in the motif.

**MS 2:** The sketch **MS 2** shows Chittara Art motif sketching. Geometric design was used mostly and repetitions of lines were also used in the motif.

**MS 3:** The sketch **MS 3** was the sketching made by the motifs of Chittara Art. Realistic designs of birds and flowers are used in a conventional form. Zigzag lines are repeatedly used in this motif.

**MS 4:** The sketch **MS 4** manifests the Chittara Art motif that was a conventional design of bird in which geometric design were used predominately with the lines.

**MS 5:** The sketch **MS 5** exhibits the sketching of the motif of Chittara Art. Floral design was used in this motif with repetition of lines.

**MS 6:** The sketch **MS 6** shows the motif of Chittara Art. Triangle was the geometric motif that was used in various sizes to create this motif.

**MS 7:** The sketch **MS 7** was the sketching that expresses the Chittara Art motif. Bird design is used in motif in a repetition manner.

**MS 8:** The sketch **MS 8** indicates the sketching of the Chittara Art motif. Bird motif was used in the design.

#### **Motif II: Gonda (plate – I b)**

**MS 9:** The sketch **MS 9** shows the sketching of Gonda Art motif. Bird design was used in motif with branches and leaves motif with lines and shadings.

**MS 10:** The sketch **MS 10** exhibits the sketching of Gonda Art motif. Life cycle was shown in this motif with bird, insect and fish design.

**MS 11:** The sketch **MS 11** manifests the sketching of Gonda Art motif. Bird design was used in the motif with the repetition of semi-circle design with shadings.

**MS 12:** The sketch **MS 12** shows the sketching of Gonda Art motif. A flying bird was used as a motif.

**MS 13:** The sketch **MS 13** was the sketching of Gonda Art motif. Four peacocks of different size are used in the motif with repeated semicircle design.

**MS 14:** The sketch **MS 14** exhibits the motif of Gonda Art. Tree of life design was used along with the animal motif in which lines and shadings are predominately used.

**MS 15:** The sketch **MS 15** manifests the sketching of Gonda Art motif. Tree of life was the motif along which bird motif were used.

**MS 16:** The sketch **MS 16** shows the motif of gonda art. Life of tree was the motif in which lines are used in the trunk part to create an interesting effect for the motif.

**MS 17:** The sketch **MS 17** shows the sketching of Gonda Art motif. Interesting geometric design was used to create the butterfly design dots and lines are also used.

### **Motif III- Toda art (plate- I c)**

**MS 18:** The sketch **MS 18** exhibits the sketching of the Toda Art motif. The motif was created using geometric design, which were arranged accordingly to form an interesting motif.

**MS 19:** The sketch **MS 19** shows the sketching of Toda Art motif. Leaf vein were taken as design, it was used along with the geometric design to create motif.

**MS 20:** The sketch **MS 20** manifests the sketching of Toda Art motif. Geometric motif namely diamond design was used predominately to create the motif.

**MS 21:** The sketch **MS 21** shows the sketching of Toda Art motif. Zigzag lines and dots are the designs used to create the motif.

#### **Motif IV- Santhali Art (Plate- I d)**

**MS 22:** The sketch **MS 22** exhibits the motif of Santhali Art. Naturalistic design namely fish was used to form the design along with the musical instrument design.

**MS 23:** The sketch **MS 23** shows the sketching of Shanthali Art motif. The motif of human and musical instrument was used as design for motif.

**MS 24:** The sketch **MS 24** manifests the motif of Shanthali Art. Human figures along with the musical instruments were used for the motif.

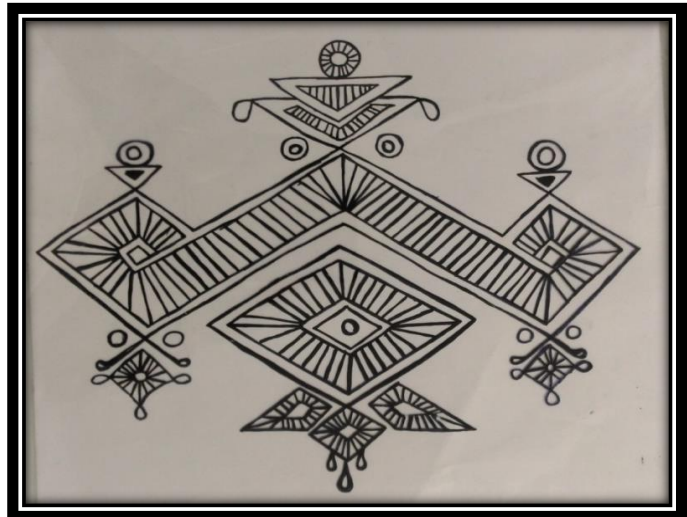
**MS 25:** The sketch **MS 25** shows the motif of Shanthali Art. In this motif human figure, musical instrument and bird designs were used for this motif.

Manual Sketching  
Motif I: Chittara Art

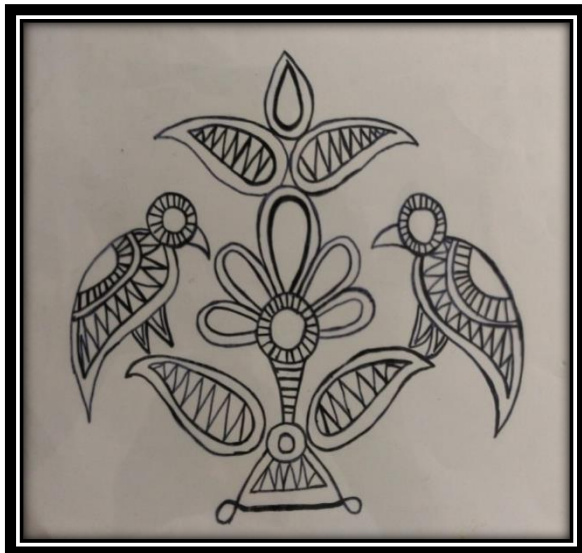
(Plate – I a)



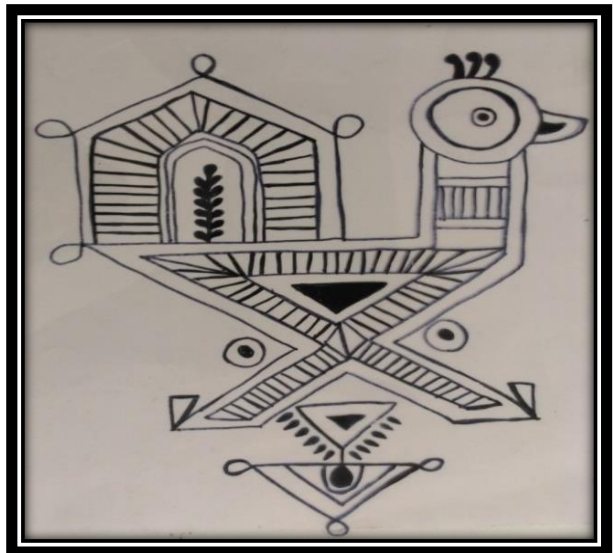
MS: 1



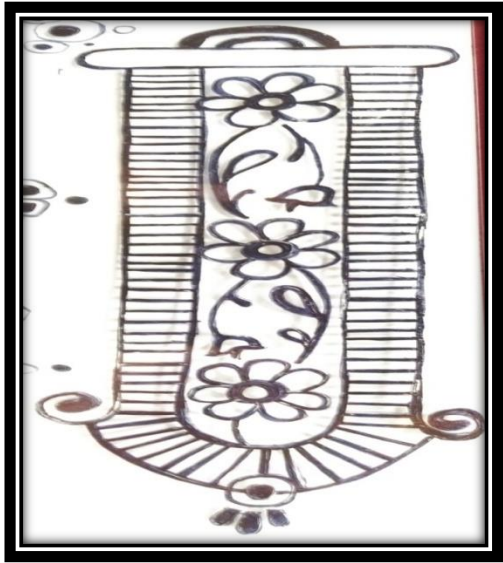
MS: 2



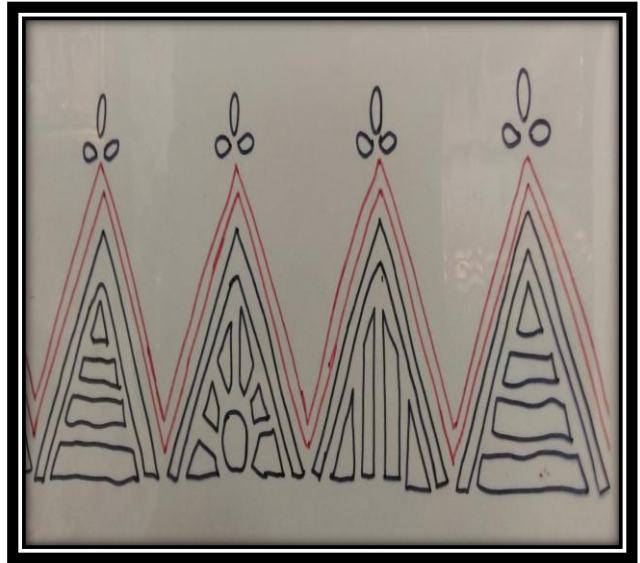
MS: 3



MS: 4



MS: 5



MS: 6



MS: 7



MS: 8

Manual sketching

Motif II: Gonda

(Plate – I b)



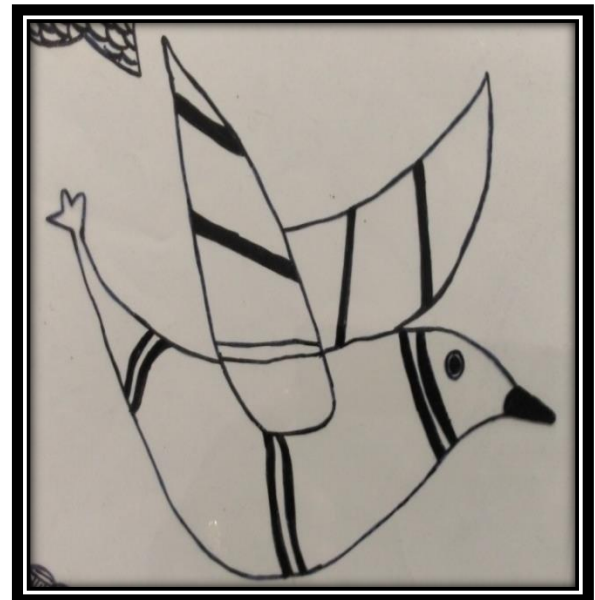
MS: 9



MS: 10



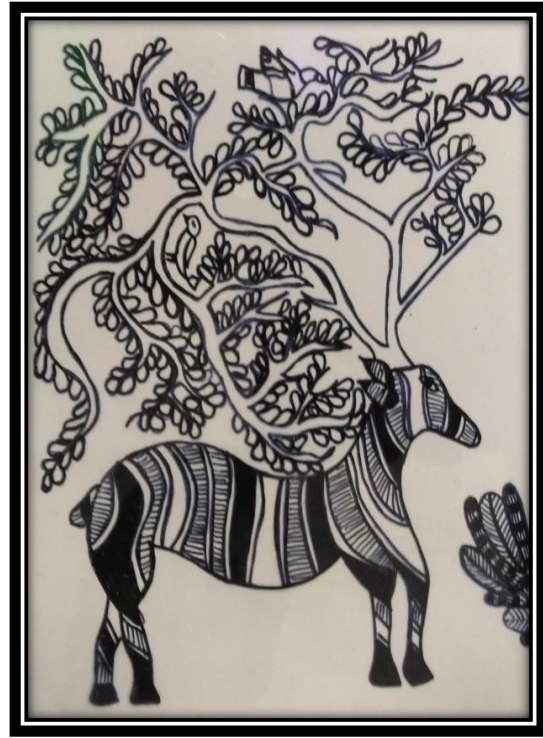
MS: 11



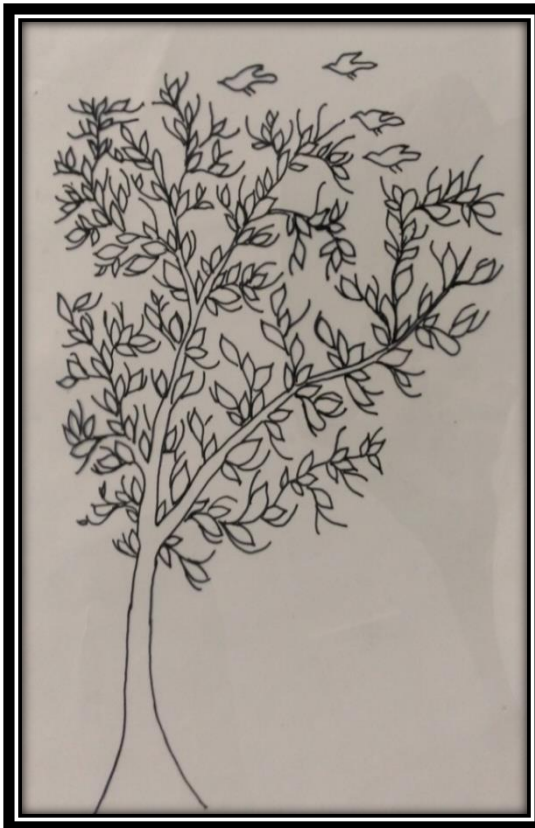
MS: 12



MS: 13



MS: 14



MS: 15



MS: 16



MS: 17

Manual sketching

Motif III- Toda art

(Plate- I c)



