

Kolhapuri Chappal: A Journey from Robust to Delicate

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Background

Kolhapur is a city in southern Maharashtra well-known for jaggari, sugar industry, engineering industry, Mahalaxmi temple and spicy Misal. It was a princely progressive state ruled by heirs of Chhatrapati Shivaji. This state has encouraged classical music, film industry, wrestling. For tourists besides other attractions Kolhapuri chappal, a footwear is also an attraction which is also a popular product for export. Considering the popularity and increasing export potential, the Shivaji University of Kolhapur has applied for patent to protect intellectual property rights.

Kolhapuri chappal is being used by rural rustic politicians, wrestlers, etc. as status symbol. It is very robust and hence popular in farmers. Its look is masculine. Designs of chappals attract youngsters. Now a days chappals are accepted by ladies as designer decorative product. Particular quality of chappal makes a peculiar sound ó karí karí kar - while walking to attract others. This sound repels animals while walking in forests. A particular type of seeds are kept in the two layers of sole to make sound. These seeds are of ÷vinchuøtree. The leather used for chappals gives cooling effect to foot.

Traditional process

The chappal is named as Kolhapuri as is mainly marketed in Kolhapur. The Raja of Kolhapur encouraged its production and its use. But it is a product of nearby towns of Maharashtra and Karnataka border areas such as Athani, Nippani, Miraj, Jamkhindi, Kapshi, etc. In these towns every household contributes in the process of chappal production, such as cutting the leather, dipping it in water for soaking, stitching the ÷pattaø (strap) or ÷veniø (braid). Men do cutting, women do stitching and children do weaving the ÷veniø Different parts of the animal skin are used for different purposes, such as tail skin for thread, head skin for ÷pattaø skin of goat for ÷veniø since these leathers are thin. To remove wrinkles on leather, oil is applied. Chappal should be waterproof. The entire family produces nearly 35 to 45 chappals per week. Before 1940, the footwear manufactured were of a thicker variety and suitable for rough terrain. Then one of the families of Athani crafted an ingenious design- thinner, lightweight, flexible, with supportive side flaps, and beautiful upper decorated with intricate weaves, braids and knots.

The buffalo and bullock leather used is bag-tanned locally. Supply is always short and lot of problems in quality were faced. It has to be soaked in water, and then hammered to smoothen it out, making chappal in this condition and then dried out for sale. A fairly good quality of bag-tanned leather of area of 15 sq. ft. weighing 8 kgs, animal tails, tanned and shredded, are used for stitching. The entire process takes about 35 days which is quite long. The manufacturing techniques are very traditional and conventional. The sides are cut when the leather is semi wet. The top sole patterns are

prepared and they are stitched along with heel after attaching them temporarily using a unique mud taken from nearby river. A piece of canvas is also placed in between to increase the stiffness of the sole. A pattern is pre fabricated in various designs and attached to the top sole. The sizes of angatha (toe) and sole have crude group-grading techniques. Moreover once these chappals dry out, they shrink resulting in smaller sizes and fit.

New methods

Under Leather Technology Mission, Central Leather Research Institute (CLRI) decided certain goals to design technology delivery systems. The main goals envisaged are as follows;

1. To demonstrate the use of technology
2. To demonstrate harmonious blending of traditional and new skills
3. To implement technology delivery systems most suited for traditional industry and rural artisans engaged out there.
4. To enhance the quality and standardize manufacturing process reducing their drudgery
5. To enhance the designing skills.

Others goals are for marketing.

Let us discuss now traditional practices, their effects and problems, measures suggested by CLRI. In the traditional bag-tanning process lime water and alum is used to clean the leather. This process of soaking is repeated in two days cycle. Some forest products like pyrogallol and catechol such as Hirda, Behada, Khair, Amla, Arjun, Wild Imali, Sal tree, skin of pomegranate, etc are used to make the leather soft. Leather becomes yellow in color. Chini clay solid balls are used to make shining leather. In this process the thickness of the leather increases. To remove this extra thickness certain acids, sodium sulphide and excreta of dogs are used. Repeatedly hammering on leather is done. To overcome this problem and to reduce the period to make leather usable for chappals, chemicals such as chromium compounds, phenol sulphonic acids, formaldehyde are suggested by CLRI as substitute technology.

The artisans did not have a standard pattern of sizing. They used fingers and hand for sizing. This results in inconsistent sizing of footwear. Customer cannot look for size 7 or 9 in a Kolhapuri - he has to try the chappal on. CLRI introduced standard sizing for the products. The sides were cut when the semi wet condition of leather. Due to this chappals shrink resulting in smaller sizes and fits. CLRI standardized last shapes, size, and fitting. Plastic lasts are used. The top and bottom soles pattern were prepared and they were stitched around the edges with the heel. But when the edges frayed the heel piece use to fall off. CLRI modified the pattern of stitching. The stitching begins with a line across the middle from heel to toe.

The stiff base of the chappal was achieved by stitching together layers of leather. A piece of canvas was placed in between to increase the stiffness of the sole. But the stiff base turns soggy in water. CLRI suggested to use thermoplastic (TRP) soles as its natural color would not only give a leather look but also improve the sole abrasion and water proof properties. The layers of leather stitched to form sole were temporarily attached using a unique mud taken from nearby river. Due to this the layers used to separate within some time of use causing discomfort. To overcome this problem adhesives like neoprene instead of clay is used. The two ends of angutha were stitched one above the other and pushed between the layers of leather resulting in discomfort. They were taught to tie the two ends of the toe ring with zigzag type of joint. Special templates for sole, insole, half sole, instep bar, toe ring strap etc. are designed for fine finishing.

Benefits

Blending of traditional and improved technologies along with social intervention has reaped some benefits.

Quality of leather used as raw material improved, along with reduced processing and increased productivity. Vegetable tanning is a slow process. The improved method reduced from 35 days to 15 days and the yield is 40 % higher.

Standardization of manufacturing method resulted in better quality production.

Aluminum and plastic lasts with toe differentiation were specifically developed for these kinds of footwear. Also templates for sole, insole, half sole, instep bar, toe ring strap, etc used as a guide for making were designed and made available.

The use of CAD-CAM TECHNOLOGY for innovative and customer centric designs.

Sophisticated but simple tools were used.

Nearly 1200 families are trained and the life style of nearly 6000 artisans is changed.

Export to Japan, France, Bangla Desh, Israel, Germany, Italy, U.S. and U.K. is increased.