MS: 18



MS: 19



MS: 20

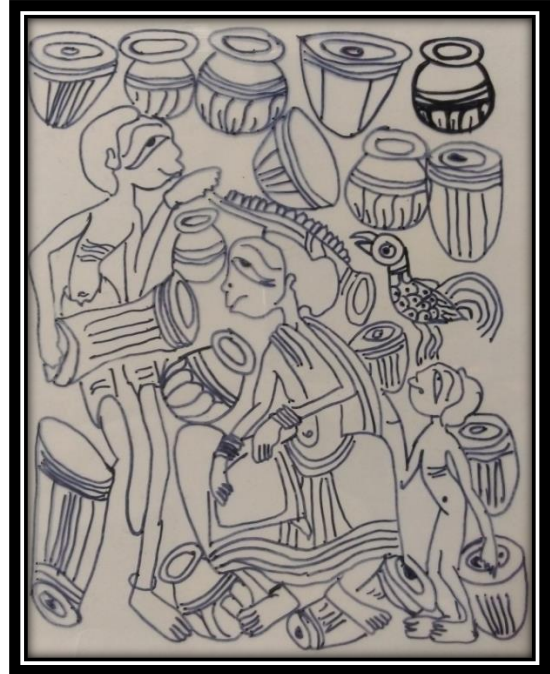


MS: 21

Manual sketching  
Motif IV- Santhali Art  
(Plate- I d)



MS: 22



MS: 23



MS: 24



MS: 25

### 3.8 Evaluation and Selection of Manually Sketched Motif

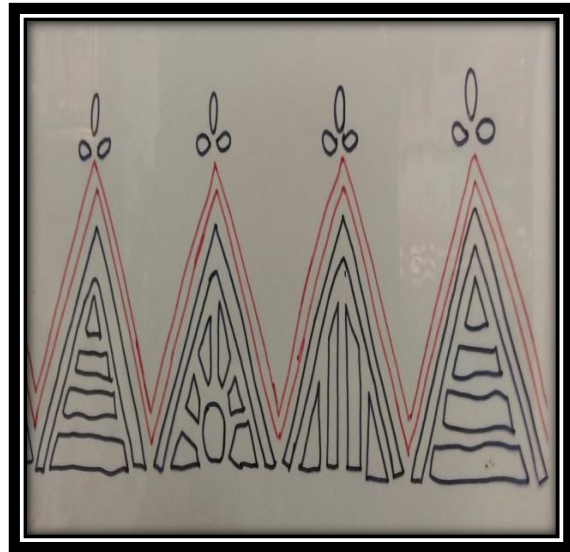
The motifs were ranked according to the preference of the subjects by displaying the manually sketched motif to the post graduate students of Textiles and Clothing Department. The students were asked to select motifs from each of the tribe. Thus the finally selected motifs are given in plate – II.

#### Selected motif for Printing

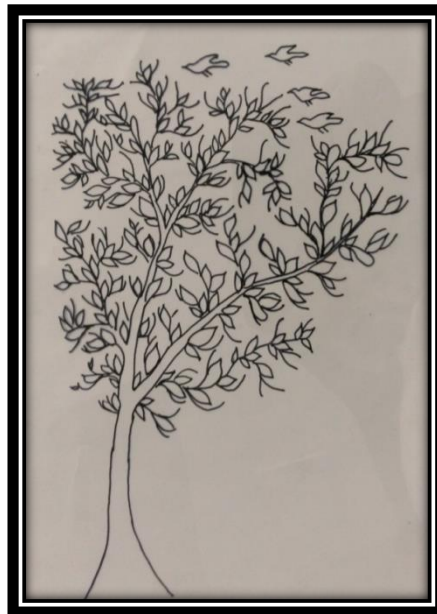
Plate – II



SD: 1



SD: 2



SD: 3



SD: 4



SD: 5



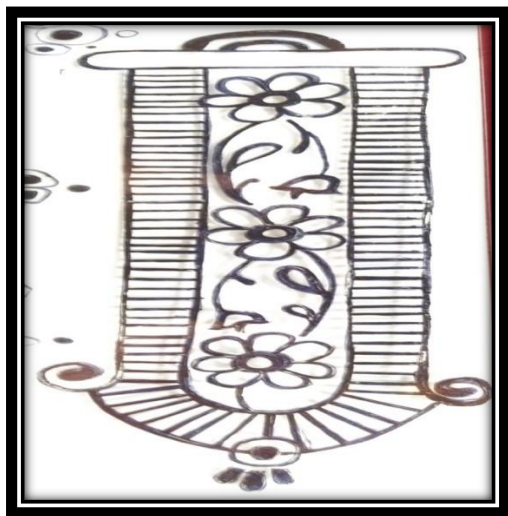
SD: 6



SD: 7



SD: 8



SD: 9

### **3.9 Selection of the Fabric**

Khadi is an exclusive Indian textile, purely hand spun and hand woven from genuine natural cotton using the traditionally and manually operated charka, the spinning wheel. The loom used in weaving of khadi interlaces the thread in a manner that allows maximum air permeability and soothes the body better than any other fabric does. No wonder khadi is known as an all weather cloth and most comfortable fabric ever made. Khadi before independence was considered as the fabric for the political leaders and rural people (Garima, 2013). Today's generation, who exposed to an international scenario, is the most accept blend today. Hence the investigator, keeping in mind the need of the hour, and to revive the age old khadi fabric by improving upon its aesthetic value using various surface decoration techniques, and bring to fashion sence.

### **3.10 Pre Treatment of Fabric**

The aim of the preparatory process is to improve the quality by removing impurities and foreign matters thoroughly and uniformly from the fabric and makes it suitable for the printing process. The investigator has selected desizing process to remove the impurities.

#### **3.10.1 Desizing**

Desizing is done in order to remove the sizing agents from the warp of the woven fabric. Warp yarns are coated with the sizing agents prior to weaving in order to reduce their frictional properties, decrease yarn breakage on the loom. The sizing material present on the warp yarns can act as a resist towards dyes and pigments in textile wet processing (Choudhary, 2006). Hence the selected khadi cotton fabric was desized using the following procedure,

Desizing of khadi cotton fabric was carried out by boiling the fabric in acidified water for 20 minutes. The soap oil is used to degrade the sizing material present in the fabric. They are converted into water soluble products. Then the fabric was washed thoroughly in hot water to remove the remaining acid present in the fabric and to remove the foreign particles and waxes (Adanur, 2002). The fabric was dried completely and ironed to remove the wrinkles. The process enhances the smooth finish of printing process.

### **3.11 Printing**

Applying colored patterns and designs to decorate a finished fabric is called printing. Textile printing can often be considered part of the finishing industry. Fabric printing is an art form and can be done in many different ways. It is essentially a decorative pattern or design that is applied to constructed fabric. In a properly printed fabric, the color is affixed to the fiber, so that it may not be affected by washing and friction. On a printed fabric, the outline of a design is sharply defined on the outside. The designs generally do not penetrate to the back of the cloth. The dyes used for printing mostly include vat, reactive, naphthol and disperse colors which have good fastness property. For cotton printing vat and reactive dyes are generally used (Goode, 2013).

#### **3.11.1 Selection of Printing Style**

There are three styles of printing they are,

- Direct style
- Discharge style
- Resist style

In direct printing the printing pastes come into contact with the fabric surface with no subsequent processing alteration (Thalouth *et al.*, 2013). Discharge printing in which subsequent processing of a printed fabric is carried out to bleach or destroy certain colors in the pattern. Resist printing, where certain parts of the fabric are originally protected by waxes or other material to resist coloration by printing pastes or inks (Khurana, 2007). From these different styles, the investigator has selected direct style of printing such as Hand Screen Printing, Stencil Printing and Hand Painting to decorate the khadi fabric.

#### **3.11.2. Screen Printing**

Screen printing is a more common method of printing in use today. The advantage of screen printing over the print processes is that it can be on a substrate of any shape, thickness and size. A significant characteristic of screen printing is that a greater thickness of the ink can be applied to the substrate than is possible with other printing techniques. This allows for some very interesting effects that are not possible using other printing methods (Humphries, 2001). The screen printing

involves the application of the printing paste through a fine screen placed in contact with the fabric to be printed. A design is created in reverse on the screen by blocking areas of the screen with a material such as opaque paint. The screen is then placed over the fabric and the printing paste is forced through the open areas of the screen using a flexible synthetic rubber or steel blade known as squeegee (Baralla, 2007).

#### **3.11.2.1 Preparation of Screen Printing Frame**

Screen printing frame is prepared by using a rigid wooden frame over which a polyester mesh was stretched and stapled into the place. The screen printing frames serves to spread paint in an even layer and to hold the stencil in place. Nickel screen mesh was selected by the investigator to withstand for repeated usage of printing. Nickel screen mesh is coated with the photo-emulsion light sensitive polymer, and they were made to dry in dark. Then the ultraviolet light is made to pass on the screen. This ultraviolet radiation light rays pass the transparent areas of the transparency on to the screen and harden the screen. Then the screen is washed to remove the polymer from the pattern area of the screen and the design can be viewed clearly. By this method all the screens were prepared by the investigator.

#### **3.11.2.2 Screen Printing Process**

The fabric to be printed was first ironed to remove the wrinkles on the surface of fabric, to print evenly. Then the fabric was laid on an adhesive table which holds the fabric firmly in its place. The adhesive used is a temporary adhesive so that that the fabric was removed from the table once the printing is done. The clamps in the printing table was adjusted in such way that the screen does not move from its place while printing. The screen was placed over the fabric (Plate – III a). And then adequate amount of printing paste was poured over the screen. And the printing paste is forced through the open areas of the screen using a flexible squeegee made of synthetic rubber with wooden handle (Plate – III b). The strokes were made evenly over screen so that the design was clearly printed on the fabric. After finishing the fabric was steamed with the steamer machine. This was used to ensure the proper fixation of the pigments to the fabric (Plate – III c).

### **3.11.3 Stencil Printing**

The art of stenciling on textile fabrics has been practiced from time immemorial by the Japanese. A pattern is cut from a sheet of thick paper, thin metal or OHP sheet with a sharp-pointed knife, the uncut portion representing the part that will be left uncolored. The sheet is laid on the fabric and color is brushed through its interstices. The peculiarity of stenciled patterns is that they have to be held together by ties. The outline of the designs has to be interrupted at convenient points by ties or uncut portions. These limitation influences the design. Fabric paints are mostly used to print in this method (Hornung, 2013).

#### **3.11.3.1 Preparation of Stencil Sheet**

First the motif was selected and modified accordingly for a stencil printing design. Then the designs were drawn on OHP sheet in black and white color (Plate – IV a). Then that the black areas of the design have been removed. The white stencil left over after cutting the black part is called the “positive stencil” and the black portion that cut out is known as “negative stencil” (Plate – IV b). To create two colors in a motif separate design sheets has been formed. Tie mark was formed on both sheets to place the sheet properly on the fabric.

#### **3.11.3.2 Stencil Printing Process**

Before laying the fabric on table, the table was covered with the newspaper and an old fabric was laid over it. Then the khadi material was laid onto the table and gently pressed to remove all wrinkles and ensure that the surface is flat. All four sides were taped or pinned firmly so the fabric does not move. Then the stencil was placed over the fabric and sponge was used to apply the color on the open surface of the stencil. Fabric paint was used to color the design. Before applying the second color to the fabric was made to dry and after some times the second stencil was placed over the previously printed design and the second color were added. After finishing the printing process the fabric was made to dry for 24 hours and ironing was done on the back side of the fabric. By this method the investigator has done the stencil printed kurti (Plate – IV c).

### **3.11.4 Fabric Painting**

Fabric painting is the application of specialized paint to create designs on the fabric. It is possible to any fabric, but tightly woven fabric like cotton and silk

are easiest to decorate. Many different looks can be achieved with the paint on fabric, although some are more common than others. One of the most common styles of fabric painting is using a paintbrush to apply paint to a fabric just as doing on paper. Fabric painting is used in vogue in men's shirt, ladies kurtis, skirts, hand bags, cushion cover, curtains, and upholsteries and more (Odendaal and Pretorius, 2003)

#### **3.11.4.1 Fabric Painting Process**

The fabric was first washed and dried. And it also removed the dirt, dust and other textile finishing chemicals from the fabric. Then before laying the fabric on table the table was covered with newspaper and a layer of old fabric is spread over the newspaper. Then the fabric is laid on the top, all four sides are taped or pinned so that the fabric does not move from its place. Transferring the motif to the fabric is the next process. Though there are different designs transferring methods, investigator used carbon transfer method. It requires a tracing wheel for transfer. After transferring the design, the investigator commenced with the fabric painting. Dry and wet strokes were used to paint the motif. After painting the fabric is dried for 24 hours and ironed from the backside for making the motif permanent on the fabric (Palate – V a).

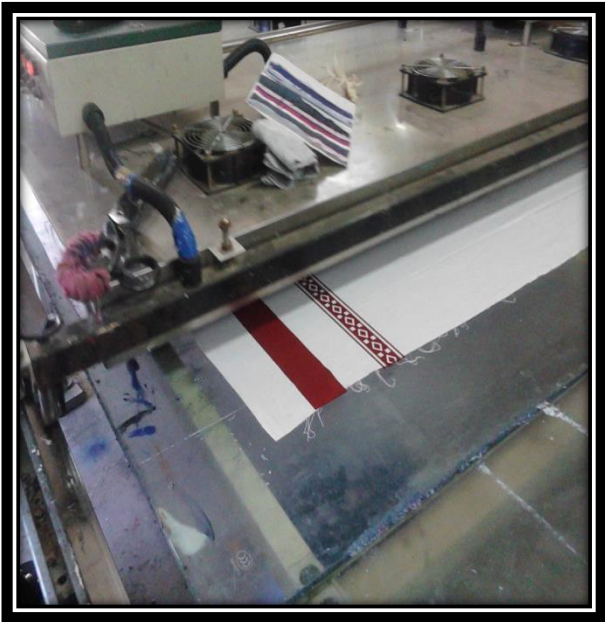
**Plate – III**  
**Screen printing process**



**Plate – III a**



**Plate – III b**



**Plate – III c**

**Plate – IV**

**Stencil printing**



**Plate – IV a**



**Plate – IV b**



**Plate – IV c**

**Plate – V**

**Fabric painting**



### **3.12 Construction of Kurtis**

The kurtis were constructed by the following steps:

#### **3.12.1 Drafting**

Drafting enhances the accuracy of cutting, stitching and fitting of attire when worn. It is one of the important steps in achieving good fitting of a garment (Patil et al., 2001). Paper pattern was prepared for kurti based on the standard measurements. The instructions followed as per Karampuri (2011) for drafting the kurti patterns have been presented in Appendix - iii

#### **3.12.2 Layout, Transferring Of Design and Cutting of the Material**

Trial layouts were made by keeping weights or pins per pattern to make sure that the cloth would be sufficient. Straight grain lines on patterns were kept parallel to the fabric selvedge. To ensure this, the patterns was measured, adjusted and pinned on the fabrics (Saluja, 2006).

Accordingly, the patterns were placed on the fabric in the most economical way. Adequate seam allowances were left for each piece of the fabric. The pattern details such as seam lines, grain line, name of the pattern and cut number were marked on the fabric. Enough material was left for cutting belts, facings and pipings.

The drafted and altered patterns were transferred using different tools namely tailors' chalk and tracing wheel on khadi material. After transferring the fabrics were cut accordingly with seam allowance.

#### **3.12.3 Construction Details of Kurtis**

Four kurtis were constructed by the investigator. The construction details of four

##### **Kurti 1 (K1)**

Long kurti was constructed as kurti 1. Toda motif was selected to print in this kurti using screen printing method. The investigator has printed the motif **MS 18** and **MS 20** in this kurti with black and red pigments to resemble the Toda

embroidery. Emphasis have been given by using printed motifs in particular areas, such as in sleeves, shoulders and in borders (Plate – VI a).

### **Kurti 2 (K2)**

Flared kurti was constructed as kurti 2. This kurti has a yoke part in which Toda motif **MS 20**, **MS 21** and **MS 19** have been printed by screen printing. Red and black pigments were used for printing.  $\frac{3}{4}$  sleeves have been attached to this kurti along with a border in the edges. In the lower part of the kurti borders have been attached by the investigator to emphasize the kurti (Plate – VI b).

### **Kurti 3 (K3)**

Short kurti was constructed as kurti 3. In this kurti shanthali art and chitara art motifs has been used. This kurti has been printed using stencil printing method. Colors such as ultramarine blue, maroon, yellow chrome, sap green and black color have been used for printing. Border has been printed with the motif **MS 6** and only drum and trumpet motif from **MS 24** has been used. The same motifs have been printed in sleeves and below the neck line (Plate – VI c).

### **Kurti 4 (K4)**

Long kurti was constructed as kurti 4. Hand painting was done in this kurti using Chirrara art tribal motif. Colors such as pink, chrome yellow and orange have been used to paint the motif. **MS 1** and **MS 5** have been selected by the investigator to paint on the kurti. Painting was done in the hem line and in the neck line along with painting, running stitch was given in the yoke part both in the front and back and in the hem line below the painting (Plate – VI d).

### **Kurti 5 (K5)**

Flared kurti was constructed as kurti 5. Hand painting was done in this kurti using Gonda art motif. **MS15** motif of Gonda art has been selected by the investigator to paint on the kurti. Colors such as chrome yellow, light blue, burnt umber, turquoise blue and orange have been selected by the investigator. The motif was painted to the left and stripes design was used on the right side of the kurti (Plate – VI e).

**Plate – VI**

**Constructed Kurti**



**Plate – IV a**



**Plate – IV b**



Plate – IV c



**Plate – IV d**



**Plate – IV e**

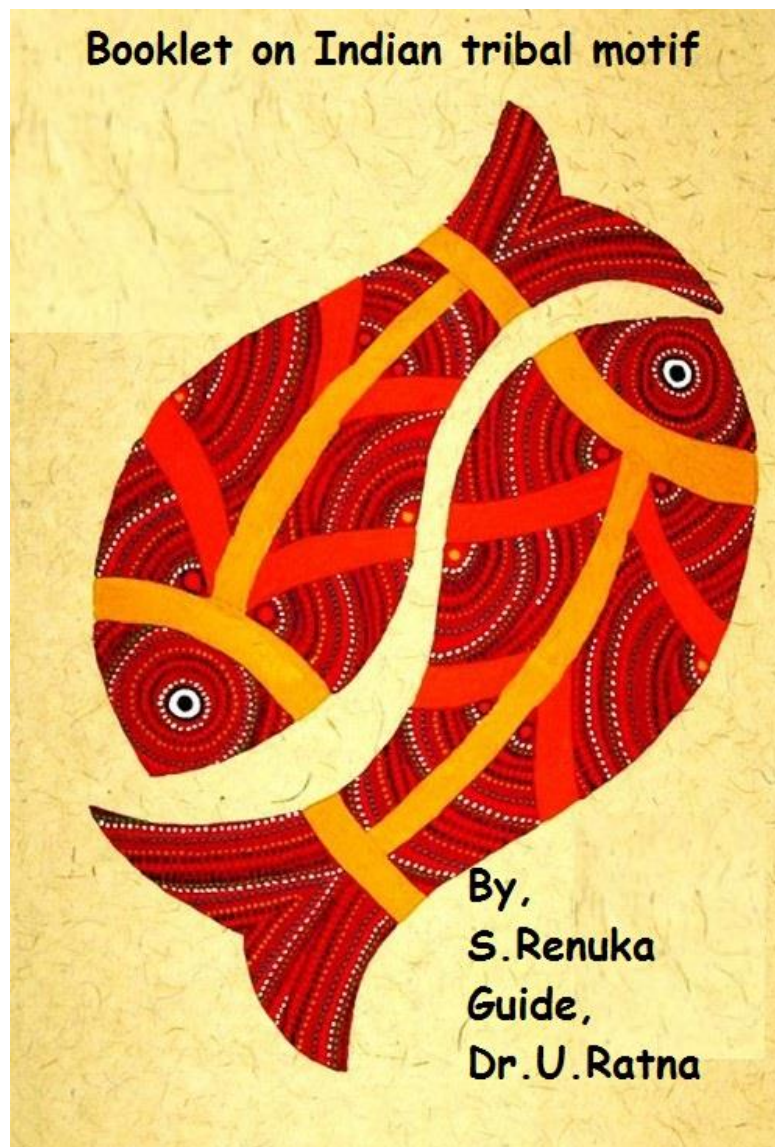
### **3.13 Booklet Preparation**

A motif booklet has been prepared by the investigator. In which the tribal motifs of the four major tribes were presented. The motifs of each tribe are categorized under their tribal name (Plate – V).

### **3.14 Cost Estimation**

The cost of the constructed kurti was calculated and recorded.

**Plate - V**



## **4. RESULTS AND DISCUSSION**

The obtained results are discussed on “**Designing Kurtis Using Tribal Motif by Selected Printing Methods**” under the following headings:

### **4.1 Data Analysis And Interpretation Of Data**

4.1.1 Gender

4.1.2 Opinion Of Women

4.1.3 Age Of The Respondent

4.1.4 Education

4.1.5 Occupation

4.1.6 Family Income (Per Month)

4.1.7 Frequency Of Garment Purchase

4.1.8 Budget Allotment

4.1.9 Preference Towards Clothing Style

4.1.10 Factors Considered While Choosing Garments

4.1.11 Preference For Place Of Purchasing Garments

4.1.12 Color Preference

4.1.13 Preference For Type Of Printing Material

4.1.14 Preference For Kurti

4.1.4.1 Reasons For Preference Of Kurti

4.1.15 Type Of Kurti Style Preferred

4.1.16 Preference For Khadi Material

4.1.16.1 Reasons For Preference Of Khadi Material

4.1.17 Preference For Surface Decoration On Kurti

4.1.18 Preference For Type Of Surface Decoration

4.1.19 Type Of Printing Method Preferred

4.1.20 Preference For Type Of Motif

### **4.2 Consolidated Rating Of Manual Sketching**

### **4.3 Cost Estimation**

## 4.1. Data Analysis And Interpretation Of The Respondents

### 4.1.1 Gender

Hundred female respondents were randomly selected from Coimbatore city and were asked to answer the survey questionnaires

### 4.1.2 Opinion of Women

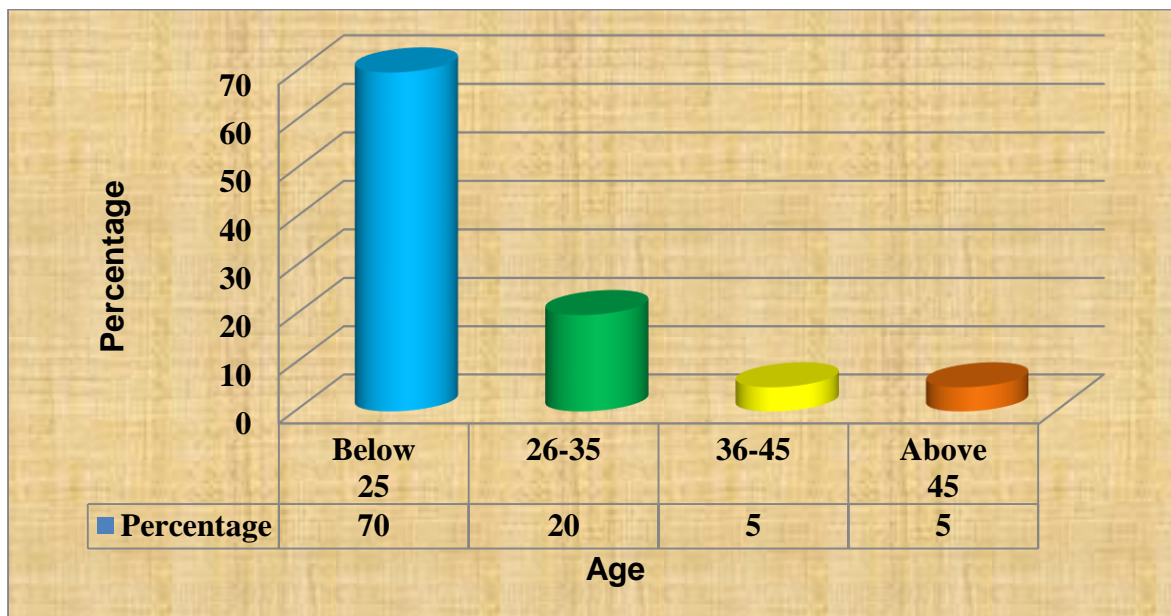
The results obtained from the survey conducted among the women was presented and discussed under the following

### 4.1.3 Age of the Respondents

The respondents was classified into four groups namely below 25, 26-35, 36-45, and above 45. The Table – II and figure - II shows the age of the respondents.

**Table II**  
**Age of the Respondents**

	Frequency	Percent (%)	Cumulative Percent
Below 25	70	70	70
26-35	20	20	90
36-45	5	5	95
Above 45	5	5	100



**Figure 1**  
**Age of the Respondents**

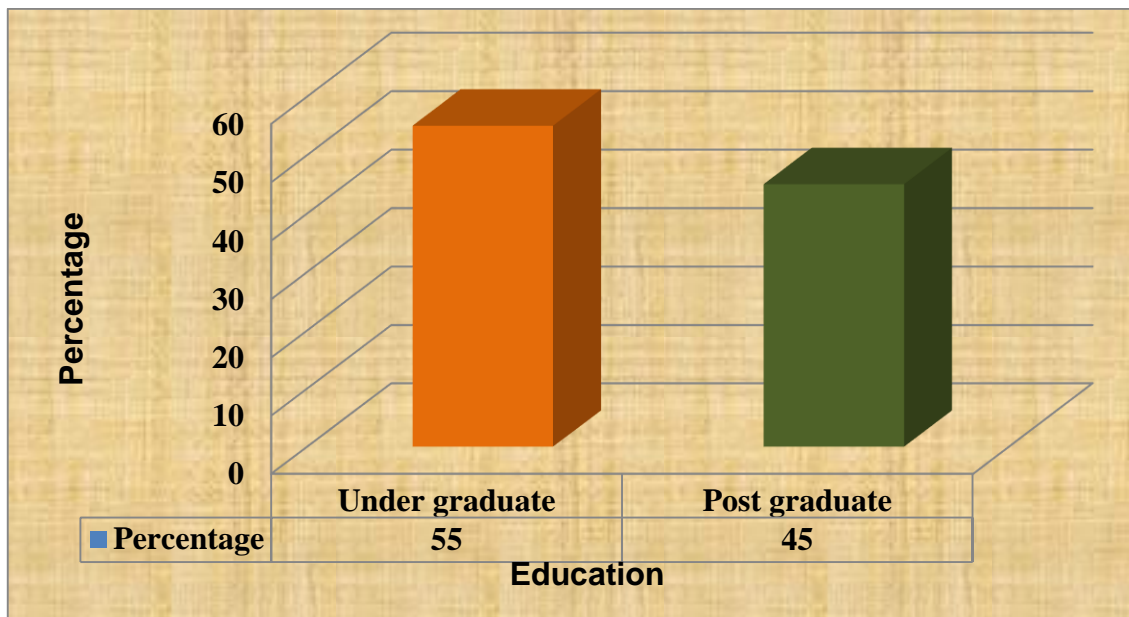
The Table -II and figure -1 portraits that among 100 respondents 70% of them fall under the age group below 25, 20% of the respondent fall under the age group of 26-35, 5% of them fall under 36-45 and 5% of the respondent fall under the age group of above 45.

#### 4.1.4 Education

Education was classified into two groups namely undergraduate and post graduate. The educational status of the respondents was given in Table –III and Figure -2.

**Table III**  
**Education**

	<b>Frequency</b>	<b>Percent (%)</b>	<b>Cumulative percent</b>
Undergraduate	55	55	55
Post graduate	45	45	100



**Figure 2**  
**Education**

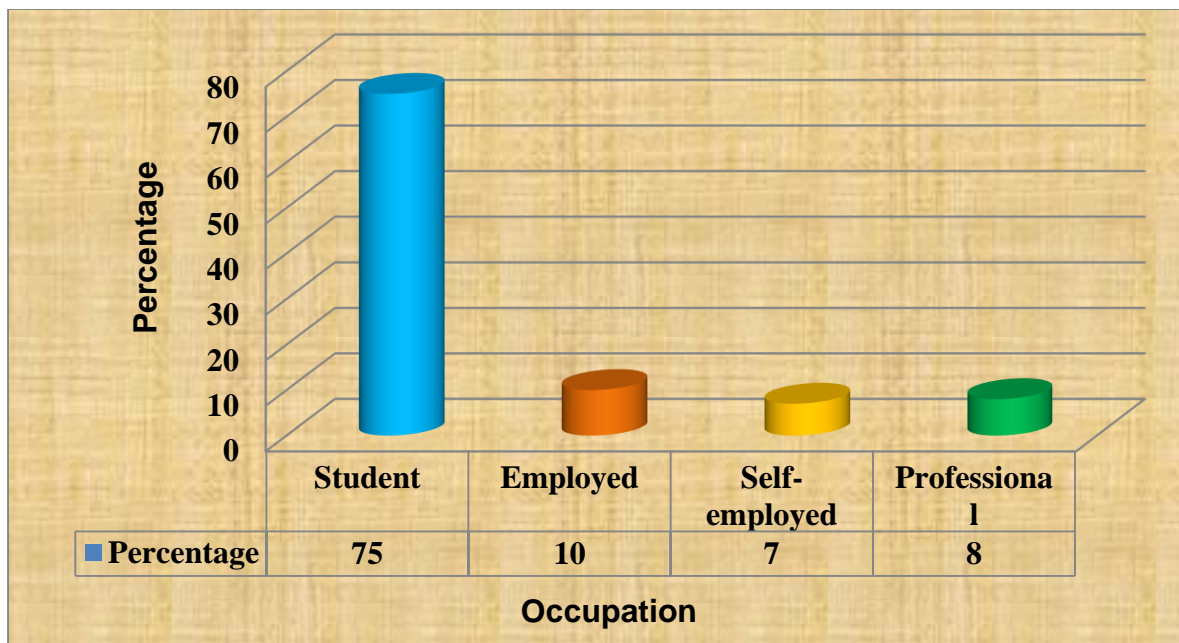
From the above Table-III and Figure -2 it was clear that among 100 respondents 20% of the respondents were under graduate and 80% of the respondents were post graduate.

#### 4.1.5 Occupation

Occupation was classified into four groups namely student, employed, self employed and professional. The various occupations of the respondents were discussed in Table – IV and Figure -3.

**Table IV**  
**Occupation of the Respondents**

	Frequency	Percent (%)	Cumulative percent
Student	75	75	75
Employed	10	10	85
Self-Employed	7	7	92
Professional	8	8	100



**Figure 3**  
**Occupation of the Respondents**

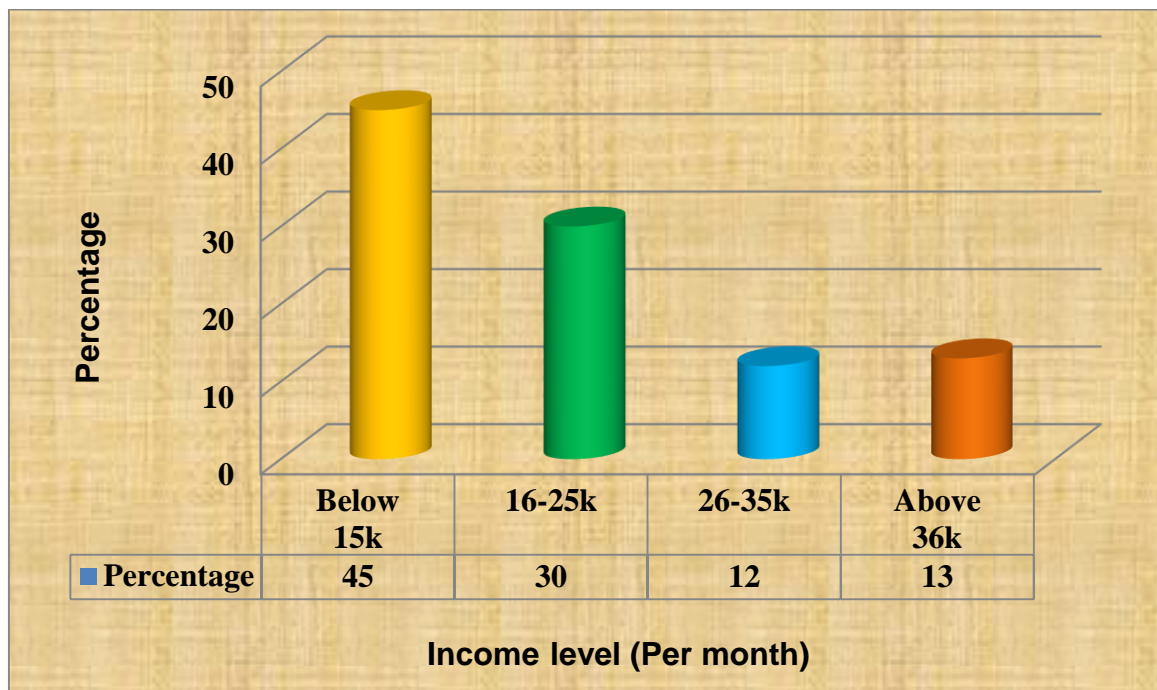
From the above Table-IV and Figure -3 it was evident that 75% of them were students, 10% of them were employed, 7% of them were self-employed and 8% of the respondents were professionals.

#### 4.1.6 Family Income (Per Month)

The family income of the respondents were categorized into four categories namely below 15000, 16000-25000, 26000-35000 and above 36000. The Table –V and Figure -4 shows the income level (per month) of the respondents.

**Table V**  
**Family Income (Per Month)**

Per Month	Frequency	Percent (%)	Cumulative Percent
Below 15K	45	45	45
16K-25K	30	30	75
26K-35K	12	12	87
Above 36K	13	13	100



**Figure 4**  
**Family Income (Per Month)**

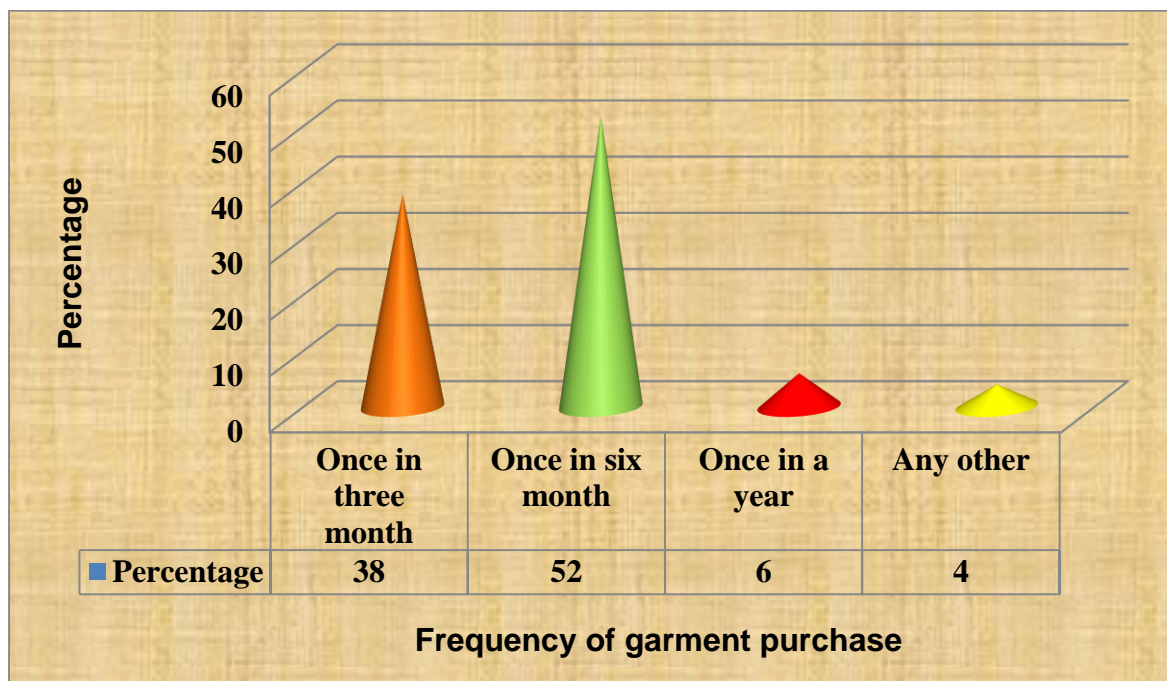
From Table-V and Figure -4 it was clear that 45% of the respondents' monthly income were below 15000. 30% of them were 16000-25000, 12% of the respondents were 26000-35000 and 13% of the respondents' monthly incomes were above 36000.

#### 4.1.7 Frequency of garment purchase

The preference for purchasing garment by women was presented under the Table- VI and Figure-5.

**Table – VI**  
**Frequency of Garment Purchase**

Frequency	Preference	Percentage	Cumulative frequency
Once in 3 month	38	38	38
Once in six month	52	52	90
Once in a year	6	6	96
Any other	4	4	100



**Figure 5**  
**Frequency of Garment Purchase**

From the Table –VI and Figure – 5 it was clear that, 52 percent of women expressed that they would purchase garments once in six month followed by 38 percent for once in three months, 6 and 4 percentages of women expressed that they make purchase once in a year and others (festival) respectively.

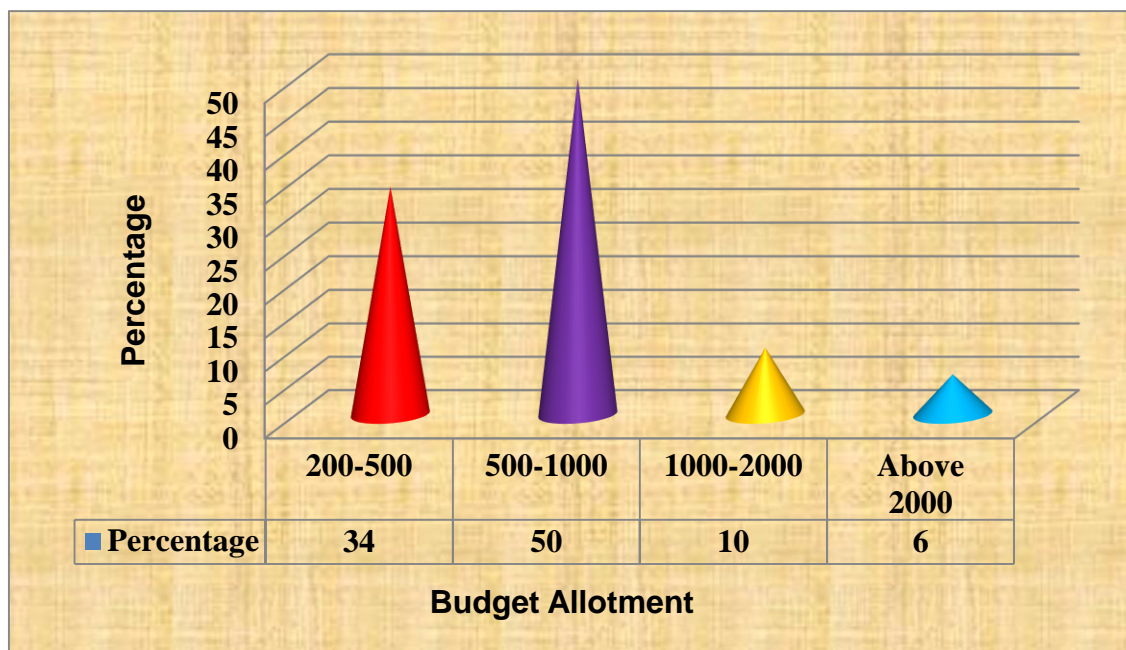
#### 4.1.8 Budget allotment

Budget allotment for garment was presented in Table –VII and Figure -6.

**Table VII**

**Preference for allotting amount for garment**

Amount allotted (Rs.)	Frequency	Percentage	Cumulative percent
250-500	34	34	34
500-1000	50	50	84
1000-2000	10	10	94
Above 2000	6	6	100



**Figure 6**

**Preference for allotting amount for garment**

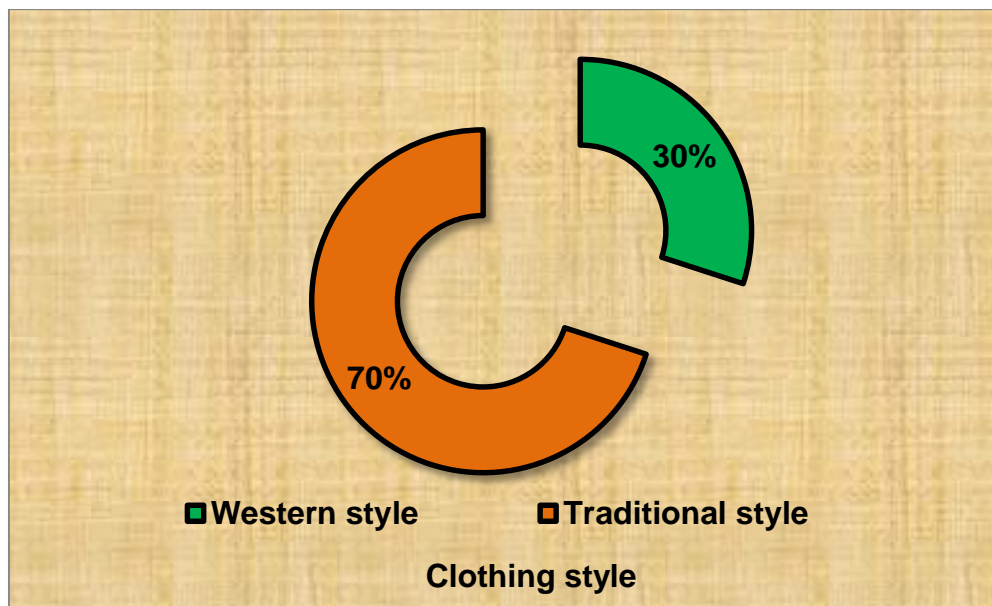
From the Table -VII and Figure -6, it was clear that the maximum of 50 percent of women expressed that they would allot amount of Rs.500-1000 for the purchase of garment for casual wear. Another 34 percent of women allot amount of Rs.200-500, followed by that 10 percent of women allot amount Rs.1000-2000 and 6 percent above 2000 for casual wear.

#### 4.1.9 Preference towards Clothing Style

The preference of the women towards clothing style was presented in Table VIII and Figure -7.

**Table VIII**  
**Preference towards Clothing Style**

Clothing style	Frequency	Percent (%)	Cumulative percent
Western style	30	30	30
Traditional style	70	70	100



**Figure 7**

#### Preference towards Clothing Style

From the Table- VIII and Figure -7 it was evident that 70% of the respondent preferred to wear traditional style of clothing where as only 30%

preferred to wear western style of clothing, inspite of difference in age and occupation.

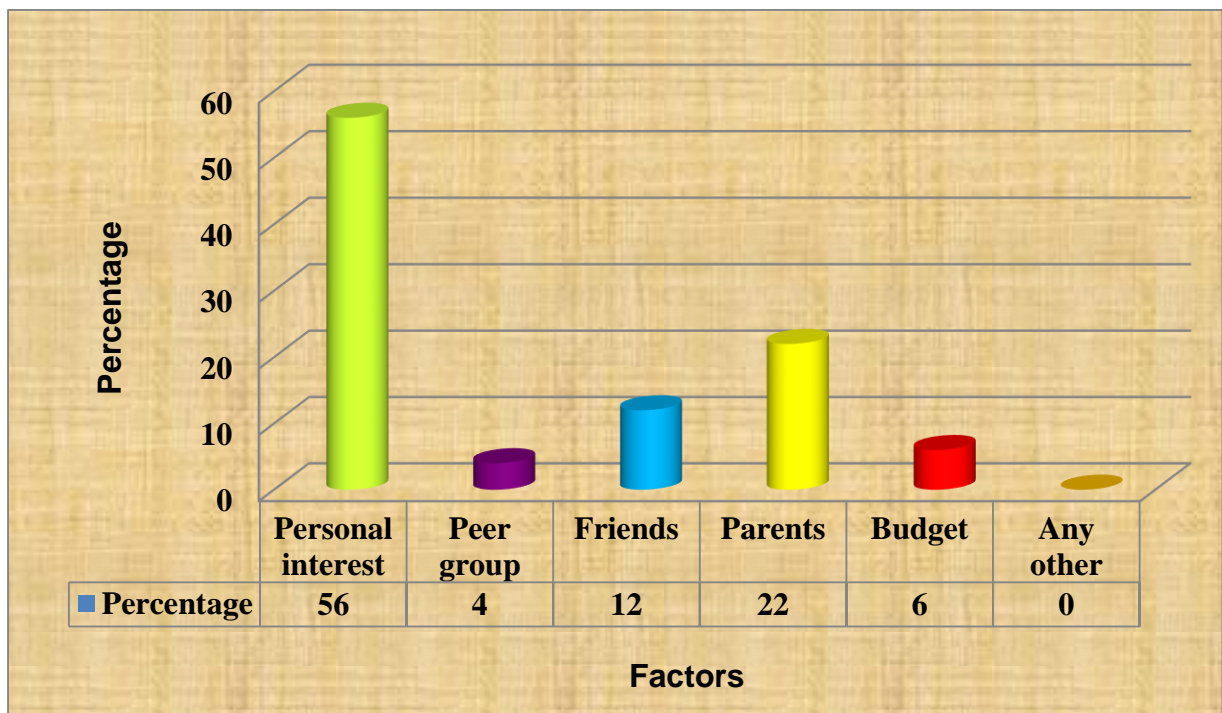
#### 4.1.10 Factors Considered While Choosing Garments

The factors considered while choosing garments was presented in the Table-IX and Figure- 8.

**Table – IX**

**Factors Considered While Choosing Garments**

<b>Factors</b>	<b>Preference</b>	<b>Percentage</b>	<b>Cumulative percentage</b>
Personal interest	56	56	56
Peer group	4	4	60
Friends	12	12	72
Parents	22	22	94
Budget	6	6	100
Any other	0	0	100



**Figure - 8**

## Factors Considered While Choosing Garments

From the Table – IX and Figure – 8, it is clear that the maximum of 56 percent of women expressed that they would purchase the garment based on their personal interest. Twenty two percent of women purchase based on their parent’s choice, while 12 percent purchase based on the choice of their friends, and 6 percent purchase based on their budget and 4 percent purchase by seeing their peer group.

### 4.1.11 Preference for Place of Purchasing Garments

The preference for place of purchasing garment was presented under the Table –X and Figure – 9.

**Table – X**  
**Preference for Place of Purchasing Garments**

Buying Place	Preference	Percentage	Cumulative Percentage
Retail	60	60	60
Wholesale	12	12	72
Boutique	12	12	84
Branded showroom	14	14	98
Online	2	2	100
Any other	0	0	100



**Figure – 9**

**Preference for Place of Purchasing Garments**

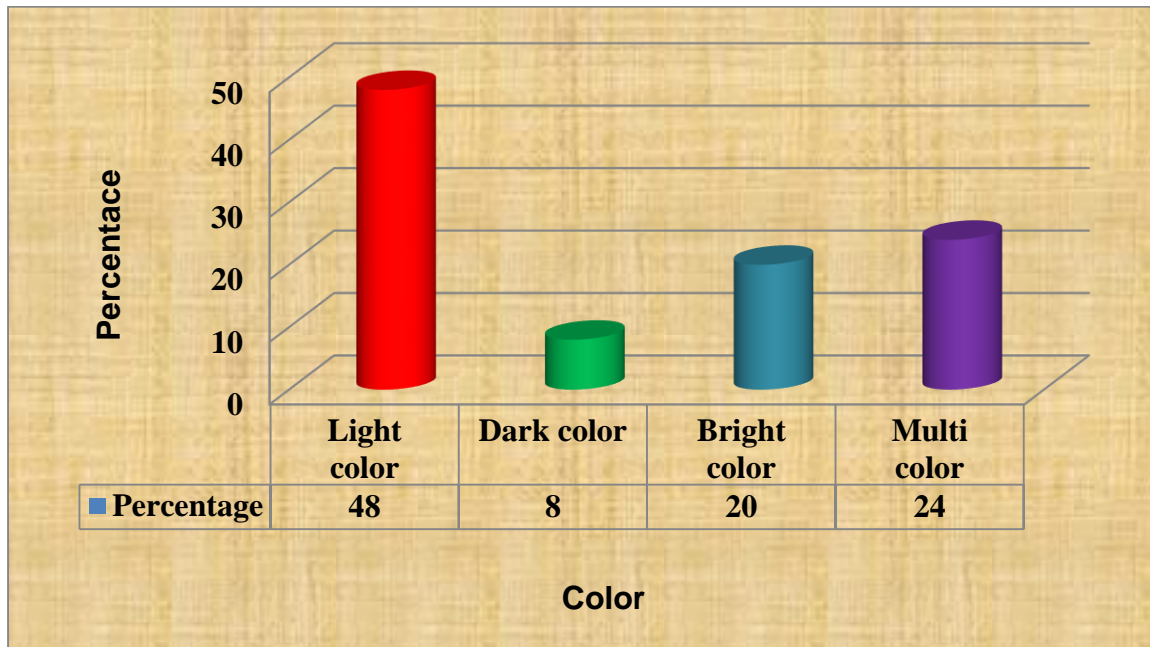
From the Table – X and Figure – 9, it was obvious that 60 percent of women expressed that they purchase garment from retail store. Fourteen percent expressed that they purchase garment from branded showroom and 12 percent from wholesale and boutique respectively and only 2 percent through online.

#### 4.1.12 color preference

The color preference of the respondent was presented in the Table- XI and Figure- 10.

**Table- XI**  
**Color Preference**

Colors	Preference	Percentage	Cumulative percentage
Light color	48	48	48
Dark color	8	8	56
Bright color	20	20	78
Multi color	24	24	100



**Figure – 10**  
**Color Preference**

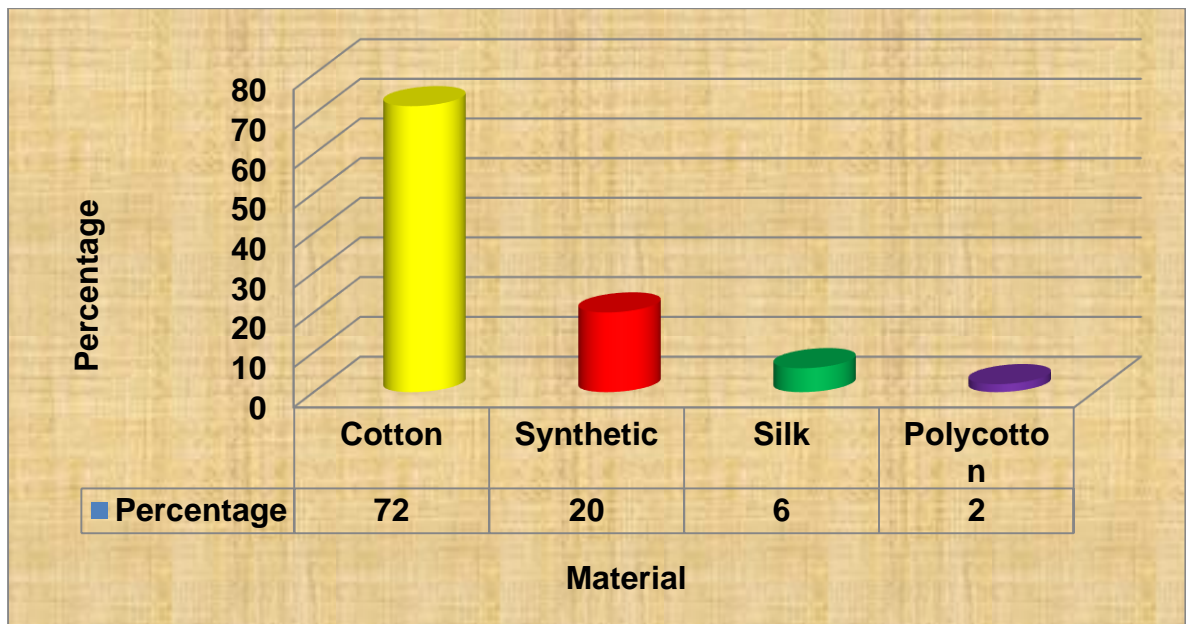
From the Table – XI and Figure – 10, it was apparent that the maximum of 48 percent of women preferred light color, 24 percent of women liked multi color and 20 percent of women preferred bright color and only 8 percent of women preferred dark color.

#### 4.1.13 Preference for type of material

The preference for type of material was presented in the Table – XII and Figure – 11

**Table – XII**  
**Preference for type of material**

Material	Preference	Percentage	Cumulative Percentage
Cotton	72	72	72
Synthetic	20	20	92
Silk	6	6	98
Poly cotton	2	2	100



**FIGURE – 11**

**Preference for type of material**

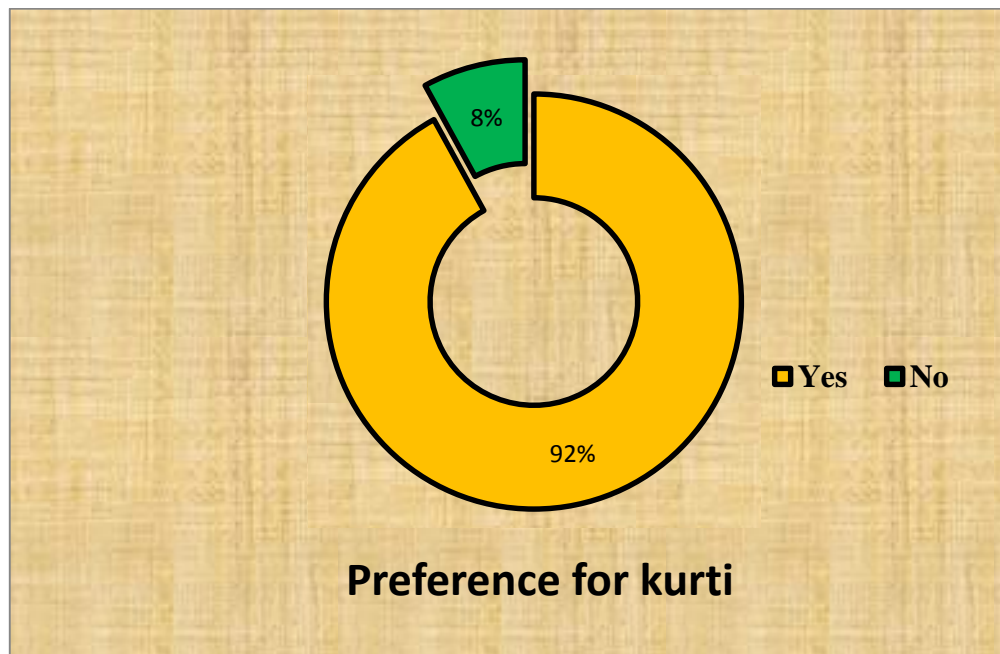
From the Table – XII and Figure – 11, it was obvious that the maximum of 72 percent of women preferred cotton material for casual wear. That was followed by 18 percent of women who expressed that they liked synthetic and another 6 percent of women liked silk and only 2 percent liked poly-cotton.

#### 4.1.14 Preference for Kurti

The preference of the women for purchasing kurti was given in the Table – XIII and Figure – 12

**TABLE – XIII**  
**Preference for Kurti**

	Preference	Percentage	Cumulative Percentage
Yes	92	92	92
No	8	8	100



**Figure – 12**  
**Preference for Kurti**

As far as the preference of kurti, 92 percent of women expressed that they would like to wear kurti irrespective of age and only 8 percent women expressed that they does not preferred to wear kurti.

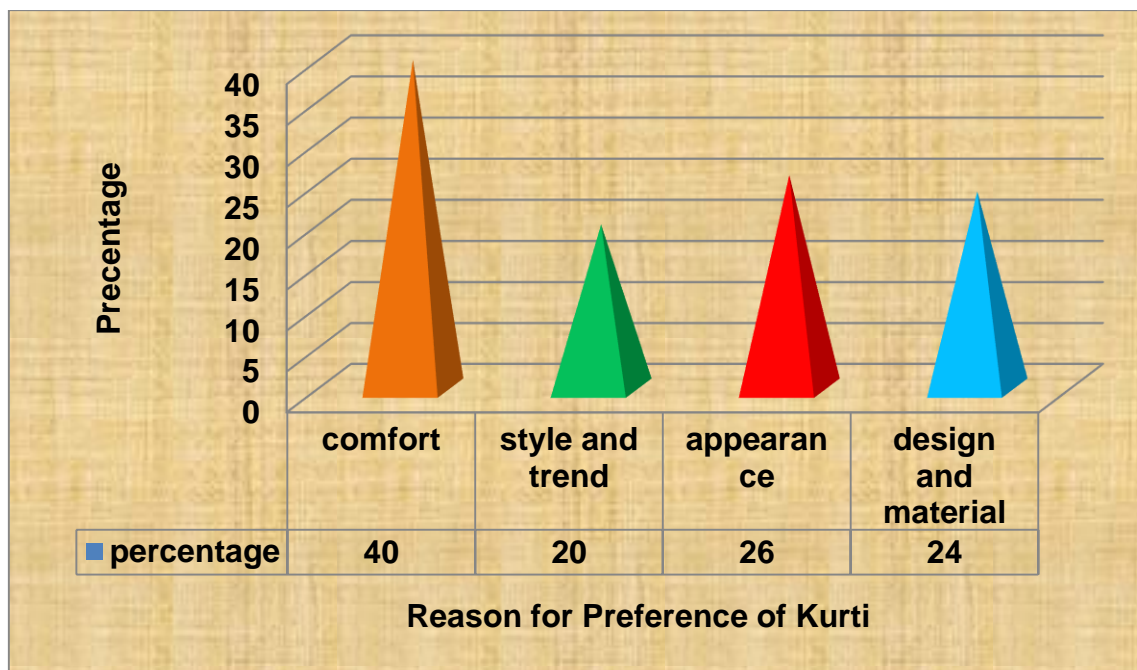
#### 4.1.14.1 Reasons for Preference of Kurti

The reason for preference of kurti was given the Table –XIV and Figure -13

**Table – XIV**

**Reasons for Preference of Kurti**

Reason	Preference	Percentage	Cumulative Frequency
Comfort	40	40	40
Style and trend	20	20	60
Appearance	26	26	86
Design and material	24	24	100



**Figure – 13**

**Reason for purchase of garment**

From the Table –XIV and Figure -13, it was evident that 40 percent of women preferred kurti for their comfort, 20 percent preferred for their style and

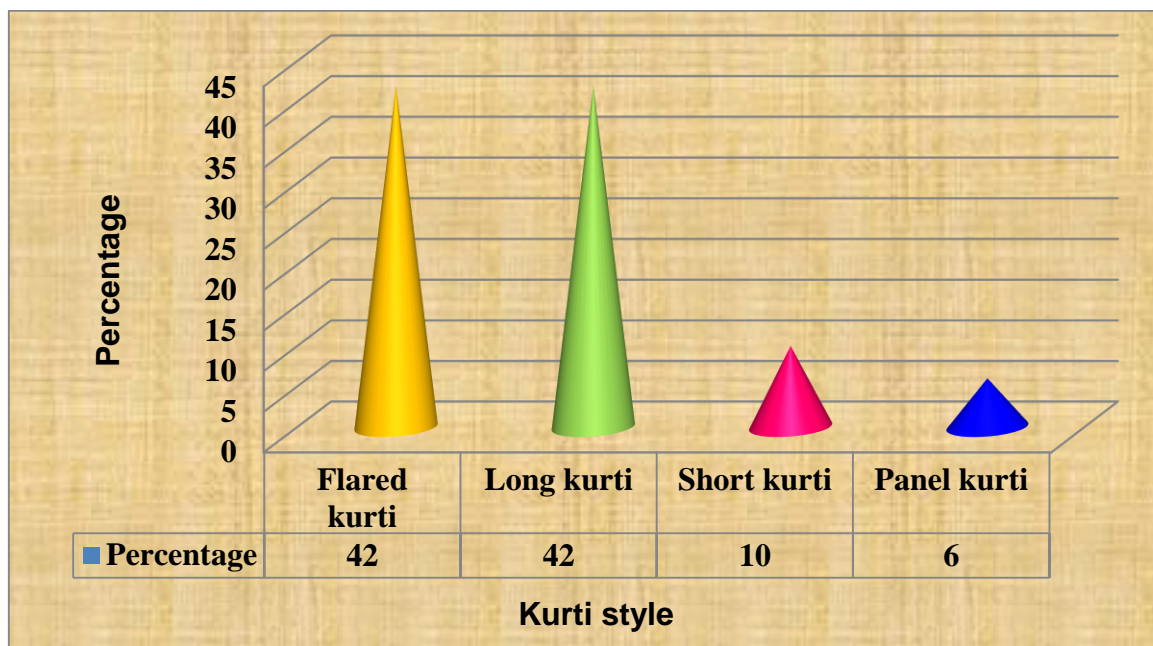
trend, 26 percent for their appearance and only 24 percent for their design and material.

#### 4.1.15 Type of Kurti Style Preferred

The type of kurti style preferred by women was given in the Table – XV and Figure – 14.

**Table – XV**  
**Preference for Kurti Style**

Style	Preference	Percentage	Cumulative Percentage
Flared kurti	42	42	42
Long kurti	42	42	84
Short kurti	10	10	94
Panel kurti	6	6	100



**Figure – 14**  
**Preference for kurti style**

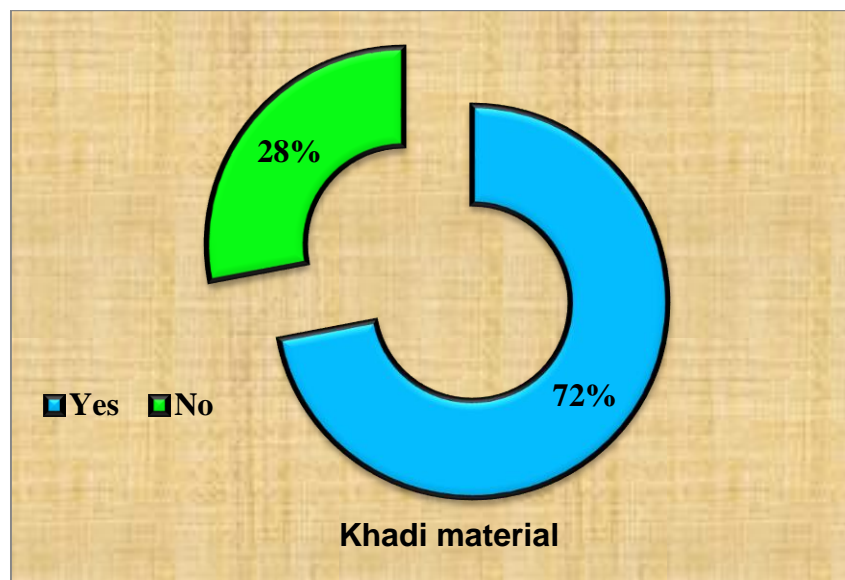
From the Table – XV and Figure – 14, it was clear that maximum of 42 percent of women preferred flared and long kurti. 10 percent of women preferred to wear short kurti but whereas only 6 percent preferred panel kurti.

#### 4.1.16 Preference for Khadi Material

The preference of women for khadi material was given in the Table – XVI and Figure – 15

**Table – XVI**  
**Preference for khadi material**

	preference	percentage	Cumulative percentage
Yes	72	72	72
No	28	28	100



**Figure – 15**

**Preference for khadi material**

As far as the preference of the khadi material, 72 percent of women have preferred material and 28 percent of women does not preferred khadi material.

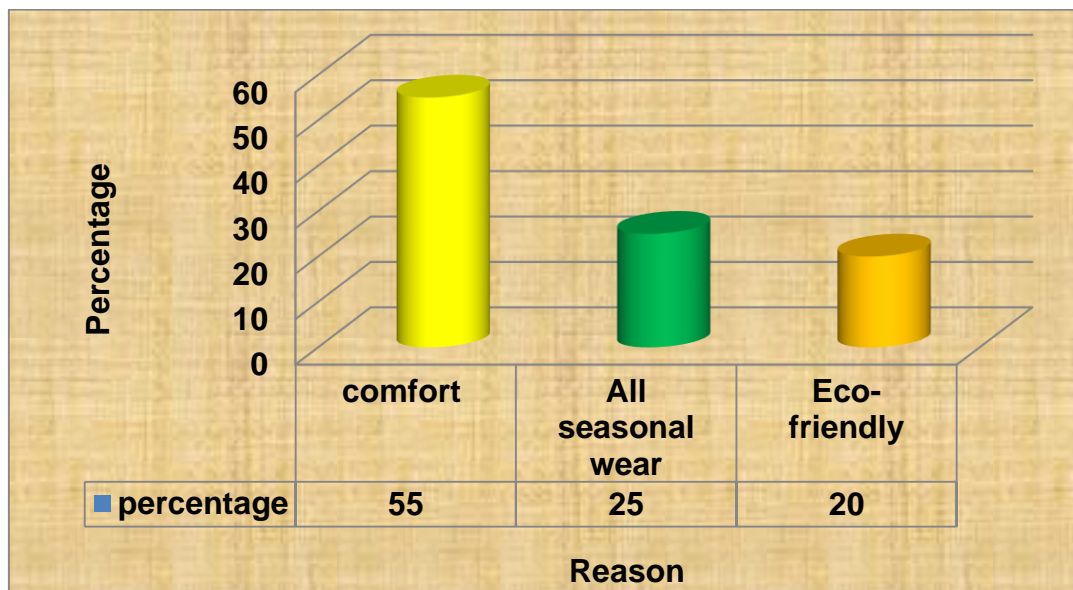
#### 4.1.16.1 Reasons for Preference of Khadi Material

The reason for preference of khadi material was given in the Table –XVII and Figure – 16

**Table – XVII**

**Reasons for Preference of Khadi Material**

Reason	Preference	Percentage	Cumulative frequency
Comfort	55	55	55
All seasonal wear	25	25	80
Eco-friendly	20	20	100



**Figure -16**

**Reasons for Preference of Khadi Material**

From the Table – XVII and Figure -16 it was clear that 55 percent of women have preferred khadi material for their comfort, 25 percent preferred as it was all seasonal wear and 20 preferred as it was eco-friendly.

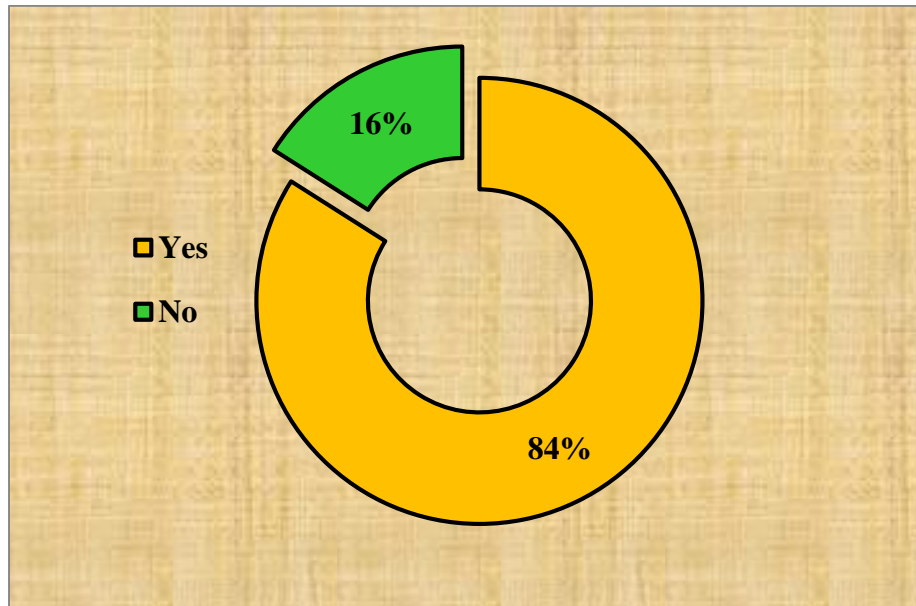
**4.1.17 Preference for Surface Decoration on Kurti**

The preference for surface decoration on kurti was presented in Table – XVIII and Figure – 17

**Table – XVIII**

**Preference for Surface Decoration on Kurti**

	<b>Preference</b>	<b>Percentage</b>	<b>Cumulative percentage</b>
Yes	84	84	84
No	16	16	100



**Figure – 17**

**Preference for Surface Decoration on Kurti**

From the Table – XVIII and Figure – 17 it was evident that 84 percent of women preferred surface decoration on kurti and only 16 percent does not preferred surface decoration on kurti.

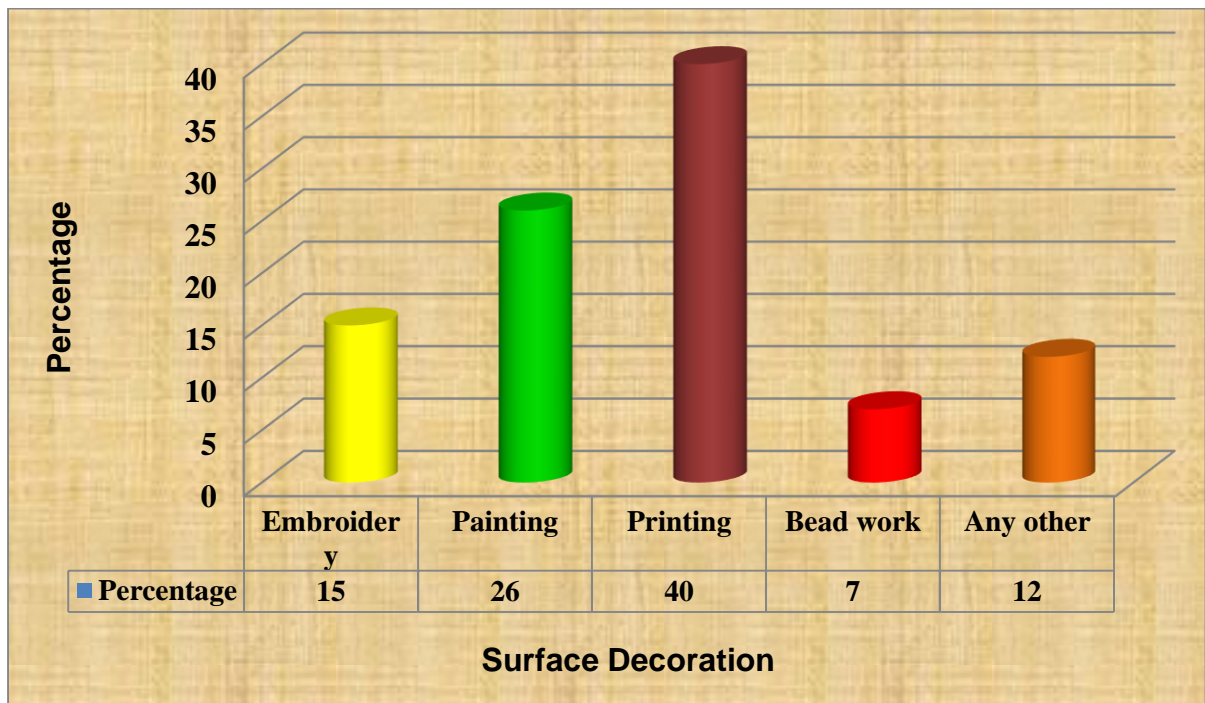
**4.1.18 Preference for type of surface decoration**

The preferences for type of surface decoration was give in the Table – XIX and Figure – 18.

**Table – XIX**

**Preference for type of surface decoration**

Type	Preference	Percentage	Cumulative percentage
Embroidery	15	15	15
Painting	26	26	41
Printing	40	40	81
Bead work	7	7	88
Any other	12	12	100



**Figure – 18**

**Preference for type of surface decoration**

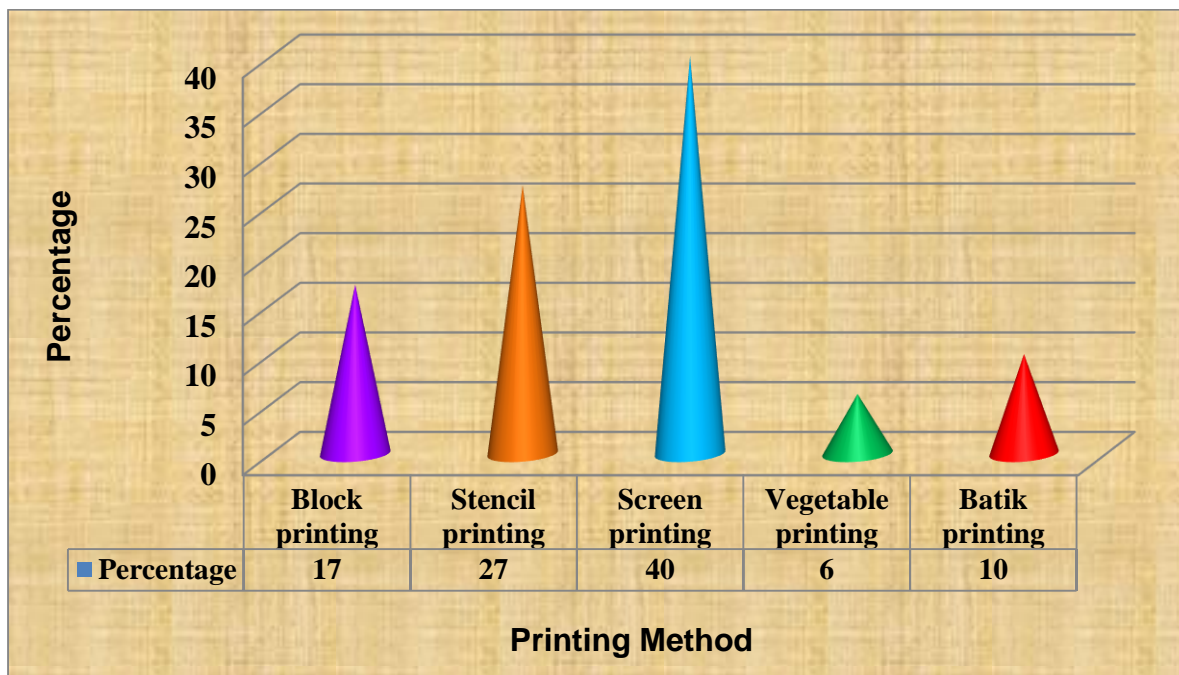
From the above Table – XIX and Figure -18 it was obvious that the maximum of 40 percent of women preferred printing and 26 percent of women stated that painting would be apt for kurti .15 percent of women preferred embroidery and 12 percent women preferred other surface decoration (such as appliqué work and cut work) and only 7 percent women preferred bead work.

#### 4.1.19 Type of Printing Method Preferred

The type of printing method preferred was given in the Table – XX and Figure -19.

**Table – XX**  
**Preference for Type of Printing Method**

Method	Preference	Percentage	Cumulative frequency
Block printing	17	17	17
Stencil printing	27	27	44
Screen printing	40	40	84
Vegetable printing	6	6	90
Batik printing	10	10	100



**Figure – 19**

**Preference for Type of Printing Method**

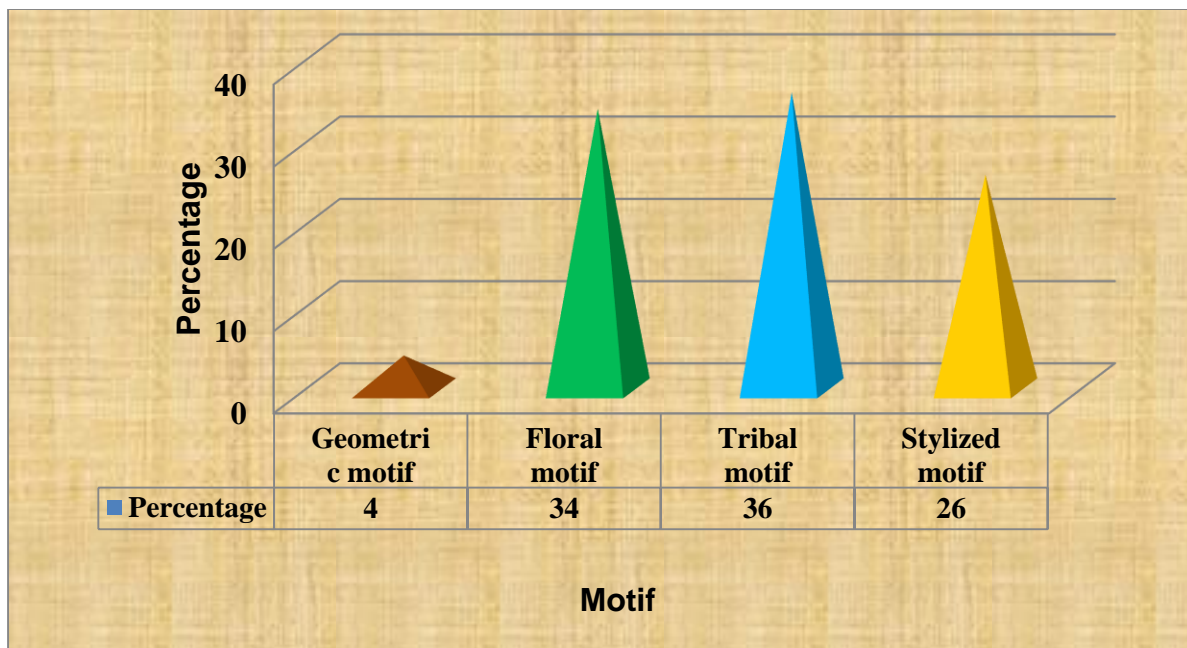
From the above Table – XX and Figure – 19, it was evident that maximum 40 percent of women expressed that they preferred screen printing, 27 percent of women preferred stencil printing and 17 percent preferred block printing and only 10 percent and 6 percent preferred batik and vegetable printing respectively.

#### 4.1.20 Preference for Type of Motif

The preference for type motif style was given in the Table - XIX and Figure – 20.

**Table – XXI**  
**Preference for Type Motif**

Type	Preference	Percentage	Cumulative percentage
Geometric motif	4	4	4
Floral motif	34	34	38
Tribal motif	36	36	74
Stylized motif	26	26	100



**Figure – 20**

**Preference for Type Motif**

As far as motif was considered, 36 percent of women preferred tribal motif, whereas floral motif was preferred by 34 percent women, 26 percent women preferred stylized motif and only 4 percent preferred geometric motif.

## 4.2 Consolidated Rating of Manual Sketching

Consolidated rating of manual sketching are presented in the Table –XXII

**Table – XXII**  
**Consolidated Rating of Manual Sketching**

S.No	Motif Code	Excellent	Good	Fair
1	MS1	96.2	3.8	-
2	MS2	76.6	10	13.4
3	MS3	66.6	30.4	3.4
4	MS4	83.4	16.6	-
5	MS5	90.5	9.5	-
6	MS6	94.4	5.6	-
7	MS7	73.3	26.7	-
8	MS8	66.6	26.6	6.8
9	MS9	83.4	16.6	
10	MS10	80.0	13.4	6.6
11	MS11	86.6	13.4	-
12	MS12	75.0	22.7	2.3
13	MS13	80.0	14.4	5.6
14	MS14	88.2	11.2	
15	MS15	93.0	7.0	-
16	MS16	71.4	23.5	5.1
17	MS17	70.0	26.6	3.4
18	MS18	90.0	10.0	-
19	MS19	92.9	7.1	-
20	MS20	93.4	6.6	-
21	MS21	94.6	5.4	-
22	MS22	76.6	20.0	3.4
23	MS23	88.2	11.8	-
24	MS24	95.4	4.6	-
25	MS25	80.0	10.0	10.0

From the Table –XXII, it is obvious that maximum rating of 96.2 percent was voted for sample MS1 to as excellent followed by samples MS24 (95.4%), MS21 (94.6%), MS6 (94.4%), MS20 (93.4), MS15 (93.0%),MS19 (92.9%), MS5 (90.5%) and MS18 (90.0%). Hence it could be concluded that 9 of the motifs namely MS1, MS5, MS6, MS15, MS18, MS19, MS20, MS21, MS24 had excellent general appearance.

#### 4.3 Cost Estimation

The cost estimation was presented in the Table – XXIII

**Table – XXIII**  
**Cost Estimation**

S.No	Kurti Code	Particulars	Cost	Total Cost
1	K1	Material Cost	218	518
		Printing Cost	150	
		Stitching Cost	150	
2	K2	Material Cost	218	543
		Printing Cost	175	
		Stitching Cost	150	
3	K3	Material Cost	206	456
		Printing auxiliaries Cost	100	
		Stitching Cost	150	
4	K4	Material Cost	126	336
		Painting auxiliaries Cost	60	
		Stitching Cost	150	
5	K5	Material Cost	183	373
		Painting auxiliaries Cost	40	
		Stitching Cost	150	

From the table – XXIII, it was evident that the costs of kurti K1, K2, K3, K4 AND K5 were Rs.518, Rs. 543, Rs. 456, Rs. 336 and Rs.373 respectively. Hence it could be concluded that the cost of constructed kurti was economical.

## 5. SUMMARY AND CONCLUSION

Fashion is change; the new ideas becoming old and old ideas becoming new again – but always with a fresh twist. The continual search for something fresh is the designer's greatest challenge. Fashion is the style and custom prevalent at a given time. Fashion will change more rapidly than the culture as a whole (Claud, 2006). "Clothes make the man" is an old saying which we accept as a truism without giving it much thought.

Fashion means many things to many people. The term fashion connects the living style of each one of us whether young or old. Fashion keeps on changing. Clothing is both a basic necessity and an expression of the human spirit. Though we may not accept the mantra that "clothes make the person" our dress often does reveal much about ourselves. Clothing, as one of the most visible forms of consumption, performs a major role in the social construction of identity.

Comfort may be defined as a pleasant state of psychological and physical harmony between a human being and the environment. All three aspects are equally important, since people feel uncomfortable if anyone of them is absent. Designers are of great importance when it comes to give an enchanting and intriguing look to the textile products. A fabric with designs is capable of having a more impression than without them.

Designing is the virtuous features of a fabric or a garment, which creates interesting visual aspects on its surface and beautify its appearance. Khadi is a versatile fabric. The hand spun and hand woven process gives khadi an extraordinary texture and finish that can't be found in any machine made fabric. . They are friendly to the body and do not cause any allergies or irritations to the body like other synthetic fabrics do. Khadi is an alternative lifestyle in tune with the rhythm of nature. Now new design aspects are added to khadi material to promote the khadi materials among the present generations.

Surface decoration is the patterning of an essentially plain fabric to render it more appealing or to serve a particular purpose. Pattern, color and texture can be

added to fabric through techniques that include printing, stitching, fabric manipulation, beading and embellishment. The most predominating techniques that enhance the consumer acceptance by beautifying the textile materials are dyeing, printing, painting embroidery and surface finish.

Textile printing is a cyclical business and fashion development. The fashion seasons are becoming shorter resulting in five to six fashion forecast in a year. Thus the world of textile printing is rapidly developing (Jain, 2012). India has the largest variation in textiles, variation in techniques, in the use of material, in the art of printing and dyeing and in form of design expression which is part of its cultural heritage.

Stencil printing is one of the important printing process that can be made by hand technique or by machine technique. They cut intricate images of great delicacy and complexity from double sheets. Of all the printing methods in use today, screen printing is no doubt one of the newest, yet it has ancient origin. Screen printing transfers an image by allowing ink to pass through opening in a stencil that has been applied to the screen mesh. Hand painting is done directly onto the fabric using number of tools, such as brushes and sponges. Hand painting gives a handmade feel to the piece of fabric, and the unique fabrics can be made out of this hand painting.

Every region in India has its own style and pattern of art, which is known as folk art. Other than folk art, there is yet another form of traditional art practiced by several tribes, which is classified as tribal art. The tribal art of India are very ethnic and simple, and yet colorful and vibrant enough to speak volumes about the countries rich heritage. Tribal art ranges through a wide range of art forms, such as wall paintings, tribal dances, tribal embroidery, tribal music, and so on

Considering the above facts, the investigator decided to study on **“Designing Kurtis Using Tribal Motif by Selected Printing Methods”** with the following objectives.

- To study and select tribal motif
- To carryout printing motif on khadi cotton fabric
- To construct kurti using printed material

## Methodology

- The investigator prepared a questionnaire to conduct the survey. The survey was done to collect information regarding the women preferences. The data collected was tabulated and analyzed.
- The investigator used simple random method of sampling to gather information for the study. The necessary data were collected and recorded personally.
- Standard body measurement was selected by the investigator to construct the kurti.
- Four major tribal arts- Chittara Art, Gonda Art, Toda Art and Santhali Art were selected by the investigator. From these tribal arts motifs have been selected. The motifs were developed for printing through manual sketching.
- The investigator has drawn 25 designs manually. Then the designs were ranked according to the preference of the subjects by displaying the manually sketched motifs of the four tribal arts. From their preferences, 9 motifs were selected for printing and painting.
- From Chittara Art 3 motifs have been selected, 1 motif from Gonda Art, 4 motifs from Toda Art and 1 motif were selected from Santhali Art.
- Chittara art has been hand painted and stencil printed on the fabric by the investigator.
- The investigator has hand painted the Gonda motif on the kurti.
- Four motifs have been selected from the Toda motif to screen printed on to the kurti material and one motif from Santhali art have been stencil printed.
- All materials for kurti construction were procured from the khadi shops in Coimbatore city.
- Long kurti was constructed as kurti 1. Toda motif was selected to print in this kurti using screen printing method. The investigator has printed the motif **MS 18** and **MS 20** in this kurti with black and red pigments to resemble the Toda embroidery. Emphases have been given by using printed motifs in particular areas, such as in sleeves, shoulders and in borders as shown in plate -IV a
- Flared kurti was constructed as kurti 2. This kurti has a yoke part in which Toda motif **MS 20**, **MS 21** and **MS 19** have been printed by screen printing.

Red and black pigments were used for printing.  $\frac{3}{4}$  sleeves have been attached to this kurti along with a border in the edges. In the lower part of the kurti borders have been attached by the investigator to emphasize the kurti as in Plate -IV b.

- Short kurti was constructed as kurti 3. In this kurti shanthali art and chitara art motifs has been used. This kurti has been printed using stencil printing method. Colors such as ultramarine blue, maroon, yellow chrome, sap green and black color have been used for printing. Border has been printed with the motif **MS 6** and only drum and trumpet motif from **MS 24** has been used. The same motifs have been printed in sleeves and below the neck line as shown in Plate -IV c.
- Long kurti was constructed as kurti 4. Hand painting was done in this kurti using Chirrara art tribal motif. Colors such as pink, chrome yellow and orange have been used to paint the motif. **MS 1** and **MS 5** have been selected by the investigator to paint on the kurti. Painting was done in the hem line and in the neck line along with painting, running stitch was given in the yoke part both in the front and back and in the hem line below the painting as in the Plate –IV d.
- Flared kurti was constructed as kurti 5. Hand painting was done in this kurti using Gonda art motif. **MS 15** motif of Gonda art has been selected by the investigator to paint on the kurti. Colors such as chrome yellow, light blue, burnt umber, turquoise blue and orange have been selected by the investigator. The motif was painted on one side and stripes design was used on the other side of the kurti as shown in Plate –IV e.

### **Finding of the study**

- Fifty two percent of women expressed that they purchase garments once in six months.
- Most of the women (50%) expressed that they would allot an amount of Rs.500 – 1000 for their garment and 34 percent would allocate Rs. 250 – 500.
- Seventy percent of women have expressed that they would like to wear traditional style rather than western style.

- Fifty six percent of women expressed that they would choose their garments based on their personal interest, peer group (4%), friends (12%), parents (22%), and budget (6%) respectively.
- Sixty percent of women stated that they prefer to purchase garments from retail shops, 12% from wholesale, 12% from boutique, 14% from branded showroom and only 2% from online.
- As per the color are concerned maximum preference of women was light color (48%), dark color (8%), bright color (20%) and multi color (24%).
- Cotton material was the most preferred fabric as expressed by the 72 percent of women due to its comfort properties.
- Ninety two percent of women expressed that they prefer to wear kurti for their comfort.
- As far as the kurti style were concerned 42 percent of women expressed they prefer flared and long kurti. And only 10 and 6 percent preferred short and panel kurti respectively.
- Khadi material was preferred by 72 percent of women. And they expressed that they prefer khadi material for their comfort (55%), all seasonal wear (25%) and eco-friendly (20%).
- Eighty four percent of women have stated that they prefer surface decoration on their kurti. Forty percent expressed that they prefer printing, 26 percent painting, 15 percent for embroidery, 12 percent expressed they prefer other surface decoration such as applique work and cut work and only 7 percent towards bead work.
- Screen printing was preferred by 40 percent women, 27 percent stencil, 17 percent block printing, 10 percent batik printing and 6 percent vegetable printing respectively.
- As per the motif is concerned 36 percent expressed they prefer tribal motif than other motifs such as floral motif (34%), stylized motif (26%) and geometric motif (4%).
- The designs namely MS 1, MS 5, MS 6, MS 15, MS 18,MS 19, MS 20, MS 21and MS 24 has excellent general appearance as per the subjects evaluation and visual inspection.
- The cost of the printed and painted kurti was more economical therefore these kurtis were affordable to all.

## **Conclusion**

The designing of kurtis using khadi and implementing tribal as prints was a well accepted garment among all age groups. Khadi has great scope in the future of Indian fashion industry. The tribal motifs imprinted on the kurtis are exact replicas of the original designs which have never been used in garments so far as prints. Thus tribal printed khadi kurtis are sure to make a statement in our fashion industry. The khadi kurtis designed by the investigator will have a niche market in the future.

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## Appendix – I

### Questionnaire to elicit information about the selection of the kurti style and surface decoration preferred by women

- 1) Name :
- 2) Age : [Below 25] [26-35] [36-45] [Above 45]
- 3) Education : [Under graduate] [Post graduate]
- 4) Occupation : [Student] [Employment] [Self-employed]  
[Professional]
- 5) Income (per month) : [Below 15k] [16-25k] [26-35k] [Above 36k]
- 6) How often do you purchase garment?  
 Once in 3 month     Once in 6 month  
 Once in a year     Others specify.....
- 7) How much do you spent for your casual clothing?  
 200-500             500-1000             1000-2000  
 Above 2000
- 8) What type of clothing style do you prefer?  
 Western style     Traditional style
- 9) Mention the factor you consider while choosing a garment?  
 Personal interest     Peer group     Friends  
 Parents                 Budget  
 Any other specify .....
- 10) Where do you purchase your garments?  
 Retail                  Wholesale     Boutique  
 Branded showroom     Online  
 Any other specify.....
- 11) What type of colour do you prefer for casual wear?  
 Light color             Dark color             Bright color  
 Multi color
- 12) What type of material do you prefer for casual wear?  
 Cotton                  Synthetic             Silk  
 Poly cotton
- 13) Do you prefer to wear kurti?  
 Yes                     No

If yes, reasons

- Comfort                       Style and trend  
 Design and material    Appearance

14) What type of style do you prefer?



15) Do you prefer to wear khadi material?

- Yes                       No

If yes, reasons

- Comfort                       All seasonal wear                       Eco-friendly

16) Do you prefer surface decoration on kurti?

- Yes                       No

17) If yes, what type of surface decoration do you prefer?

- Embroidery                       Painting                       Printing  
 Bead work                       Any other specify.....

18) What type of printing method do you prefer?

- Block printing                       Stencil printing                       Screenprinting  
 Vegetable printing                       Batik printing

19) What style of motif do you prefer?

- Geometric motif                       Floral motif                       Tribal motif  
 Stylized motifs

## Appendix - II

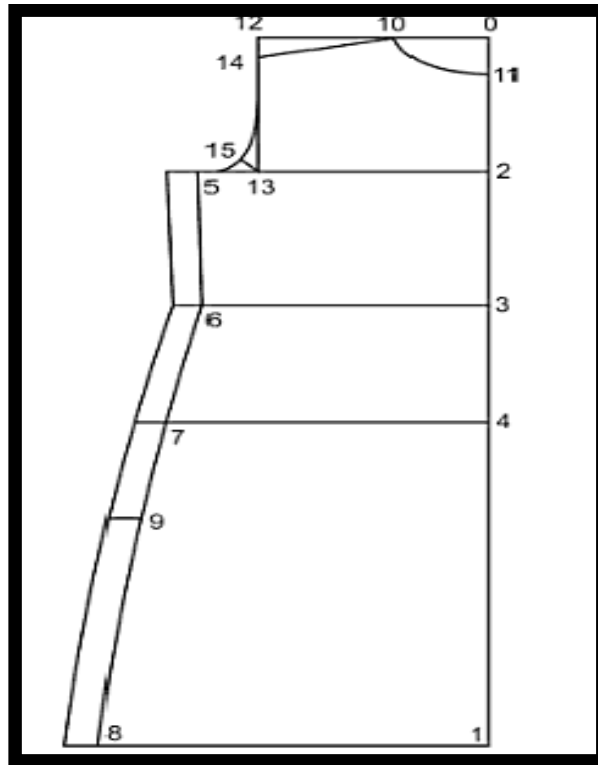
### Standard body measurements for extra large size

S.No	Particulars	Measurements
1	Full Length	35
2	Waist Length	13
3	Seat Length	21
4	Short Sleeve Length	6
5	Chest Round	42
6	Waist Round	33
7	Shoulder	16
8	Sleeve Width	15

The standard measurement given here is for an average height person.  
The measurements may vary according to the style and the design.

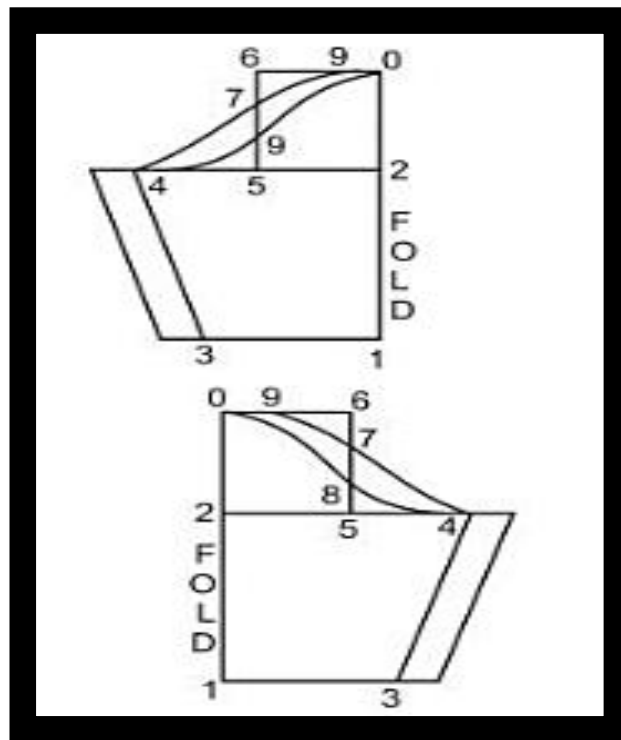
**Appendix – III**  
**Instruction for Drafting Basic Kurti**  
 (Front and Back)

**Front and back drafting**



- 0 - 1 : Full Length + Two Inches
- 0 - 2 : Armscye Depth
- 0 - 3 : Waist Length
- 0 - 4 : Seat Length
- 2 - 5 :  $\frac{1}{4}$  chest + 1 Inch
- 3 - 6 :  $\frac{1}{4}$  Chest + 1 Inch
- 4 - 7 :  $\frac{1}{4}$  Seat Round + 1 Inch
- 1 - 8 :  $\frac{1}{4}$  Of Seat Round + 2 Inch
- 5 - 6 : Join
- 6 - 7 : Join By Giving Slight Curve
- 7 - 8 : Join Straight
- 8 - 9 : From Down To Upward To Keep Open
- 0 - 10 : Neck Width
- 0 - 11 : Back Neck Depth
- 10 - 11 : Join The Points
- 0 - 12 : Half Shoulder + Quarter Inch
- 12 - 13 : Make Right Angle
- 12 - 14 : Quarter Inch Down
- 13 - 15 : Half Of 5 To 13
- Join The Points 14, 15 And 5

## Sleeve



- 0 – 1 : Sleeve Length + One And Half Inch
- 0 – 2 : Three And Quarter Inch
- 1 – 3 : Half Of Sleeve Round
- 2 – 4 : Half Of Armscye Depth
- 3 – 4 : Join And Keep One Inch Stitching Margin
- 5 : Midpoint Of 2 And 4
- 5 – 6 – 0 : Make An Right Angle
- 5 – 6 : Make Three Equal Parts And Name Them As 7 And 8
- 0 – 9 : Take Quarter Or One Inch Straight
- 4 – 7 – 9 : Shape Of Outer Armhole
- 4 – 8 – 0 : Shape Of Inner Armhole